TRACTON BIODIVERSITY GROUP OUTING ***Crosshaven Demesne by Ted Cook, 5th Sept '21***

"Our mission is to look for the spiritual itself in the material, so that one can describe it as spiritual, and recognise in what is spiritual the transition into matter and its way of working there".
(R.Steiner, 1914)

It is an honour to facilitate and accompany communities' field surveys. Sunday's Crosshaven House Demesne tour was initiated by Tracton Biodiversity Group and Crosshaven Green Village, commencing at 2 pm from the plaza beneath the gaze of Crosshaven House (Knocknagore House in historic references).

Built in 1769 by William Hayes, the online 1840 (6" O.S.I) records a designed landscape still broadly discernible 250 years later - the curtilage of the mansion with outbuildings; the adjoining parkland to its southwest (now a Pitch and Putt club) And the outline of what was a treed avenue running north to south to Crochan (Cruchain) Wood and St. Bridget's Well. In his "History of Crosshaven", Ó Murchadha records the acquisition by William's ancestor Richard in 1656 of Knocknagore townland (among others). The earlier house stood circa 70 yards west of William's build, a century later.

Because, as Rachel Carson's pathology adviser F.E. Egler (Silent Spring 1964) reminds us – "Ecosystems are not only more complex than we think, ecosystems are more complex than we can think" - for nature to refine, diversify and produce ever higher forms of organic systems (ectropy), nature despises stasis, uniformity and homogenisation.

Co.Cork is fortunate to possess circa 1000 designed landscapes, including hundreds of demesne lands – some laid out as manorial lands in early post-Norman decades; some Elizabethan, Cromwellian and post-Williamite.
William Hayes (our 1769 builder) was descendent of Othwell Hayes, lieutenant in the army of the Prince of Orange. The fashion for lime trees (more specifically the *Tilia X europea* with its 'burring' base) and oak date from the middle decades of the 1700s, avenues as grand entrances come later. Beech, by 1769, was a recent introduction to Ireland (an earlier Tracton News Sheet article dealt with Ireland's first beech tree nursery).
Ash, by far the most popular after oak, was widely planted within the 'Infield' (walled demesne) and 'Outfield' estate comprised of renter-farmers, in the latter decades of the 18th century, accelerating by 1830.

It remains an abiding sorrow for the author that since independence, Ireland's mediaeval and early modern designed landscapes – refugia to our veteran and ancient trees (parkland, deer park and wood pasture) remain to be acknowledged as globally rare ecosystems not found in semi-natural woodland or forestscapes. Battle-scarred veterans, whether as dead upstanding pillars or retrenching mouldering pensioners offer affordable housing to saprotrophic fungi and saproxylic insecta rarely found elsewhere. We encountered such fungi at the base of the standing dead horse chestnut, mid 'pitch and putt' - reminding us that the function of fungi is to break down dead or dying organic matter, chemically dematerialising the waste into soluble mineral plant nutrient (remineralisation).

Accompanying picture records *meripilus giganteus* (synonymous with polyporous giganteus in literature) occuring on the decaying rootplace of our specimen (horse chestnut) – rarely extending into the trunk base. Because this decay fungus hollows out both roots and stump, this specimen is liable to 'windthrow'. Field notes from a field visit with Templebreedy N.S.(2015) record this chestnut as healthy and actively growing. Participants were introduced to a severe bacterial pathogen affecting this tree specimen; *pseudomonas syringae pothovar.*

Our second record of saphrotrophic fungi on this same specimen is *ganoderma applanatum* (easily confused with *g. adspersum*) – fruiting on the main stem and cavities – with white margin when actively growing.
'We live and breathe in the space left behind by decomposition' - otherwise our atmosphere would turn into methane (NH4) and our flowergarden wither.'
Should it be decided that this tree is to be removed in the interests of public health & safety - best practice suggests that its crosscuts and limbs be removed to a damp shady corner on site – in time to offer an 'eco-pile' wherein our several endangered saproxylic beetles (long-horned) may put in their day. And leave in situ the flowering/fruiting bodies of the fungi, to proceed with their own specialised natural function, within the Pitch and Putt grounds.

Participants measured, at shoulder height (1.7 metres) the girth of the larger oak to the north of the former parkland – 490 cm. In a healthy actively growing hardwood (bar yew) we assign one year's incremental weight gain to 2 cm and we record 1781 as the tree's age – likely planted as a circa 15-year-old sapling (see picture).
Distinguishing our two indigenous oak species and their 'hybrid swarm' oak has been described in an earlier TNS article.

Our second oak tree specimen (middle park) requires the attention of an appropriately qualified arborist (with pathology training) – not a chainsaw operator. A 'sap run', some current and one recent/congealed flux, more associated with post-maturity is present. The crown-lifting (removal of lower and middle crown) exposes this otherwise exceptional archetypic oak to overheating and the wind chill factor. Fatal! At our return "Crinniú" let us explore more closely the dynamics of root; trunk; crown and canopy.

Rodney (Tracton Biodiversity Group) introduces us to St. Mary's Well, below the rank of 'Twelve Apostles' beech trees. Some claimed this well had never dried up in early September – and others recalled otherwise. With projected rainfall patterns (Prof. J. Sweeney, IPCC scientist) across Ireland's western half, despite the nearby deep excavation, we trust this ancient feature won't go away from us.

We are now in Crosshaven townland proper. The presence of the descriptor 'Cross' in a place name or townland suggests our earliest Christian communities – according to Mac Cotter (History of Medieval Diocese of Cloyne).

Cross land signified, within Pagan Ireland, the presence of our first Christian settlements. Templebreedy's former name "Killycully" ("Kill" derives from the latin cella - a shrine or Hermit's cell) suggests an early Christian presence, invariably coastal and invariably influenced by Eastern Mediterranean aceticism. Ecclasia Romani came 500 years later.

Teampeall emerges as entire communities adopt the Christian ethos. They are larger, possess a baptismal font (baptisms being performed at holy wells or springs nearby), possess a consecrated burial ground and in time a bell to signify the weekly sabbath.

Mike Fitzgerald of nearby Crosshaven Glebe (rectory) joined and welcomed us. On our return visit, hopefully before year's end, we will take girth measurements of the Twelve and attempt a dating. We will more thoroughly scrutinise for the early telltale indicators (if any) of the recent significant impact of battery (root) severance.

Our final picture is one of two beech trees that the author has ever encountered with a girth at or exceeding 6 m (the other on family land mid Ulster). Bereft of saprotrophytic/trophic fungi – its major cavity at advanced stage of decay, as evidenced by the deep front of exquisite humic crumble within the hollow – the fruits of hard labour by none other than our saprotrophs (sapro = decay; trophism = feeding).

As described, our non-pathogenic decomposer fungi never evolved to attack healthy tree cells – rather they feed on infected tissue, thus enabling their host habitat to compartmentalise and grow thick, callous tissue. Such is symbiosis en route to ever higher 'connectedness'.

Macroom Castlegrounds – Community Events June 2021

2021 marks author's 36th consecutive year (bar 2020) facilitating both Primary and Secondary School Field Outings, as Schools' Heritage Specialist (including membership since 1998 of the Heritage Council's "School Scheme").

Author acknowledges, on behalf of Youth Reach; Cloyne Diocese Youth Services (C.D.Y.S.), Dell Volunteer Corr (Ballincollig) and Macroom's Girls N.S. (St. Joseph's) and Boys N.S. (St. Colman's), both their consent and support by the Demesne's Trustees, as Owners since 1924 of this historic imparked landscape. Author additionally thanks Mrs. Ellen Twomey of Rockboro, adjoining the Trustees' holding, for her continued approval and granting of access to aforementioned Schools and Community Services over the decades.

Since 2018, the Castlegrounds has offered C.D.Y.S. a venue for FETAC 4/5 "Work Placement" module – since Good Friday 2021, C.D.Y.S. Adult Learners have spent Wednesdays (weather permitting) learning/acquiring a range of "Earth Education" skills including site maintenance of the newly (2014) planted native woodland grove and its predominantly self-sown wild trees and shrubs (thanks to the Jay population within the Parkland); our vigilance to onsite nesting birds being paramount during April and May; treeplanting and aftercare including an introduction to optimal available organic fertilisers (soil conditioners); Wildflower Identification (ID), introductory "tree hazard" skills and measuring and recording tree circumferences and learning formulae associated with "aging" (or dating) specimen trees.

Wednesday, June 16th (concluding module activity) was marked with the planting of a Copper Beech followed by a visit to the "Double Rank" Beech Avenue, itself marking the original entrance avenue to the Manor House (as mapped in mid-1600's).

Earlier in the week (Monday 14th), Rusheen N.S. accompanied the author on an outing to the Gearagh Nature Reserve.

Tuesday, 15th, St. Joseph's Girls N.S. (6th class) accompanied author on a walk up the Beech Avenue, recording a 360cm circumference of the first Beech of the row. Recording 560cm on another surviving Beech (13 remain of the likely 150), we arrived at a mean (average) circumference, assigning 1.5cm (at 150cm height from rootplate) to one year's annual increment.

In the afternoon (Tuesday 15th), St. Colman's Boys 4th Class were introduced to this historic landscape feature, repeating measurement and learning the precise location of Macroom Castle (knocked 1968) in relation to this surviving avenue of Beechtrees flanked by European (large leaved) Limetrees.

On Thursday, 17th, both St. Colman's 2nd and 3rd Classes (respectively am. and pm.) visited and walked almost the full length (270 meters) of the Double Rank, noting the extensive rabbit warrens and signs of our legally protected badger. Other Wildlife, including Red Squirrel; Bats (6 species detected) and wild swarms of Honeybees (in cavities in the upper tree crowns) were described, though not encountered during our field walk. Memorably, on learning that Beech and Lime were "introduced" to Ireland (and not indigenous/native), one Scholar proposed that the Avenue be bulldozed and replaced with an "Oakwood".

Appropriately, a fellow 7-year-old expressed alarm at “homeless” Wildlife – we settled on “Managed Decline” of what has evolved as a Wildlife Refuge. And as if to buttress the eventual consensus, we came on several full-fruited Decomposer Fungi – all dependent on mouldering decaying hollow hulks, themselves providing a habitat for “endangered” long horn beetles and other insects found only in such stable and long-established environments.

dryads saddle saprophytic fungus

Youth Reach's grand finale for June was diarised for Friday, 18th – which we marked with a treeplanting of a Bird Cherry (a Red Data species – i.e., vulnerable/endangered), probably rarer than our Irish Whitebeam, which will be added to our grove when C.D.Y.S. resumes Work Placement in October 2021.

By Ted Cook.

Planting of the 'Lady Olive' Copper Beech by CDYS learners.

© Sarah Kate Photography

Since 2018 CDYS work placement module has included Macroom Castle Demesne as an optional venue for our learners. Our 'Town Park' laid out during the reign of Edward 3rd., (c1350) offers our learners a wide skillset in wildflower ID, Tree ID & planting within a designed landscape. The project commenced on Good Friday 2021 and our concluding activities on June 16th included an introduction to the Double rank Beech Avenue flanked by lime trees. Our mission to date, is this 'Ornament in Glory' of Muskerry. While the entrance archway from the town square was recorded and mapped nearly 400 years ago, the Double rank marks the original entrance to the manor house itself. CDYS learners measured the circumferences of some of the remaining 13 Beech Trees (there were likely to have been as many as 75 per row) which were recorded to have a circumference of 350cms.

© Sarah Kate Photography

Others along the rank measured an impressive 5.6 metres circumference. And assigning 1.5 cm per year of growth, CDYS estimate the Double Rank dates from 1788 to 1802. The Double Rank is a haven to wildlife, with wild honeybees warms settling in the cavities of the ancient beeches. Bats, Red Squirrels, Badgers and warrens of Rabbits have all made it their home. We would like to thank the trustees of the Castle Demesne for their consent in facilitating.

© Sarah Kate Photography

By Ted Cook

"We bring in the Summer ourselves"

(Tugaimid féin Samradh linn" – "Samhradh Samhradh" old Gaelic air)

Lá Bealtaine Walk at Escnamucky Forest, Glengarriff Special Area of Conservation (SAC) 2021

Our outdoor Adult Learner's field outing to mark May Day 2021, in compliance with H.S.E./E.T.B. Guidelines, has been drafted in support of E.U. Biodiversity Week 2021.

Our pre-booked Plant ID event at Escnamucky (Eskernamuice) Old Growth Oakwoods with Arbutus set out at 2pm from Poolín Carpark, following the Barley Lake Road (stone's throw), accessing an easily overlooked forest track to our righthand.

Passing initially through a Native Woodland Plantation (c. 2003), our path broadens into a forest ride and continues agreeably uphill.

Hard Fern (*Blechnum spicant*) is the dominant of the nine identified ferns – and gives its name to the Scientific Classification of this Atlantic acidophilous Oakwood with Holly (Annexe 1 Habitats Directive 1992). Bilberry (otherwise Blaeberry, Black Hurts, Hurtleberry, Frockans, Fraochán) of the Heather Family is flowering along the shady damp waysides, sharing with Blechnum a strong preference for the acidic well drained Old Red Sandstone soils. Our Bilberry (Vaccinium) with elevated Vitamin C concentration in its purple/black fruits, will fruit late July through early August – in our Mythology, Bilberry is associated with Lugh – Old God of the Sun (Lúnasa – August).

Bilberry

Mayflower (also Lady's Smock, Cuckoo Floor, etc), the foodplant of our Orange Tip Butterfly, like Wild Apple Blossom, signifies Bealtaine among our first Wildflowers of Summer. With Mayflowers' association with marshy/rushy ground, it is easily extinguished from whole localities following drainage and "improved pasture".

Mayflower

Our several Eastern European Learners, of our 12 participants, quickly recognised the Beechtrees (c. 35 yrs.) flanking our pathway – in newly mint green foliage. A question whether Hornbeam (*Carpinus betulus*) was a "Beechtree" prompted a brief introduction to the "Linnaean Classification" of Plants and Animals.

Born in 1707 in Sweden, Carl Linné, "Prince of Botanists", in a world desperate for a workable system of Classification, gave up medicine and turned to cataloguing organisms. By 1735, he solved the puzzlement by assigning organisms into families, genera and species, based on their flowers and reproductive anatomy. Linnaeus (Latin) proved that "whales belong with cows".

Hornbeam (native to Britain) belongs with the Birches – which Family includes Alder, Hazel, and plants with similar pollen bearing male catkins.

The "Ancient" indigenous Hornbeam; Beech (S.E. Wales and Southern English coast) and small-leaved Lime forests of Britain are unknown here (Rackham reckons there may be 70 "Wildwood" types of forest in the U.K. 1994). Linné named 13,000 organisms – their "Family/Tribal" name first – their special (Christian) name second.

Although elsewhere in Ireland, we would by now skirt the “Treeline” at c. 500ft a.s.l. (above sea-level), in or “Hyperoceanic” Southwest, that shares a subtropical micro-climate with N.W. Portugal (Lusitania); Azores, Canaries and Cape Verde, the “Treeline” is yet encountered at c. 1000 ft. a.s.l. (Killarney National Park/Glengarriff).

As our track continues uphill, we observe the “mossy old bones” of Sessile Oak crowns above us – and are now eyelevel with their newly emerging pale green canopies below us to our right.

Saxifrage

In shady crannies and rock crevices we identify both Common and Kidney Saxifrages (more often their hybrids) – with their geographical postglacial H.Q. in “Lusitania”.

Our Group pic records us (adhering to Guidelines) as we now reach a plateau, before our gradual descent towards the Glengarriff River.

Perrin and Mulchay's "Provisional List of Ancient Woodlands" (2008) names "*Arbutus unedo*" as a Primary Indicator Tree of pre-1660 Irish Forests. It is yet found in the wild state (native) in Counties Sligo, Kerry and Cork – strongly "Lusitanian" – but Escnamucky's wild population are not the picture of health. From experience, Arbutus suffers at -5 ^{0}c, but will fail if brought inland where severe prolonged frosts and the wind chill factor may be commonplace during Late Winter into April. Otherwise, the "Strawberry Tree", (also of the Heather Family and strongly calcifuge) it endured just such a climate event in early 2018 in the Beara Peninsula – and March/April saw an unseasonal drought.

Arbutus

By August, they may have recovered their glossy waxy green chlorophyll, which in bygones provided mineral rich forage and browsing to livestock. Kerry Slug (*Geo. maculata*) habitat's abundance is notable through these "Veteran" Woodlands – additionally a "Lusitanian".

Scots Pine

Scots Pine stands (mature/maturing) occur above us along the plateau. Assumed extinct in Ireland since the early Medieval Period (McCracken, 1954), new DNA research (2018) records continuous natural S. Pine regeneration since pre 400 A.D. at Carron-Gort (Burren East) with Hazel on Limestone Pavement (Rockforest Pinewoods). NPWS have supported propagation of direct genetic stocks with a view to stitching in the Burren Pines across our National Parks. NPWS has acceded to author's request for provision of a small share in support of Community Nature Woodlands initiatives.

"Bluebell Time" is at hand – Wood Anemone and Wild Cherryblossom have near completed flowering as new Wildflowers emerge – notably our blue/violet Bugle (Ajuga) flowers expanding by surface roots, forming carpets.

Bugle Flowers

Author acknowledges Diarmuid Crowley (U.C.C. Tutor) for his translation of "Samhradh Samhradh" received by text during a barefoot walk through the May morning dew, early Lá Bealtaine – and Linda (Slovakia) for contributing her photographs to this summary – and, humbly but loudly invoking Edmund Burke "Man's mistake – he did nothing because he felt he could only do so little".

Fellow Adult Learners – through our feelings, convey to our Wild Beings how beautiful they be – that we guard them!

By Ted Cook.
Photos kindly provided by Linda Fenesova and Tom Kelly.

Cleanderry Wood, Eyeries, West Cork (Sunday April 18th, 2021)

Claoin Doire (Sloped Oakwood) skirts the coastline of Cleanderry Harbour, best approached from Eyeries Village keeping to the coast road via Kilcatherine Cemetery. This special Area of Conservation (S.A.C.) "Old Growth Oakwood with Hard Fern and Holly" includes Derryvegal Lough shining coastside below, which encloses this S.A.C. to its west.

After leagues of moorland lonely since Castletownbere, 10kms south, our road now continues between dense mature Hazels, shaped and wind pruned by the northwesterlies along the southern rim of the northfacing "Claoin Doire" below.

Our small "Adult Learner" group opted for this venue to enable a field survey of one of the few places along our deeply pockmarked Irish coastline where Old Native Woodland meets the sea – with boughs tasting salt water at high tide.

Author, as a fellow Adult Learner was welcomed to facilitate description and interpretation of the site's Plant Community (Phytosociology) but knowing from a 1985 "Bartholomew's Quarter Inch Map (Cork – Killarney 4), we would require local knowledge of favourable (least impact) forest access. And at a day's notice, Tony Lowes (Friends of the Irish Environment (F.I.E.)) graciously acceded, acting as our guide to an appropriate access "boreen" dropping at times steeply to the slipway to the sheltered hollow of Claonderry Harbour.

Our photos (taken by Slovakian Linda) record the S.A.C. at low tide with Anna and her pets, Author, Tony, Conor, Judith, and Mikal – and a small grove of hardy Oaks sculpted by the Atlantic, 30 meters to Mikal's leftside. The continuous seepage of groundwater/surface water streams flowing downslope that we would soon encounter within the S.A.C. visibly ameliorates the otherwise toxic impact of seawater's intense mineral concentration on the "mycorrhissal-rootfeeding zone" of these terrestrial plants. And notably, Downy Birches grow close to these "front line" Oaktrees on their landward side, buttressing further the availability of fresh water and fungally delivered plant nutrients.

Before leaving us to our single file trek, following a goat path, Tony shared with us the "multiple ownership status" of this S.A.C.; the presence of our "endangered" Killarney Fern on site and the pressures and threats facing the site's fragile integrity – not least the browsing of feral goats and occasional grazing.

Described by the Site Synopsis, as submitted to the E.U. under the 1992 Directive, "there has been tree clearance in the past, the trees are re-invading the site's abandoned old fields". Author's field notes record "Filmy Ferns" adjacent to the slipway along the pathway westwards, growing amidst dense curtains of bryophytes (mosses); Irish Spurges and both Saxifrages throughout, Bilberry galore, Woodrushes (leaves flat and hairy), Bluebells nearing flower and Common Cow-wheat which is associated "re-invading" semi-natural woods, scrubland (naturally pioneering forest regeneration) and newly coppiced hardwood coupes.

Coppiced and maiden Hollytrees, as understorey or a co-dominant species with the more exposed stunted Oaks, imparts a “Hollywood” – till late May when the broadleaved canopy will have closed over. Holly is an example of a “dioecious” (unisexual) plant that presents as either male or female – Claonderry offers an ideal quadrat (or series of quadrats) to facilitate a “Gender Survey” during early Winter (or May with an eye lens 40x). A near constant average of 14:86 (female/male) represents results from a simple “Winter” count of hedgerow transects. A safe and simple school project!

This Wood comprises both wet and dry heathland with their respective heather species mixed with Moor-grass (Fionnán) – rocky outcrops support our indigenous Furze (what on Hare Island was described to Author as “Fairy Pincushion”).

Mostly straight old drystone walls run down the slopes – “rundale” like – relictual field boundaries, adding both wildlife corridor value and agricultural heritage to this “dream wood” (T. Lowes).

Moss and lichen festooned field boundary with Author betwixt either two Oak maidens – or two “springs” from the one Oak “stool”. The ancient Greek fable “Philemon and Baucis” (c. 1000 BC) sprung to Author’s memory at that moment – to be recounted at some other time and venue – it nearing dusk and each with a with a job to go to the Monday morning.

All the many of our 41 native Ferns associated with damp acidic temperate forest are at home here – notably our "Hay-scented Buckler" (described by Perrin Mulcahy as a likely/sure indicator plant of "Ancient Forest" in Ireland). A distinguishing characteristic of "*Dryopteris aemula*" is its straw-coloured scales that clothe the "stipes" (stalk of frond). This large drooping and graceful fern is an E.U. "Red Data" species.

Apart from a scatter of Young Sycamore, Claonderry is notable for its absence of introduced/exotic plant species.

As a maturing "Adult Learner", encouraging "cognition, description and interpretation" of a subject species and/or its habitat, one is mindful of U.S. Plant Pathologist Frank Egler's joint statement with Rachel Carson (1964) – "Ecosystems are not only more complex than we think, ecosystems are more complex than we can think".

As the 20th anniversary of UCC'S annual "Environmental Law Conference" looms, Tony Lowes (F.I.E.) and the author being avid participants throughout, ever more challenging quests and questions face each and every legal system worldwide. Why? Because any legal system exclusively for humans has outlived its purpose.

Author wishes to acknowledge the many brainchildren driving and sustaining the UCC seminar – notably Professor David Gwynne Morgan, Professor McIntyre, and Dr. Áine Ryll.

We conclude with picture 4 (above) – middle wood, the Atlantic lapping within meters to our righthand, Author standing in a channel gouged by frequent cascading freshwater and oxygenating Iris performing atmospheric exchange in an otherwise anaerobic forest floor. On behalf of our adult learning recreational users, we thank the multiple owners for the opportunity to learn a little more, all the time.

By Ted Cook (I.N.T.O. Heritage Specialist)

Claonderry SAC (Post Notes)

Author's reference (Escnamucky Forest, Glengarriff, Lá Bealtaine 2021 doc) to O. Rackham's reckoning of at least seventy "types" of indigenous Woodland existent on the island of Britain (1994) was shared in the limited context of Scientific Classification.

Each and every semi-natural woodscape has a life of its own. Regardless of expanse, each such residual fragment, despite Neolithic (First Farmers) and Iron Age (Celts) impacts, has survived in situ because the "Biodiversity" evolved and adapted successfully to local "Geo-diversity" and Topography.

Claoin Doire has a personality of its own and having dispensed with its "Blechno-quercetum" designation, our field survey focused on the site's ground floor – a woodland's flora offering the appropriate gateway to its continuity.

Claoin Doire's ebb and flow between tree clearance and marginal agriculture and forest "re-invasion" is representative of all of Ireland's semi-natural forest – each isolated remnant of which being identifiable and distinct from other woods by the site's herbaceous and field storeys and lichen population.

Accessing from the eastern "boreen" via the slipway (through the welcoming John O'Shea' muscle farming tackle yard) we encounter a solitary Sessile Oak festooned with the *Bryoria fuscencens* lichen (commonly Shaggy Shawls), waving in the onshore breeze – tufts of hanging hairlike rags 20cms or more in length. In our polluted zones, they rarely reach 5cm.

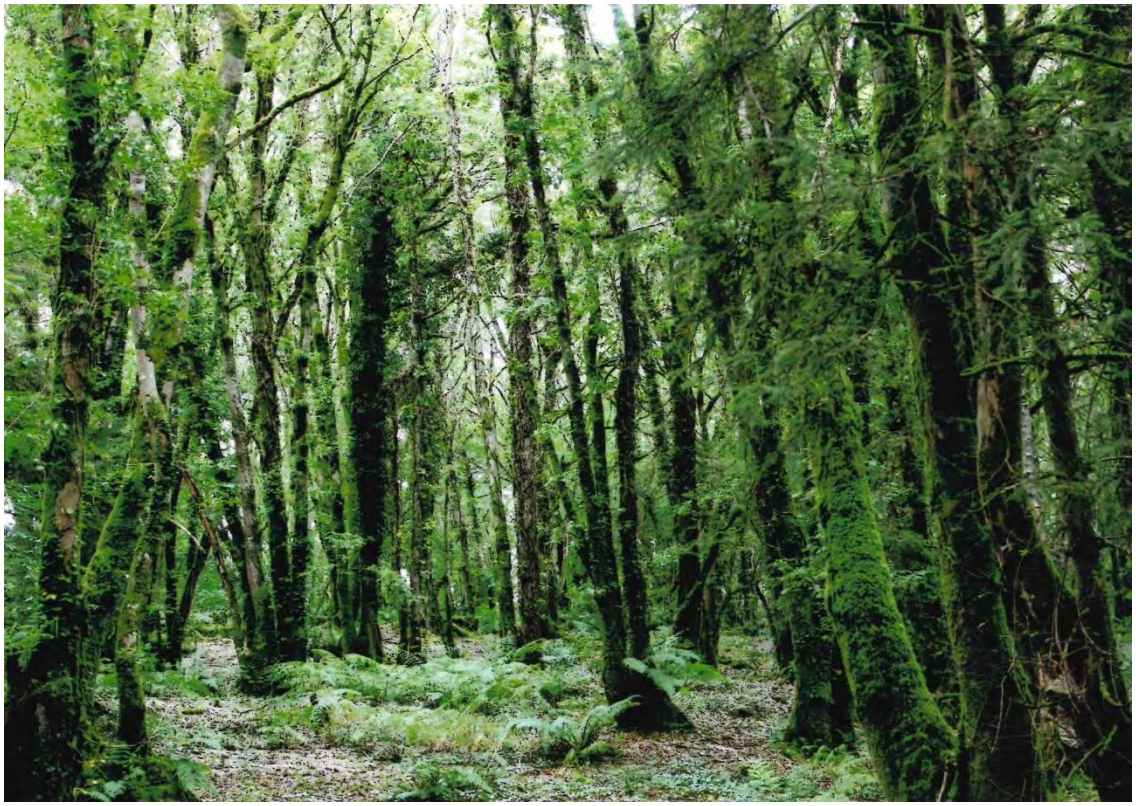
B. fuscencens, though not listed among (Fox and Cullen) the thirty-two lichens of Irish Native Woodland Indicators, does appear on the "Draft lichen Red List for Ireland".

Of the 14,000 known lichens in our global garden, 1,313 are at home in Ireland and though a "Scientific Mystery" (D.B. Kroeger, 2010), these "sylvan sleeves" comprise Fungi and Algae and Bacteria – with added Yeast Fungi in some species. And while the function of Fungi in nature is to breakdown dying organic matter, Shelldrake (Entangled Life, 2020) reminds us that "we live and breathe in the space that decomposition leaves behind".

In his "Selected Writings", ecological Forester Richard S. Baker (1921) whilst managing Nigerian mahogany forests, understood that "Growth keeps pace with Decay" and advocated tirelessly the critical role of fungal "Mycorrhizae" in both Tropical and Temperate Forests – and the "unwisdom" of pure monoculture plantations, devoid of "mycorrhizal association".

At Claon Doire, despite the absence of an upcoming generation of Oak (goat-browsing, etc.) and absence of a "Management Plan", last winter's waste and deadwood are being returned, like all organic matter, to whence they came – remineralising the energy flow through this remote, tiny, and autonomous outpost of the Kingdom of the Forest.

To Mark National Tree Week 2021



1 'Oak Copse' (with Spindle, Holly; Hazel; Ash; Wych Elm and Wild Cherry)

The following is a summary of our Heritage Week 2012 visit to Oakgrove Estate, Carrigadrohid, Co. Cork, by kind invitation of Reggie and Cynthia – owners.

Our three-hour tour of Oakgrove's semi-natural woodlands was facilitated by Kevin Corcoran and the author.

Oakgrove House and its' wooded mosaic overlooks the River Lee a mile downstream of Carrigadrohid Castle Towerhouse and lies behind stout demesne walls that abut the road to Coachford.

Behind the broad corridors of mature Beechtrees that partially overhang the demesne walls – what in the landscape speak of early Victorian times were referred to as "Screens", lies a wooded Wonderland.

The 1665 Downe Survey Maps and both 18th Century Ordnance Surveys record woodland continuity at Oakgrove – the same trees and their descendants welcomed in 1724 the young John Bowen and his bride (John was descendant of Colonel Henry Bowen who in 1653 was personally granted lands near Mallow by O. Cromwell) – and their descendants the dynastic Bowen-Colthursts of Oakgrove.

Our hosts recounted that do to a stinging divorce suit, their early 20th Century predecessors in title succumbed to coppicing many of the wooded acres to pay off the settlement. The accompanying picture records the post clearfell regrowth alongside the now maturing maidens that were spared by the woodman (pic 2).

2 'Spared Maiden Oak'

The entrance avenue is lined (with sizeable gaps) with stately Oaks in their post mature age – likely dating from c. 1800, hanging heavy with mosses and lichens. In pic 3, Kevin is sharing the benefits of Ivy with our participants – beyond the barley field, the wood canopy. As the avenue continues, we observe the lower crowns of a grove of Common (pedunculate) Oak to our righthand (pic4).

3 'Kevin profiling Ivy on an Avenue Oak'

4 Lower Crowns of Q. robur (Common or English Oak)

Our hosts guided us around the Estate's extensive walled garden – unusually high walled and impeccably maintained.

Through August, rolling expanses of Bluebells' dried stalks were yet discernible – other indicators of Woodland continuity (Springtime) include Wood Anemone, Woodrush, Sanicle, Wood Violet, and various Spurges and Saxifrages. The more primitive of the Plant Kingdom (cryptogams) are at home here in the warm damp shaded entrance of the natural forest – pics 5 and 6 – our Hard Shield and Broad Buckler ferns.

5 'Hard Shield Fern'

6 'Broad Buckler Fern'

The functions and benefits of standing dead trees – and ancient trees within forest foodchains was brought home to us on encountering an "Ancient" Spanish Chestnut – its presence so discreet under Ivy and tree ferns and its rootzone littered with limbdrops at varying stages of decay (remineralisation of forest soils). Pic 7 challenges our concepts of beauty and the cult of appearance that rob us of ourselves and of meaning.

7 'Ancient Spanish Chestnut'

Pic 8 records author presenting a 1st edition of D.B. Kroegers' "Global Forest – Forty Essays" (Penguin, 2010) to our noble hosts Reggie and Cynthia.

8 Concluding Group Pic – the ancient specimen in backdrop.

By Ted Cook.

Ancient & Veteran Tree Survey

MACROOM CASTLE DEMESNE

FEBURARY 2021

DOCUMENT CONTROL SHEET

PROJECT NAME: Ancient & Veteran Tree Survey

PROJECT LOCATION: Macroom Castle Demesne

PREPARED FOR: Castle Demesne Trustees

PREPARED BY: Conor O Callaghan

POSITION HELD: Lead Arborist

WORK DESCRIPTION: Field Surveyor/Author

QUALIFICATIONS: MSc Arboriculture & Urban Forestry, BSc Forestry Management

CONTACT: info@treespace.ie

CO-AUTHOR: Ted Cook

POSITION HELD: Lead Heritage Specialist

WORK DESCRIPTION: Field Surveyor/Author

QUALIFICATIONS: Heritage Specialist, Irish Heritage Council

CONTACT: Kilbarry, Macroom, Co. Cork.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF CHARTS

1. INTRODUCTION

1.1 BACKGROUND

The following report and associated tree survey were initiated by the authors. Both authors had previous knowledge of the site and were aware of the ancient and veteran tree interest that is present. In 2016 a brief study of the site was carried out as part of a wider investigation into ancient and veteran trees in County Cork. However, the 2016 study did not designate a permanent tree tag/tree number to each individual surveyed tree. As a result, the following report is considered the first detailed documentation of the old trees on the site.

The report is designed to fulfil a number of functions. Assessment of old trees in designed landscapes provides a record at the time of survey and creates a picture of the historical significance of the site. The documentation establishes a baseline of information to inform the future management of the landscape, highlight local biodiversity and provide insights into historical changes in the landscape. Old trees are the key features to facilitate interpretation and inform potential conservation projects. In addition, the presentation of the report and its findings coincides with the 100th anniversary of the acquisition of the demesne by the trustees.

The information presented in the report attempts to extend to a diverse range of readers. The context section provides educational information on old trees and their habitat value. There is reference to the historical background of the Castle Demesne and historic events relating to the broader region. The results section presents an analysis of our findings, much of it presented in chart form, to allow focussed interpretation of the old tree population. The results section is followed by a discussion about the surveyed trees, the oak woods, and the important landscape features contained within the site. The conclusion of the document summarizes the challenges discovered during the survey and presents a number of potential projects to ensure veteran continuity and enhance the site.

1.2 CONTEXT

Old trees in the post-mature stage of their life cycle are highly valued for their ecological diversity. They can provide significant biological, aesthetic, and cultural interest. For instance, a study carried out by Alexander *et al* (2007) surveyed 1,446 veteran trees on six sites in Northern Ireland. The study identified 341 fungus species, 159 lichen species and 200 invertebrate species. Many of the identified fungus species were newly found in Northern Ireland, and from the six sites surveyed, four were suitable to merit Area of Special Scientific Interest (ASSI). It is also recognised that many of the world's oldest upstanding trees are found in wood-pasture and grassland habitats, not woodlands (Rackham, 2008). It is reasonable to suggest that many of Ireland's oldest trees remain hidden in historic demesnes or old wood-pasture environments.

Currently in Ireland the old tree populations in historic demesnes remain understudied and under recorded. Discovering where the ancient and veteran trees are in the landscape has

many benefits. Creating a map of the trees can provide insight into the history of the site and how the landscape developed. Historic parkland landscapes will invariably have been exposed to many changes in ownership and different landscape design fashions. The veteran trees can illustrate the design practices of our predecessors.

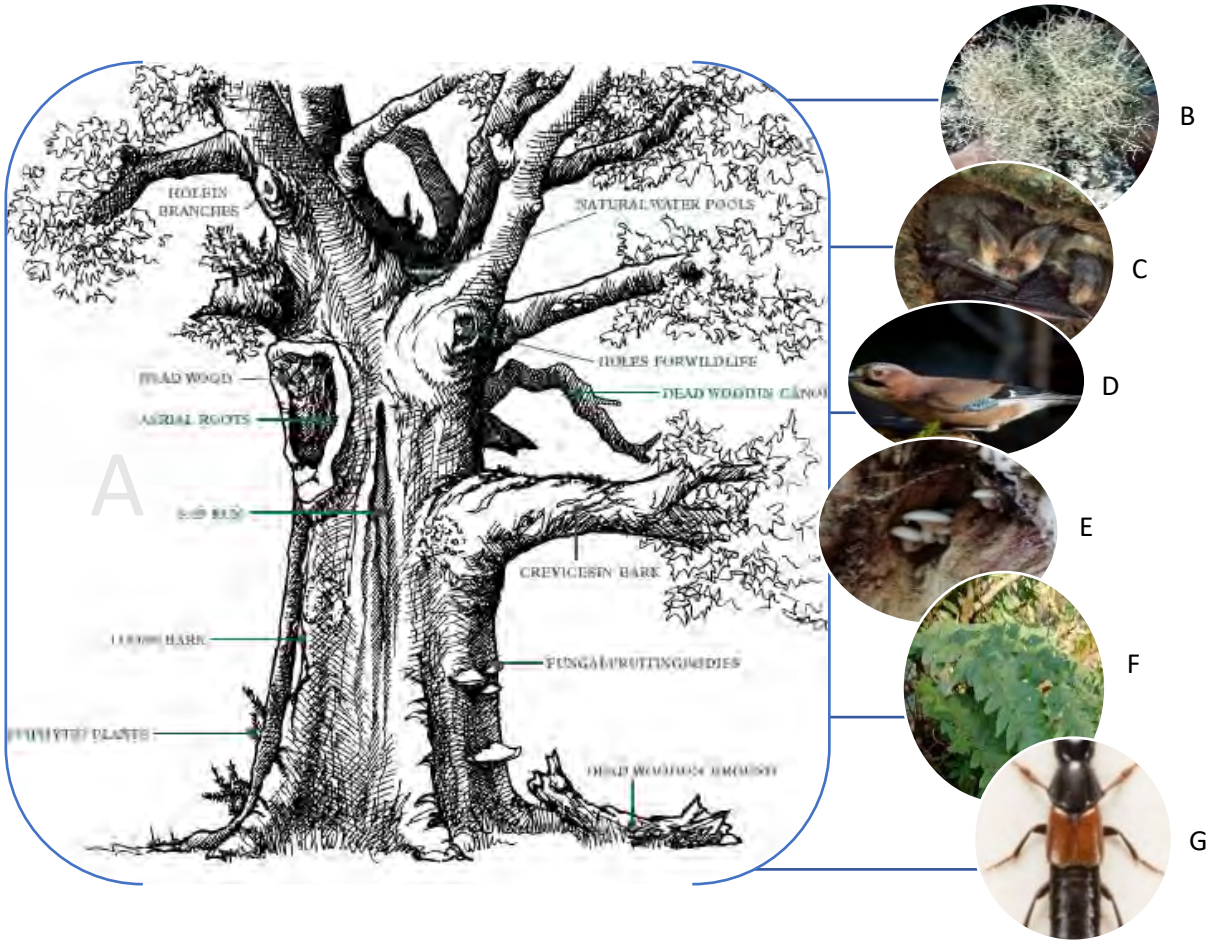


Figure 1: *Infographic illustrating veteran tree features and some of their associates*.

Image A: Veteran tree features (Read, 2000) ● Image B: Lichen species (Author, 2021) ● Image C: Brown Long-eared bat in a tree roost (Woodland Trust, n.d) ● Image D: Jay (Birdwatch Ireland, n.d) ● Image E: Fungus on decaying heartwood of ancient beech (Author, 2020) ● Image F: Common Polypody *Polypodium vulgare* (Author, 2021) ● Image G: *Quedius lyszkowskii* (BBC, n.d)

The classification of the old trees can also be used to inform the future land management practices on a site. Where ancient and veteran trees are present, sensitivity and careful planning is required to ensure tree longevity and reduce risk of tree loss. For example, The Birklands Oak project contained some 500 veteran oak trees within Sherwood forest, Nottinghamshire. The woodland had been planted with commercial pines in 1935. To restore the woodland to oak forest felling work was carried out to release the veteran oaks. Where the pines were clear-cut desiccation occurred in the oaks, and many veterans were

lost. In the areas where crown thinning was practiced many more veterans survived and showed strong crown regeneration.

The importance of old trees and their associations with other life forms must also be emphasized. As trees get older and progress into the post-mature stages of their life cycle their habitat value and ecological importance increases. The habitat features such as holes, splits, and cracks which develop around the tree are potential roost features for bats and nesting sites for birds (see figure 1). The Brown Long-eared bat native to Ireland has been frequently observed in tree roosts. High numbers of epiphytic lichens are also associated with old open grown trees. Fox *et al* (2001) recorded 51 lichen taxa on an individual oak in Ireland. An unusual association is the lichen *Lecanactidetum premneae* which is normally only found on trees 250-300 years old or more.

The wood decay process associated with old trees is one of the most important ecological processes in the world. Decaying wood recycles nutrients, contributes to soil humus structure, improves soil organic matter, and plays a vital role in nitrogen cycles and other processes (Marcot, 2017). The substrate arising from the wood decay process also provides habitat for many specialist invertebrates and fungi. In Ireland there are 208 native wood decay invertebrate species currently known, with nearly 50% of these species being classed as rare (Alexander & Anderson, 2012). One species of note is *Quedius lyszkowskii* which is only known globally from Ireland and Scotland and discovered new to science in 2010 (Alexander & Anderson, 2012) see figure 1, image g.

2. HISTORICAL BACKGROUND

In 1365 Macroom was recorded as the principal Manor of Western Muskerry, Macroom or Maigh Chromtha translating as plain, or territory of gnarled or stooping oaks. The Barony of Muskerry which was originally O' Flynn territory comprised an area coterminous with the upper Lee basin and including the Drishane Estate.

Following the Treaty of Glanmire 1118, the Province of Munster was divided between the O' Brien's of Dalgais and the Mc Carthy's of Cashel resulting in the Kingdoms of Desmond (Deis Mumhain) and Thomond (Tuaidh Mumhain) being created. The year 1169 marked the beginning of the Norman invasion of Ireland with the arrival of Strongbow on the coast of Wexford. During this period, a medieval settlement long established in Macroom by the O' Flynn family, subsequently became the property of the Mac Carthy family. The 'Prince of Muskerry' claimed direct descent from the main dynasty and drove out the Norman De Cogans who had established their manor at Dundrinan (presently Castlemore, near Killumney), shortly after the death in 1241 of Lord Richard de Cogan, passing without male heirs. King Edward III created the first Lord Muskerry in 1350.

Precisely three centuries later (1365-1665), the Down Survey of Ireland published in 1665, ordered by Oliver Cromwell for the purposes of confiscating eleven million of Irelands twenty million acres, describes Macroom Castle Demesne as formerly owned by 'Papist Lord Muskerry Mac Carty'. The demesne lands at the time having extensive orchards grazed by

sheep and full of decaying oak trees. Following the Cromwellian siege of Macroom on April 9th, 1650, and the capture of its defending 'Soldier Bishop' Boetuis Mac Egan; Cromwell granted the demesne that comprised the townland of Lackaduff (approximately 300 acres) to his admiral William Penn. The surviving enclosure wall of the demesne includes a subsequently created sub-division named Rockborough.

The names of many of Irelands 64,000 townlands have a unique historic association. Lackaduff (Leaca Dubh) is purportedly named to mark in 978 CE, the resting place of Maolmuadh, King of Desmond who murdered Brian Boru's unarmed brother Mahon. The killing was witnessed by a hermit who declared that Maolmuadh would forever lie where no sunlight would ever shine, hence the name 'Leaca Dubh' (Rock of Shadow).

Figure 2: *Macroom Castle c. 1877, facing west looking over the demesne*.

Demesne or mensal land comes from the Latin word table, meaning that the mansion or seat of the lord was provided with food produced within the walled enclosure for his/her 'table'. Mensal land was the privately owned property of the landlord family, originating in Roman times from 'the villa' with its in field of orchards, woodland, and tillage and its outfield of rent paying farm tenants beyond the walls.

The 1698 "Act for Planting and Preserving Timber, Trees and Woodland" (1698 Forestry Act) was passed in the Williamite parliament in Dublin and marks the start of Irelands afforestation period. In 1703 following the confiscation of several hundred townlands that comprised Muskerry, the Hollow Sword Blade Company (H.S.B.C) was commissioned to dispose of the barony. Macroom's first Protestant rector, Rev Richard Browne, acquired Coolcower. Massey acquired 12,000 acres that included the Musheraghs, Warren the son of

a Cromwellian soldier acquired Kilmurray district, and Colthurst of Cromwellian stock acquired Ballyvourney, and extensive stretches of the Lee Valley centred on Carraigadrohid, in addition to Lord Muskerry's castle demesne and estate in Blarney. Rye acquired Castlemore and Kilcrea Abbey lands under the same settlement. Richard Hedges, a senior officer within the auctioneering company (HSBC) acquired the emparked townland of Lackaduff with its manor, Macroom Castle in 1707.

In the years thereafter the castle and demesne lands were improved by Robert Hedges Eyre (1696-1733). During his proprietorship, the old castle was converted into an elegant modern mansion. The old towers were incorporated into the new building, the quadrangular structure had embattled parapets and was richly mantled with ivy on the side looking out over the demesne (see figure 2). Robert Hedges married the wealthy Galway heiress Mary Eyre in 1728 and adopted her name on the marriage settlement, thus providing the heavy purse necessary to aggrandise the mansion and pleasure grounds. The demesne lands during Hedges tenure were described as 'beautifully wooded' with a spacious deer park.

Following the 1698 Forestry Act adherence was prompt as is evidenced in the listed land parcels and the several thousand estates across Ireland from this period. Within demesne land oak was by far the preferred timber tree, followed closely by ash.

In her letter to the Demesne Committee Trustees in January 1925, shortly before her premature death, Lady Olivia Ardilaun declared that she was the direct descendant of Cormac Mc Carthy Laidir, Prince of Muskerry, born 1411. Prior to the death of Lady Ardilaun the demesne was acquired in 1924 by a group of local businessmen who continue to hold the land in trust for the people of Macroom.

3. SITE DESCRIPTION

The location of the survey site is in the Castle Demesne, Macroom, Co. Cork. The approximate area of the site covered in this tree survey is 36 hectares (89 acres) (see figure 3). The main access point to the site is through an attractive stone arch in the market square, Macroom town centre.

In close proximity to the main entrance there is a technical college, sports fields, and a sports complex. The technical college is built on the site of the old castle. The main access road runs in an east-west direction through the site with numerous smaller footpaths creating pedestrian access. The dominant land use on the site is an 18-hole golf course. In addition, there is a GAA pitch close to the technical college and a water treatment plant on the bank of the River Sullane below the golf course clubhouse.

The site is orientated in an east-west direction on a gradual undulating north facing slope. The southern boundary runs from the top of Sleaveen Hill along Wood Road to the boundary wall with Mount Hedges. The remains of the old demesne wall are still intact along this boundary. The northern boundary is defined by the River Sullane flowing in a west

to north-west direction. At the far western perimeter the demesne is enclosed by agricultural land, the eastern boundary is the urban town centre.

Figure 3*: Aerial photograph of the survey area. The red line marks the approximate boundary of the site (Google Earth, 2021)*

The parkland setting within the demesne has numerous scattered open grown trees (WD5) and small areas of mixed broadleaf woodland (WD1). There are clusters of North American conifers along the main avenue and scattered in groups around the golf course. The fairways on the golf course are characterized by distinct tree lines of semi-mature native and exotic broadleaves. There is a modified riparian zone along the southern bank of the River Sullane. There are numerous alders, willow and aspen trees scattered along the riverbank with a small pocket of alder carr (WN6) next to the water treatment plant.

The latitude range of the survey site is 51°53’55’’N to 51°54’10’’N. The site experiences a low average temperature range with frequent rainfall. The prevailing wind is from the south-west where moisture is accumulated above the warm waters of the North Atlantic, distributing rainfall evenly throughout the year. On average the site is exposed to gale force winds (50kph-102kph) 13 days per year with scattered storm events where wind speeds are >102kph. The frequent rainfall and low temperatures create an oceanic climate which supports rich assemblages of lichens, bryophytes, and ferns. Our observations of epiphytes during the field survey confirms the presence of rich flora diversity.

(WD#: see glossary for explanation)

4. TREE SURVEY INFORMATION

The area that was surveyed is enclosed within the portion of the site that is held in trust by the Castle Demesne Trustees. The aim of the tree survey was to identify all the old trees on the site and classify them as ancient, veteran, or notable.

The method used to classify the trees is called RAVEN (*Recognition of Ancient, Veteran, & Notable Trees*). The assessment system was developed in 2018 by Julian-Forbes Laird, principal arboricultural consultant at FLAC. Julian is a chartered arboriculturist and registered consultant of the Institute of Chartered Foresters. Julian developed RAVEN to provide an efficient method of tree assessment whilst ensuring that genuine veteran and ancient trees are correctly identified. The original RAVEN survey sheet is appended at the back of the report.

The authors are aware of the Specialist Survey Method (SSM) developed by the Veteran Trees Initiative (1995-2000) in conjunction with English Nature and Treework Environmental Consultancy. The SSM was considered for the project, but the level of detail required by the SSM was regarded unnecessary. However, many of the attributes recorded in RAVEN are largely similar with the Specialist Survey Method and are widely recognised by the Ancient Tree Forum and listed in David Lonsdale's book: ***Ancient and other veteran trees: further guidance on management.***

Age estimations were calculated using the method described by White (1998).

4.1 TREE SURVEY AIMS

- Find all the old trees on the site.
- Survey each old tree using the criteria set out in RAVEN.
- Identify the species of each surveyed tree.
- Tag each surveyed tree with an individual tree number.
- Classify each surveyed tree as ancient, veteran, or notable.
- Photograph each surveyed tree.
- Create a map of the site with the approximate positions of the surveyed trees and corresponding tree tag number.
- Basic assessment of the threats affecting the surveyed trees.
- Quantify the quality of the site for veteran and ancient tree interest.
- Provide recommendations for the enhancement of the veteran tree interest on the site.

4.2 TREE SURVEY METHOD

The first step when using the RAVEN method is a size assessment of the tree. The question that is asked is as follows: *Has the tree got a large girth for its species?* If the tree has a large girth for its species the assessor can proceed to step two. If the tree does not have a large girth for its species the assessor is asked to stop and proceed to the next tree.

Step two requires an assessment of the primary features associated with ancient and or veteran trees. Extensive decay or hollowing in exposed parts of the central wood.

Crown senescence or a crown structure that, for the species concerned, is characteristic of the latter stages of the life cycle. Crown retrenchment, or a crown that has become smaller owing to dieback and breakage since maturity. In principle a surveyed tree with a large girth for its species and a primary feature can be classified as ancient or veteran. The classification of a tree in this manner requires reference to the chart in figure 4 *(Chart of girth in relation to age and development classification of trees,* Lonsdale (2013)).

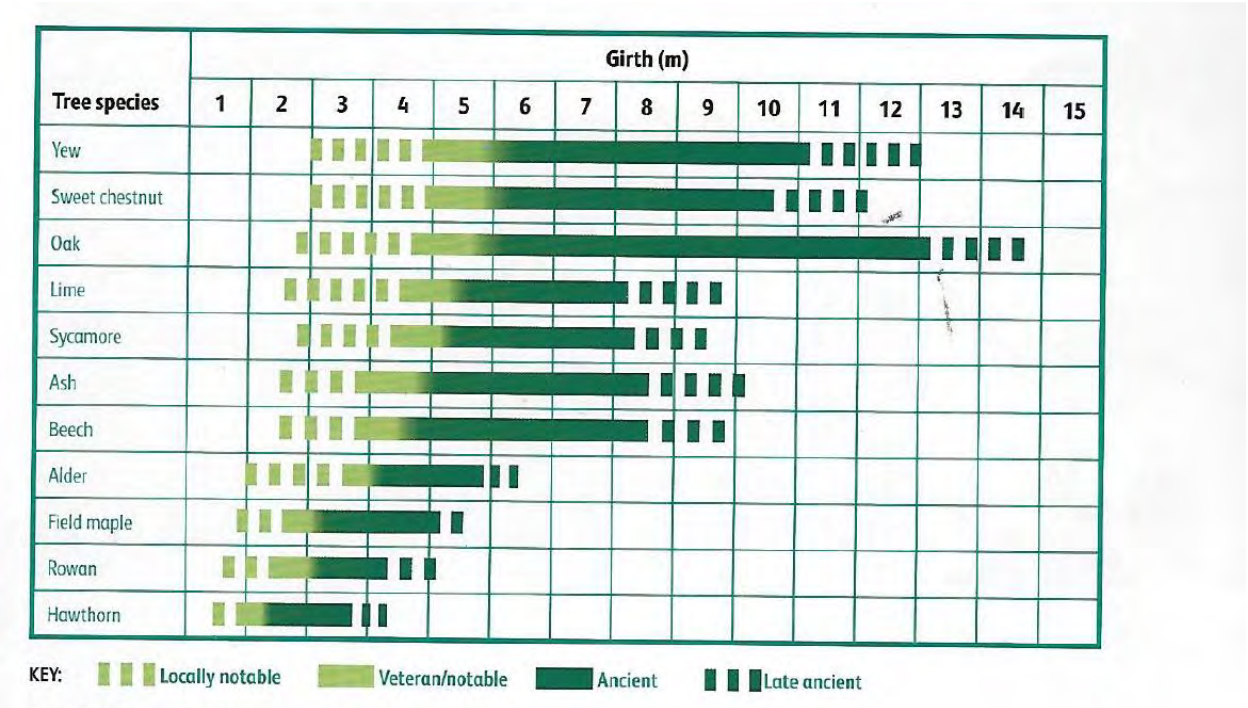


Figure 4: *Chart of girth in relation to age and developmental classification of trees (Lonsdale, 2013)*

If the tree has a large girth for its species but none of the primary features the field assessor proceeds to step three and assesses the secondary features. The secondary features listed on the survey form are as follows: large quantity of deadwood in the crown; major storm damage/breakout wounds; habitat spaces: (decay holes, crevices, branch splits); aerial rooting; sap run/slime flux; water pool; bark loss; fungi, and other epiphytic plants. This list of features is described in Lonsdale's (2013) guidance document as the key attributes associated with veterans. The more features the tree has, the stronger the indication that it is veteran.

The fourth and final step is to classify the tree as ancient, veteran, or notable. An ancient tree requires an extremely large girth for its species e.g., an oak >5.5m girth or an ash >4m girth. It is highly likely that trees in these girth classes will have developed veteran features and will be classified as ancient/veteran.

The classification of a tree as veteran requires one of the primary features and four secondary features. Notable trees have a large girth for their species but no further primary or secondary features.

For the purposes of this tree survey several trees were encountered that technically did not have a large girth for their species. However, a number of these trees were clearly distinct in the landscape and deserving of record. An example would be tree number 55, an oak with a smaller girth but an attractive position in the landscape and several decay holes and cavities in the trunk and crown. In addition, where oaks were encountered in close proximity and often perched on rock the girth may not have been large, but the trees clearly had an 'old look'. In such cases it is highly likely that annual increment growth was restricted due to the trees growing environment disguising their true age.

4.3 LIMITATIONS

- The tree survey is the first known detailed record of the old trees on the site. The information recorded cannot be compared to historic measurements of the numbered trees.
- The area included in the tree survey is limited to the boundary of the old demesne walls or the area that was acquired in trust to the Castle Demesne Trustees. The perimeter of the survey area was easy to discern with the exception of a small woodland group known locally as the 'witches' kitchen'. To distinguish the boundary in this area (located behind tree no 102) the field surveyors relied on past knowledge of the site.
- The tree survey was restricted to an assessment of the habitat features and associated classification in relation to girth. The surveyed trees were not risk assessed and no safety inspections were carried out.
- Dead trees were not included in the survey.
- Girth measurement was not possible on every surveyed tree. Where notable trees were encountered but did not have a large girth for their species a girth measurement was not completed. It was considered unnecessary and opposed the criteria set out in RAVEN. In other instances, girth measurement was not possible due to the position of the tree and surrounding terrain. An example is tree no 98 located near the footbridge on the bank of the Sullane river, where a significant portion of the stem leans over the water. In this case it was considered unsafe to manoeuvre the tape around the stem and an estimation of girth was recorded. In the case of the limes *(Tilia x europaea)* girth measurement was not possible due to the presence of heavy epicormic growth. In each case girth was recorded as n/a (not applicable) on the tree survey schedule.
- Where ivy was present on the main stem girth measurements were completed and adjusted accordingly based on the extent and thickness of the ivy stems. These trees are listed in the tree survey schedule and are distinguished with an [I] next to the girth measurement.

- The 'Double Rank' or tree group 1 (TG1) was treated as a tree group and the trees were not surveyed individually. The double line of trees is a distinct linear feature in the landscape. The number of trees in each line was recorded and an average girth calculated. The habitat features were assessed on a walk-through survey but not assigned to any individual tree. Both lines of trees are distinguished in the tree survey schedule according to their species.
- The X-Y co-ordinates were not obtained for each individual tree. The approximate tree positions were mapped manually in the field. The accuracy was improved by completing a desk-based exercise using an overlay application provided by Ordnance Survey Ireland. The tree map appended at the back of the report should be viewed as descriptive only. The green symbol used on the tree map to indicate the position of each individual is not a representation of crown spread, it is merely a symbol.

Large girthed conifers such as Sitka spruce *(Picea sitchensis)* and Monterey cypress *(Cupressus macrocarpa)* were not included in the survey. The species of tree was generally restricted to the tree species listed on Lonsdale's (2013) girth chart, figure 4. However, a few exceptions were included, namely two notable Scots pine *(Pinus sylvestris)* and three old multi-stem Hazels *(Corylus avellana)*.

5. RESULTS

In total 147 trees were tagged and surveyed individually. In addition, one tree group was identified which contained 32 individual trees. This tree group (TG1) was treated as a separate entity and is dealt with later in the report. The following results section is based on the findings from the 147 trees surveyed individually.

5.1 SPECIES

The most common species is sessile oak accounting for nearly 32% (47 trees) of the total number of trees surveyed. The second most common species is intermediate oak with 31 trees. Ash (20 trees) and sycamore (13 trees) are next with the other tree species being represented in small numbers. Only seven of the trees surveyed were identified as being pedunculate oak. Sweet chestnut is poorly represented with only four trees.

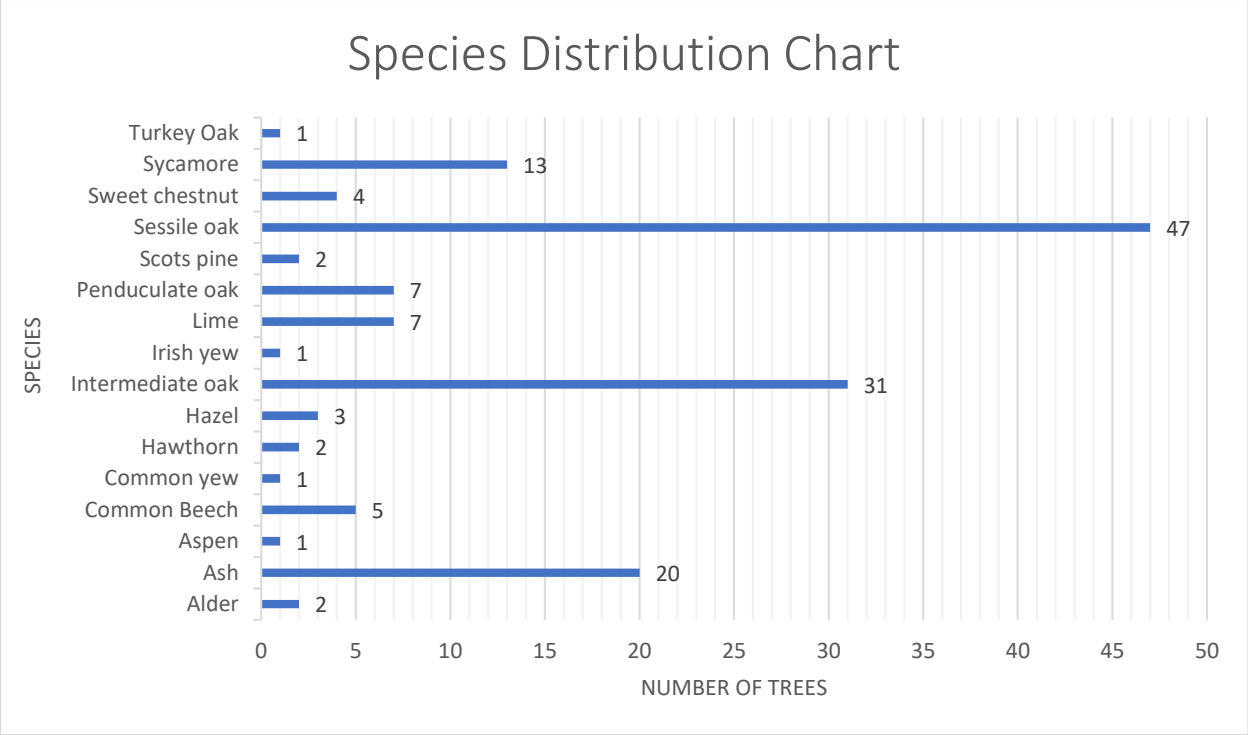


Chart 1: *Species distribution*

5.2 PRIMARY FEATURES

The most common primary feature was retrenchment, which was recorded on 15 trees. Decay followed closely recorded on 14 trees or 10% of the population. Crown senescence was recorded on 13 trees (9%). Hollowing which is associated with the ancient stage of the life cycle was attributed to 4% of the population or 6 trees. Two of the hollowed trees were ash, one was classified as ancient (Tree no 42) and the other a veteran (Tree no 51). In total the primary features were recorded on 48 trees or 32% of the population.

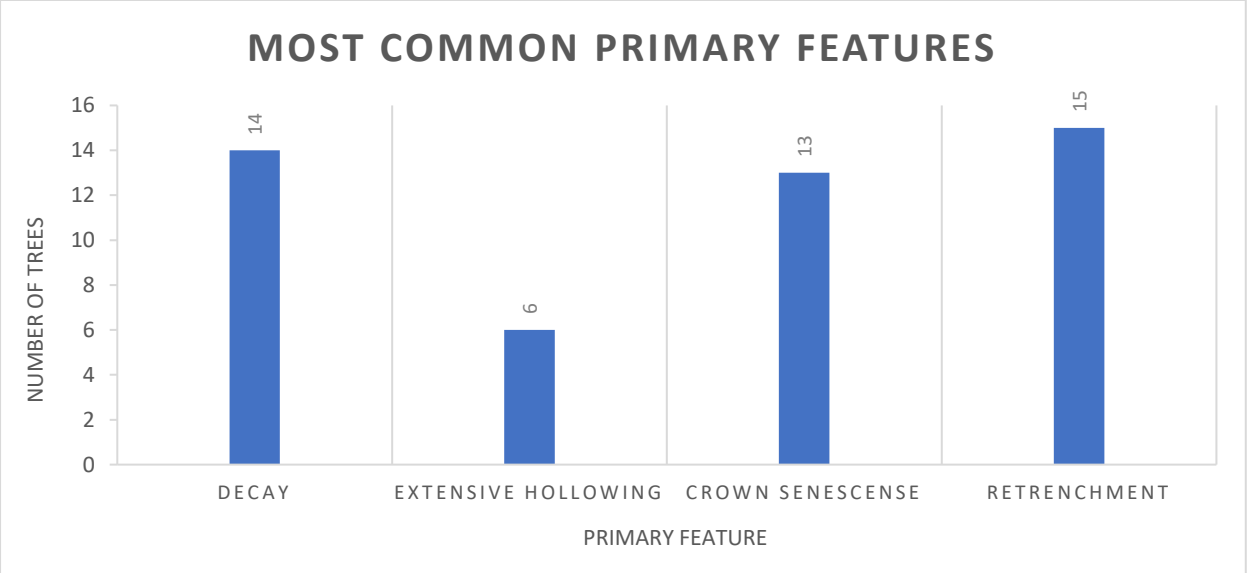


Chart 2: *Most common primary features*

The primary features were most associated with the intermediate oaks. Sessile oak and ash followed closely. Tree number 104 was one of two alder trees recorded in the survey. The tree had both decay and extensive hollowing as the two primary features.

Tree number 2, a sycamore with a girth measurement of 4.07m had extensive hollowing in the main trunk. The vitality of the tree remains particularly good.

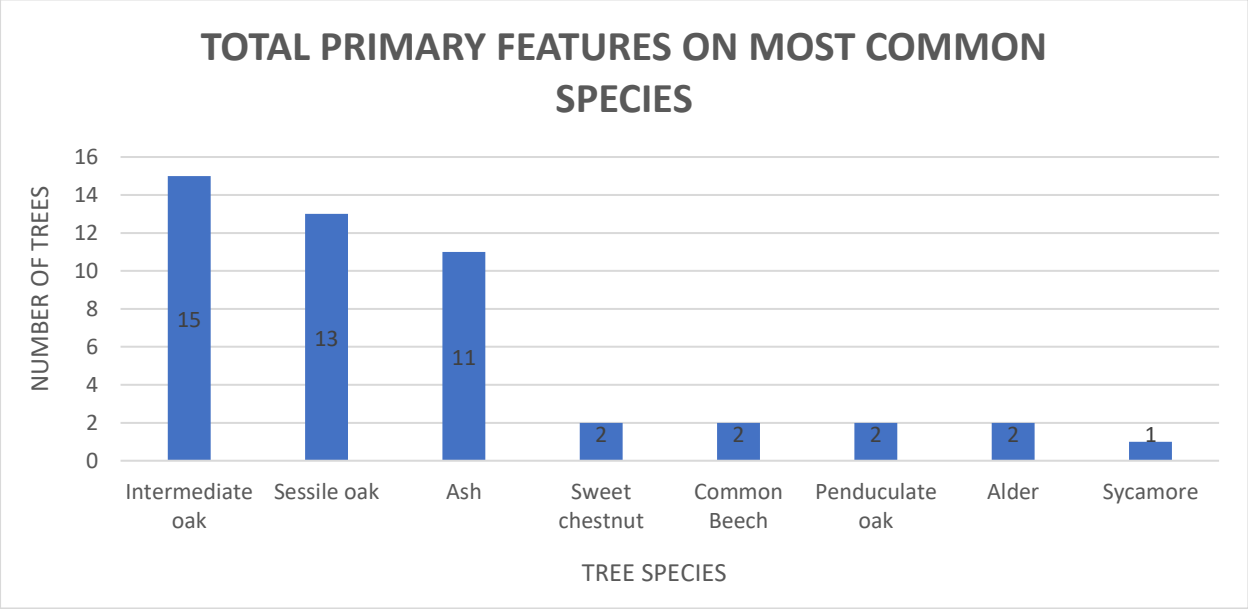


Chart 3: *Total primary features on most common species*

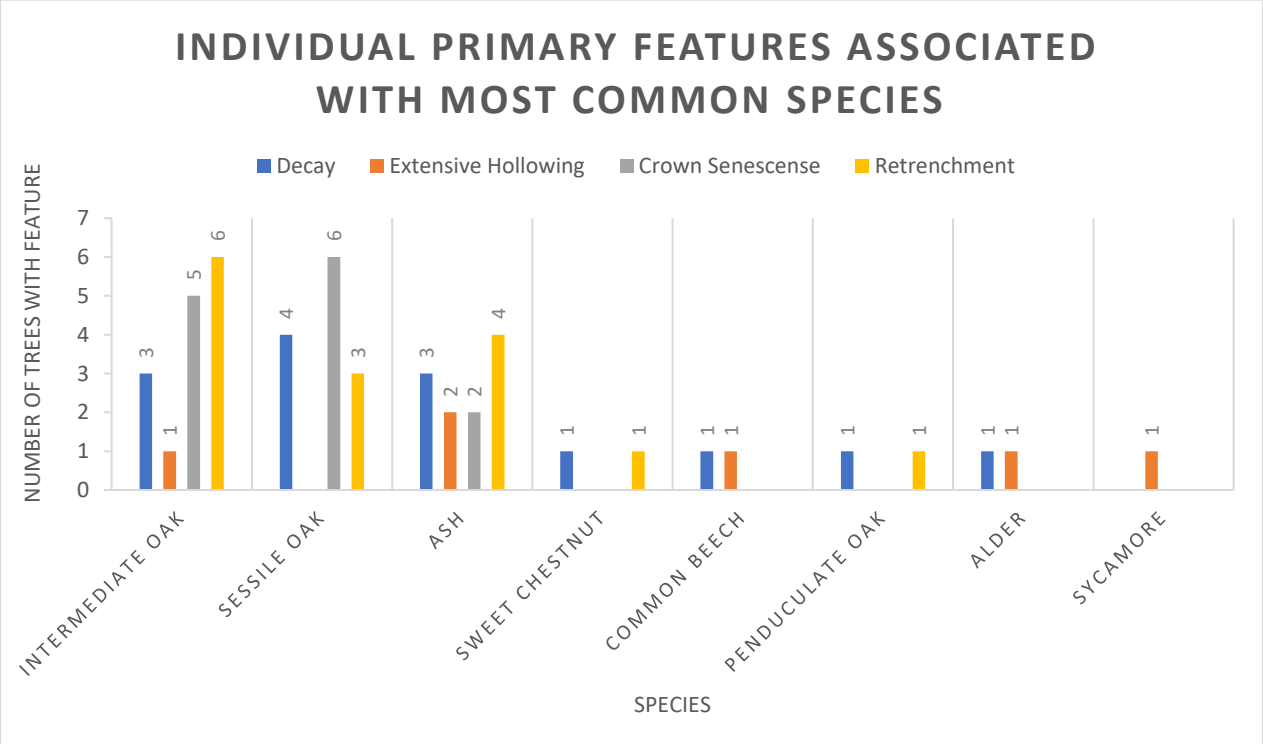


Chart 4: *Individual primary features associated with most common species*

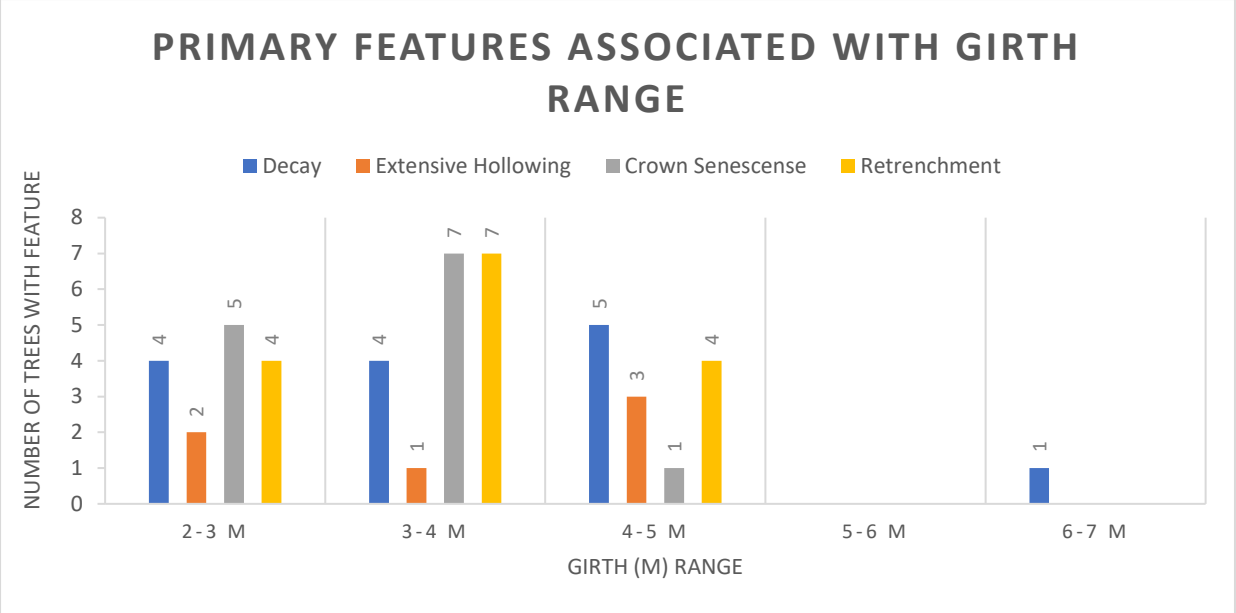


Chart 5: *Primary features associated with girth range*

5.3 SECONDARY FEATURES

The most common secondary feature was epiphytes recorded on 100 trees or nearly 70% of the total. The frequent recording of epiphytes is attributed to the high number of oaks in the survey area and their associated lichen diversity. Habitat spaces (holes/splits/cracks) were very well represented with almost 60% of the surveyed trees having one or more habitat feature. Many of the habitat spaces were hollowed cracks or holes, and consequently potential roost features.

Deadwood was recorded on 51% of the surveyed trees. All the recorded deadwood is attributed to deadwood in the crown. Fallen deadwood on the ground around the tree was not recorded. Typically, a 'yes' count for deadwood accounted for >3 large limbs dead in the crown.

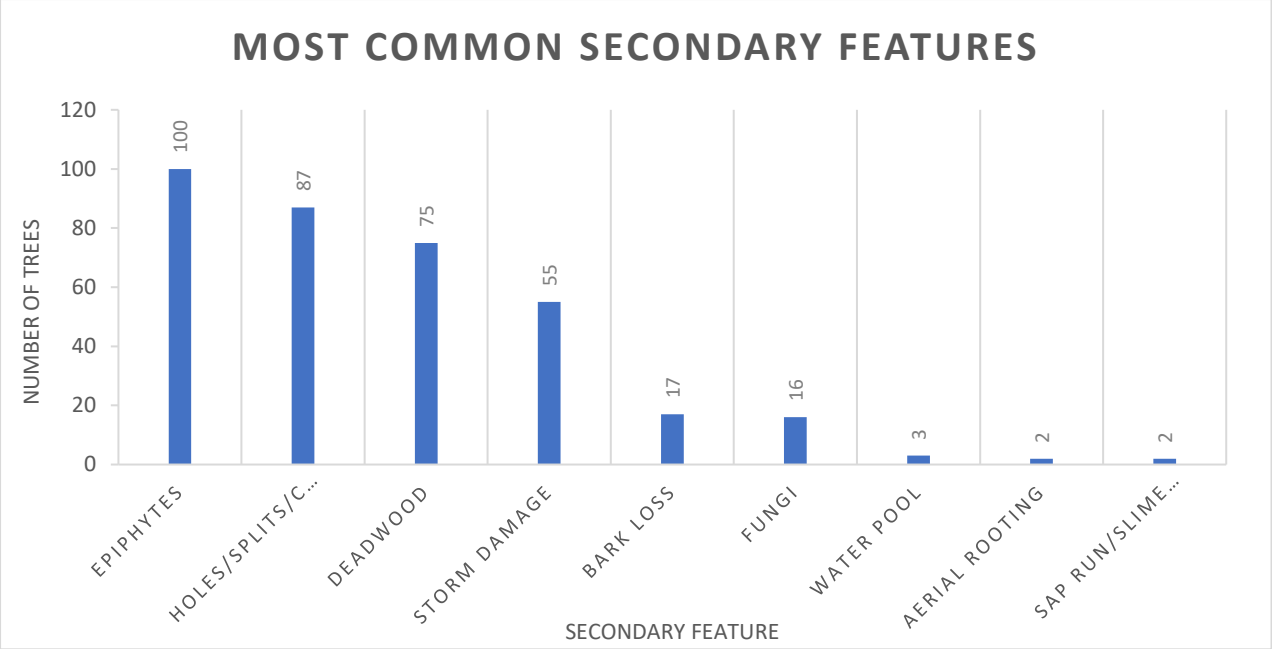


Chart 6: *Most common secondary features*

Epiphytes were recorded on all the sessile oaks. Deadwood and habitat spaces were the next most common features with a high incidence of storm damage also recorded on the sessile species. Two water pools were noted on the sessile oaks and one on a pedunculate oak. Water pools in trees provide a specialist habitat for invertebrate species. Habitat spaces, storm damage and deadwood occurred consistently across the oak species. The three features were also well represented on the ash.

Aerial rooting was one of the least common features. The feature is associated with advanced hollowing. The tissues in the meristematic layer of the tree differentiate to form roots. The roots begin to grow down into the organic substrate produced from the internal decay process. The feature was recorded on one ancient sweet chestnut and an old hollow alder. The alder tree was a particularly good example of an old veteran. The girth of the tree could not be measured due to the presence of heavy epicormic growth but was estimated to be in excess of 2m. There was advanced hollowing in the main trunk, epiphytes and habitat spaces were noted in the crown.

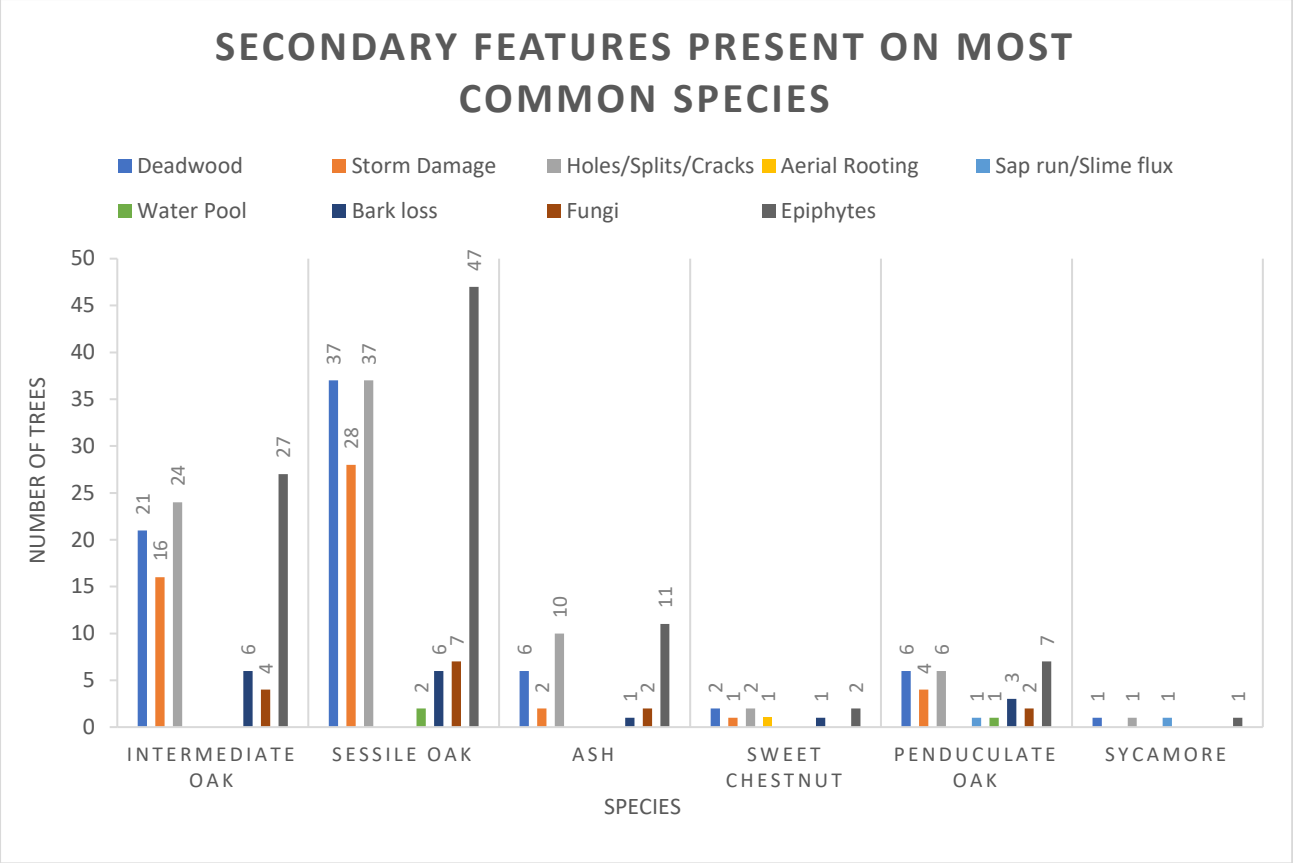


Chart 7: *Secondary features present on most common species*

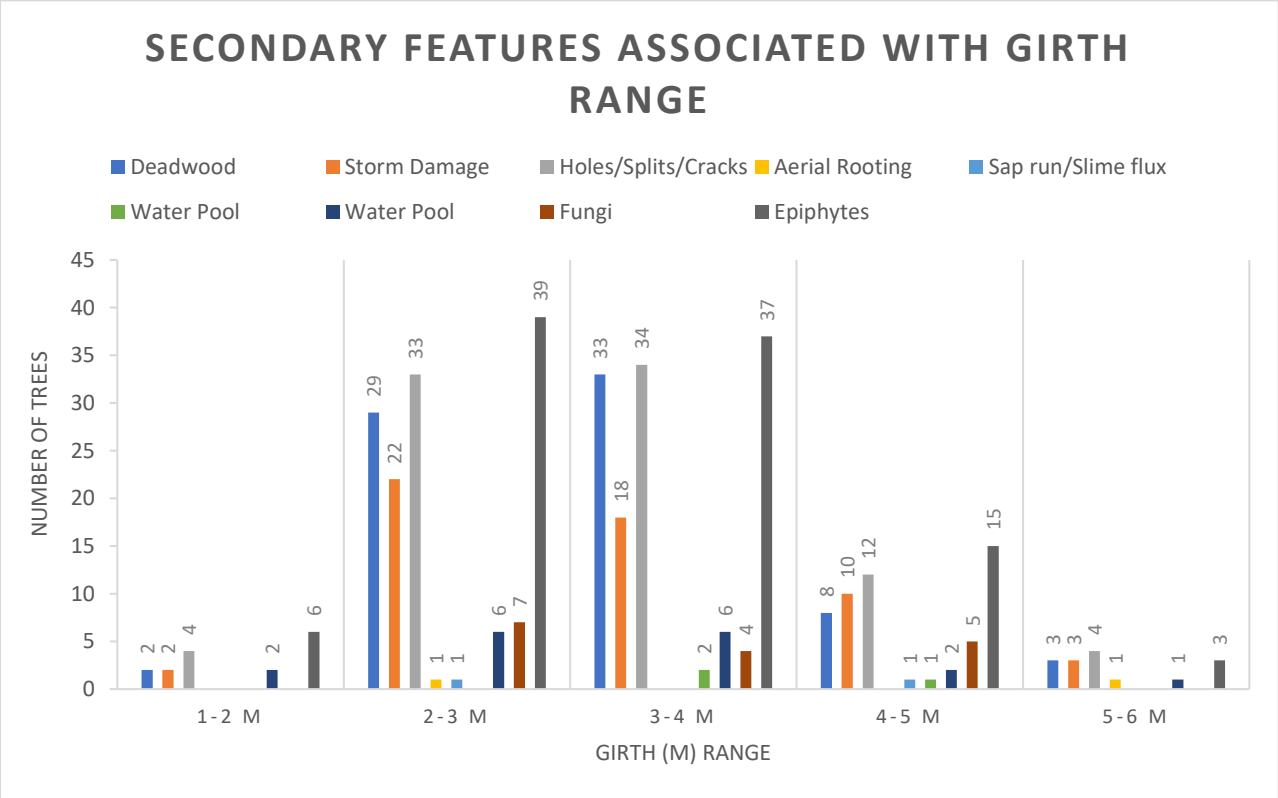


Chart 8: *Secondary features associated with girth range*

5.4 ANCIENT, VETERAN & NOTABLE CLASSIFICATION

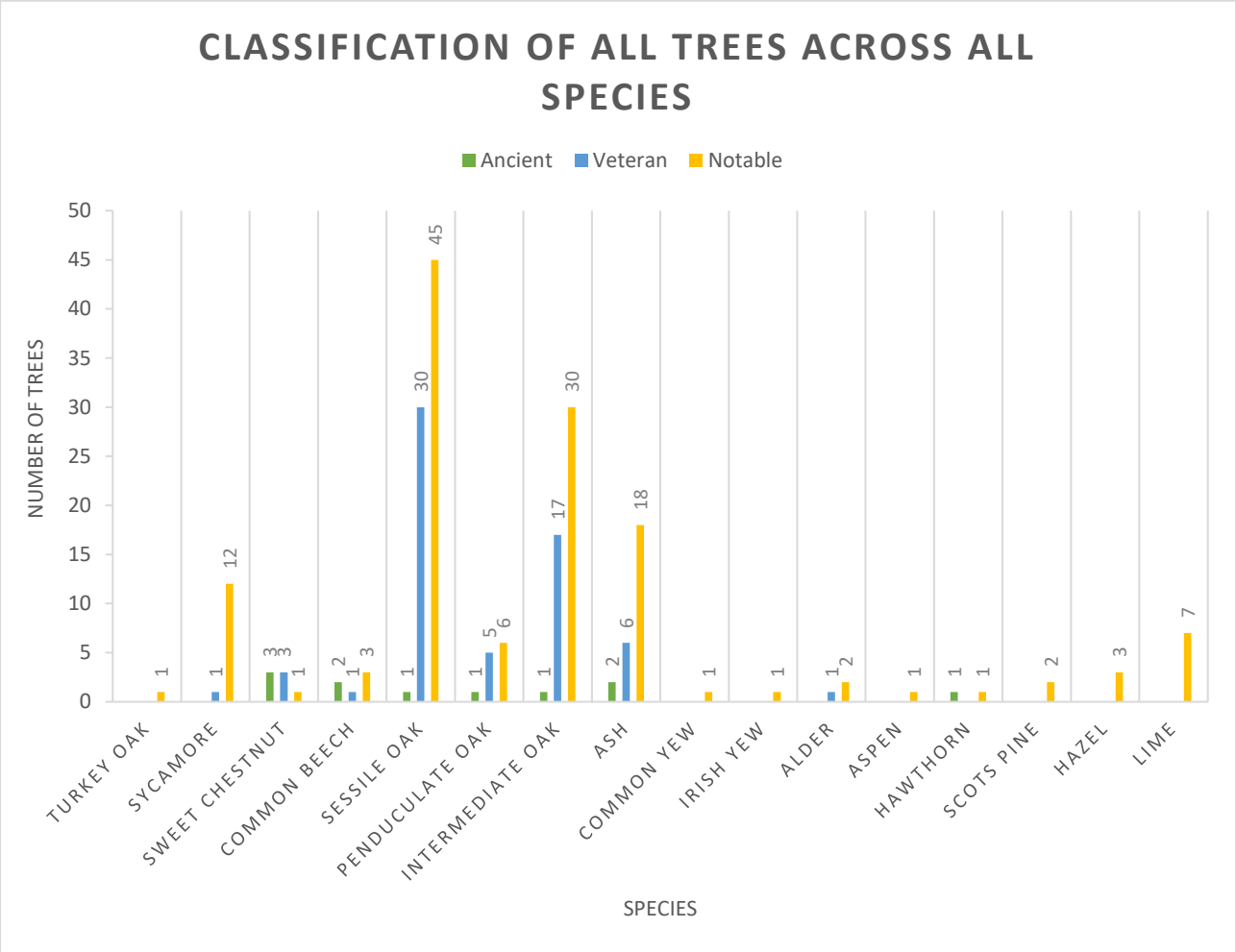


Chart 9: *Classification of all trees across all species*

6. THE TREES

The trees included in the tree survey were predominately located in small clusters of semi-natural woodland. The small groups of trees, mainly oaks, were established on the rock outcrops and the steeper sloping areas around the site. The open grown parkland trees are scattered throughout the site, surrounded by a highly modified landscape. There is a high concentration of old and notable trees along the northern boundary of the site (see map, appendix 1). There are visible gaps in the veteran tree cover in the middle portion of the site and along parts of the southern boundary. Analysis of the girth measurements suggests that there are two distinct establishment periods. The ancient trees surviving from the early 1600's and a distinct cohort of veterans from the late 1700's to the early 1800's. The presence of trees surviving from the early 1600's was confirmed in 2007 by one of the authors. The cross-cutting of an old ash tree uprooted in an earlier storm event (1997) revealed a ring count of 370, suggesting a planting date of 1627.

Figure 5: *Veteran oaks (left: tree no's 140 & 139, right: tree no 127)*

Eleven ancient trees were discovered on the site. Three of these ancients were sweet chestnut with each oak species having one ancient tree. Two of the ash trees on the site were ancient. Tree number 102, an intermediate oak (*Quercus x rosacea)* is estimated to be the oldest tree on the site, around 400yrs old. Tree number 41, a common oak *(Quercus robur)* with a girth measurement of 5m is estimated to be around 300 years old.

The tree is open grown with a large spreading crown and a short wide trunk. Two of the primary features were noted, decay and retrenchment. In addition, the tree scored a 'yes' count on seven of the secondary features. The tree could be considered a 'true ancient veteran' and an excellent representation of the species providing an archetypal example of an old common oak.

Tree numbers 102, and 41 are most likely the oldest trees within the survey area, however, there is another oak (*Quercus robur*) growing on rock on neighbouring agricultural land. The tree has a girth of 6m and is suggested by the authors to be between 450-500 years old. The tree is known locally as the 'Muskerry Oak' and is potentially the oldest oak in the Macroom parish.

The old ash trees on the site exhibited several impressive specimens for the species. Tree number 118 had an estimated height of 30m and a girth of 3.68m. Based on the girth measurement and Lonsdale's (2013) girth chart the tree did not classify as ancient, however four of the secondary features were present resulting in a veteran/notable classification. Visually the tree is very impressive with a clean main stem and an attractive well-proportioned upper crown. There is an ancient ash (tree no 117) located a few metres away. The tree is open grown but has a discreet presence. The girth of the tree was 4.2m, two primary features and three secondary features were recorded. The tree form was an example of a partial natural pollard. Another ash of particular interest is tree number 42. The tree is threatened by mature North American conifers, most likely planted in the early 1970's. The ash tree has a girth of 4.85m, there is extensive hollowing in the main trunk. The tree is a valuable ancient veteran with a high habitat value.

Ninety-six per cent of the surveyed trees were maiden in form. Tree number 5, a sweet chestnut located beside the GAA pitch had an impressive girth measurement of 6.1m. The tree is an ancient veteran and is an example of a natural pollard. Probably the most visually impressive tree on the site is tree number 67, a sessile oak located next to a common yew. The tree form is maiden, the main trunk is straight and clear of lower branches, the large spreading crown has reached near perfection, with faultless crown architecture.

Other notable trees are the open grown limes *(Tilia x europaea)* scattered around the parkland. Each tree has dense epicormic growth around the base and bole of the tree. The crowns are a beautiful shape, with delicate branch structure. The lime trees provide important visual amenity on the site. The dense epicormic growth contributes innumerable habitat spaces around the tree.

Tree number 93 is a 'phoenix' intermediate oak (*Quercus x rosacea).* The tree has been uprooted, presumably from a storm event. Layering has occurred and there is impressive phoenix regeneration on the main trunk. It is elucidated by the authors that the trunk section in contact with the soil layer has differentiated to form a new root system. Phoenix regeneration demonstrates a trees ability to regrow and potentially live indefinitely in ever changing forms.

6.1 THE OAKS

Nearly sixty per cent of the surveyed trees were oak species (86 trees). One turkey oak *(Quercus cerris)*, 47 sessile oak (*Quercus petraea)*, 7 pedunculate oak (*Quercus robur)* and 31 intermediate oak (*Quercus x rosacea)*. The presiding presence of the sessile oak species reflects the status of oak in Ireland, sessile being the dominant species (Kelleher *et al,* 2004). Common oak is Irelands other native oak and is found on lowland lime rich soils with sessile preferring the rocky upland acidic soils (Kelly, 1996).

The intermediate forms of both species are referred to as 'hybrid oak' (*Quercus x rosacea)*, a sub species oak that hybridises and backcrosses with both true species. In the study by Kelleher *et al* (2004), samples were taken from 309 oaks (1595 leaves) from 25 woodland sites in Ireland. Thirty per cent of the oak trees were either true *Q. petraea* or true *Q. robur* with the remaining 70% showing different degrees of hybridisation.

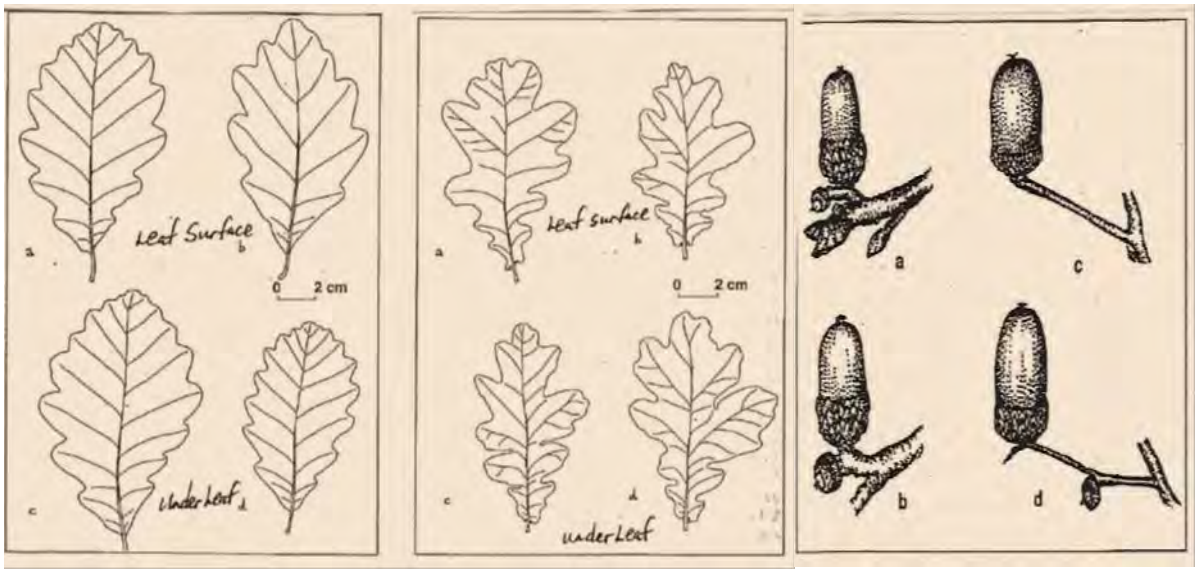


Figure 6*: Image of oak leaves and acorns from both Quercus petraea & Quercus robur*.

Examine the image of the four oak leaves on the far left of the page *(Q. petraea)*. The leaf stalk (petiole) is long, auricles at the leaf base are absent, the leaf is broadest near the middle, and veins to the sinus are absent. The image in the middle *(Q. robur)*, the leaf stalks are short, the auricles at the leaf base are well developed, the leaf is broadest above the middle, and veins to the sinus are present. The image on the far right illustrates the appearance of the fruit structure. Both (a) and (b) are *Q. petraea,* where the peduncle is short or absent, (c) and (d) are *Q. robur* where the peduncle is long and the acorn more elongated.

Identification of the species of oak for this survey was based on observations of leaf morphology, fruit structure and tree form. The image in figure 6 illustrates the pure characteristics of leaf morphology for each oak species. When classifying the 'intermediates' the degree of variation from each extreme influenced the final determination.

Fifty-two of the oak trees were classified as veteran. In the clusters of oak woodland, the combined habitat value was high. Diverse lichen species, ferns, ivy, and bryophytes were observed around the trunk and canopy of individual trees. Many potential roost features were identified. In previous observations of the survey site, it was determined by one of the authors that 6 of the 10 bat species in Ireland hunt, genetically disperse, and exchange within the demesne woodlands. Additionally, long established native trees and woodlands are the preferred summer roosts for many of Irelands bat species.

When measuring the diameter of the oaks and where ivy was present on the main trunk at least 10 nests were discovered at breast height. In the oak woodland in the south western corner of the site a deer lay was discovered, a second deer lay was discovered in a cluster of veteran oak habitat. Red squirrel *(Sciurus vulgaris)* sightings have become a regular and growing occurrence within the demesne boundary.

6.2 'THE DOUBLE RANK'

The Double Rank is an avenue of ancient beech *(Fagus sylvatica)* and notable limes *(Tilia x europaea).* The avenue is located close to the south eastern boundary of the site, near the GAA pitch and is aligned in a slightly south west direction (see map appendix 1). The avenue is labelled TG1 (tree group 1). The original avenue is estimated to be 270m in length, there are 32 trees remaining: 13 beech and 19 limes. The trees were planted in a double alignment hence the name 'Double Rank'. The inner line of trees contains the ancient beech, with the outer line of notable limes from a later planting period.

There are large gaps in the tree cover where old trees have declined over time or have been uprooted by storm events. It is estimated by the authors that the original avenue of beech contained 150 trees, 75 trees on each side of the avenue. The limes were planted at a wider spacing (24ft/7.3m) with an estimated 37 trees on each side or 74 trees in total. There is a clear distinction between the two lines, with the beech trees dating from the early 1700's, and the limes a century later in the early 1800's. Interestingly, the estimated planting dates correspond to the landscape design themes that were prevalent during each century. The planting of avenues was favoured by landscape designers from the early 1600's to the early 1700's. However, they became a distinctly unfashionable landscape feature during the 18th century and remerged in landscape design in the middle of the 19th century. The age profile suggested above is an issue of continuing disagreement between the authors. Further investigation is required to establish a more accurate planting date.

The trees within the avenue were not surveyed on an individual basis, however girth measurements of the beech trees were taken to estimate age. The avenue is a distinct linear feature in the landscape and was treated as a tree group. Most primary and secondary features were recorded within the tree group. The avenue could be described as an ancient veteran landscape feature. The habitat value of the feature is of great interest but in its current condition the aesthetic value is greatly diminished. The avenue has been neglected in recent years, there has been no specialist input and a lack of active management.

Many of the avenue trees are in poor condition and there is a dense covering of self-seeded trees established along the central portion of the feature.

The avenue effect has been lost, diminishing the aesthetic effects of the feature, and devaluing the site and surrounding landscape.

7. CONCLUSIONS

The ancient, veteran, and notable tree interest on the site is of great value to local biodiversity, cultural history, and a resource of public amenity. However, many challenges have presented themselves as result of the tree survey.

The oak woodland in the south western corner of the site 'Mount Hedges Oak Wood' is threatened by the underplanting of western hemlock, a North American conifer species. The hemlocks provide dense shade to the forest floor and threaten to shade large portions of the oak canopy. There is an interesting contrast within the oak wood, the far western portion of the wood was not under planted with hemlock. Within this part of the wood there is an ancient oak, several veterans, and a field layer containing ancient woodland indicator plants. In the eastern compartment where the hemlock is present the field layer is absent, and there are dead oaks trees, presumably as a result of the dense shading from the hemlocks.

The Double Rank is a rare landscape feature, but its current condition does not reflect its cultural status. The feature deserves detailed examination to assess the feasibility of a conservation project to restore its cultural and aesthetic interest.

The trees within the survey area have received very little specialist attention. The site could effectively be described as a heritage site in decline. There is an enticement to enhance the landscape, ensure woodland continuity and create 'future' veteran habitat. The ancient and veteran trees on the site are the remnant features of an historic landscape. Their biological, cultural, and aesthetic interest should be conserved and enhanced.

7.1 SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1) **Detailed assessment of the 'Double Rank'.**
   - **Objectives**
     - Restore avenue effect
     - Potentially plant new trees along the original alignment
     - Re-introduce walkers to the avenue

2) **Detailed assessment of 'Mount Hedges Oak Wood'**
   - **Objectives**
     - Remove western hemlocks in a staged process to lessen the risk of desiccation in the veteran oaks
     - Allow the field layer to recolonise naturally

3) **Halo prune around tree no 67**
   - **Objective**
     - Enhance the visual impact of the tree
     - Tree number 66 (common yew) would also benefit from proposed works

4) **Detailed assessment of the site to potentially establish 'future veterans'**
   - **Objectives**
     - Look for planting opportunities close to existing veteran habitats
     - Assess the landscape for new open grown trees

5) **Assessment of the ancient and veteran ash**
   - **Objective**
     - Release tree numbers T42, T43 & T44 from the North American conifers in a staged approach.

8. REFERENCES

Alexander, K. N. A. & Anderson, R. (2012). *The beetles of decaying wood in Ireland. A provisional annotated checklist of saproxylic Coleoptera.* Irish Wildlife Manuals, No. 65. National Parks and Wildlife Service, Department of the Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Alexander, Keith N., Joe C. E. Hope, Alan Lucas, John P. Smith, and Mark A. Wright (2007). *Wood Pasture and Parkland Scoping Study*. Environment and Heritage Service Research and Development Series. No. 08/01.

Bruce G. Marcot (2017). *Ecosystem Processes Related to Wood Decay*. United States Department of Agriculture.

Fox, H., Cullen, M., Little, D. J., Ciaurriz, P., Ryan, D., Dwyer, R., Boyle G. M. (2001). *Vegetation monitoring and botanical survey of Brackloon Wood, Westport, County Mayo.* Report Number 31, Dublin. Forest Ecosystem Research Group.

Kelleher, C.T., Kelly, Daniel, and Hodkinson, T.R. (2004). *Species status, hybridisation, and geographic distribution of Irish populations of Quercus petraea (Matt) Liebl. and Q. robur L.* Watsonia 25: 83-97.

Kelly, Daniel L. (1996). *A short guide to Irish Oaks.* Department of Botany, Trinity college, University of Dublin.

Rackham, Oliver (2008). *Ancient woodlands: modern threats.* New Phytologist (2008) 180: 571 – 586.

White, John (1998). *Estimating the age of large and veteran trees in Britain.* Forestry commission.

9. FURTHER READING (Historical Text)

Cork County Council (2020). *Archaeological Heritage of Co Cork.* The Heritage Council.

O Corrain, D (2019). *The Early Irish Church and English Invasion.* UCC.

MacCotter, Paul (2013). *A History of the Medieval Diocese of Cloyne.* Columba Press.

Hayes, S (1794). *Management of Woods and Coppices in Irish Demesnes.* Dublin Society.

Jones, M.B. (1987). *Twilight of the Irish Ascendancy.* Constable Publications.

Murphy, D. (1850). *Cromwell in Ireland.* Duffy Publications.

Online resources

www.corkcoco.ie/nature-articles-ted-cook

www.ballingearyhs.com

10. GLOSSARY

Bryophytes: mosses and liverworts, some of which grow on the surfaces of trees.

Cohort: in a population (e.g., trees), a subset or group of a particular origin or age-range.

Epicormic: pertaining to shoots or roots which are initiated on mature woody stems; shoots can form in this way from dormant buds or they can be adventitious.

Epiphyte: an organism (e.g., a lichen, moss, or fern) that lives on the surface of a tree or other plant (adj. *epiphytic)*.

Natural-pollard: maiden type tree with major crown regrowth arising from natural catastrophic damage.

Maiden: a tree grown other than from a coppiced stump and not itself coppiced or pollarded. Free grown with unmodified natural crown.

Multi-stem: trunk naturally divided into two or more principal stems giving the appearance of an integral crown.

Peduncle: a stalked fruit. Narrow tissue by which some larger part or the whole body of an organism is attached. Diagnostic term from botany.

Phoenix: development of a 'new tree' by the layering of one that has fallen or bent down to the ground while remaining rooted.

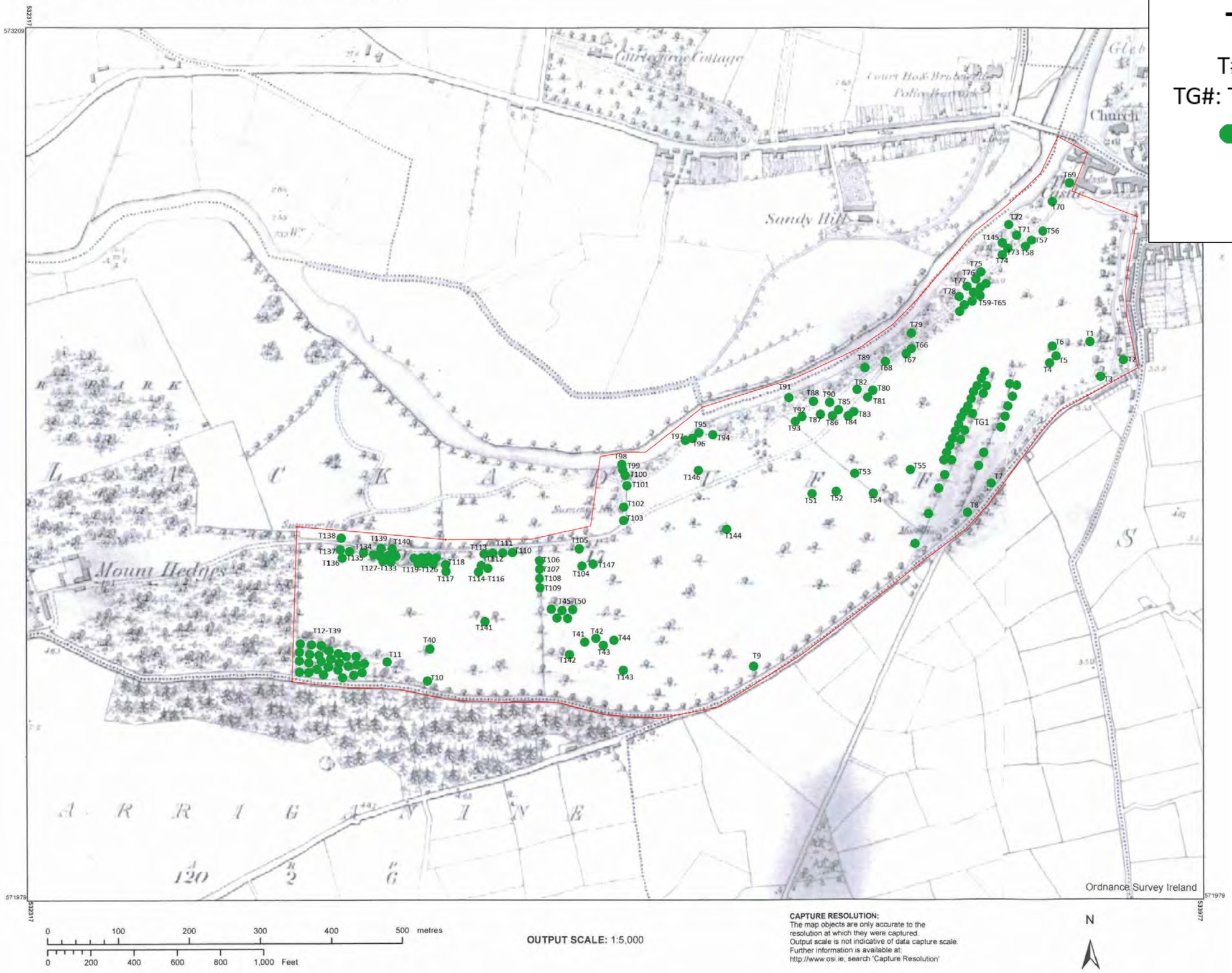
WD1: (mixed) broadleaf woodland.

WD5: scattered trees and parkland.

WN6: wet willow-alder-ash woodland.

APPENDIX 1

1st Edition 6 Inch Historic Map



Tree Map

T#: Tree Number

TG#: Tree Group Number

Tree Symbol

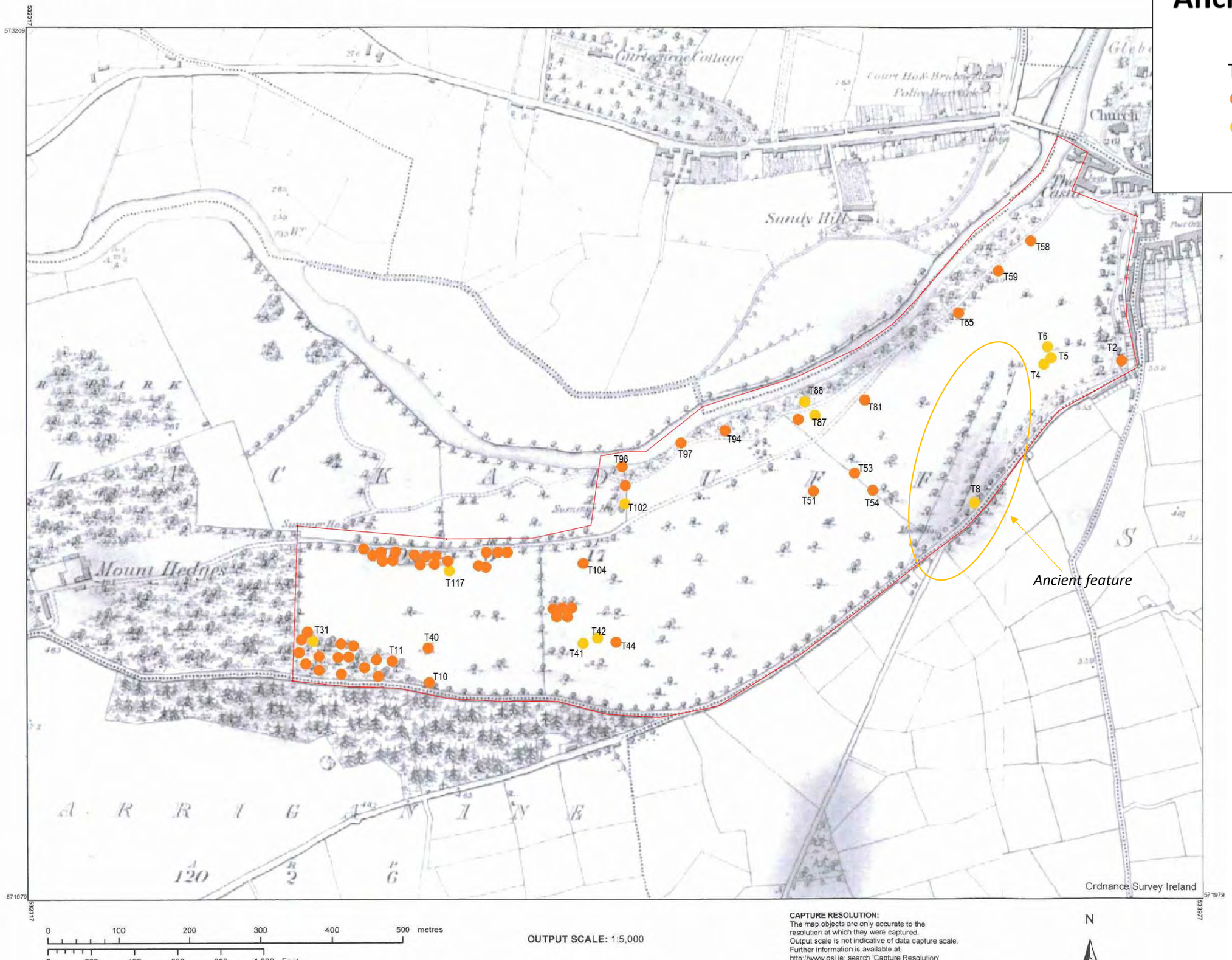
APPENDIX 2

1st Edition 6 Inch Historic Map

Ancient & Veteran Tree Map

T#: Tree Number

- Veteran Tree
- Ancient Tree



0 100 200 300 400 500 metres

0 200 400 600 800 1,000 Feet

OUTPUT SCALE: 1:5,000

CAPTURE RESOLUTION:
The map objects are only accurate to the resolution at which they were captured.
Output scale is not indicative of data capture scale.
Further information is available at:
http://www.osi.ie; search 'Capture Resolution'

N

APPENDIX 3

Recognition of Ancient, Veteran & Notable Trees – ***R A V E N***

Step One—Size Assessment

Tree has very large girth for species
Note—pollarding & senescence reduce stem increment: girth may be deceptive – assess stem girth relationship with life-stage accordingly

Refer to *Ancient and other veteran trees: further guidance on management* (Lonsdale, ATF 2013) at Fig. 1.3: *Chart of girth in relation to age and developmental classification of trees*

IF GIRTH NOT VERY LARGE FOR SPECIES, STOP HERE!

Step Two—Additional Primary Features

At least one of the following should be present, or refer to Step Three

- ☐ Extensive decay, especially brown rot or exposed stem heartwood in relevant species
- ☐ Extensive hollowing
- ☐ Crown senescence
- ☐ Retrenchment

Step Three—Secondary Features

If no additional Primary Feature is present, tree should have at least four Secondary Features

- ☐ Large quantity of dead wood in crown, especially where large-sized
- ☐ Major storm damage/ breakout wounds
- ☐ Habitat spaces: decay holes and/ or crevices/ branch splits sheltered from direct rainfall
- ☐ Aerial rooting
- ☐ Sap run/ slime flux
- ☐ Water pool
- ☐ Bark loss inc. due to lightning strike
- ☐ Fungi
- ☐ Other epiphytic plants, including significant presence of lichens

Step Four – Identification Guide

☐ **ANCIENT**
Veteran tree with extremely large girth: age likely > 50% of estimated species maximum
E.g. pedunculate oak, 2m stem dia, average site: ca. 460 years old, ca. 50% of species max

☐ **VETERAN**
Very large girth for species and qualifies under either Step Two or Step Three

☐ **NOTABLE**
Very large girth for species but does not qualify under either Step Two or Step Three

IF A TARGET IS PRESENT, ASSESS RISK USING *THREATS*

APPENDIX 4

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
1	*Quercus cerris* Turkey Oak	4.15	no	no	no	no	no	yes	no	no	no	no	no	no	yes	no	no	yes
2	*Acer pseudoplatanus* Sycamore	4.07	no	yes	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes
3	*Acer pseudoplatanus* Sycamore	2.9	no	no	no	no	no	no	no	no	yes	no	no	no	no	no	no	yes
4	*Castanea sativa* Sweet chestnut	5.96	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	yes	yes	no
5	*Castanea sativa* Sweet chestnut	6.1	yes	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes	no
6	*Castanea sativa* Sweet chestnut	5.6	no	no	no	no	no	yes	yes	yes	no	no	yes	no	no	yes	yes	no
7	*Acer pseudoplatanus* Sycamore	3.22	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
8	*Fagus sylvatica* Common Beech	4.4	no	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no
9	*Castanea sativa* Sweet chestnut	3.66	no	no	no	yes	yes	no	no	no	no	no	no	no	yes	no	no	yes
10	*Quercus petraea* Sessile oak	2.77	no	no	no	no	yes	yes	yes	no	no	no	no	yes	yes	no	yes	yes
11	*Quercus petraea* Sessile oak	3.73	no	no	no	yes	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
12	*Fagus sylvatica* Common Beech	2.55	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
13	*Quercus robur* Penduculate oak	1.83	no	no	no	no	yes	yes	yes	no	no	no	yes	no	yes	no	yes	yes
14	*Quercus petraea* Sessile oak	2.5	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
15	*Quercus × rosacea* Intermediate oak	2.92	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
16	*Quercus × rosacea* Intermediate oak	2.57	no	no	no	yes	yes	no	yes	no	no	no	no	no	yes	no	no	yes
17	*Quercus petraea* Sessile oak	2	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
18	*Quercus petraea* Sessile oak	3.05	no	no	no	no	yes	no	yes	no	no	no	yes	no	yes	no	yes	yes
19	*Quercus petraea* Sessile oak	3.5	no	no	no	no	yes	no	no	no	no	no	yes	no	yes	no	no	yes
20	*Quercus × rosacea* Intermediate oak	3	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
21	*Quercus petraea* Sessile oak	1.73	no	no	no	no	no	no	yes	no	no	no	yes	no	yes	no	no	yes
22	*Quercus petraea* Sessile oak	2.22	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
23	*Quercus petraea* Sessile oak	2.3	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
24	*Quercus petraea* Sessile oak	2.75	no	no	no	no	yes	no	yes	no	no	no	yes	yes	yes	no	yes	yes
25	*Quercus petraea* Sessile oak	2.7	no	no	yes	no	yes	yes	no	no	no	no	no	no	yes	no	yes	yes
26	*Quercus petraea* Sessile oak	2.12	no	no	no	no	yes	no	yes	no	no	no	yes	no	yes	no	yes	yes
27	*Quercus petraea* Sessile oak	1.6	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
28	*Quercus petraea* Sessile oak	2.31	no	no	no	no	no	yes	yes	no	no	no	no	no	yes	no	no	yes
29	*Quercus petraea* Sessile oak	2.06	yes	no	yes	no	yes	no	yes	no	no	no	yes	yes	yes	no	yes	no
30	*Quercus petraea* Sessile oak	3.2	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
31	*Quercus petraea* Sessile oak	5.55	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	yes	yes	no
32	*Quercus petraea* Sessile oak	3	no	no	no	no	yes	no	yes	no	no	no	no	yes	yes	no	yes	yes
33	*Quercus petraea* Sessile oak	3.85	yes	no	no	no	yes	yes	yes	no	no	no	no	yes	yes	no	yes	yes
34	*Quercus petraea* Sessile oak	2.55	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
35	*Quercus × rosacea* Intermediate oak	2.75	no	no	yes	no	no	yes	no	no	no	no	no	no	yes	no	yes	yes
36	*Quercus petraea* Sessile oak	2.65	no	no	yes	no	yes	yes	no	no	no	no	no	no	yes	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
37	*Quercus petraea* Sessile oak	3	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
38	*Quercus petraea* Sessile oak	2.95	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
39	*Quercus petraea* Sessile oak	2.1	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
40	*Quercus robur* Penduculate oak	3.3	no	no	no	no	yes	yes	yes	no	no	no	yes	no	yes	no	yes	yes
41	*Quercus robur* Penduculate oak	5	yes	no	no	yes	yes	yes	yes	no	yes	no	yes	yes	yes	yes	yes	no
42	*Fraxinus excelsior* Ash	4.85	yes	yes	no	yes	yes	no	yes	no	no	no	yes	no	yes	yes	yes	no
43	*Fraxinus excelsior* Ash	3.75	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
44	*Fraxinus excelsior* Ash	3.05	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
45	*Quercus × rosacea* Intermediate oak	3.25	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
46	*Quercus × rosacea* Intermediate oak	3.35	no	no	yes	yes	yes	no	yes	no	no	no	yes	no	yes	no	yes	yes
47	*Quercus petraea* Sessile oak	3.55	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
48	*Quercus petraea* Sessile oak	3.25	no	no	yes	yes	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
49	*Quercus petraea* Sessile oak	4.4	no	no	no	yes	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
50	*Quercus × rosacea* Intermediate oak	3.35	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
51	*Fraxinus excelsior* Ash	3.52	yes	yes	yes	yes	yes	no	yes	no	no	no	no	yes	yes	no	yes	yes
52	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
53	*Quercus × rosacea* Intermediate oak	3.88	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
54	*Quercus robur* Penduculate oak	4	no	no	no	no	yes	yes	yes	no	no	no	no	yes	yes	no	yes	yes
55	*Quercus × rosacea* Intermediate oak	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
56	*Fraxinus excelsior* Ash	3.91	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes
57	*Fraxinus excelsior* Ash	3.55	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
58	*Fraxinus excelsior* Ash	3.8	no	no	yes	yes	yes	no	yes	no	no	no	no	no	yes	no	yes	yes
59	*Quercus petraea* Sessile oak	4.55	no	no	yes	no	yes	yes	no	no	no	no	no	yes	yes	no	yes	yes
60	*Quercus robur* Penduculate oak	4.1	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes
61	*Quercus petraea* Sessile oak	4.65	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
62	*Acer pseudoplatanus* Sycamore	3.25	no	no	no	no	yes	no	yes	no	no	no	no	no	no	no	no	yes
63	*Quercus × rosacea* Intermediate oak	*2.5	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
64	*Quercus × rosacea* Intermediate oak	2.88	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
65	*Quercus × rosacea* Intermediate oak	4.45	no	no	no	no	no	yes	yes	no	no	no	no	yes	yes	no	yes	yes
66	*Taxus baccata* Common yew	2.64	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
67	*Quercus petraea* Sessile oak	3.9	no	no	no	no	no	no	yes	no	no	yes	no	no	yes	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
68	*Taxus baccata* 'fastigata' Irish yew	4.3	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
69	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
70	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
71	*Alnus glutinosa* Alder	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
72	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
73	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
74	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
75	*Populus Tremula* Aspen	3.76	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
76	*Quercus petraea* Sessile oak	3.12	no	no	no	no	yes	no	no	no	no	no	no	no	yes	no	no	yes
77	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
78	*Quercus × rosacea* Intermediate oak	3.41	no	no	no	no	no	yes	yes	no	no	no	no	no	yes	no	no	yes
79	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
80	*Acer pseudoplatanus* Sycamore	3.2	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	no
81	*Quercus × rosacea* Intermediate oak	2.94	yes	no	no	yes	yes	yes	yes	no	no	no	yes	yes	yes	no	yes	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
82	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
83	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
84	*Crataegus monogyna* Hawthorn	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
85	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
86	*Fagus sylvatica* Common Beech	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
87	*Fagus sylvatica* Common Beech	4.34	yes	yes	no	no	no	no	yes	no	no	no	no	yes	yes	yes	yes	no
88	*Crataegus monogyna* Hawthorn	1.55	no	no	no	no	no	yes	yes	no	no	no	no	no	no	yes	no	no
89	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
90	*Acer pseudoplatanus* Sycamore	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
91	*Quercus × rosacea* Intermediate oak	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
92	*Quercus petraea* Sessile oak	4.2	yes	no	no	no	yes	yes	yes	no	no	yes	no	yes	yes	no	yes	yes
93	*Quercus × rosacea* Intermediate oak	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
94	*Quercus petraea* Sessile oak	3.72	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
95	*Quercus × rosacea* Intermediate oak	*3.70	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
96	*Quercus robur* Penduculate oak	3.67	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
97	*Quercus robur* Penduculate oak	3.55	no	no	no	no	yes	no	yes	no	no	yes	no	no	yes	no	yes	yes
98	*Quercus petraea* Sessile oak	*3	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
99	*Fagus sylvatica* Common Beech	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
100	*Quercus petraea* Sessile oak	4.02	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
101	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
102	*Quercus × rosacea* Intermediate oak	5.84	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	yes	yes	no
103	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
104	*Alnus glutinosa* Alder	*3+	yes	yes	no	no	no	no	yes	yes	no	no	no	no	yes	no	yes	yes
105	*Quercus petraea* Sessile oak	3.1	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
106	*Fraxinus excelsior* Ash	2.6	no	no	no	no	no	no	yes	no	no	no	no	no	yes	no	no	yes
107	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
108	*Fraxinus excelsior* Ash	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
109	*Fraxinus excelsior* Ash	3.4	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
110	*Quercus × rosacea* Intermediate oak	2.2	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
111	*Quercus petraea* Sessile oak	4	yes	no	yes	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
112	*Quercus petraea* Sessile oak	2.45	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
113	*Quercus × rosacea* Intermediate oak	3.27	no	no	yes	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
114	*Quercus × rosacea* Intermediate oak	4.8	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
115	*Quercus × rosacea* Intermediate oak	3.7	yes	no	yes	yes	yes	no	yes	no	no	no	yes	no	yes	no	yes	yes
116	*Quercus × rosacea* Intermediate oak	3.45	no	no	no	no	yes	no	yes	no	no	no	no	no	yes	no	no	yes
117	*Fraxinus excelsior* Ash	4.2	yes	no	no	yes	no	yes	yes	no	no	no	no	no	yes	yes	yes	no
118	*Fraxinus excelsior* Ash	3.68	no	no	no	no	yes	no	yes	no	no	no	no	yes	yes	no	yes	yes
119	*Quercus × rosacea* Intermediate oak	2.83	yes	no	yes	yes	yes	no	yes	no	no	no	yes	yes	yes	no	yes	yes
120	*Quercus petraea* Sessile oak	3.38	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
121	*Quercus petraea* Sessile oak	2.2	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
122	*Quercus petraea* Sessile oak	4.4	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
123	*Quercus × rosacea* Intermediate oak	2.46	no	no	no	no	yes	yes	yes	no	no	no	yes	no	yes	no	yes	yes
124	*Quercus × rosacea* Intermediate oak	2.8	no	yes	no	no	no	yes	yes	no	no	no	no	no	yes	no	yes	yes
125	*Quercus × rosacea* Intermediate oak	3.3	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
126	*Quercus × rosacea* Intermediate oak	2.3	no	no	no	no	yes	yes	no	no	no	no	no	no	yes	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
127	*Quercus × rosacea* Intermediate oak	4	no	no	no	no	yes	yes	yes	no	no	no	yes	no	yes	no	yes	yes
128	*Quercus petraea* Sessile oak	2.15	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
129	*Quercus petraea* Sessile oak	2	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes
130	*Quercus petraea* Sessile oak	1.9	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes
131	*Quercus petraea* Sessile oak	2.3	no	no	no	no	yes	yes	yes	no	no	no	no	no	yes	no	yes	yes
132	*Quercus × rosacea* Intermediate oak	2.17	no	no	no	yes	yes	yes	yes	no	no	no	no	yes	yes	no	yes	yes
133	*Quercus × rosacea* Intermediate oak	2.6	no	no	no	no	yes	no	no	no	no	no	no	no	yes	no	no	yes
134	*Pinus sylvestris* Scots pine	2.15	no	no	no	no	no	yes	yes	no	no	no	no	no	no	no	no	yes
135	*Pinus sylvestris* Scots pine	3.64	no	no	no	no	yes	yes	yes	no	no	no	no	no	no	no	no	yes
136	*Corylus avellana* Hazel	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
137	*Corylus avellana* Hazel	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
138	*Corylus avellana* Hazel	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
139	*Quercus petraea* Sessile oak	2.65	no	no	no	no	no	no	no	no	no	no	no	no	yes	no	no	yes
140	*Quercus petraea* Sessile oak	2.75	no	no	no	no	yes	yes	no	no	no	no	no	no	yes	no	no	yes
141	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
142	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
143	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
144	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes

			Primary Features				Secondary Features									Identification		
Tree No/Tree group no.	Species	Girth (m)	Decay	Extensive Hollowing	Crown Senescense	Retrenchment	Deadwood	Storm Damage	Holes/Splits/ Cracks	Aerial Rooting	Sap run/Slime flux	Water Pool	Bark loss	Fungi	Epiphytes	Ancient	Veteran	Notable
145	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
146	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
147	*Tilia x europaea* Lime	n/a	no	no	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
TG1	*Fagus sylvatica* Common Beech (13 trees)	avg 4m	yes	no	yes	no	yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes	no
TG1	*Tilia x europaea* Lime (19 trees)	avg 2m	no	no	yes	no	yes	yes	yes	no	no	no	yes	yes	yes	no	yes	yes

n/a: Not applicable [I]: Ivy adjustment Est: Girth Estimated

APPENDIX 5


T1


T4


T6
T5


T11


T18


T31


T40


T41


T42


T44


T46


T47


T51


T60


T63


T64


T65


T66


T67

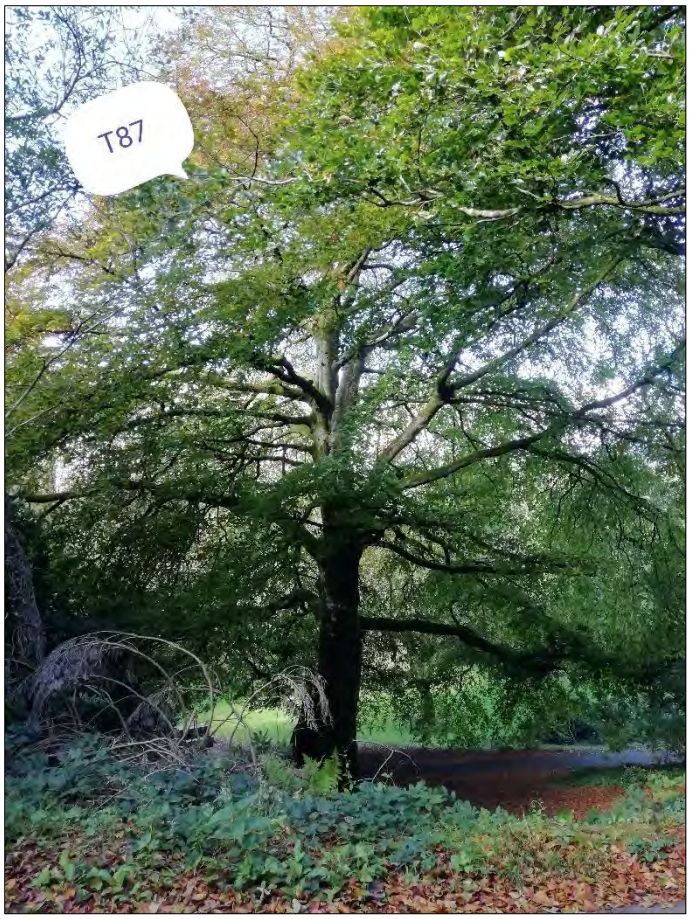

T68


T71


T76


T79


T81


T87


T88


T89

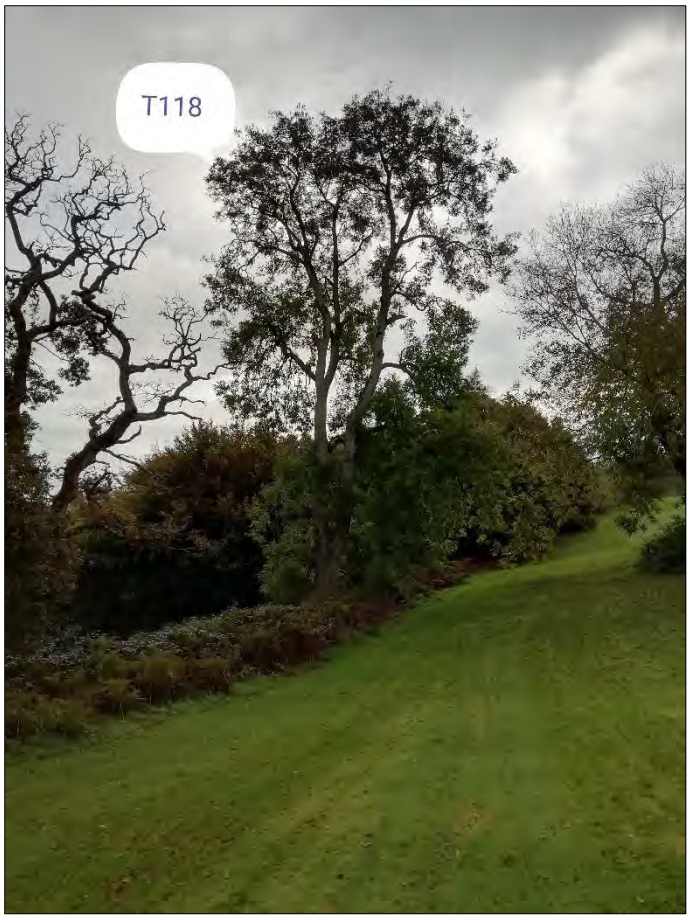

T90


T92


T102


T111


T117


T118


T127


T132


T134


T136


T138


T139
T140


T141


T142


T143


T144


T145


T146


T147


The authors
Conor
Ted

Glengarrif Nature Reserve (S.A.C.)

Equinoctial Field Walk 20th September 2020

Participants convened at our meeting venue (main carpark) at 2:30pm, where our field survey commenced, in keeping with the Covid guidelines for outdoor activities.

Our three and a half hour event centred on gathering Hazelnuts, Acorns and Crab apples – and sharing advice around the practical skills associated with the "cottage" scale propagation of Indigenous Hardwood trees and shrubs. The distinction between "native" and "indigenous was emphasised – imported Belgian Oak plants though described as "native" (and promoted as such) are neither "indigenous" to Ireland nor compatible with Ireland's prevailing Atlantic Oceanic climate. Research (2002, Kelleher et al) tracking the chloroplast DNA of Ireland's aboriginal Oak tree has established that ours was of Iberian/Lusitanian provenance.

Mainland Europe's Oakwoods arrived in post-glacial times from very different "refugia". Remarkably low genetic diversity characterises Ireland's climatic forests. Critically, temperate zone climatic forests, relative to equatorial, tropical or subtropical, are vulnerable to diseases. And while "climate change" has been fingered by our Forest Service for the discovery of the invasive alien Processionary Moth in Oak trees in County Dublin – or Ash Dieback Fungus in our Ash Trees – or Red Band Needle Blight in our Conifers – or "Pseudomonas" Bacteroae in our introduced Horse Chestnut etc., what we witness is no "act of God", but failure to adhere to robust "biosecurity".

In the upriver corner of the carpark, we identified several young Ashes – apparently healthy – and traced the now ubiquitous Chalara Fungus to the "Manchurian Ash" that "jumped" into our European Ash (2009). Encircling a full grown "standing Dead Oak", we recounted the many benefits and eco-services that retained "standing Dead trees" confer on "Old Growth" Forest sites, initiated by Decomposer Fungi – a variety of which may be identified on our specimen "Pillar of Nature".

David (Glengarrif Forest Group) guided us to Hazel grove and its small bounty of nuts – though sufficient for each to take away and share. "Dormancy and the Germination Test" of tree seeds was introduced – and the benefits of "After-Ripening" or dry storage for a few weeks in advance of testing for viability. For Hazelnuts, float the now brown nuts in a basin of water – what sinks contains a fertilised "fruit". What floats, for reasons discussed, will not germinate – but likely contains a nutritious nutmeat. Both Oak and Hazel are strongly "out-breeding" plants i.e. the odds are stacked against "self-fertilisation", generally.

The "Floating Test" is not applicable to acorns. Both "fruits" are placed either in damp sand outdoors (rodent-proof perforated container) or in a sealed container in the fridge. "Stratification" of tree seeds – say 50 to a 3 litre pot of damp sand or 15/20 to a cupsize of damp sand in the fridge, introduces moisture to the dormant embryo. For growing Crab apples, refer to authors article (Tracton Newssheet) in this online series.

As noted during our Spring Equinox walk earlier 2020 along the Glengarrif River at Pooleen Wood, the spacing or equidistance between the ranks of mature Oak remind us that Nature has reclaimed an otherwise "designed" labyrinth of pathways in what was one the private gardens of Jane, Countess of Bantry and hunting venue of gentle menfolk. Wild plants colonise – Woodrush, Wood Violet, Irish Spurge, Saxifrage, Usnea and Lungwort Lichens, Filmy Ferns and those early overlooked Club-Mosses (neither Moss nor Fern), Pigmy survivors of Earth's once towering forests – the dominant feature of the "Coal Measure Period"

Geologists and Astronomers estimate our Earth's solid crust formed two billion years ago – that our first aquatic plants appeared one billion years ago and that (as yielded by rocks) land plants first appeared a half billion years ago. Both Clubmosses (Lycopodophyta) and Horsetails that populated Carboniferous Swamps, though in our day barely discernible in Autumn's leaf litter, cling yet to the permanent dusk of wet hollows.

Though not factoring in the "repayment" to our biosphere of "Respiration CO2, for every unit of CO2 that our natural forests absorb, four units of oxygen are released. Recently the University of Alberta published research into the "increased presence of Protobacteria" found in "Nature" – particularly "Nature Forests, Wetlands, Lakes and Rivers". Professor Kozyrskyj focused on building healthy gut microbial activity in infants that could not be breastfed. Canadian children living close to "Natural Spaces" possess elevated "gut bacteria" in the absence of which may be root causes of Asthma and allergies.

"From our forest comes our lives. She enables us to breathe in long, deep, joyful breaths. Honour her, nurture her, listen to her" (D McKale, 2013).

Wrapping up back at the carpark, each shared their contact details with David (GFG), all signing up to a return "Crinniu" to mark Samhain. Author acknowledges the generous voluntary contributions that were applied to travel and mobile phone use and dinner with Chris McGlennon (driver) in Bantry.

By Ted Cook

Glengarriff Oak Forest (SAC)

Equinox, Sunday. September 20th 2020

Re – Some Explanatory Notes

With reference to those who missed out on our September Forest Walk – be it through authentic Covidian concerns or simply being elsewhere on this day, the following offers some elaboration on the event content.

Tolkien's "Gandalf" reminds us that it is all those little things that each of us can do – and less the great public displays of concern, that fastens the gates of hell.

Author's use of the term "cottage scale" tree propagation was intended to underline the criticality of preserving the genetic character of our respective locales – as distinct from industrial/commercial scale tree production, the bulk of which is undertaken in Britain, Belgium and Holland and imported into Ireland "by the truckload".

For those that missed out on our Autumn Forest Walk, the aboriginal provenance of Ireland's Oakwoods was introduced to participants – and more specifically the results of genetic tracking research by T.C.D and Teagasc published 2002 – lead author D. Kelleher (et al).

As we look around our landscapes we note how few of Co. Cork's mountains reach above 2,000 feet – that the Magillycuddy Reeks and Connemara's Twelve Pins are a rarely encountered feature.

Before the last Ice Age passed, 10,000 years ago, the ice sheets that covered our island lay in depths of 2 kilometres and more – those mountain peaks that protruded the deep freeze offered the only refuge for biodiversity e.g. Mountain Avers, Irish Hare, Lichens and Mosses. The weight of the ice sheet flattened and rounded off our uplands.

The "Arctic" extended south to northern Spain, northern Italy and the Balkans – it snowed day and night and millennia (beyond our comprehension) passed. And then the tricklets of water – in time torrents – global warming, subtle as the growth of a fingernail – glacial meltdown. The Scandinavian "Forest Giant" was retreating through the portals to the north. Always at the ready, the forests advanced from their "refuges" (refugia) within sight and sound of the glaciers to their north.

"Chloroplast DNA" labelling of French and Belgian Oaktrees was published in 1997 – genetic markers were labelled and coded, thus ensuring a scientific framework. At 49 Oakwood sites in Ireland, leaves of both Common and Sessile Oaks were collected (5 specimens per site) – where specimen Oaks were solitary as on Clare Island or in Raheen Woods' solitary Brian Boru tree, the research focused on senile specimens.

"Chlorophyll" (lit. Green Leaf) within plants offers the primary distinguishing feature that marks the Plant from the Animal Kingdom.

“Chloroplasts” are micro-micro molecules – at up to 100 per cell that occupy the surface of leaves. Its capacity to exhale molecular Oxygen when illuminated with the Ultraviolet sunlight and its miraculous ability to transform sunlight into chemical energy with the aid of Carbon gas and water, alone, can be said to have heralded the “Rise of Life” on our once toxic biospheric Earth.

We have 4 genetic populations of Oaktree – pointing to relatively very low genetic diversity – Common Oak Genotype /Haploid 10 and 12, Sessile Oak Genotype/Haploid 10 and 12. These Oak Genes are not found in Continental Europe nor Britain i.e. the Balkans and Italian Oak forest colonised the land mass north, east and west. Genotypes 10, 12, 10, 12 signify Spanish/Portuguese (Iberian/Lusitanian) Oak provenance.

Our researchers mapped the putative path of the Oakwood’s northerly progression to our southern shores – 9,600 years ago (or thereabouts), finding passes in the Western Pyrenees and hugging the “Oceanic” coastline, Haploid Types 10, 12, 10,12 followed the Western Atlantic shoreline of France, turning West North West just tipping Land’s End – and via what extent landbridges/stacks and as yet unsubmerged landforms, the first wave of Oak hit Waterford and Cork coastlines.

Concerning the “anomaly” of sub-pauperate genetic diversity within our far flung and fragmented “Ancient Woodland” pockets, the author needn’t go far – “oversupervision” and “obsession with straight lines”, “paucity of Best Practice”, “collective loss of connection with our Natives#2 – “grabicultive” in a “land of milk and money” -.

By Ted Cook

Heritage Week 2020

Macroom Castlegrounds Demesne, Co Cork

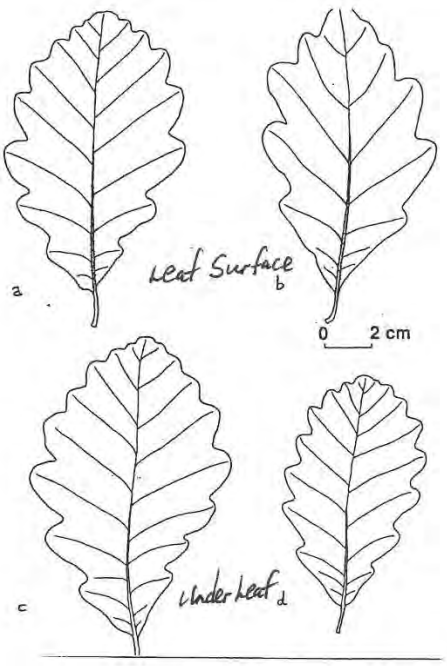
Sunday, August 23rd 2020, 2pm – 4pm

As on the previous day (Broadford), we divided into 'pods' so that adherence to Covid rules be maintained. Author acknowledges Jason McCormick who agreed at short notice to lead half our numbers along the riverside route – the author taking his group along the upper southern terrace by the G.A.A. pitch.

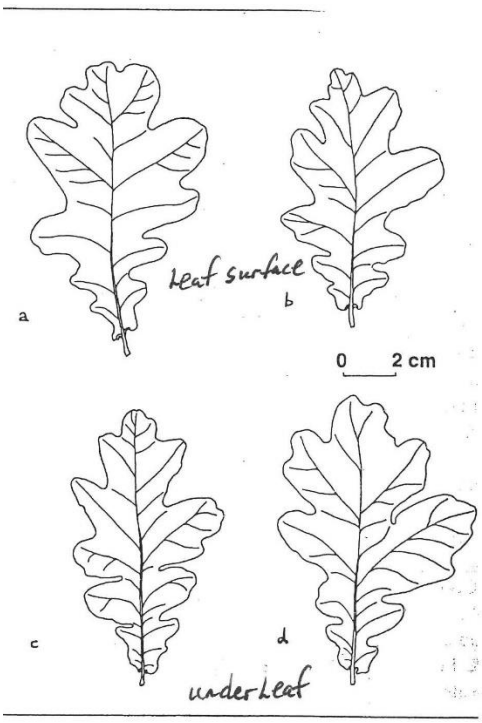
For many of the latter 'pod', this was their first visit to the town and it's medieval park – a busy introduction to the site's history dating from the pre-Norman 'O'Flynn' incumbents through the Plantagenet De Cogans – McCarthys – Cromwellian Penn family and the Williamite Hedges-Eyres (1707 - 1924) and the eventual vesting in Trustees in 1924.

Encountering a mature Ash tree (rear of G.A.A. club) prompts a review of the Ash Dieback pathology from it's discovery in 2009 in Polish Ash Plantations - to its arrival in Co Leitrim in 2012 on batches of imported Ash sapling. Die-back, Deadwood and Disease (the 3x D's) are advanced on this very recently full canopied Ash. The process of Chalara Fugus infection and spread are described, alongside the longer term positive prognosis for Europe's Ash trees posited by the late Dr O Rackham. Seedling resistance (immunity) is estimated at between 2% and 5%. We identify a number of Ash trees along this terrace in full health – and distinguish Male Ash from Female.

A path takes us to the middle terrace below – the above photo records us beneath the far flung boughs of a solitary sessile Oak, hoisting our Heritage Week flag and maintaining the requisite distancing. Earlier, we noted the leaf structure of our other native Oak tree species – the Common (Pedunculate Oak). Below are diagrams of the distinguishing characteristics of both Oak's leafage.



Sessile Oak (*Quercus petraea*)



Common Oak (*Quercus robur*)

We access the riverside terraced walk and proceed upriver by the demesne's solitary native Irish Yew – and a little further on by the veteran Copper Beech.

Our pathway broadens downriver of the town's waterworks where the Sullane (Saile Abhann – Sally River) overflows its stone built banks, forming a species rich marsh of Hemlock, Iris, Water Mint, Horse Tail, Angelica, Ragged Robin, Marsh Woundwort and Purple Loosestrife under a canopy of Water Alder and various Willow/Sally tree species. Local folklore claims this as Ireland's one and only of its 'Male' rivers.

This acre or so of 'Carr' represents what the Sullane would have resembled before it was drained, banked and canalised in the early 18th century – a precious residual Inch (River Meadow) – home to otters, frogs and occasionally mute swans grazing water algae from the scattered hummocks.

A sunny, stony and well drained spot is identified for our traditional Heritage Week tree planting – a first for many of our 'pod'. Though north-facing, only Birches and Bird Cherries at some distance upslope pose shading during Springtime and later Autumn. Native Scots Pine (potted) is our chosen specimen for 2020. Nearby Alders and Whitethorn to its north and southwest make excellent 'Nurse' trees that mitigate the polar 'Wind Chill Factor' albeit they are deciduous but forming dense clumps.

We use the compass to establish our bearings – a prerequisite in planting – well rotted leaf mould and seaweed dust is dug into the well aerated pit – the value of retaining plentiful stones (smaller than small fist size) is shared – 1) ensuring drainage, 2) heat retention and radiation and 3) mineral release.

Developing our theme of plant health, we learn of the first recognition of how trees absorb soil nutrients, by a Polish Botanist who published his research in 1881. Kamienski described what we now understand as 'Mycorrhizal Fungi' that can be observed with the naked eye in the Rhizosphere zone of the actively feeding surface roots of trees.

'Plant Health' foremost derives from the microbial vitality of soil – Organic Growers, on discerning plant deficiencies, rather than reaching for non biological chemicals, build soil with lively compost. Atomic labelling of soil nutrients tracks the fungally metabolised solutions absorbed through the permeable feeding root tip tissues.

Jason's group planted a grafted Crab apple (Var. Knights Templar) – produced and donated to our Community Biodiversity Planting Project within the demesne, by Seed Savers. Knights Templar is a remarkably abundant blossoming Crabapple with elevated nectaries for pollinators. It is planted upwind of a clump of Bramley seedling Appletrees at the western end of our 'Natural Regeneration' plot.

Come 3:50pm, both our 'pods' convened briefly (and within the guidelines) – Geologist Diarmuid Crowley described the origins of the underlying Old Red Sandstone, dating its' sedimentation to a time when Earth's green mantle was still a distant dream. Peter McGinnity, who travelled from Co Cavan for Heritage Week 2020, shared his 'Epiphany' having surfaced from 'Nature Deficit Disorder' in 2018.

Author thanks Tracey for procuring a list of mobile phone details, the owners of which will be texted promptly as soon as this event summary has been uploaded to our Cork County Council Heritage website.

By Ted Cook

Post Notes

When we recall that the Animal Kingdom evolved from the Plant Kingdom's far deeper past, we can identify clear parallels between the micro-world of the animal gut and the microbial life of soil whence plants absorb micro-minerals.

The Father of Modern Medicine Hippocrates (460 - 370 BC) states that "All disease begins in the gut". Professor of Psychiatry Ted Dinan (UCC) in 2018, repeating Hippocrates states "The microbial content in our gut is vital to our health, the decisions we make and our mood".

We are urged to avoid unnecessary use of antibiotics, eat less processed food and build healthy intestinal micro-biota (flora and fauna) by increasing intake of fresh greens, fruit and nuts. The quantity and degree of vitality within our food, and therefore our wellbeing, derives from the health of plants which is predicated on Soil Biodiversity and Rhizosphere efficiency. During this 'World Year of Plant Health', let readers support their local Organic Producers.

Heritage Week 2020

Wildlife Arbortum, Mainsteet, Broadford, Countybound Cork/Limerick

Saturday, August 22nd 2020, (2pm – 4pm)

In keeping with the revised Covid guidelines, our 21st Heritage Week Cruinniú was limited to two groups (pods) of fifteen, including the author and his co-host, Pete Beaumont.

This summary is drafted primarily for the benefit of the many participants whose bookings were declined and for the broader public with an interest in our native trees and woodlands – during this the 'International Year of Plant Health'.

Since its arrival in Ireland (2012), "Ash Dieback Disease" is everywhere evident – as is a growing list of additional forest pathogens affecting our native Alder, Scots Pine, Oak – and commercial introductions including Larch and Sitka Spruce.

Our 2020 theme focuses on what keeps a Tree healthy rather than what makes a Tree sick. Forty years of research confirm that pruning must be avoided when leaves are forming or falling – author's experience suggests (for deciduous) trees that best practice pruning, including crown reduction, is undertaken during full sap flow from mid-June to mid-August.

Wounds (causing rot that offer safe harbour for harmful pathogens) inflicted by lawnmowers, strimmers, salt, herbicides, climbing spikes, fire, cars, bad pruning and deep injection need to be avoided. Dogs' urine costs lives.

Due to the shallow parent soils (clays) that overlie the worked/quarried limestone substration, compaction avoidance at the Arb, since 1998 has remained a priority. Soil compaction is a killer of both the beneficial root fungi that feed within inches of the soil surface and their associated delivery of antibiotics within the Rhisophere – a 2mm zone surrounding the expanding trees' feeding roots. This 2mm zone is now acknowledged as the most biodiverse and dynamic habitat on Earth. Guard it!

Both Pete and the author's pods proceed respectively clockwise and anti-clockwise - swapping our pods near the pond (southwest of the Arb site) at 3pm.

Our Arb with its Limestone floor (c. 30 feet below the adjoining village street) is a veritable 'storage heater' – a micro-climate, more so as the warm rains sweep (c. 3pm), creating elevated humidity and renewed vigilance to 'social distancing'.

'Calcareous Clays' over Limestone geology offer the preferred substrata for our Wych Elm (seed fertile/non suckering), Hazel, our native Wild Cherry trees – (Blackthorn, Bird and Wild Cherry), Common Yew, Spindle, Guilder Rose, Purging and Alder Blackthorns, Ash and Crab apples. Our several specimens of each present 'the perfect copy of their species' – which now offers 'a Provenance Seed Orchard' for the benefit of nearby organics college tree nursery students. Conversely, our sunken grove is a frost pocket come the flight south of our Swallows – and is prone to winter inundations. Arbutus, of Glengarrif provenance, fails at -5^{o}c and Juniper's distaste for wet socks has discounted their presence.

Common Oak, with their preference for basic soils (elevated alkalinity) have established well – The Hole of Oak (Poulnandarraigh) being the ancient place name for Broadford's multiple quarries. Sessile Oaks, within the body of the Arb appear 'chlorotic' – their natural habitat being the free-draining, more acidic airy uplands (Querous Petraea – Rock Oak Petrus).

Our chosen Heritage Week 2020 specimen tree is Scots Pine – author acknowledges Donie O'Brien (Ballyagrann) for donating a vigorous and archtypal Pine tree (potted). 'Pirius Sylvestris' is shade intolerant, preferring dry stony ground – participants check out our site options. When tree planting, we pay careful attention to site preparation – a crucial factor determining long term health.

Pete's pod added a grafted Crab apple (var McGrigor – provenance Tralee) to the south facing verge of an Alder/Birch pocket – a donation from Seed Savers. Earlier (Heritage Week 2016), Seed Savers presented an 'Appletown Wonder' (first identified and named from the townland of Appletown in the adjoining parish of Feohannagh, 1999). This ancient apple variety, believed to have been lost to us, now stands at 3m height on the western embankment by the picnic tables. Grey Willows have arrived of their own accord and occupy the wetter areas – as viewed from the same embankment that overlooks the emergent closing canopy below.

To conclude with an extract from his Agriculture Lecture series (No. 4, 1924) "There is absolutely no line between the life within the plant and the life of its surrounding soil" (Steiner).

By Ted Cook

Community Native Woodland Initiative 1998 – 2020

"Creating Space for Nature to Function" at Broadford, County Limerick/Cork Bounds

Figure 1: Heritage Week 2014.

2020 will mark our 21st consecutive Heritage Week event at Broadford Village "Wildlife Arboretum". A former limestone quarry of c. 1.5 acres with public access opposite the Village Church that had been used as a dumping site for decades, albeit bequeathed under a Will as a playground for the scholars of the then nearby National School on the Village Main Street.

Author was approached by Broadford Community Council in early 1998 and invited to tender a detailed proposal that would guide on a "Best Practice" Project that entailed 1) Earth Education 'for the Primary Scholars' benefit, 2) Community participation and 3) N.E.C. – Not excessively costing.

Approval was prompt – LEADER underwrote to the tune of £8,000.00 for requisite materials and site clearance (undertaken voluntarily by the Community on appointed days) commenced early Autumn 1998.

Project Details

Our "Mission Statement" envisaged the bringing together, within the one site, of the entire assemblage of Ireland's Indigenous (Native) Tree and Shrub Species with the commitment to the sourcing of Local Genetic Material (Provenance) available in North Cork and West Limerick. Adherence to Organic Practices both in the establishment and aftercare (maintenance) phases ensured both safe recreation for scholars and visitors at large – and crucially a welcoming home for Lichens, Liverworts and Mosses.

The partial entrance ramp from the street required upgrading – the "Plan" provided for an exit ramp and installation of an enclosure "post and rail" wooden fence and encircling pathway. Leader funds included "signage" outlay.

The Shanahan family sponsored the Pond feature, commenced 9/11 2001 – picture attached, {*Figure 2*}.

Figure 2: September 11th 2001.

Under the Adult Education Scheme, author facilitated both Spring and Autumn Night Classes "Trees and Woodlands in the Irish Landscape" through 1997 – 2001 at secondary schools in the region – drawing "Life-long Learners" from Tullylease; Newtownshandrum; Milford; Newcastle West; Askeaton; Mallow; Broadford etc. all of whom played their part with segregating the vast waste of discarded tractor parts and cars and heaps of birken tarmac – bottles and glass – corrugated zinc sheets – sileage plastics – corrugate asbestos – the overgrowth of briar and Japanese Knotweed and Giant Hogweed in the attached pictures {*Figures 3 & 4*} mask the rubbish and rubble.

Figure 3

Figure 4

A large quarry pit to the site's southwest, several metres in depth, required backfill – of building rubble – and a 4 foot deep cap of clay soils was spread {*See Figure 5*}. Ramps and railings were placed.

Figure 5: backfill

<u>Late Spring 1999</u>

Soil tests of the shallow clays overlying the weathered limestone bedrock revealed a ph 7.3 and inordinate levels of Manganese and other elements that required attention and amelioration, which determined our species choice for the initial planting phase, scheduled for late Autumn '99 and we rested the site for seven months.

Earlier in May 1997, An t'Uachtarán Mary McAlleese had unveiled a monument in limestone (by local Sculptress Clionna Cussen) of the 17th Century acclaimed Bardic Poet Daithí Ó Brúdair. Author was nominated to represent the nearby Organics College – in attached pic author presents a potted Hazel from the College Nursery, {*Figure 6*}.

Figure 6: Author presenting a potted Hazel from the College Nursery.

Cussen's statuary symbolises the fate of our Oakwoods – their clearances in Elizabethan times forming much of the subject matter of Ó Brúdair's poetry and that of his contemporaries – "….Wildwood, nurse of my childhood – now an exile in Eireann – a stranger at home…." –

Figure 7: Plant/Soil Science Students visit project 2016, Ó'Brúdair Monument – adjacent wildlife arboretum

The picture captures Ó'Brudair emerging from a decapitated Oakwood, {*Figure 7*}. Cussen's theme motivated the "Proposal" for the adjoining dump site – its ancient placename being "Pollnamdarraigh" – "Hole of Oakwood".

Heritage Week (Late August) 1999

In advance of "pit-planting" scheduled for November (individual preparation of sites), we marked the event with the planting, in the centre, of a Hazel – our first tree was planted by Sister Georgina (Clarson), on home leave (to her native Broadford) from her Convent in Serbia/Herzegovina. In the picture Sister Georgina stands next to author, {*Figure 8*}.

Figure 8: The planting of a Hazel tree.

Come November 1999, with the help of the Organics College Students on Work Placement; Broadford's FÁS Team, Adult Education "Life-long Learners" and Scholars attending the Village N.S., we prepared 140 planting sites (of the eventual 330). Seaweed dust containing fast release trace elements – and Calcified Seaweed (slow release) was added to each pit {*See Figure 9*}.

Figure 9: The addition of seaweed dust containing fast release trace elements and Calcified Seaweed to each pit.

Stocks of Alder and Birch trenched, were drawn and planted through December – till April 2000 (see pic of nursery trench, {*Figure 10*}.

Figure 10: Nursery Trench.

Alder fixes Nitrogen and Birch both neutralises ph and stimulates “Mycorhizzae”.

Experience determines that community treeplanting, regardless of scale, be commenced with these two “Nurse” species ideally at 20 – 25% each of the total “Species Ratio” (i.e. certainly on challenging terrains). Note their growth by late July 2000 {*See Figure 11*}.

Figure 11: Alder and Birch, July 2001.

To conclude our first planting season, Scholars planted our endemic Irish Whitebeam to mark their being awarded the Primary Schools Cup for their inputs {*See Figures 12 & 13*}.

Figure 12: Scholars being awarded the Primary Schools Cup.

Figure 13: The endemic Irish Whitebeam.

Come November 2000, T.Y. Classes from Doneraile and Newcastle West spend several hay days planting Hazel; Crabapple and Wych Elm, {*See Figures 14 & 15*}.

Figure 14: T.Y. students planting Hazel; Crab-apple and Wych Elm.

Figure 15: T.Y. students planting Hazel; Crab-apple and Wych Elm.

Planting continued steadily through March and April 2001 – Scots Pines at the upper terrace above the exit ramp – where discarded plastic sileage tarps were pinned down at sites where Japanese Knotweed had persisted, despite continuous manual removal, {*See Figure 16*}.

Figure 16: Chloe, a French student on work experience weighing down the tarp.

A share of Aspen and Common Oak (from College Nursery) were added in April 2001 – and potted Hollies and Yewtrees through the growing months (July/September) {*See Figure 17*}.

Figure 17: Aspen and Oak; July – Sept, 2001.

A number of spaces were preserved for "ceremonial" plantings – during November 2001 (All Souls Day), the Broadford Community Council planted a "Brian Boru" Oak (from Raheen Oakwood, Scarriff, Co. Clare) to mark the Kingship of Ireland by B.B. in 1002 AD – All Souls (Samhain) being the first day of the ancient Irish year.

Figure 18: B.B. Oak, November 1st 2001.

In the previous September (11th), in downpours still recalled, author with local "Trojans" moulded the base for the Pond feature – "11-9-2001" is inscribed on the Pond Shelf.

Figure 19: Heritage Week 2013.

By December 2001, the Pond has filled naturally – locals are planting Grey Willows, {*Figure 20*} –

Figure 20: Participants gather by newly installed pond - planting willows, December 2001.

And by Heritage Week 2013, Duckweed (a major oxygenating plant) and Flag Iris has established – author is introducing a Meadow Sweet plant to visitors (lifted and replanted promptly).

Figure 21: Heritage Week 2013, Meadow Sweet.

Capturing the rate and energy of tree growth, consider in sequence our Heritage Week gatherings –

2007,

Figure 22: Heritage Week 2007.

- 2008,

Figure 23: Heritage Week 2008.

- 2014

Figure 24: Heritage Week 2014.

- 2017

Figure 25: Pond – Heritage Week 2017.

- 2018

Figure 26 Broadford Wildlife Arboretum (West Limerick) - near Tullylease, Saturday August 18th – Heritage Week 2018.

But what criteria and indicators can communities apply in measuring and verifying the success or otherwise of any “Biodiversity” undertaking in their vicinity – be it Parish or Water Catchment?

Author’s “Baseline Record” (1998), compiled with both Plant Science Students; Adult Education Learners and interested R.E.P.S. Farmers, yielded a very short list of those Lichens that tolerate a eutrophied sulphur enriched atmosphere simply “foul smelling”, where hardy resistant exotics (Japanese Knotweed, Giant Hogweed etc.) dominated the site’s vegetation. No fungal Mushrooms were discernible – suggesting “hypoxia” or low oxygen presence.

Gradually, with the build-up of leaf litter (humus/humic acid) and creation of “Eco piles” of twigs and windthrown branches, mushroom species have found perpetual habitat e.g. a troop of Shaggy Ink Cap with Milk Caps Lactarius, {*See Figure 27*}.

Figure 27: Shaggy Ink Cap, Coprinus Comatus. 2014 Broadford.

Figure 28: Brian Boru Oak 2004 - On its 20th birthday

Figure 29: Heritage Week 2009

Liverworts have colonised shaded damp nooks – and mosaics of both Lichens and Mosses festoon many of the trees – more so the Alders. "Zanthoria", the golden crust Lichen that characterised the site – indicative of elevated toxic sulphur – has retreated demonstrably. Six "Hoverfly" species have been identified on site; butterflies include the brimstone drawn to the buckthorns and hungry bumblebees to the early flowering willows; wild and bird cherries and moths to their sibling blackthorns. For more, join us for Heritage Week 2020 – meet at Ó Brúdair Statue Saturday, August 22nd at 2pm.

By Ted Cook July 2020

Heritage Week Project 2020

Community Biodiversity Project 2014-2020 at Macroom Castlegrounds Demesne on a 1.7 Acre Site Following a Larch/Spruce Plantation Clearfell 2013

Following their decision to clearfell the exotic evergreen plantation on a 1.7 acre site in the heart of Macroom's historic Parkland, the Trustees invited a detailed proposal from the author and Conor O'Callaghan - an Arboriculture post graduate studying for his Masters.

In summary, our submission envisaged "Site Restoration" primarily via "Natural Regeneration" – welcoming the pioneering vegetative response after fifty years of dense shading under a commercial forest crop and tree planting of native and locally sourced genetic material, where available. Trustees approval was communicated early March 2014 – in time for National Tree Week 2014 – our inputs would be voluntary and our outlays associated with outsourcing stock and acquisition of tools, soil conditioners (seaweed dust), rabbit guards, bamboo markers, etc. would be borne by Trustees.

Our written Agreement ensured adherence to Organic Practices – not alone because the site drains into the Freshwater Pearl Mussel River Sullane – Primary and Secondary Schools and their respective Special Needs Units would participate in consecutive National Tree Week planting activities – and young and old have supported consecutive National Heritage Weeks 2014-2019.

The attached pictures record the site in March 2014;

Tree Week 2014;

A School Group planting Hazel 2015;

The site the previous November (2014);

T.Y. plant Ash, Tree Week 2015;

We mark the 165th anniversary of Olive, Lady Ardilaun's birth in Macroom Castle on August 25th 2015 with a specimen of her favour Evergreen Oak (*Quercus Ilex*).

A plaque in her honour is erected the same day, adjacent to the site. Olive sold her "old Cork home" to Trustees in 1924 for the benefit of the Townspeople. As a direct descendant of Cormac Láidir McCarthy, Viscount Muskerry of Macroom Castle born 1411 A.D. Olive came from the town's oldest family.

During Easter Week 2016, we mark 1916 with a Sessile Oak specimen –

And a picture from March 2017, in advance of Tree Week captures the emergent Biodiversity and exceptional growth of Downy Birch planted August 2015 by Trustee Miriam Cronin.

Forty helpers planted forty trees – Crabapple; Alder; Aspen; Common Oak; Yew and Holly during Heritage Week 2017 –

The photo records Michael Lucey (88) and Tom O'Flaherty (4 ½).

Earlier in 2017, Jeremy from mid Ulster (an undergraduate Arboriculture Student attending Lancs. U.K. Forestry College) volunteers to help plant an Alder and Hawthorn grove.

We marked Heritage Week 2018 with an Oak planting following a site tour identifying the 24 native tree species.

See “Muskerry Oak 2019” earlier in this online series for our Heritage Week celebration.

Additionally, School and College Groups have assisted author to measure and record several of the veteran trees within the Castlegrounds since the early 1990’s –

Here is a Biology Class re-measuring a Demesne Beechtree

And a Furniture Maker 3rd Year Class from Cork's Coláiste Stiofán Naofa.

Commemorative Yew tree planting on the castle grounds site in 2020. The dense vegetation shows how well the site has developed since 2014

2020 marks the sixth year of this Biodiversity Programme – we missed out on National Tree Week this year because of the then "Epidemic" – but *Deo Volens*, we plan a Community Cruinniú onsite to mark Heritage Week 2020, to mark this the "International Year of Plant Health". Author welcomes all fellow "Lifelong Learners" to observe a Best Practice "Treestoration" model made possible by Nature; the Trustees and Local Community.

Author acknowledges Conor O' Callaghan's commitment during the initial phase and we all wish him well in his professional vocation.

Subject to the continuing "Public Health Measures", author will be onsite at the adjacent Golf Club Carpark, Sunday, August 23rd from 2:00pm.

By Ted Cook

ALDER – tree of the Minane River valley

Alnus glutinosa

As Gaeilge – Fearn and Fearnóg

On your walks, during these winter days of lockdown, you may have noticed the brown hue from the empty cones on the bare canopy of the alder. Look out for the smokey blue/violet buds too.

In addition to giving us the letter 'F' in Ogham and modern Irish, Fearn translates as a 'ship's mast'.

The quite sudden expansion of Alder across north-western Europe, and markedly in Ireland 6,000 years ago, is interpreted by pollen analysts as indicative of a major climate change that has been named The Atlantic Period. It became warmer and wetter. Climatologists predict immanent acceleration of this phenomenon for western Ireland as the Atlantic warms with increased onshore trans-evaporation.

Alder is a moisture-loving native tree. Alongside ash and willow it grows to maturity (c 14 metres high) in humus rich lowland, notably in Tracton along the Minane river. It is wind pollinated, supporting 90 insect species. It is a deciduous conifer – the small brown cones that have ripened in early December scatter their seeds into the watercourses, providing protein rich nutrients for several fish species.

It is also known as the Black Alder (it's charcoal yielded black gunpowder) and Water Alder. This species is unique among Ireland's forest trees in that it is fitted with specialised root bacterial nodules that metabolise atmospheric nitrogen, enriching the surrounding soil.

Its wood, when cut, turns red – likely explaining this tree's description in Celtic Folklore as Warrior of the Woods. In time the strong light timber changes to a pale pink, easily worked by carvers, turners, cabinet makers and whistle makers.

To propagate, pick the cones when ripe, like its family member birch, store whole in a dry shoe-box. Then in late March scatter liberally over seed trays.

Ted Cook

TREE OF NEW BEGINNINGS

Birch – Crann Beit
(*Betula Pendula* and *Betula Pubescens)*

Birch, a popular garden tree and widely seen in Tracton woodlands and elsewhere is invaluable as a support for biodiversity, loved by many bird species and a hosts for a large community of insects and other invertebrates.

Our 'Lady of the Woods' occupies a wider range of soils than any other forest tree and given plenty of light, she cares for little else.

Birch reaches maturity in half a century, reaching 50 feet in height and 3 feet in circumference at shoulder height – her leaves glossy, triangular, with deeply toothed edges on long slender stalks; though on the downy/pubescent form of the birch, the leafage is more rounded with densely hairy leaf stalks and delicate, downy twig tips. The author sides with the school that views our downy as indigenous and our silver birch as an introduced species. Looking forward to sharing the reasons for this on a field outing, hopefully in 2021.

Thirty years ago the Swedish government funded a major forest program to improve it's birch wood resource. Today, Sweden produces and exports globally (IKEA) commercial birch from log to product. Birch will grow on all the sites where Sitka spruce is still being planted in Ireland. Alongside hazel and alder of the same botanical family, it is monoecious (meaning it has flowers of both genders on the same parent plant) and appears as a dark crimson tree throughout winter to early spring – caused by the mature hanging catkins which on inspection are pale brown/purple.

The 'Red Branch Knights' of prehistory, with their martial arts school at Creeve Roe (Irish Craobh Rua) in Armagh, adopted as their symbol the flaming crown of birch. Shakespeare's darkest tragedy, Macbeth, recalls that once common Celtic surname 'McBeith' – Son of the Birch, phonetically Mcbeh – as in Kilbeha or Gortaweha. Birch pioneered the forest advance 9,000 years ago.

Birch's graceful silhouette with gleaming white trunk – 'the birch, she's a dainty lady

– she wears a satin gown' – is home to 167 species of Irish invertebrates and yet offers remedies for rheumatic diseases and congestive conditions. Birch bark worn inside the shoes will at once promote heavy perspiration – and coupled with plentiful rehydration (preferably of fluoride/chlorine-free water), the influenza virus is 'washed out'.

Gather the wind pollenated seeds from November, store dry in a shoebox. Then liberally broadcast on seed trays in late March.

Ted Cook

ASH TREE (PART 2)
Fraxinus excelsior
Crann Fuinnseog

In this year, 2020, International year of Plant Health. the message from the U.N. encourages regional and community plant protection. Here Ted Cook writes about a threat to the health of the ash tree. It would appear that our Irish ash population has some (2%-5%) resistance to it, giving the old ash trees of Tracton a fighting chance.

Ash dieback fungus in 2016 was recorded as being 'only occasionally identified in Britain', yet by November 2019 confirmed infections of ash trees in our neighbouring island's eighty million population (of ash trees) reached 70% in England; 80% in Wales and 20% in Scotland.

Chalara fraxinea for millions of years has lived harmlessly (co-adaptation) on Manchurian Ash in the wildwoods of eastern Russia and western China – not unlike the Corona viruses that have co-evolved within the bat colonies that inhabit the same wildwood in the latter.

Chalara (also named *hymenoscyphus fraxineus*) was first described and recorded in our common European Ash in Polish plantations in late 2009, reaching Co. Leitrim in 2012 on a batch of imported Ash saplings. By 2018, Forestry Minister Andrew Doyle declared that 'chalara control was no longer feasible'. Northern Ireland's ash population has been decimated by 32%.

Old ash trees hold their own for many years before displaying the symptoms of withering of leaflets and leaves that hang rigidly followed by canker formation in the branches and trunk. In response to the

viridiol toxin produced by the lethal fungus, the tree produces new shoots with bunched clusters of leafage, like the *taphrina betulina;* Witches Broom fungus on birch. This condition may indicate drought stress and cannot be identified singly as *chalara.*

The U.N. (I.U.C.N 2018) regards invasive alien species (IAS) as the gravest threat to ecosystem function only after climate change. Of the 955 species (of which 536 are lichens) associated with Irish ash include 50 that are obligate to their host (dependent on Ash for survival).

Globalisation (free movement of genetic plant material) has spread pests and diseases to un-adapted host plant communities – the pathways of which can be broken – more so by our southern and western coastal communities through hygiene (biosecurity) as follows:

1) Monitor your ash trees across the community – report suspect symptoms at once to NPWS (npws.ie).
2) Our forestry service regard ash logs as unlikely to carry disease – brush, however will be infected.
3) At local levels the main pathways are dirty equipment – chainsaws, pruning saws, secateurs, gloves, boots, clothing and soil build-up on vehicles and machinery. Ensure disinfection best practice.
4) Adopt the organic principle of avoiding potted plants – unless from trusted and responsibly biosecure sources.

Like Covid, *chalara* disease requires a minimum volume of spore load (inoculum potential) and while we humans can succeed with strict hygiene in the case of TB, Leprosy and Smallpox, no plant disease has ever been controlled. *Chalara* rarely kills the European Ash – it opens pathways through stress to a host of deadly secondary invaders.

Ted Cook

ASH TREE (Part 1)
(*Fraxinus excelsior*)
Crann Fuinnseog

Another of our native trees, the Ash supports 41 invertebrate species. We invite reader's to take note of some branches where 'keys'(seeds) are set in late Autumn and monitor same for flowers next Spring.
Ash's scientific name translates both the ash tree and javelin (*excelsior*); giving us 'very lofty' or 'sublime'.

The tree of life to the Celt. To the Roman and earlier Greek classical world – 'Venus of the Woods'.

Our ancient Irish Ogham alphabet, rather than A,B,C commenced B,L,N pronounced Beith, Luis, Nin (also Nuin) and giving us the Birch, Rowanberry and Ash. The T.C.D 9th century Brehon Law manuscript records ash as 'Uinnius' and names it among the seven Chieftain Trees – our most commanding of timber trees. It yielded oars, fodder, furniture (when ruling, kings must be seated on a throne of ash), charcoal, hurley sticks, spear shafts, yellow dye and in our day snooker cues.

In our central alkaline rich midlands, ash attains up to 40 metres. Our single most nutrient demanding tree of the forest requires four times more macro-nutrients than our oak. Field guides suggest average ash longevity circa 200 years – author recorded 370 annual rings of an ash blown down during the 1997 Christmas week hurricane in the vicinity of Macroom.

Our most iconic ash grew at Uisneach (centre of Ireland) –

"And it was surely known to you
That here the Ash of Uisneach grew,
The lordliest tree of forest kind
That flung it's boughs to wave on wind,
Counted by chroniclers of kings
Among our Isle's most precious things.
It sprang a seedling on the morn

That Con of the Hundred Fights was born !
And whilst kings reigned from Con descended,
This ash tree grew to stature splendid..."

Ash Tree of Uisneach, penned c 1898

In a 10 year research programme co-funded by the GAA and published in 1996, we learn of an extremely rare 'ecological development' in ash – heretofore understood to be present in separate gender plants – ash branches now bear both male and female flowers; dense purplish clusters that emerge before the foliage. More bafflingly, the same branch can bear male one year and female the following. Science explains it as sexual confusion – living on our little known planet, it would be less unedifying to interpret or describe ash's decisions as 'evolutionary adaptation'.

Like our rowan tree, ash leaves are pinnate – seven pairs of deeply toothed leaflets on a central stem. It's fertilised seeds require two winters to germinate. Our abundance of ash seedlings this spring suggests a 'mast year' in 2018. As EU pressure mounts to clean up our contaminated sites, ash (only after willow) can endure low O_2 conditions, eg planting on capped landfill sites.

Our elders reckoned 'Ash before Oak a summer soak; Oak before Ash a summer splash'. Though carbon concentrations will alter the rate and energy of tree growth, our ash remains the last of our native trees to flush and, traditionally, our first to shed it's pale green canopy.

Ted Cook

SCOTS PINE (*Pinus sylvestris*)
Crann Giúis ("Octach" - Early Irish)

Thank you to Ted Cook for this timely reminder of the medicinal properties and habitat provided by another of our native species and all the more reason to understand and cherish the healing and protection offered by this tree which can be seen in the woodland of Gortigrenane, Tracton.

Hippocrates (born 2480 years ago), the father of modern medicine, prescribed decoctions of the buds of Scots Pine (dark brown to red), picked in springtime together with fresh pine needles (the leaves of the conifer trees) as a remedy for pneumonia and breathlessness. And centuries earlier during the time of the Pharaohs, Egyptian medicine prescribed preparations of the tars, resins and turpentine of Scots Pine for bronchial difficulties.

In her 2019 publication, *To Speak for the Trees,* Diana Beresford-Kroeger describes, very readably, how this tree produces pinene molecules easily absorbed by the surface lining of our lung tissue. Scots Pine is listed in the Brehon Law's Lords of the Forest and was known for its bronchial stimulant and disinfectant potency.

The needles, in bundles of two, are replaced every two years – appearing a glaucous blue in their first season. Gradually the foliage changes to the dark, deep green we are familiar with. Giúis provides habitat for 91 insect species and summer roost sites for out bats.

Scots Pine and Birch forests migrated rapidly across Northern Europe

9,500 years ago, reaching Ireland via land bridges from Scotland before the 'Fast Melt' - while our oak forests' DNA, being genetically identical with the Iberian/Lusitanian Oakwoods, colonised Ireland from the southwest.

Our mild winters yield a coarse grained and softer timber than that produced in the challenging (short summers) and severe Northern European climate. Regardless of provenance, its wood is antiseptic.

Cutting edge research (2018) now reverses the long held scientific presumption that native pinewoods became extinct in c.400 A.D. Stunted, mature *P. sylvestris* and Hazel woodland north of Corofin, Co. Clare and sited on carboniferous limestone, confirms unbroken genetic continuity through pollen analysis (carbon dating) and dates this Rockforest Wood to pre 400 A.D.

Ted Cook

WHITETHORN (HAWTHORN)

Crataegus monogyna – Sceach Gheal

Our bee keepers – author prefers 'bee guardians' – well know the importance of 'May Blossom' for the health and vitality of their queens and hives. This small spiny tree, rarely exceeding 9 metres, is synonomous with our field boundaries and hedgerows since land was plotted out and enclosed under the 1667 Cattle Act and subsequent Enclosure Act of 1730. Verily, Ireland's largest man-made monument – art on a vast scale.

In bygones, our farmers watched this tree they called the 'May' – in flower, the last frost had passed – hence 'caste no clout till the May is out' – time at last to moth ball the woolly *geansaí.*

By late may, Wordsworth's 'sportive lines of woodland run wild' resembles solid linear masses of snow – the 5 white petalled flowers outgassing perfumes as sweet as honeysuckle whose scent follows on in later June. Oddly in wild nature, some May trees choose to switch on a distinctly unpleasant odour (to the human olfactory) – an evolutionary tool perhaps to expand insect diversity and thus secure more effective pollination by its 87 associated insects. Its leaves manufacture a growth hormone for butterflies.

Described by modern medical researchers as 'an ancient medicine', the chemical extracts of our hawthorn will be found in every operating theatre as stand-by vasodilators,that feed our heart muscles.
Crataegus is monoecious – within the flowers the purple tipped stamen (male) sits astride the flowers' stigma (female). Fruits (haws) in the late October sunshine glow with fire.
In Ogham our whitethorn gives us 'huath', the letter H, strongly associated with the supernatural in folklore and myth.
Source your thorns, 'quicks', from nurseries that stock certified Irish provenance.
Make ecology a way of thinking !

Ted Cook

Extra notes of interest by author – Be curious to note if the fragrance of the hawthorn shifts from day-to-day. And in relation to buying from nurseries, non native haw stock can flower 9-15 days too early for several of our native insect species.

Smelling wild flowers is strongly linked to wellbeing in adults. According to a recent study the simple activity of smelling wild flowers is a significant predictor of feeling happy and feeling that life is 'worthwhile'.

Photo options !
Re photos – thanks to Rodney Daunt for !
(1)Photo caption
Sabellaria Reef, Rocky Bay
Description:
An impressive image of a *Sabellaria* reef, the honeycomb-like structure which is the home of a marine worm. It lives in the small tubes made of cemented sand and shells. This and many other curiosities, some very vulnerable, from the diverse habitats of the area are all part of the delight in discovery on the outings of Tracton biodiversity group. tracton.biodiversity@gmail.com

(2)Photo caption
Bracket fungus, Gortigrenane
Description
Something to discover on your foraging walks through the woods, a beautiful sample of the many types of bracket fungi to be found on trees. Some very colourful specimens to be seen, worth noticing the differences between those on different trees and dead tree specimens – the latter teeming with life !

In these days

EVERYONE NEEDS NATURE – ACTIVITIES FOR OUTSIDE

What if it's simple? What if the little things make the biggest difference?

Understandably, a recent survey in the UK points to the positive impacts of nature for people. Nature 'connectedness' and 'noticing nature' are strongly associated with happiness, wellbeing and the feeling that life is worthwhile. It's what you do with your time that makes the critical difference – rather than how much time you spend outdoors. Simple, everyday acts of *noticing* or paying attention to nature and feeling connected . This report reveals that just 19% of children regularly notice wildlife. In the past year 57% of adults rarely or never watched the sunrise. Only 27% frequently watched clouds. Yet these activities are free. They make us feel good.

Noticing nature behaviours:

Watching wildlife (for example bird watching)
Listening to birdsong
Noticing the colours
Walking barefoot outside
Using the senses - smelling, listening, touching (try closing the eyes here !)
Taking a photo/drawing / paint a picture of a plant, flower or animal
Collecting found objects to write a poem or make a piece of art
Picking up some litter, plastic from the beach.
Taking time to notice insects and other tiny things
Watching the sunrise, sunset, the clouds – use imagination here.

UN Year of Plant Health at Seed Savers March 1st 2020

In “The Call of the Forest – The Brian Boru Oak” (refer to January 2019 in this online series), we recounted the planting of a ‘scion’ (graft) of the Brian Boru Oak at Macroom’s Castle Grounds to mark our ‘First Dáil’ on Monday, January 28th, 2019.

The author propagated from seed a share of sapling of this Oaktree in the early 1990’s – by August 1999 the stock, at 5 foot in height, were ready for planting out. Seed Savers offered a site and a public event was diaried for Heritage Week 1999. The accompanying picture records author and a ‘Seed Saver’ and freshly planted sapling between.

As Seed Savers (National Apple Collection Charity) approaches its 30th Anniversary, Sunday March 1st, 2020 was appointed to invite the author back to Capparoe Townland, near Scariff, East Clare, to plant a grafted 'clone' of the Mother Tree at a site adjacent the direct genetic descendant planted in 1999. See accompanying pictures of the group planting. Foundress of Seed Savers Anita Hayes graces both moments.

Seed Savers, allied with its Organic Principles and Practices, epitomises commitment to ‘Plant Health’ – it is appropriate that Ireland’s first ‘Year of Plant Health’ Public Event should be celebrated at Capparoe.

Very careful site preparation was demonstrated in advance of our planting – the turf being pared off in advance of a thorough aeration of the pit wherein was added Seaweed Dust (2 cupfulls). No soil being removed from the pit, the potted specimen Graft was set into a mould (formed by gloved hands) of similar volume to that of the root ball. Participants’ attention was drawn to the ‘Root Collar’ or ‘Tide Mark’ – best practice tree planting ensures that this ‘collar’ remains spirit level with the surface soil encompassing the stem. Firm yet gentle stamping in avoids an anaerobic ‘feeding zone’ – the mycorrhizal nutrient exchange occurs within the upper 8 – 10 inches in the presence of aerated soil.

Following an interactive exchange concerning our current understanding of the functions and benefits of ‘fungal root’ trophism, we approached the now well-established 27 year old ‘Daughter Oak’ planted in 1999. See accompanying pictures on the following page.

Already measuring 12 inches diameter at root collar, with a single braid of ivy climbing the central stem, its lateral crown width is double that of the tree's height – a feature yet discernible in its ancient parent in the nearby Raheen Wood. In the latter, the author reckons that some 'catastrophic breakage' occurred in the 'bole' or trunk, reducing its crown to a massive 'pulpit' – with no less biomass produced by the compensating lateral limbs i.e. the canopy spread likely exceeds what was the 'primary growth' when she stood straight as a spear and tall as a tower in Erin's youthful days.

At the World Plant Health Conference to be held in Finland next October (2020), top of the agenda for discussion – 'How Governments can increase support for National Plant Protection Organisations - our FIRST LINE OF DEFENCE'. The third item on the U.N. Agenda at Finland – 'Plant Health's contribution to Climate Action and the preservation of life'.

Is it not auspicious that Ireland's most iconic Sessile Oak, with direct lineage to the 'Iberian rufugia' whence Ireland's Oakwoods migrated in post-glacial times (Kelleher et al. 2001), should yield a mast of acorns during October 2019, 'not witnessed in living memory'. Eight bucketfulls have been stratified at Capparoe – the plan being to propagate and nurse and in time circulate a most precious Genetic and Cultural resource to every corner of our Five Provinces – that 'Fifth Province' being the 'Province of the Heart' as declared by former president Mary Robinson on her accepting the Seal of Office of An T'Úachtarán.

Thus is Local and National Genetic Character preserved - thus Seed Savers marks its 30th year – and thus quoting Andrew St. Ledger – "CHANGE CLIMATE – FIX OUR FOREST'.

By Ted Cook

MOUNTAIN ASH

(Rowanberry, *Sorbus acuparia*)

'....scarlet berries clot like blood on Mountain Rowan ....'
Suibhne Geilt 634AD

At a pollinator lecture presented by entomologist Ken Bond in Macroom during 2019, the Mountain Rowan ranked top of the list.

Rowan's hardiness and indifference to soil type, it's upswept crown and pungently fragrant creamy flowers likely contributed to this small tree's ranking as 'the most sacred tree' across pre-Christian Europe. It's clustered ruby-red fruits emerging from early August protected against evil – red being the traditional colour to ward off harmful influences. In ogham alphabet, rowan's ancient namewas Luis – giving us the modern letter 'L'.

Modern Gaelic names it Caorthann, as in Drumkerrin or Ballykeerin townlands.

Also known by the names of Quicken; Witchen and Witch Tree (from old English Civic – 'alive or flaming'), our thrush family, including our blackbird, gorge on Rowan's vitamin C rich fruits.

Male and female flowers occur on separate trees.
In Brehon law, 'Cáerthan' is listed fourth in the second class of seven – its tough elastic wood yields a black dye and its fruits produce a sorbose sweetener used in beer, jelly and wine.

Although Rowanberry's leaves suggest the ash tree, the observer who slows doewn will note the division into as many as fifteen slender deeply toothed leaflets, borne on the long feathery leaves that adore full sunlight.

Ted Cook

Whitebeam *(Sorbus Aria)* Crann Fionnchoill
Ted Cook

Likely our rarest, least encountered and taxonomically challenging of our native trees. Some might say Alder Buckthorn or Bird Cherry, both of which are legally protected.

The sudden exodus from Britain in 410AD of the Roman legions opened the gates to a vast immigration of German tribes, predominantly Jutes, Saxons and Angles. Modern spoken English is littered with Teutonic agrarian terminology – dyke, hedge, penn, wych (as in elm), weald (giving us forest and wealth), field, garden, fold and beam.

Beam, signifies 'tree' and with whitebeam's unique, indeed startling foliage that catches the light like metallic silver, our sorbus is aptly named.

Excluding our rowan tree, in Ireland we have 5 indigenous whitebeam species of more shrub than tree, including an endemic and very rare Irish whitebeam, *Sorbus Hyberna*. The ubiquity of whitebeam within our suburban tame and leafy species masks the isolated and widely discontinuous distribution of these 'races' of native trees. One species*, S. Aria* tolerates elevated sulphur / air pollution levels.

When Karl Linné, son of a Swedish cobbler and inventor of our binomial system, published his scheme in 1735, he assigned *S. Aria* to whitebeam – the former being the plant's Latin name, the latter, also whitebeam, deriving from a Latin already archaic in the 5th century.

Dinneen (1927) translates Fionncholl (white hazel) as wych elm – our modern scholars opt for whitebeam – with its very fine grained and heavy wood that furnished our forest forbears with cooking spits of exquisite workmanship – and to accompany the ritual hunt, the plump juicy fruits of the same tree accompanied venison.

All of Ireland's whitebeam species are found on limestone or calcareous clays overlying such 'old bone' geology – Killarney's limey Lough Leane, Passage East's calcium rich deposits, the Burren's interior, Lough Neagh's eastern shoreline etc. – with our finest example of Sorbus forest (with Bird Cherry and Alder Buckthorn and carpeting Toothworth) to be found within Ireland's largest remaining extant ancient woodland at Lough Ree on the Shannon.

A dioecious tree, some form full growth at 1.5 metre but generally reaching 9 metres – the crown unswept – with single simple large leaves with distinctly corrugated veins, 8 or 9 pairs, that flicker their white felted undersides eye-catchingly in the wind. On closer inspection, the white felt presents dense pale brown (hairs) – a strategy to reduce desiccation or moisture loss in the face of water robbing wind, acquired during the 150km per century journey from their refugia in glacial retreat times. Additionally, look out for markedly toothed leaf margins – within mild lobes in some forms.

Loosely clustered pale perfumed flowers that ripen into fruits – rosehip coloured on S. Aria, green-orange on others and green-scarlet on others, dispersed by birds in late autumn.

In France Sorbus had adapted to siliceous / acidic soils, enjoying the company of bilberry.

Likely due to geographical isolation and habitat fragmentation, *S. hyberna* has abandoned sex and perfected the art of apomixes – reproduction without fertilization i.e. progeny being genetically identical clones.

Figure 1: Whitebeam (Sorbus Aria)

The "Silly" Tree

(Salix species)

Ted Cook

Local folk hereabouts in the West Muskerry semi ghaeltacht refer to the Willow (otherwise Sallow or Sally for our purposes) as the "silly" because the "g" in "saillighe" (plural for Saileach) is silenced , our indigenous and naturalised Willows are thus pronounced *as Gaeilge.*

Dr. John Cross (recently retired Chief Scientist, NPWS) identifies four willows native to Ireland – possibly a fifth – Purple Willow that is fully grown at 1.5metres in height. Great; Bay; Goat; and Eared Willows and their indefinitely associated hybrids and subspecies have given the Willow the description of a "promiscuous" tree (Nelson, 1993).

To date, five hundred members of the Salicaceae family have been named and classified – which family includes the fifty Poplar varieties.

Early inhabitants, being a forest people, named the Willows as "Tosach becc" and "luth mela"- the tree of the "bees" and the tree of the "honey". Our Sally Willow sustains 267 wild insects – their nectar abundance in the catkin flowers, provides early carbohydrate for the Honey bees and Bumblebees in March. Willows flower long before their leaves appear – they are deciduous and dioecious – ie the male tree makes the pollen that is transferred by insects and wind to the female partner tree at what can be up to distances of several kilometres, depending on wind direction and temperature.

Brehon Forestry places the Willow in the second of the four Orders of Seven - alongside Aspen, Birch and Alder – all catkin bearing and at home by stream sides, river meadows (Inches) ; flood plains, wet margins and wet heath. When Ogma dreamt his alphabet, he assigned "Sail" to the letter "S".

Salicylic acid, a chemical compound in the bark of Salix sp. Provides the worlds most potent and effective pain reliever, Aspirin.

All current indigenous peoples from the sub-arctic to the tropics know this "medicine tree" - that additionally provided the flexible wattle for house and boat building; scallops for thatching; charcoal and tanning. Willows white timber that is light and never splinters or warps makes top class flooring and basketry in our day.

Our National Emblem – the Harp, was carved from a single block of Willow – the "Brian Boru" harp (c.1330 AD) remains in the safe keeping of TCD. Other Medieval Harps forepillars, were additionally carved from Alderwood, but the sound box was always Willow. Willow roots yield a deep purple dye - leaves fix a cinnamon pigment to both wool and linen.

Through it's tiny seed wisps are easily carried off in spring breeze, their viability (germination potential) lasts a mere 24 hours, hence forbidden from overwhelming landscapes and ecosystems.

"Salire" (Latin for "spring up") quite perfectly describes our Willow – within a few years a bared or bro

wn field site can be utterly colonised by pure Willow (eg. Coillte clearfells) of numerous species.

For novices, all willows possess the same “body language” (morphology) – it is the most “salient” (outstanding / conspicuous) of Irelands 25 indigenous trees and shrubs – hone the eye during March for the emerging “pussy catkins” – and bruise a leaf or two in May and inhale their pungent cleansing fragrance, that varies from tree to tree. “Osiers” are Willow species used by basket makers.

For the author, this fast growing and small tree of marked feminine aspect, from decades of observation and practice, because of it’s unique “ hyper – accumulative” capacities, remains our single most efficient plant in intercepting leachate / runoff form “Grabiculture”, soaking up oil spills and uptaking our heaviest of metals – “Tree of Remediation” abu!

HOLLY (*Ilex aquifolium*)

Thanks to Ted Cook for this reminder to respect this seasonal, native tree.

Originally the 'Holy Tree', our native broadleaved evergreen Holly is listed 3rd in the 'Order of the Seven Chieftain Trees' in our yet surviving 8th and 9th century Brehon Law manuscripts.

Apart from the Holly's discomfort with prolonged frosts, this large shrub is perfectly adapted to Ireland's mild, moist Atlantic climate . It grows fresh foliage every 4th year.

In Europe's oldest alphabet, Ogham, Holly's name was 'Tinne', giving us the letter "T". In modern Gaelic, Holly is 'Cuillean' (and 'Cullean').

It is a dioecious plant, as it has male and female flowers on separate Holly plants during Maytime. Its tiny, fragrant white blossoms open from a purple bud that by late autumn sets bunched green fruits that ripen to scarlet towards Nollaig -winter solstice, borrowed by the Christian World for Christmas. It is worth noting that it is the female holly tree which actually bears these berries.

Holly berries are an important food resource for our thrushes both Song Thrush and Mistle Thrush, and our winter migrant Redwing – reminding us that fado fado (c.60 million years ago) our earliest wild birds co-evolved with our fruiting perennials.

Ancient Forest Law attributes to Holly its value as a 'fodder tree' for livestock – a specialised Holly sickle is described in early Medieval records. The Early Irish used its dense ivory coloured wood for chariot shafts – its unique shock absorbing property provided spokes for the wheels set in Elm hubs.

Likely a relic of the Druidic Physicians, berried holly branches decorated our hearths. Their biochemical aerosols were seen as a potent relief for 'high fevers encountered in bronchitis'.

In her latest publication 'To Speak for the Trees' (Penguin: 2019), Diana Beresford–Kroeger, updates us with new and cutting edge research – latent fungi within the Holly give us a new frontier in cancer treatment.

Let us be frugal then when we take berried Holly home for 'Nollaig'.With our semi natural forests at an all time low coupled with the progressive loss of our 'hedgerow corridors', Holly's critical need to maintain genetic vigour through its male pollen dispersion is threatened.

Our stunning little Holly Blue butterfly is possessed of a future as long as we guard 'The Holy Tree'.

TRACTON NEWS SHEET
VOL 42NO 10 OCTOBER 2019

CRABAPPLE

(*Malus sylvestris*)

Friday September 13th:
Tonight's moon – due to reach fullness about 4a.m. tomorrow morning, to our ancient forebears known as 'Harvest Moon' is the stage of the lunar cycle that corresponds with the Autumn Equinox (September 21st). Our Iron Age ancestors also named it the 'Singing Moon'- probably because the first ripened crop of apples in their time was fermented for cider.
Old Irish abounds with endearing names for trees: the Rowan – Lady of the Mountain; the Hazel – Diviner of Hidden Wisdom and Crabapple – the Tree of Abundance. In Ogham, (old Irish Tree alphabet), 'Aball' (Wild Appletree) gives us the letter A. Brehon Law commentary (c.870 AD) records "Aball" as one of the 'Seven Lords of the Wood' because of it's fruit and bark. Apple tree bark produces a deep yellow dye – occasionally saffron, the latter being in demand as the customary colour worn by the Tanistry class within the clan group.

Crabapple is native to the Irish woodland – having arrived with the hazel, holly, oak and yew in the early post glacial period – the first recorded usage being identified at a Neolithic site in Co.Limerick dating to about 6000 years ago wherein the 'pips' of this very primitive tree species were discovered.

Recent research into the Crabapple genome reveals that the apple has the highest number of genes (at 56,000) of the Plant Kingdom – twice the number of genes in the human genome. Bearing in mind that the Crabapple parents the many domestic varieties, and that the vitamin C content varies hugely between the cultivars (eg. Ribston Pippin has four times the vitamin C concentration of the Golden Delicious), apples teem with ten essential elements including silicon, and calcium and provides, in the form of a readily available solution, vitamins A, B, B_1 and C.

Found in semi - natural Irish woodlands and hedgerows and rarely reaching eight metres in height, our Crabapple presents a low and densely domed crown with twisting spiny twig wood and small fruits occurring in bunches (rarely singly),which are sharp to the taste initially. In a warm dry September the fruits flush with a vivid crimson – as did their perfumed flowers six months earlier.

Such an easy tree to propagate – while preserving local genetic character and ensuring its abundance is spread among its ninety three associated insects. Choose your tree carefully – gather the windfalls and store in a dark, cool and airy space till November. As they brown and ferment, squash the fruits by hand and extract the 'viable' pips (plump). Mix with damp sand (say 100 to a cup size) and place in the fridge in a sealed container. Monitor weekly till they swell and produce a single stout radicle (sprouting root). They are ready to be sown at this point.

Each of us can do our bit to stem the loss of our Earth's 'Natural Wealth'- and ensure a succession of 'Food Trees' within our communities. We would be helping to preserve one of Ireland's earliest 'Forest Fables'- without apples, the gods would grow old and mortal and then where would we be at all at all, aball at all !

PS: Be sure to always leave a share under the tree for the larger mammals that can't climb like the badger and fox and for the queen wasps to top up on sugar, before the swallows fly south and the winds wheel north.

Ted Cook

Curraheen River Field Outing (October 20th, 2019)

(Penned during National Tree Week 2021)

Ever avid to learn more about our River Lee and the scores of watercourses that pay tribute to her, the author at once alluded to a proposal to facilitate a late Autumn Community Field Outing along a stretch of the Curraheen at Bishopstown.

Also known as the Maglen River, Our Curraheen (Curragh – a marshy place) rises southwest of Ballincollig and flows into the Lee's south channel at Cork Greyhound Track.

Our walk (3 hours) commenced from Bishopstown Business Park Carpark at 1pm and proceeded upstream. Our stated aim was Tree and Shrub Identification (I.D.), their respective ecological values – and learning how to propagate from the subject specimen stock.

Access to the riverbank from the carpark is by steep descent along a pathway through recently planted ranks of Sycamore and Maple – the odd veteran surviving Oaktree and Horse Chestnut, suggestive of the once designed sloping landscape, little of which remains.

The watercourse, dredged and canalised in recent centuries, would, as "Curraheen" attests, once have been a sluggish moving swampland many meters higher up the slope – following the path of the glacier that sculpted "Maglan".

Wildsown Alder, Sallies/Willows and Ashtrees, as expected, dominate the riparian alluvial zone. Ash Dieback (Chalara) was identified and described – our deciduous conifer Alder (a rarity in the Plant Kingdom) with is conspicuous smoky blue buds offers healthy specimen stock for propagation. While most tree seed are stored in damp condition during dormancy, Alder and Birch are dry stored till Springtime, in their respective cones and fertilised (catkin) flowers.

We learned to distinguish healthy Alders from those infected by a pathogenic fungus (P alni alni) that had gained foothold across the Upper Lee Basin. Dick Warner (RIP) described this Alder disease in 1990, three years before it was officially identified in England, as a new variant subspecies. We noted three infected Alders.

Grey Willow, of our five known native Willows, is predominant here – with Eared and Goat Willow occasional. The lance-shaped leaved White Willow has been manually stitched in. Several of us, as suggested, carried our secateurs – and we learned the simple skill of taking cuttings – placed promptly in sealed plastic bags, to rest in the lower fridge pending planting.

Author's field notes are vague on "Poplars" – no Aspens are present. Large Black Poplar trees occur on both banks of the river – no saplings were noted. Poplars, as member of the Willow/Sally family, are "monoecious" (female and male trees occur separately). The Curraheen Poplars may lack gender balance. Mature Hawthorn (Maytree/Whitethorn) is widespread on the lower slopes – the Beekeepers among us were quick to praise the "Quicks" (old Saxon name for Haw).

Red Squirrel (a regular sighting in August we learned) have cleared the Hazelnuts – the abundant split shells evidencing their forage. Otters and Kingfishers, according to the locals, are spotted occasionally – otter holts were pointed out to us on the farbank, midway up our one mile transect.

The 2018 prolonged drought we attributed to the many diseased Elms – no native (Wytch) Elm was noted – rather the introduced Common Elm that asexually propagates by underground "sucker", is abundant on the drier slopes. Fresh suckering Elm is widespread.

Our only native evergreen climbing shrub "Ivy" provides the dominant colour during our long dormancy – and of course our Hollies are presumably indigenous here. A handful revealed their gender – many females had been cleaned of their fruits by late October – we spotted Blackbirds and Song Thrushes gorging – in advance of Winter's "Hungry Gap". If left to its own evolution, judging by the emerging field layer of Holly seedling and sapling, in time we can envisage a Hollywood with its many associated and obligate species – e.g., Common Hollyblue Butterfly.

The Group Pic captures us (closer four hours later) as we gather for home – the author's closing remarks echoing Rackham "We are dutybound to bequeath a future to beauty, freedom, wildlife and meaning". Alas, our planned return late Spring botanical recording scheduled 2020 remains on hold.

By Ted Cook

Glengarriff Wood Walk – September 21st 2019

"Where Nature Has Taken Its Own Course"

Glengarriff Forest Group invited the author to facilitate a guided forest walk to mark Autumn Equinox – the following comprises an expanded summary of the three hour event.

"The last one-fifth of one percent of the Ancient Irish woods that survived into the twentieth century has become sought out and coniferised with even more enthusiasm, and with more success than the Woods of England" (Rackham, 1986)

By 1986, fieldwork in Irish woodland history had hardly begun – in 1996, the Chief Scientist of our then Forestry and Wildlife Service admitted that no lists of our semi-natural woodlands existed, with which to compile the requisite Candidate Special Areas of Conservation, identifying Ireland's five native Woodland types that are listed in the E.U. (1992) Habitats Directive.

We noted earlier in this online series, that 'untenanted' lands were compulsorily acquired by the state under the 1923 Land Act and the 1956 Forestry Act – in the former, the Land Commission vested the lands in the Forestry Commission.

Under the 1988 Forestry Act , the entire 'Forest Estate' was vested in Coillte (Irish Forestry Board) – including our very best 'High Ecological Value Old Growth Woods', some of which subsequently were identified and revested in our Wildlife Service. Glengarriff's 'Ancient Woodland' comprising c. 650 acres (S.A.C.), bears the mark of commercial plantation Forestry – Coillte continues to manage circa 60 acres, commercially.

Ancient Woodland

The Native Woodland Survey (Fieldwork) was contracted out to a firm of ecological consultants (B.E.C.) in 2003 – the results being finally published in the 2008 'National Survey of Native Woodlands'. County Cork's thirteen Sites were each assigned a per centage score – Glengarriff achieving 88%.

In the follow up "Ancient and Long Established Woodlands in Ireland" (published by Perrin and Daly, 2010) under the title "A Provisional Inventory", Glengarrif is identified as 'Ancient' i.e. continuously wooded since the year 1600.

It matters not that these Oakwoods and those of the valleys of the nearby Adrigole, Coomhola, Bantry and Roaring Water rivers were chopped in late Elizabethan times to fuel the ironwork furnaces at the mouth of each of these glens. Heaney's 'dark permanence of ancient forms' has repeatedly defied the 'Monarchy of Capitalism' – the Southern Beara aspect being free of sharp extremes of temperature and rainfall, hence the Lusitanian Kerry Slug and Arbutus, indicative of our South Western hyper oceanic climate. The transition from true seaweeds to true land plants – how Earth's first threads of greenery emerged from algal pioneeers is spectacular in these woods, most notably the prevalence of the one celled thick Filmy Ferns that drape the perennially shaded rock faces.

The 31 'Indicator Lichens of Continous Woodland' are present – notably the Lungwort Assemblage. Bat Conservation Ireland confirm several summer roosts of Lesser Horseshoe Bat (detectable after dusk at 103 – 109 frequencies) – now so rare that it is an offence to 'unintentionally' damage or disturb their hibernaculae.

Additionally , these woods are designated a Nature Reserve (1976 Wildlife Act) and Natural Heritage Area (2000 Wildlife Act).

The associated pictures record the exquisite workmanship of what remains of the demesne walls – rising to ten feet in sections along the Northern bounds, to enclose a Deer Park for the recreation of a class that lived in a world of their own. The current owners of the Hunting Lodge date the edifice to 1810, when the Whites of Bantry House were encumbent, described as 'partly resident' landlords.

Richard White (1767 – 1851), First Earl of Bantry, owned the entirety of Beara from Bantry to Castletownbere – formally the homeland of the O'Sullivan 'Lord of Bantry and Beare' until that, the single most critical blow to 'the Old Irish Soul', when Dunboy Castle and 147 defenders faced 5,000 soldiers under General Carew on June 17th, 1602.

Without authorisation or notice, Don Juan del Aguila, Commander of the Spanish troops at Kinsale (January 1602), surrendered the Castles to the Crown forces of Dunboy, Castlehaven and Baltimore. Carew's own account tells us that 'no one man escaped – so obstinate and resolved a defense has never been seen within this Kingdom'. O'Sullivan Beare with 400 fighting men and 600 women and children, on December 31st 1602, began their long march to Breffney (West County Cavan).

Beara Peninsula, partially in County Kerry because when King John in 1210 divided Leinster and Munster into 'Shires' (Counties), themselves representative of ancient native sub-Kingdoms, he divided the O'Sullivan from the O'Donaghue native territories. Based on the Norman Scheme of Colonisation (50% territory to Barons, 25% to the Church, 20% to the King and 5% to native populations), Beara, described in the 9th century as one of the three 'impassable' places in Ireland, enjoyed cultural and religious freedom until Kinsale.

The 'Walls of Beara' were the naturally battlemented mountains and the impenetrable dense Oakwoods – Glengarriff S.A.C. representing the surviving fragments of the latter.

After 1602, Beara was vested in the Crown, until in 1660, the Earl of Anglesey 'scooped' up Beara at 'one penny an acre' under the Cromwellian Settlement. Bankruptcy forced the Earl to sell the bulk of 'O'Sullivan Beare' – between 1738 and 1769, Simon White and his son Richard, between them, laid out £14,000.

Observe the attached picture of a massive Oak Copse with a rootplate of over 7 metre circumference sited near the Demesne wall. Where it stood as a ‘Maiden Oak’ remains one of the Woods’ secrets untold – whether it started as an acorn that held its ground or formed part of the White’s eighteenth century planting cannot be discerned. Oak stools fail to put up new ‘poles’ or ‘springs’ in the shade, suggesting thus that the is perfect copy of a Coppiced Oak is relict of a much earlier forest clearance.

On Saturday March 21st 2020, to mark World Forest Day and National Tree Week, the author, at the Glengarriff Forest Group repeat invitation, invites readers to slow down – meet 11:00 at Poillin (Pooleen) wood, Coilte Carpark – out of Glengarrif to the Kenmare Road (N71) taking second left, sign posted ‘Barley Lake’ and continue two kilometres to Pooleen on your left.

Lets explore Rackham’s introductory statement, the significance for spawning wild salmon of the Freshwater Pearl Mussel, the body language of the Oaktrees, the functions of Fungi and how Geo-diversity is the foundation of local Bio-diversity.

Glengarriff (Ancient Woodland) Walk – Autumn Equinox September 21st 2019

Addendum

Perrin and Daly (2010) in their 'Provisional Inventory' distinguished 'Ancient Woodland' from 'Possible Ancient Woodland' e.g. the Gearagh Alluvial Forest near Macroom is recorded in Perrin as Possible Ancient Woodland.

Gleann Garbh (rough carved glen) topography precluded the 'Iron Plough', thus ensuring forest perpetuity regardless that 'Boyle and White' (adventurers 'come over since the reign of Elizabeth') reduced the forest to charcoal that powered iron works furnaces. Boate (Natural History of Ireland) describes the teams of woodcutters, sawyers, carpenters, smiths, masons, bellow makers, watercourse keepers, basket makers, miners, carriers, colliers, corders, furnace men, refiners, hammerers and unskilled labourers – because the furnaces burnt non stop, day and night, three hundred and sixty five days a year, 'flames could be seen from great distances in the night skies'. One contemporary observer, surprisingly, records that 'the barbarous native Irish want nothing to do with them'!

Because the 'tree line' reaches to 500 feet a.s.l. within our South Western micro-climate (1,000 feet in Killarney), the desolate moorlands to the north, south and east include the townlands of Derreenagarig, Dromidair, Derrynahulla, Derreenathirigy, Derryconnery and placenames that record the once vaste 'Walls of Beara'.

During the siege of Dunboy, Donall Cam O'Súil Amháin (O'Sullivan is named after their mythical pirate king 'One Eye') repaired with four hundred fighting men and six hundred women and children to the safety of another of their ancient castles on the Kerry side of the penninsula – Ardea castle, near Kenmare. Perched on a cliff, Ardea's hidden chambers and tunnels/passages stretch over a mile. It was from Ardea that O'Sullivan lead his band to Leitrim castle in Breffney – described as the second impassable region, the Burren being the third.

One participant queried the absence of young Oaktrees along our chosen transect – and indeed most of the mature Oak seem to date from the latter 1700's and appear evenly aged. In the 1980's, large areas were choked with Rhododendron, Sycamore and wild sown Beechtrees, the intervening clearance of which has opened the undercanopy to Deer that hungrily browse the sapling generation: and these Woods included an enclosed Deer Park during the early nineteenth century (and likely earlier). The 'Hunting Lodge' provided game shooting – thus the gamekeepers shot or trapped predatory birds, resulting in a free for all for wood mice.

An additional pressure in this Nature Reserve – and most visible – is the preponderance of wild sown Western Hemlock emanating from the Coillte Plantation within the reserve – fast growing and shade tolerant without equal.

One option, applied successfully in Killarney National Park, could be the erection of large deer exclosure quadrats in tandem with a regime of manual removal (without the use of poisons) of the Hemlocks.

On a recent return visit with Glengarriff Forest Group volunteers to choose our Tree Week 2020 walking route we envisioned a Community Organic Tree nursery – to share the associated skills and promote universal Mental Health First Aid through the restoration of our relationship with our trees and woodlands.

By Ted Cook

Heritage Week 2019

Warrenscourt Forest – Sunday, August 25th

With Ted Cook

Our fields study of what yet survives of the early 18th century Old Growth woodlands within the ownership of our State Forestry Board (since 1955) at Warrrenscourt, was the 4th of our Heritage Week events in Co. Cork. The previous day we explored St Gobnait's oakwoods, formerly comprising the Colthurst estate and earlierin the week (Sunday, August 18th) visitors encountered the several specimen trees of Macroom demesne – most especially the McCarthy oak, battle scarred yet defiant, in the adjoining Rocborough House property, by kind consent of Mrs. Ellen Twomey.

"Ill fares the land.....Where wealth accumulates and men decay"
(Part 1. Oliver Goldsmith's epic Deserted Village).

On noting the lists of farm tenants in Kilbarry townland as recorded in the mid – 19th century Griffith's valuation, the name Edmond Brady (35 acres) touches a remote chord – the searching and researching yielded the 1977 Law Reform Commission's paper on Common Law Liability for Animals, not consulted since Law school 42 years earlier – and the Brady vs Warren case. The author acknowledges Professor D.G. Morgan (U.C.C. Law Faculty) for providing the full judgement in the 1900 case of Brady vs Warren heard before Lord Justice Fitzgibbon in the Queen's Bench Division of the High Court. John Brady (by now 54 acre farm tenant under Augustus Riversdale Blennerhassett Warren) issued a writ for trespass, negligence and nuisance against his landlord in 1898, the same year Blennerhassett Warren brought his new wife to Warrrenscourt – having obtained an assignment of the demesne from his father Sir. Augustus Riversdale Warren. What Galvin (Kilmurry 1905) so aptly refers to as the 'downward transition' of Muskerry's gentry, may clearly be understood in the detailed judgement.

The demesne comprises 700 acres of which 500 are under both freshwater lakes and mature woodland – the remainder under agriculture, pleasure gardens and a 40 acre walled deer park and substantial rabbit warrens which exported to Manchester, annually, about 4000 rabbits.

Since 1893, when storms blew down part of the deer park enclosure, deer had freely roamed the demesne – but because the demesne walls were crumbling (since 1893), deer and rabbits ran amok as far away as Duniskey.

Brady's oats, corn, turnips, pasture and meadowing were destroyed – twenty deer at any one time trampled his holding, but always returned to the demesne to rest and drop their fawns.

We learned of a deer herd exceeding 80 in number – in evidence their keeper Murphy clearly had lost control and could not verify their number. (Murphy is described as one of the wood rangers). The 4 employees charged with the rabbit warrens had clearly lost control – rabbits bred and burrowed on Brady's holding.

Warren's agent Mr. Carroll, in 1898 offered Brady, as compensation a half years' rent of £8.15 – in response Brady withheld payment of rents for 2 ½ years – and having instructed Michael Purcell, Solicitor, in January 1900, the Plenary Summons was served on the newly incumbent Warren. The case was heard on June 25th 1900 and after following the Lord Justice's directions, the jury found for Brady and damages for both deer and rabbit trespass were awarded against Warren.

The ruling was electrifying – Warren's defense team (2 Queen's counsel and a senior barrister) moved at once to stay the judgement on the grounds of misdirections by Fitzgibbon to the jury. According to the Law reports, the case was listed the same day before three judges of the Queen's Bench Division, wherein we learn more of the delapidated condition of Warrenscourt and the diseased condition of many of the deer, several having deer fluke.

Since Norman times, whence derives Common Law, the courts have distinguished cattle from 'Ferae Naturae' (animals in the wild state) for the purposes of and occupiers liability for animal trespass. 'Cattle' (including heifers, cows, bullocks etc.) also includes pigs, horses, domestic fowl, asses, goats and sheep – i.e. domesticated animals. Strict liability attaches to cattle where they escape and cause injury or damage.

'Ferae Naturae' may move and trespass at will. 'Willed' gives us the origin for 'wild' which the Law ascribes to pigeons, deer, rabbits e.t.c., and Warren's defense team pleaded this. But evidence was adduced that Warren's father (Sir. Augustus was in the habit of hand feeding his deer with laurel and hay – and that the deer always returned to the demesne land).

"*If wild animals have been tamed and they by habit go out and return, fly away and fly back, such as deer, swans, sea fowl, doves and such like, they are ours, so long as they have the disposition to return" the operative word being ours and therefore property* (Gaious Roman Jurist – cited).

Their Lordships unanimously rejected Brady's claim for rabbit damage but on a 2 – 1 majority aproved the jury's award of damages for deer trespass because the deer had been reduced into possession and must therefore be considered cattle.

The successors in title to the Warrenscourt property tell the author that the 6th baronet Blennerhasset Warren had the entire herd of deer shot the very day of the court outcome and his son Sir Augustus George Digby transplanted to India.

"Space for his lakes, park's extended bounds space for his horses, equipage and hounds. The robe that wraps his limbs in silken sloth has robbed the countryside of half its growth –. Thus fares the land by luxury betrayed by nature's simplest charms at first arrayed. But verging to decline, its splendours rise, its vistas sink, its palaces surprise. While scourged by famine from this smiling land, the mournful peasant leads his humble band and while he sinks, without one arm to save, the country blooms – a garden and a grave" (Deserted Village)

<u>Warrenscourt Forest (1955-2019)</u>

As recounted in an earlier online Warrenscourt field outing, the Forestry Commission (of the Department of Lands) acquired substantial acreage of the demesne from the Duggan family in 1955, in advance of the 1956 Forestry Act that extended compulsory acquisition powers to the Forestry Commission. Dermot O'Mahony recalls the crippling rates during the early 1950's levied on untenanted land at £1.00 per day, thus facilitating the expansion of the Conifer Plantation.

Sixty five years in state ownership, we observe scores of 200 plus year old oak trees, like ladies in waiting for the help that never came – overwhelmed by exotic plantations planted within 2 metres of veteran oak trees whose crowns are in premature dieback due to competition for water, air, light and nutrients. Since the 1996 Kelly, Quinn and Bracken research into the acidifying impact of plantations on soil/mycorrhizzae and soil moisture, Coillte, in its 30th anniversary, persists with its widely discredited policy of timber production as the exclusive goal.

The practice of ‘halo of old growth trees’ was described to our 45 or more participants – where the root zones of hardwoods are identified and carefully cleared of competition. ‘Halo’ is thus created to secure a r.p.z. (root protection zone) surrounding the individual tree or grove of target trees. At 80 plantations in England and Wales (since the 1990’s) the use of the halo has rescued some hundreds of thousands of pre-existing pillars of nature from certain premature decay – but subject to 1) the absolute avoidance of compaction within the root zone during site clearance and 2) the avoidance of sudden exposure to both the sun and wind, best achieved by a management plan drawn up and overseen by a qualified arborist, distinct from a forestry graduate.

Our survey wrapped up with a picnic in the upper Coillte carpark and a wide ranging review of our 4 hour tour.

It was universally resolved that the author would represent our determined concern to Dr. Jenni Roche, Wildlife Inspector of Woodlands, Ministers Creed and Doyle and the Forest Service (including the forestry inspector).

By Ted Cook.

NATURE WALK AT MINANE BRIDGE

Sunday July 7th 2019, Tracton Music & Arts Festival

We gathered at Minane carpark (11:30am) in advance of our now 5th consecutive exploration of local nature facilitated by Rodney Daunt and (Macroom based) Ted Cook.

It being their first visit for several of our 45 participants to Minane, Rodney introduced briefly the origins of 'St. Mary Tracton Parish' that comprises Minane Bridge. Deriving from Alba Tractus (Fair Tract) Cistercian Abbey, adjacent, and founded in 1224 by the 'Mac Carty' as a daughter house of Whitland Abbey in Wales, it was supplied with monks from Marydun Abbey in Wales and received Royal Licence from Edward III. Other historical sources attribute this monastery's foundation to the Cambro-Norman De Barrys, which powerful family provided frequently the abbacy for both Whitland and Tracton up to 1494.

One easily envisions this Welsh community of ascetics sailing from Wales in the early 13th Century – being carried by the appropriately swollen tides up to the very bridge whence our field survey commenced. Flat-bottomed Hookers in full sail, plied the south and west seaboards since early Medieval times – Evanson's account from 1819 attests to the Hookers docking at this bridge.

The unique Geological stratae of Ringabella basin, described by O'Reilly (2nd Year doctoral student, UCC) as 'a supreme example to geologists and minerologists' of the hydro-thermalisation under massive pressures and temperatures during the 'mountain-building' epoch that laid down 'very good lead ores' (S. Lewis 1837) and aluminium phosphate – and

that rare and curious compound 'wavelite' (earlier hydrogrellite). Author acknowledges Dr. A. Beese for his notes in advance of July 7th.

With Hookers in dock (and likely present, the pliers of wares associated with 'Lillys of the Alley') we read that what presently comprises Minane's thoroughfare was a single file of 'alehouses' both sides, from the former abbey to the bridge. Lewis recounts 400 plus men employed by an English company to mine Tracton's bounty.

We noted the advancing disease of alder that the author described and interpreted in detail in an earlier TNS (Vol. 41 No. 8, August issue 2018). One of our crinniú remarked that rooks roosting on the mouldering alder trunks at dusk prompted for him an Alfred Hitchcock image. We learned of the deep value to decomposer fungi and bacteria and their associated insecta. Alive and healthy, alder supports 78 insects (species) – Rackham poses that in dead, ancient oaks there may be in excess of 2,000 organisms, many endangered.

We turn for Gortigrenane - the one time 'avenue' to both of the demesnes of Spring Hill and Gortigrenane, lined with the suckering (seed sterile) European elm. (Notes jotted 365 days earlier – 'mild dieback in several / 4 deaths'). No individual elm has escaped the wood-boring Elm Beetle that carries the lethal fungal spores along this c. 1 mile corridor.

Henry Doubleday's adage 'pests and diseases follow families' was appropriately introduced - founding father of modern organic food production (1950's), well knew that to produce safe food for man and beast, the husband man must familiarise with the lifecycles and vulnerabilities of problem insects, vectors and plant pathogens. Pest control without the use of poisons remains a challenge – moreso as the

subtle ravages of climate change impacts resolutely across our planet home.

The chronic droughts give *Scolytus scolytus* (Elm Beetle) the green light – carbon dating of this insect suggests it always kept *Ulmus* (Elm) on it's toes. Elms produce an aerosol that jams the beetle's scent – but also must conserve it's water reserves – death by drought is certain – death by infestation of foliage and trunk is not certain. Because the 'battery' (root system) in many instances survive the catastrophic event, elms can grow new root suckers – but, as explained, our beetle's flight path is normally 26 to 34 feet above ground. Author has noted elm regrowths halting at 22/24 feet, since this disease returned to Ireland with a vengeance in the early 1980's.

One participant describes her family's 'genetic predisposition' to a certain cancer – author volunteered his family 'mutation'. Doubleday's observation is quite universal in Earth nature.

Recalling that it was Dr. Thomas Lovejoy in 1989 coined the word 'bio-diversity' as a 'measure' or 'criteria' to test the 'sustainability' or otherwise of any given development, the author proposed (along our route) that with the passage of decades since the U.N. Convention on Biological Diversity and Sustainable Development (CBDSD) at Rio in 1993 has spawned (wilfully in instances) a severance of Lovejoy's formula – and consequently a distorted planning regime in this and likely all developed states. Ireland signed up to this convention, but the implementation of which remains precarious. It advocated sustainable use of natural resources, in wise management of biodiversity, from which all resources derive.

Out of context, either 'bio-diversity' or 'sustainable development' become attractive 'concepts', unless understood a la Lovejoy. Launching our Planning Act 2000, Minister Noel Dempsey (September 28th 1999) described the 'bill's touchstone – sustainable development through environmental assessment'. (Two decades later the primacy of profit remains yet unbridled, in many planning instances).

We encounter our native hogweed (grown and managed, like nettle, for pigs, in olden times) – it flowers late June to September and is a food plant to scores of insects (butterflies and nocturnal moths etc) – but it's sap, notoriously, can cause severe skin irritation after the skin (primarily in youngsters) is exposed to direct sunlight. We distinguished hogweed (carrot family) from giant hogweed, introduced from S.W. Asia to Ireland during the 1830's. Alongside laurel, Japanese knotweed, Himalayan balsam, and snowberry, giant hogweed (introduced for 'gentrification fashion') poses a very real threat to our river courses and human health.

We recorded and abundance of soft shield fern and Hart's tongue fern – two of Ireland's indigenous (belonging/native) 41 ferns, in addition to epiphytic polypody tree ferns.

Author's antidote for 'plant blindness' is to take time to observe each plant encountered – note it's texture (not hogweed though), smell, plant discipline (structure), habitat, shade tolerance or otherwise, fellow plant species, proximity to the sea (salt), elevation above sea level and crucially the plant's grace and composure.

Our company (over the three hours) also learned, albeit uncomfortably, of the serious and growing pollution by radioactive elements caused by Chernobyl and nuclear testing, accumulated by plants (moreso fungi –

globally acclaimed Mycologist Regis Courtecuisse endorses current advice not to repeatedly consume mushroom based meals).

Rodney recounts the presence of toothwort along our one mile transect – but due to spraying and unseasonal trimming of roadside vegetation, we learn of 20 out of 120 individually flowering *Lathraea squamosa* remaining at three sites in our vicinity. Applying 'Lovejoy', the loss of major indicator plant species at Minane, signals behaviour unbecoming of our species. Toothwort has been profiled in depth in a former TNS by author.

Short of the state forestry (Coillte) entrance, by the Fairy Doctor's Gatelodge, we come upon superior maiden and coppiced oak (the maidens are strongly common or pedunculate in their crown architecture – their presence near or at sea level confirms 'common oak ecology'. A review of the court records for Tracton parish, wherein tenants of estates who planted trees on their holdings were entitled to the value of the eventual timber, subject to their registration, summarily, in court records, yielded an additional tool enabling us to figure the tree's ages. In the townlands of Granig and Isabud, Achilles Daunt planted 187,850 trees in 1830. William Roberts planted 7,520 trees in Kilmoney in 1815 and William Daunt planted 22,000 trees in Spring Hill estate in 1845. Our field study during July 2018, by kind permission, took us through Spring Hill's mature woodland – evidently leased to William Daunt. Landowners did not register their plantings.

Our walk was co-facilitated by Rodney, a direct descendant of the Gortigrenane Daunts who are recorded as acquiring the townland in 1591, two hundred years before the bulk of court registrations commence for Co.Cork. Poignantly, precisely two hundred years ago

(1819) the statistical account by Rev. Evanson for Gortigrenane describes the surviving scatter of 'native oak and hazel' in the townland.

In conclusion, one year later to the day, purple loosestrife and rosebay willowherb (in full colour July 7th 2018) have yet to emerge – for the many of us who so need nature, and botany being the first discipline of ecology, readers are urged to periodically return to the same transects – rather than 'do Ireland in a week'.

What Dr. Mc Cracken described as 'the holocaust of trees' resulting from the Land Acts (1880 – 1923), the author describes as 'the perfect tragedy' – the wholesale transfer to the Department of Lands of some of Europe's finest woodlands and designed landscapes, gone with little trace as at Gortigrenane.

As climate changes (we learned of numerous global warmings and intermittent ice ages in 5 billion years), forests will readjust. In July 2020 the author will be describing *Mycosphaerella pini* – the latest fungal 'septosporum' to hit our forests.

Enough is a feast.

Ted Cook

The Muskerry Oak

Heritage Week in Macroom Castle Grounds:

Sunday August 18th 2019

Referred to by some as the 'McCarthy Oak', this Veteran Oak Tree grows in the now privately owned Rocborough estate, formerly comprising Macroom's historic demesne, emparked in 1608 by the 14th Lord Muskerry McCarthy.

To mark Heritage Week 2019 (our 21st consecutive annual event in this demesne), participants, with the consent of the landowner (Mrs. Ellen Twomey), spent time scrutinising this perfect copy of its species – measuring 611 centimetres circumference at shoulder height.

Though its' body language (architecture) is strongly suggestive of Common Oak (*Q. robur*) – (its' massive lateral limbs protrude from the central trunk within a metre of the root plate), the central trunk continues 'tall as a Tower' well up into the crown, suggestive of Sessile Oak. Additionally, this tree's fruits (acorns) are stalkless or stemless – hence a classic Sessile Oak.

Despite the loss of lower limbs (> 1 metre diameter) during hurricane force gusts of Christmas Eve 1997 and Ophelia (October 16th 2016), about two thirds of the canopy's primary growth remains intact.

This Oaktree's positioning on an escarpment of the local Old Red Sandstone whence the topography rolls gradually to the River Sullane below, at once imparts its' outstanding consequence. Additionally significant is its strategic coordinates, standing as it does, directly on line with, and dominating the southern skyline as viewed from, the Tower House (Macroom Castle) a kilometre downriver (demolished 1968). One observer posed that the 'Muskerry Oak' bisects the direct line between the former castle and its surviving outlying subsidiary Tower House at Carrigaphooca, to the west.

Apart from recording the several ancient 'decayed' Oaktrees extant within the parklands of Macroom Castle in 1656 (Downe survey), and that the 'Papist Lord Muskerry' kept extensive orchards, grazed by sheep, it is likely that this Oak can be definitively connected by descent to Downe's 'decayed' Oaktrees. Slices taken from the windthrown limbs in 2014, despite the remarkable density (at < 1 mm per tree ring) of its' timber, and factoring in the weathering since the Christmas Storm (1997), hints at circa 400 years. Further research on the Ophelia limbdrop is afoot.

Image: National Tree Week 2014 – 2 weeks following Hurricane Darwin, that windthrew this Oak's third lower limb – note major cavity in trunk above participants' heads'

From a full mature Ashtree that stood by the Golf Club Carpark (the bulk of the townland demesne has been leased to the Golf Club since 1924/1925), blown down in 1997, could be discerned 370 annual growth rings (2007). This ash, though alive, was in the 1990's in advanced die back.

Girth measuring by School Groups of the 'Muskerry Oak' (by kind permission) since the early nineties, and continuously subsequently, tell that annual weight gain is nigh imperceptible. Its' battery (root feeding zone) progressively is under less demand as a result of major limb loss.

In advance of our visitation with this 'Lord of the Forest', participants planted its' direct descendant, a five year old sapling (see pictures on next page), at a site within the parkland dedicated to 'preserving local genetic character'.

Whatever its' male parentage, the sapling has inherited its mother's gracefully long stalked leafage and 'body language' in terms of decorum and structural composure.

Table clothes were laid under our specimen Oak – each of us having brought enough to share both for our picnic and of our imaginations, filled with fire – was she planted our wild sown; was she a 'ritual' Oak; was she a maiden when Admiral Sir William Penn was granted the 'Manor House and Park' by Cromwell in 1656; if she's put off growing till another time and being the picture of health, then what age is she; does she possess the required 'bio-mechanics' in the face of ever more Climate disruption and how might we best honour our Pensioner Tree inheritance?

By Ted Cook

"Life from Non-Life" – A "Bealtaine" Community Walk on the Edge of the Sea at Long Strand, Clonakilty, Co. Cork, Sunday, May 5th 2019

Penned Easter 2021

The title for this summarised version has been borrowed from Rachel Carson's 1951 publication "The Sea Around us". Her subsequent "Silent Spring" (1964) propelled this Marine Biologist to world attention, in the same year that single-handedly she won her Supreme Court (US) case against Monsanto Inc – and in the same year, in her 56th year, Ms. Rachel Louise conquered death (RIP).

"Bel-tine" (Bright Fire), our first day of Summer (May 1st), traditionally marked by the Druidic Caste at the Hill of Uisneach (Co Westmeath) – itself, according to O'Hogain (Sacred Isle 1999) a throwback to the early Iron Age annual gathering at Carnutes, the epi-centre of Gaul and continued well into the Christian era at Uisneach, Ireland's centre point.

O'Hogain's mathematical research into Calendar modifications over the centuries, in relation to the Solar Equinox and Solstice, suggests May 13th/14th as more closely corresponding to Lá Bealtaine. We opted for Sunday 5th – and as luck would have it, the day remained cloudless with warm onshore southerlies from the Azores.

We gathered at the Kilkerran Lake (Galley Head) end of the Long Strand with its lowlying cliff faces and rocky shoreline, yielding a relatively intact seaweed assemblage.

The first plant to attract our interest is the terrestrial coastline Scuivy (Scurvy) grass, growing cliff face in the "spray zone". Its' distribution is limited to the Arctic and Northern European coasts – flowering on the day, its fringe is fleshy in texture with a waxy gloss. Its sharp salty mustard taste was nibbled by some – this was the plant (dry stored) that sustained the Polar expeditions with its elevated Vitamin C concentration – warding off Scurvy and associated calenture (a species of delirium well known to long voyage sailors).

Scurvy Grass

Scurvy Grass

A Chough population of European importance breeds here – the least encountered of our six resident species of Crow – with bright red legs and bills, their "chattering" overhead was more a welcome than an alarm clock. (Collectively a "Clattering", we have c. 670 breeding pairs in Ireland – less than 200 in Britain).

Ring Plovers ("run, then pause before running again") dotted the sandy shore to our west.

Unlike their descendants that have adapted to a gaseous atmosphere, the author is unaware of a single toxic seaweed on Irish shorelines (bar the very occasional toxic algal bloom). Our first, and most nutritious seaweed that we identified was the "Nori" (Purple Laver) – resembling shredded black silage plastic on the wave washed rocks. Known as "Sushi" in Japan, "Nori" is loaded with the sea's most mysterious substance – Iodine, at between 200 and 530 ppm (parts per million). Protein (dry matter) is at 35% and Vitamin E at 3,300 ppm. Iodine is a non-metal and present in most seaweeds – and permeates sea air.

As Gaeilge, "Slúachán" or "Shleabach" in the 1970's was sold to tourists in bunches at Liscannor and along the Moher Cliffs. Author, when visiting the flute player Micko Russell (Lisdoonvarna Rock Fests 1976-8) at his Doolan cottage was always treated to "Slúachán Omelette". The Red Seaweed "Dulse" (Duilease) dried and eaten contains similar Iodine levels to "Nori" and 280 ppm Vitamin C. It prevails at lower zones (lower tides).

We identified Sea Spaghetti (Thong Weed?) washed up on the sands – west of the influence of Lake Kilkerran's freshwater to open sea. And "Sea Lettuce" (Glasán) we washed and added to our packed lunches.

“Every drop of seawater yields to the Moon” (Carson 1951) and May 5th 2019 happened to be New Moon – with an unusual lowtide. Our Moon’s power over Earth’s oceans and tides is thrice that of our Sun – in our current understanding, gravitational proximity counts for more than mass.

By evening the tide was for turning – though blessed with a mucilage, seaweeds never evolved a waterproof surface, and unless submerged in warm saltiness (twice daily), they fail to absorb dissolved mineral salts and thus halts oceanic gas exchange and being chlorophyll-photosynthetic plants (autotrophic), breath held, seaweeds long for the spray; splash and “silver of the foam” – restlessness soothed. From a single molecule of protoplasm in a primordial sea, two thousand million years since, “Life from Non-Life arises. “Organisms preserve a genetic memory of Nature” says Nuclear Botanist Diana B Kroeger – observe the response in plant growth to Seaweed additives.

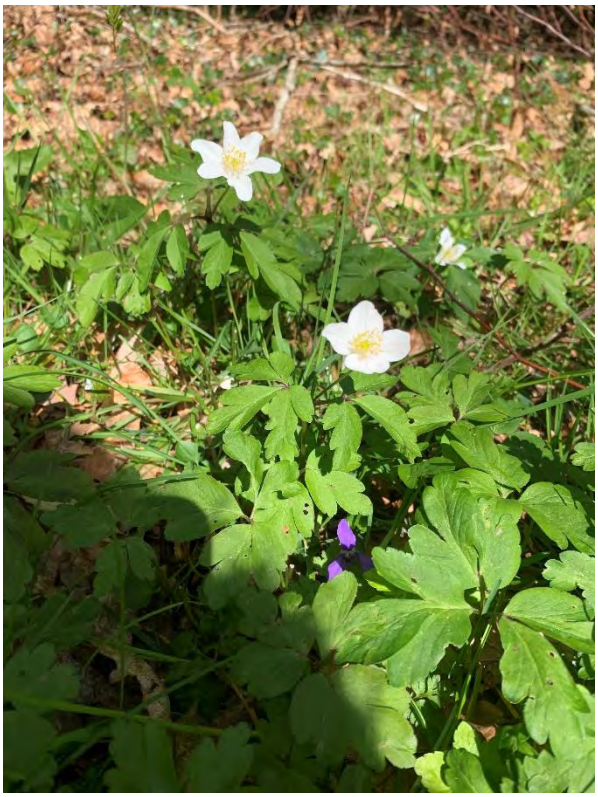
Liverworts

Our “Liverworts” of freshwater streamsides and banks, of very primitive and seaweed like appearance (class: Hepaticae) are easily overlooked and share with “Mosses” the domain if Bryophyta – a step up from algae and seaweeds. Some are monoecious and others bear their sex organs on separate plants. Our picture records “*Pellia Epiphyllia*” of acid soils.

Lungwort (Lotasion) Lichen of our wet, mossy Oak/Hazel woodlands of the hyper-oceanic southwestern tips of Ireland is pictured below. It is a “foliose” lichen species that in its early phase can annually increase by 12 millimetres, radially. It tops the list of lichens indicative of long continuous native woodland presence on site, considered to have been the predominant “epiphyte” (tree/bark resident) of our oldest forests (Wildwood). Killarney and Glengarriff Nature Reserves offer excellent examples of this rarity.


Lungwort

Wood Anemone (*Anemone Nemorosa*) is included for the benefit of folk, annually during early April, who describe this plant to the author and ask its name. Author also includes this plant because he finds its “tenacity” and “eccentricity” fascinating, no end.



Wood Anemone (*Anemone Nemorosa*)

Because of the early severance of Ireland's early post glacial landbridges from Britain and the continent (that remained connected for another millennium), our list of indigenous vascular wildplants (817) are c. 74% of that of our nearest neighbouring island.

Dogs Mercury and Oxlip etc never made it here, thus reducing our "Ancient Woodland" indicative flora. Wood Anemone, named by Linnaeus after the "Daughter of the Wind" (Greek) and its "specific" name after the Latin "Nemoros" (Shady Grove), tells of an intact and long established forested ecology. So slow to spread (by expanding roots) and unknown to colonise new sites, this bright starred carpeting blossom best echoes Carl Jung's pronouncement that "Man is in the late morning of his evolution – perhaps by lunchtime he will have dropped his dream of dominion for the dream of naturalness".

Guidelines permitting, a May Day 21 wood walk is planned – Cork County Council Heritage Unit will relay details.

Recommended reading: Entangled Life by Merlin Sheldrake 2020 Penguin

By Ted Cook

National Tree Week 2019

Warrenscourt Woodland Walk – April 6th 2019

Published in May 2019 to mark National Biodiversity Week 2019

The author acceded to a request from Kilmurry Historical and Archaeological Association, KHAA, to lead a forest walk to mark Tree Week 2019. Participants gathered at Kilmurry museum at 2:00pm.

Our first encounter was with Grey Willow (otherwise Sallow or Sally), at the rear of the parish church in Kilmurry. Grey Willow is one of 5 indigenous or native Willow Trees of Ireland, supportting 267 insects - only the Irish Oak (284 insects) exceeds Salix's remarkable ecological value to Irish biodiversity. Our specimen was female in full flower.

Our Brian Boru Harp, (T.C.D.) was manufactured from Willow timber - the ancient myth of "King Lábhras of the Horse's Ears" was recounted. This 'myth' from antiquity has poignant pertinence for us today. A troubled youth is sent alone into the forest by a wise elder, emerging without the slings and arrows that had tortured his young mind.

The analgesiac "Salicilic Acid" was first isolated and marketed in the 1800's as Aspro/Anadin/Neurofen - a chemical extract from the sally bark. Sally provided the wattle and scallops for thatching and our basketmaking, our creels and kishes.

Critically, in view of our current Carbon Gas concentration (410.7ppm) Willows are a prime candidate for the "coppice" (research tells that the rapid regrowth of a coppiced stool absorbs five times more CO2 than the maiden tree).

Grey Willow

Old Warrenscourt

E. McCracken, Ireland's former foremost authority on Ireland's native woodlands and a prolific author of Scientific Papers throughout the 1940's-1990's, wrote that the remnants of Ireland's 18th and 19th century planting "can still be seen as mature and aging Trees in our roadside and field hedges and in decaying avenues" and within the yet residual demesne lands laid out in early post-Williamite times. She continues "the landscape created six and seven generations ago is a full blown rose with petals fully expanded and falling".

Our 4 hour field study of what remains of "Old Warrenscourt" set out from the Coillte carpark situated in the townland of Ballymichael and continued through the adjoining townland of Kilbarry, both of which can be identified on the 1656 Downe Survey. Kilmurry parish is recorded as "Kimorry".

If we fastforward 2 centuries and view Griffiths' valuation maps of the 1850's, we must be arrested by the transformation of the landscape from the "one ploughland - 427 acres" of Kilbarry to vast forest land comprising part of the estate of the Warren family

Ted Cook with Dermot O'Mahony – Dermot's family occupied the main Gate Lodge to the Estate from 1933

In the Co. Cork "List of Owners of Land" compiled in 1871 and published in 1875, we see Sir Augustus Riversdale Warren, Warren's Court, Lisardagh – 7,787 acres and valued at £3,738.00.

Also listed for Muskerry Barony are W. Garde Browne, Coolcower with 1,700 acres, Henry Harding, Macroom with 4,161 acres, Captain Thomas Leader, Macroom with 3,709 acres, William Massey, Macroom with 13,363 acres, Captain Richard Tonson Rye, Rye Court, Crookstown with 3,412 acres, Frances Woodley, Macroom with 3,857 acres and D. Hawkes, Kilcrea with 2,030 acres.

In earlier summaries of this online series, we introduced the "Encumbered Estates Act 1849" - the impacts of the "Great Hunger" on the several thousand Irish landed estates were iterated. The 1871 list represents the fraction of ascendency in Muskerry that survived that utter "falling apart" of our country.

The largest landowner in the country was the Earl of Bantry, Hedges-Eyre White, with just on 70000 acres, whose estate included the Medievel Demesne and Estate of Macroom, who came into the inheritance of Olive, Lady Ardilaun on the death of her brother the Earl of Bantry in 1879.

"For the House of the Planter is Known by the Trees" (Austin Clarke's poem "and oh she was the Sunday in every week").

Three centuries later, though their palaces are gone - many torched during the “Troubles” - pockets of ‘full blown rose’ woodlands continue to punctuate the Muskerry scenery, telltaling the seats of “no pettystock” (Yeats).

Whence the Warrens

On September 3rd 1607, a vessel put into Loch Swilly - onboard the Ulster earls fleeing into excile in Europe. By 1609 the outline “Scheme of Plantation” had been drawn up and on June 9th 1610, King James I granted power to the “Undertakers” to resettle the province with “loyal English”. Despite the inducement of 1 shilling per acre, the English settlers “jibbed” - the lands granted by James I were sequestered (forfeit) by Charles I in 1635 and what Scots settlers had been planted were up in arms because the Scheme of Plantation moved to crush the religious freedom of the dissenters.

The scheme’s architects (the City of London Companies) were fined £70,000.00 for the scheme’s failure - the scheme collapsed. By 1641, apart from Carrickfergus Castle and Newry, the entire provimce was back in Irish hands.

At a supper given by Lady Caulfield at Castle Caulfield, Moy, Co. Tyrone, for Sir Phelim O’Neill on October 23rd 1641, O’Neill gave the signal and the entire island was embroiled in a 12 year very bloody war. In 1642, the Crown offered two and a half million acres of Ireland to able bodied Englishmen who would join the English army and suppress the rebellion in Ireland.

Come 1649, the king decapitated, Cromwell was determined to enforce the king’s promise of 1642 and, the fundamentalist that he was, declared Holy War on Ireland. With his 35,000 soldiers and Parliament’s war chest empty, Cromwell confiscated 11 million of the 20 million acres of Ireland. One Robert Warren, parliamentary soldier, was rewarded with lands in Kinneigh in the adjoining Barony of Carbery circa 1653 on parliament declaring the war in Ireland was over.

In recognition of his adherence to the royalist cause, Lord Clancarty was restored his estates by King Charles II in 1660 - to finally lose all in the Williamite Wars of 1691. The Barony of Muskerry was consequently vested in a company “Hollow Sword Blade Company” which was charged with the subdivision and granting away to “adventurers” - we see the Reverend Richard Brown, Macroom’s first Protestant rector, acquiring Coolcower in 1704; Hedges Eyre purchased Macroom Castle demesne in 1707 and Wallis Warren (son of the soldier Robert of Kinneigh) acquired a substantial acreage in Kilmurry parish comprising Kilbarry and Knockacary in 1702 etc, what in time became the Warrencourt estate. By 1700, 14% of profitable land remained in Catholic hands in Ireland.

Whence Woodlands

In 1698, the Irish parliament enacted “Act for Planting and Preserving Timber Trees and Woods”. What we refer to as “the afforestation period” in Ireland dates from 1700.

With the dispossessed Irish remanded to marginal hands, “men who drank deep and were silent” (Clarke) and the newly come planters in constant apprehension of invasion from Catholic Europe, and not yet being assured or possessed of any secure future, we note “abies” (silver fir) as the tree of choice after 1700 - planted primarily as shelter belts along the sides of newly enclosed fields and hedgerow planting (field derives from felled - our earliest fields being forest clearances).

Additionally, under the 1667 Cattle Act, farmers were compelled to “enclose” with specified trees and shrubs e.g. White Thorn, Blackthorn, Furze, Privet and Holly etc.

In earlier articles of this online series, we defined “Demesne Land” in relation to its vaster outlying “Estate Land” populated with renting farm tenants. Trees and woodlands planted by tenants remained the property of the landlord - until in 1721 and 1765, when to accelerate tenant planting, ownership of the timber became vested in the tenant. Take up was slow between 1765 and 1790/1800, whereupon tenants grasped the nettle - Co. Cork’s tenancy planted nine and a half million trees on their holdings from 1790. Court records for Co. Cork attest to c. six million conifers to three and a half million hardwoods. In the former, Larch and Scots Pine - in the latter “Ash was the favourite” followed by Oak and Beech.

The “Irish Timber Acts’ (1765) provided for the registration in court by the tenant of his plantings. Records for Co. Cork have survived - the bulk of our other county records are lost, with the exception of Offaly, Wicklow, Sligo and Tipperary.

Kilmurry parish represents the 7th most planted parish in the county - Charles Beamish (1840) of Dunisky registered 137,000 trees in the townlands of Dunisky and Curagh North and South. Also in Kilmurry, J. B. Warren (1827) registered 19,600 trees in Ballymichael, T. Good (1822) planted 3,750 trees in Clearagh, Reverand R. Warren (1838) 30,490 in Clodah, J. G. Curtis (1846) 13,100 in Tereneen, J. M. Gibson (1836) 2,020 in Curriclogh, Sir A Warren (1815) 22,300 in Daumarkleen and T. J. and H. Good (1820) 16,800 in Alearagh and soforth. Landlords did not register plantings on their reserved demesne land - ownership was not required to be proven.

Readers will be familiar with the Gladstone Land Acts (1880/1) and the "break up" of the Irish estates, addressed earlier in this series. For erudite treatment of "The Twilight of Warrens Court" subdivision by the Land Commission, read M. Galvin's "Kilmurry 1905" and his online dissertation by Aidan O'Sullivan, current chair of KHAA (Warrens Court estate comprised 16000 acres across several parishes, valued at £53000 in 1896).

Conservation Status of Residual Oakwoods of Warrens Court

"Under the EU Habitates Directive, the entire national resource of annex 1 woodlands, both designated and non designated, must be managed and restored to achieve favourable conservation status" (Chief Scientist, John Cross NPWS 2017 co authored with Kevin D. Collins, Chief State Forestry Advisor).

Under the 1988 Forestry Act which incorporated Coillte, the Irish State Forestry Board, public forest lands were transferred to Coillte from the Department of Energy - the Minister of Finance and Agriculture being entrusted with the company's shares.

Consequently, the acquisition, in 1955, of some hundred's of acres in Ballymichael and Kilbarry, from the Duggan family, who purchased in 1923 from the successor in title to the estate, now rests in Coillte Teoranta.
Participants on the day were introduced to the 'Hard Fern' (*Bleachnum spicant*) - its significance, together with the Broad Buckler Fern (Dryopteris) were described.

Further along our transect we encountered expansive field layers of Woodrush (luzula) under open canopy of Sessile Oaks (*Quercus petraea*).

Annex 1 lists "Old Oakwoods in the British Isles", compelling this Member State to guard such Woodlands, described by the EPA, co authored by John Redmond, Senior Forest Advisor at Johnstown Castle, Co. Wexford, as our "most threatened type of woodland" in the newly published "EPA 2018 Report on Forestry in Ireland". More specifically, we identified substantial remnants of 'Blechno-quercetum scapancietosum typicum' (Annex 1 code 91AO).

Redmond, two and a quarter centuries later, echoes Samual Hayes' injunction - "we can never be too careful of the trees we already possess".

"Coppice with Standards" was introduced along the walk - a forest practice well known to the earlier Elizabethan adventurers who acquired Irish estates during the Tudor period. Such practice represents in modern speak "best practice forest management", it ensures CFC (Continuous Forest Cover) thus conferring stability for local biodiversity; it ensures a continued and sustainable supply of underwood normally comprising 50 "working stools" to the acre, cut (coppiced) on 17-25 year rotations while the "Black Bark" at 10 per acre are reserved in situ across ensuing ownerships.

Continuous Forest Cover C.F.C. ?

Initially we could discern circa 10 mature Oaks to the acre, further along clumps of Oak trees replaced the earlier scatter per acre - the presence of Deer accounting for the absence of a new generation of oak sapling.

"Cuirt an Bhairínigh" Forest could be decribed as a "representative forest" in the Irish context - we noted the graceful fastgrowing Western Hemlock (tsuga) conifer - remarkably shade tolerant - a valuable component of commercial forestry. On our return by the lower bridle path through Kilbarry townland, bagged bundles of Douglas Firs awaiting planting on the recently clear felled coupe attracted our attention and comment. *Pseudostuga menziesu* is not a true Fir - it is a valuable timber tree and therefore more demanding of our foresters than Sitka Spruce. We applaud the young Oak plantings below the bridle path and we conclude with "the parting drop" to Doctors Eileen and Donal McCracken - "there will be a landscape six generations hence, but it will not be the landscape of today" (éistigí Coillte le do thoill).

The author records his appreciation to all who gave him their ears, and acknowledges his consent by Conor Duggan to include his valued contribution.

By Ted Cook

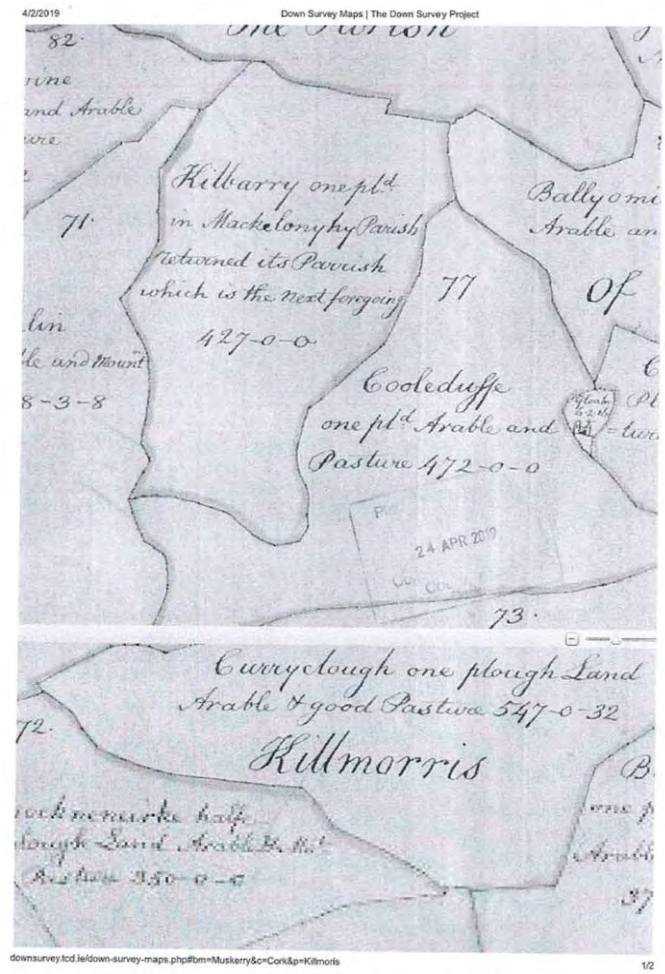
National Tree Week 2019

Warrenscourt Field Outing – Post Notes

A particular anomily arises where Cromwell's troops, fed on promises of estates in Ireland vis a vis Common Folk (in Uibh Laoire Parish) "thanking God that liberation from their oppresive overlords, the overly aristocratic McCarthys, was at hand" (interviews with Jamie Kearney, Cooleen, Inchigeelagh aged 93 during 1989/91).

The Registry of Deeds was set up in 1707 to oversee the transfer and enrollment of the Williamite settlers, and police against secret conveyances and Trusts in favour of Catholic beneficaries. Racial and religious apartheid was thus copperfastened, starting with the 1870 Land Act and sixteen subsequent land acts up to 1953, the Registry of Deeds' millions of transactions has made its dismantlement an Herculean task. The new State's first Land Act 1923 was radical - it introduced Compulsory Acquisition, offering landlords 4 ½% land bonds. Running adstride the implementation of the 1923 Act was the reign of terror unleashed upon many Protestant landowners by both the Irregulars and maverick landgrabbers (read G Murphy's "Year of the Disappeared"). For the author, with Ulster roots, 1923, both north and south "opened upon a furnace" (Bowen).

Writing from Kilbarry, Inchigeelagh, there remains nearby the outline of an early church recorded in Downe Maps - no remains are discernible of a Cell or Shrine in Downe's Kilbarry comprising Warren's demesne, though modern Kilmurry corresponds with "Gleab" recorded in 1656.



Downe Survey

Noteworthy in Griffith's Warrencourt (below) are the broad linear shelter belts and hedgerows enclosing each field - and one might observe such broad corridors were affordable on a vast landholding.

Along our Warrenscourt walk we noted 'Wood Banks' - stout earthen banks crisscrossing the upland terrain. Such features are associated with 'Wood Pasture', outwintering of livestock in woodland. Wiser husbandmen ensured access to the well shaded spinneys and groves for calving cattle which additionally offered retreat from the crackling summer heat.

These banks served to exclose livestock from freshly coppiced coupes - until the 'springs' on the 'stools' had established well above browsing height.

As Diana Beresford-Kroeger has written "hedgerows measured the success of the Irish farm - but nobody knew it".

For those who have visited the limestone caves of Southern France/Northern Spain and viewed the cave art of longhorned cattle browsing twigs and leaves and berries, will understand that cattle are a 'browser' of the woodland verge - the genetic memory of Nature in all organisms remains in their hard drive, regardless. That cave art and art motif dates from 40000 years ago.

One participant described 19th century tourist brochures promoting Warrenscourt's several kilometres of woodland walks through Demesne lands - the Great Southern Railway had a train station at nearby Dunisky. Visitors from Cork, in their hundreds, "took the air " on Sundays in Ballymichael and Kilbarry.

"How the towndweller longs for countryside blooming,
and dreams of green meadows and byways o'ergrown,
and summer airs laden with perfume of flowers,
where songbirds sing long and honey bees roam.

Leave us our hedgerows, O landowners thrifty,
the lovely wild spaces that adorn Ireland,
to salvage some inches of soil for your profit,
must they be grubbed out by philistine hand"

- extract from Mrs Harding.

THE CALL OF THE FOREST – THE BRIAN BORU OAK

With Ted Cook - January 2019

Last Tuesday, January 22nd (2019), we gathered, a 100 and more of us, at Macroom Library to watch her latest by Diana Beresford-Kroeger. 'The Call of the Forest' is an 85 minute film that explores our relationship to our Trees and Woodlands on the five continents.

The Brian Boru Oak of Tuamgraney, East Clare, was her choice for N.W. Europe – reckoning it to be 1,000 years old and likely older.

At our planting of a grafted sapling of this venerable and ancient Tree at Macroom's historic Demesne yesterday (Monday, January 28th) we recalled that in 982 AD., Malachi, King of Ireland, invaded the autonomous Kingdom of Thomond – the ancestral lands of the McKennedys of the Dalgas race. Brian Kennedy (Brian Boru of the Tributes) had been growing in stature and eminence such that Malachi's 'jealousy' got the better of him. The early 11th Century Book of Armagh records in detail, the 'uprooting and destruction of the Tree of Maigh Adhair – under which the Dalcassian Kings had been ritually inaugurated for ages'.

Rather than humble the Kennedys, this strictly forbidden act under Brehon Forestry Codes brought the High King's fitness into doubt. Brian Boru, without opposition from native or Dane, became Ard Rí in 1002.

Raheen Wood in Tuamgraney is considered a 'Natural Woodland' – not far from Maigh Adhair (The Plain of the Oaktree) – it's tallest and most singularly sited Oak being the Brian Boru Oak. Is it an Ancient Pollard? Having climbed many times over many years into its 'pulpit' whence several very mighty limbs have sprung, it feels more likely that this 'Noble of the Forest' endured a catastrophic event, be it a lightning strike or some peculiarly violent gust that snapped this Tree's entire crown. It is an irony that what makes a Tree ancient, what the current literature suggests – that such stresses (short of strains) evidenced by battle scars and such challenges can enable Trees to grow well beyond over-maturity.

This Brian Boru Oak uniquely bears no Saprophytes, Decomposed Fungi nor cavities – and produced a handful of smallish Sessile Oak acorns in the early 1990's – all of which have grown exceptionally well.

Several scions (cuttings) were taken during 2012 and grafted both in America and Holland - on to Pendunculate (Common Oak) rootstocks. The author was fortunate, through Diana, to acquire a small share of these grafts – and while it had been planned to plant this Tree on January 21st to mark our 'First Dáil', that day was a Perigee Full Moon Eclipse and therefore highly unfavourable to handle plants – Steiner would say 'being irresponsible towards the Sacred Forces of Growth'.

By Ted Cook

Creagh Castle Demense (Doneraile, Co. Cork)

Heritage Week, August 26th 2018

Some years back the author, at the invitation of Creagh Castle's owners, visited this quite perfectly preserved early Anglo-Norman seat of Maurice, Lord of Fermoy, with a view to surveying and recording the estate's mature, veteran and ancient trees scattered throughout its extensive and undulating medieval parkland.

During summer 2018 the resident family acceded to a request to host a heritage week event, on certain conditions – since time immemorial with its ebbs and flows of Erin's fortunes, Creagh Castle grounds had never facilitated public access. Numbers were capped to avoid startling livestock in pasture – no photographs to be taken of the family residence nor adjacent built environments.

The earlier name for this walled park was Castle Saffron (the townland's name) deriving from "Crogh" – a plant grown in the Awbeg River catchment and cultivated for the production of a saffron dye. The name "Creagh" (deriving from Craoibh – a garland) first surfaces in the 1780's when a Dr. Creagh of nearby Doneraile town acquires the demense. One record states that the Creagh family were directly descended from the O'Neills of Thomond who distinguished themselves on the battlefield in 943 against the Danes,

whose clan wore laurel twigs or garlands on their helmets (more likely holly or yew). When, with papal approval, Henry II Plantagenet granted away some millions of Irish acres to his barons (De Roche, De Barri, De Clare, De Naglo, Fitzgerald, Fitzwalter, etc.) during and after 1172, the english king wore sprigs of yellow broom (plant agenet).

Our heritage event centred on tree identification and associated skills of "aging" the various specimens encountered – and extrapolating a pattern of landscape designs that characterised the contemporary (and often times eccentric) fashions of the several families that occupied this demense since the loss by the Lords Roche of the "kingdom of Fermoy" to the Elizabethan Escheats ("Twilight of the Lords' authored by R. Burleith (Barnes Publication 1993)). Among our troupe was a family of O'Keefe – the one time ruling family of this autonomous "kingdom" in the Blackwater Basin centred in Fermoy.

Our first specimen was one of several full-mature oaks that encircle atop the 4 metre deep mound of what our host detailed as an "early Bronze Age ringfort". At 1.5 metres in height, this giant sessile oak measured 373 cms in girth. A second oak also adorning the rim of the fort came in at 364cms – and a third oak tree at 370 cms (see pic).

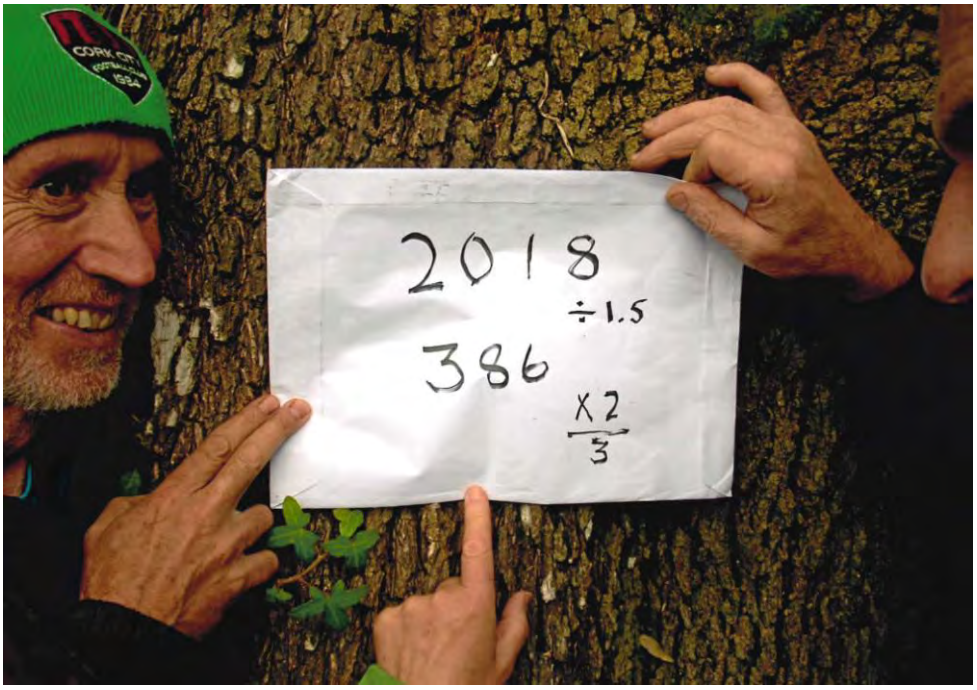
Our host lead us along the newly planted Beech Avenue (probably c. 1980's) – under an arch of that green fresh verdancy so peculiar to the English beech, itself so appropriate to the "designed landscape" within an Irish setting.

A former owner of Creagh was the grandson of the owner of Carrigacunna Castle's breath – taking mature Beech Avenue – several participants had accompanied our 2015 Heritage Week event at that venue near Kilavullen, Mallow when we explored the origins of beech avenues from early Victorian times. We failed to discern the tree species that earlier comprised "the main avenue to Creagh Castle" referenced in a 20th century publication.

Measuring several full-grown beech during our Creagh visit, we recorded an average of 362 cm.

In the curtailage of the family residence we encountered an ancient Spanish chestnut and we recorded 530 cms circumference for this individual of exceptional ecological and cultural value with its mouldering interior, crown die-back, deadwood, gaping cavities and hosting associated fruiting bodies of decay (Bract) Fungi.

The singular value to endangered "saproxylic insects" (sapro/decay) of veteran and ancient trees (a subset of the veteran cohort) was iterated – we have visited "Veteran Habitat" in an earlier summary of this online series. Current research suggests the planting nearby of common alder (a tree that can rapidly veteranise), to provide interim habitat for those long-horned decomposer beetles that never evolved to move far from their decay hosts (pic attached).



Our next port of call is a single rank of full-mature Holm oaks (*Querous Ilex*) lining one side of a track leading to a walled garden. Our picture records 386 cms – the average girth being 364 cms along the well spaced single file of evergreen oaks.

Our generous and magnanimous host admitted us to the demense walled garden – inviting us to take our fill of organic tomatoes, blackcurrants, gooseberries, kale, plums, cherries and a diversity of apple trees hanging heavy with the bounty of a 2 month heatwave. Out with our flasks of tea and coffee – all had carried extra for sharing in a Garden of Eden where no fruit was forbidden (see group pic by the entrance to the garden).

"How development can contribute to nature's recovery" was the title of our Creagh Castle event – here we witnessed "best practice" management that guards and guarantees the spirits of woods and water. After our breakfast we continued through expansive newly planted woodlands of Scots pines, aspens, alders, oak and hazels – the screeching jays alone puncturing the end of summer evensong, proclaiming aloud their new territory – such is habitat continuity.

By Ted Cook

NATIONAL HERITAGE WEEK 2018

'The Forgotten Wisdom of Trees'

VENUE: *Glenbower Woods, Killeagh, East Cork* ***DATE:*** *Sunday August 19th 2018*

By Ted Cook

Anciently, 'Killie' was a very early Church founded by Ia, a contemporary of St. Finn Barre – modern Killeagh derives from Cill Ia. The word 'Cill' found in so many Townlands' names derives from the Latin 'Cella' – a Cell or Shrine.

The present long abandoned Church of Ireland at the foot of Killeagh's Main Street is all that remains of her memory – this church being dedicated St. Ia. The site is believed to have been her original foundation.

Ia is better honoured as St. Ives of Cornwall – described as her 'Chief Church' – several Holy Wells dedicated to this Irish Saint still exist in the vicinity of St. Ives and Cambourne. Plouyé (Parish of Ia in Brittany) recalls the widespread veneration for Ia, an early martyr to the Cornish Pagans.

One yet intuits ‘the peculiar un-Roman character’ and the enthusiasm for ascetic monastic traditions filtering through from the Eastern Mediterranean, in the Killeagh vicinity - relicitual from Ireland’s original Church.

And like another of Cloyne’s ascetic women, St. Gobnait’s Wood of Ballyvourney also possesses a ‘Glenbower’ within the Oakwoods. The ‘Deafening Glen’ at Killeagh likely refers to the thundering water-course that plunged through the Wood – regrettably now drained during Coillte’s encumbering since 1989. In the interim a local Community Woodland Committee have assumed responsibility for the 35 or so acres of mixed woodland. In St. Gobnait’s ‘Gleann Badar’, folklore recalls that she frequently recluded to a deep fissure in the steep gradients within her Hermitage Wood – where no sounds reached.

Our Heritage Walk commenced with a tree-planting of a fine potted Wild Cherrytree in the corner of the Playground/Carpark that comprises the entrance to Glenbower Wood. Described as being of ‘remote antiquity’ by the 5th century (P. Joyce), the Brehon Forestry Codes (Bretha Comaithcheasa) divided Tree into four ‘Classes’ of seven. ‘Wild Cherry’ was the seventh of the Second Class and named ‘Idath’ (phon. Ida).

The countrywide abundance of the ‘stones’ of Wild Cherry at excavation sites suggests it was a food plant – similar to Crabapple and Hazel (both of the First Class of Seven – described as ‘Airig Fedo’ – ‘Lords of the Wood’).

The provenance of our Cherrytree is the ‘Ulster Cherry Seed Orchard’ – a Co. Down Nursery dedicated to sourcing and propagating various stocks from vigorous wild sown Native Trees.

The prolonged ‘Heatwave’ (causing Soil Moisture Deficit) together with compaction required extra time and energy to achieve satisfactory site preparation – a ‘must’ to ensure sound root development in the face of what increasingly resembles a Climate Change of near stupefying proportions driven by rising Carbon Concentrations (402.3 p.p.m. July 2018).

We measured the girth of a very odd Oaktree in the Playground corner (GPS 26251.943734 – 7.99318). A maiden Oak (never coppiced or pollarded), likely mid-nineteenth century @ 262 cm. girth at shoulder height. Odd because the trunk at 2.5 metres height takes, inexplicably, a 90^{o} quite perfect lean. Neither callous bark nor scar tissue are discernible at the angle where the trunk grows horizontal – suggesting that what we observe is not a lateral limb compensating for the catastrophic loss of the tree’s crown. No acorns were visible – but the leaves (hairless beneath) presented closer to our Sessile Oak form – markedly stalked with little or poorly developed ear-lobes adhering to the leaf stalk.

Our second specimen Oak nearby personified our Sessile form – acorns without stems and clearly stalked leaves. Additionally, and unlike our Common Oak with its’ lowly forking trunk, here was a classic central trunk several metres up (c. 5) without fork.

Glenbower is bounded, on one side by an avenue of mature trees the length of c. a kilometer, with a former millrace running parallel woodside. The following group photograph records the avenue with millrace running below the road to rear of participants.

CAPTION: Glenbower Wood, Killeagh, East Cork. Sunday, August 19th 2018.

Apart from the enormous ecological/habitat value of this 'corridor' running astride an old-growth Woodland (mapped and little altered sine 1703), it remained beyond our reach to divine any pattern of tree species distribution. 'Impulsiveness' is absent among the designed landscapes of 17th – 20th century Ascendency Ireland. Yet, here we observe residual segments of mature Beech Ranks interspersed with short sections of mature Holm Oak – then solitary massive Oaktrees occurring in patterns (equidistance), many presenting as massive copses – then full grown Ashtrees and more Beeches (some passed over from old age and others at 'end of life' phases) – and all understoreyed with wildsown Elder; Holly and teenage Beech and suckering Elms. Afterthoughts, likely from mid-nineteenth century include Limetrees and Bay.

The 2:00 – 4:30 pm event easily morphed – eye lenses and spangle galls and silk button galls – tree identification and respective ecological values – ivy and its' unquantifiable contribution to Irish Nature – Decomposer Fungi and the matter associated with our quest to understand the Earth and wonder at its biodiversity – and pay ever closer attention to the 'Presence of Life'.

Still on the avenue at 6:00 pm, our lesson on the day – the diversity within this avenue of indigenous; naturalized and exotic Trees; bryophytes and epiphytes and associated fauna – all acting as one organism – our glimpse into the Forgotten Wisdom of Trees.

MACROOM CASTLEGROUNDS GUIDED WALK

Sunday, July 15, 2018. 11.30 - 4.00pm

Members and guests of SHEP Earth Aware and Ted Cook at the start of their tour of Macroom Castle Grounds in July 2018.

It was the author's pleasure to facilitate an introductory field walk for SHEP Earth Aware and the wider public.

Participants were directed to Cork County Council Heritage/Arts Website to learn more of Ireland's demesnes and designed landscapes; their origins, context and significance. ("Ascendency Landscapes in Post-Independence Ireland").
www.corkcoco.ie/arts-heritage

Macroom's historic demesne was the seat of the cadet line of the once powerful "McCarthy Láidirs", Barons of Muskerry since Norman times.

Its' arched Castle Entrance and adjoining Gatekeepers Lodge and Guard Room above the archway, together with most of the enclosure wall to the south are all that remain of the built heritage of this otherwise intact "Polite Landscape".

The Castle was demolished in 1968, some masonry having dislodged from its' western Medieval Tower, causing public alarm.

On entering this once secure and fortified compound-the once Pleasure Grounds of the Viscounts Muskerry and Private Gardens of the Countess of Bantry and latterly the retreat of Arthur Guinness (Lord Ardilaun), we encounter a young Common Oak of 24 years. Ireland is home to three species of oak tree (two species if we consider our "intermediate" form as a sub-species hybrid). We scrutinise this Common Oak, otherwise the English Oak or Pedunculate Oak and note this specimens' diagnostic features. Its' leaves are stalkless, deeply lobed at their point of contact with their twigs. Stalked fruits (embryonic acorns) are noted.

In botany, stemmed fruits are termed "Peduncles". On our other native Oak Species the fruits are "Sessile" (seated or stalkless) and leaves markedly stalked without the enveloping lobes. Oddly, the Irish for Common and Sessile Oaks translate as "foreign" (gallda) and "Irish" (gaelic) - yet both are native since the post-glacial "Forest Advance".
An additional and helpful diagnostic feature concerns the "Architecture" of the central trunk: in classic Common Oak, the "Crown" arises from a short trunk - whereas in "Sessile" the trunk (bole) continues several metres without lateral limbs.

Our "hybrid" Oak presents a mixture of features of both "Common" and "Sessile" and is by far our most populous.

Moving past the Secondary School (Mc Egan College), itself occupying the precise site of the castle, we encounter "The Ardilaum Rose", and are reminded of Ledwidge's poem -

"for June is short
And we must joy in it and dance and sing,
And from her bounty draw her rosy worth.
Ay! soon the swallows will be flying south,
The wind wheel north to gather in the snow,
Even the roses spilt on youth's red mouth
Will soon blow down the road all roses go"

In mid July we note this double hearted, pale cream and arrestingly fragrant rose that has advanced beyond the season's foothills, it peaks in June. Olive, Lady Ardilaun, a keen horticulturalist and of no "manufactured aristocracy" sponsored the cultivation of this flower. It is named "Blush Roses" on an oil on canvas, on public viewing at Dublin's Hugh Lane Art Gallery.

Additionally bequeathed the fledgling state, were her Ashford Castle (on Lough Corrib); St. Anne's Park, Raheny (on Dublin's North Bay) and St. Stephen's Green was gifted the city by her husband Lord Ardilaun.

Passing above the G.A.A. pitch which once comprised the Castle Lawn, tiered by "Ha-ha's", (a medieval "cattle grid") and bisected by an avenue of Irish Yew Trees, we identify our first major specimen of the tour; Turkey Oak.

"Kew" records 1735 as the year of its' introduction to the English Estates, news travels fast among the elites. Samuel Hayes 1794 publication "Management of Irish Woodlands" makes a single reference to a turkey oak in a Co.Louth Demesne, urging the gentry to consider this variety for their pleasure grounds.

Hayes also notes the "rage" for Spanish Chestnut in the several thousand Irish demesnes of post Williamite Ireland, that he toured and recorded during the 1770s to the late 1790s.

We measure in centimetres the girth/circumference at 1.7 metre height of one Sweet / Spanish Chestnut, one of a grove - 563cms which in addition to the progressive "die-back" and "deadwood" on its' canopy marks this tree as "veteran" - and if appropriately cared for, en route to "Ancient Status" downstream. Author continues to advocate with the Trustees the pressures and threats to O.A.P. specimens posed by "compaction". One's sense of urgency during these times of "stupefying transition" for the fate of 16th / 19th Century Parkland solitaires, "blushes unseen in the desert air". Residual abhorrence of "landlordism", not unlike the frenzied iconoclasm of Cromwell, yet pervades.

Long neglected, thankfully little visited is the "Double Rank" recorded in the 6 inch O.S. of 1829. Unique among the circa 1000 designed landscapes in Co. Cork, here is an 18th Century Beech Avenue flanked by lime trees - visitors witnessed the "end of life" phase for what mycorrhizally we term "a single organism".

Nearby, up to 2016, could be discerned a pair of breeding Peregrine Falcons - reminding us of that additional pursuit of the garrison community and an early cause for avenue planting within Britain and Ireland. Falconry was described in Elizabethan times as the "princely enjoyment of the nobler lineages".

We have a record of Olive, long widowed, the wealthiest Baroness in Ireland; without progeny, her brother and sole male heir to the earldom of Bantry (who died at 37 in a mental asylum), and close confidante deranged, reclusive and prone to those same "black dogs", that afflicted her cousin the poet Dorothea Herbert, summoning her "Coach and Four"' nightly to be driven up the double rank and around her "Old Cork Home" , demesne where she was born in 1850. Let readers discover her monument to Lord Arthur at their Ashford castle home and read the heart broken couplet in French chiselled in limestone titled "Rien".

New research from U.S. (Stolze and Moneche 2017) was introduced as we walked this avenue proposing that Beech Pollen occurred in Ireland's lake sediments from the Neolithic Period (our first farmers arriving to discommode the earlier herders the Cains and the Abels). Their published research additionally claims Hornbeam, Field Maple and Walnut as "Native" to Ireland.

Beech was discounted as native heretofore, Hayes describes its' first arrival in Ireland during the 1680s at a County Wicklow Tree Nursery in the Shelton Abbey Demesne of the Earl of Wicklow.

Because Beech best thrive in the "Continental Climate" where they play hard and live long (c.450 years), our "hyper-oceanic" climate likely puts I.O.N.A. (Islands of the North Atlantic) out of range. Beech are vulnerable to the warm wet fleeces of the atlantic weather fronts - we noted the massive fruiting bodies of saprophytic fungi that have naturally found affordable housing on the decaying hulks of the "double rank".

The loss of the flanking lime trees to the South exacerbates exposure to a weather system who's thermostat is simply broken.

Hurricane "Darwin" took out a number further up the rank, "Ophelia and Emma" so rocked others that their anchorage roots have lost grip. Those that have been carefully studied

after "wind throw" are hollowed out (a natural feature of ageing hardwoods and an additional indicator of Veteran Status) and the tree ring density makes it difficult to gauge their age with precision. Swift makes no reference to an avenue in 1723. We will settle for the late 1700s.

Measuring the girth of a tree

Walking the upper terrace, upriver the Sullane (Sail Abhann), we meet two mature Oak Trees, the one we measure at 462 cms and applying the vague test of 1.5 cms per year of growth we surmise it was planted between 1690 and 1710. (Early middle-age in Oakspeak.)

The "Big House" obsessed with record keeping like mini chanceries. Minutest detail was preserved where and when what stock was planted; their "provenance" and price at what nursery; reasons were recorded (Births, Deaths, Marriages and invariably Coronations).

Alas, as Collins lay dead in nearby Beal na Bláth, Macroom Castle was in flames at the hands of the Irregulars (anti treaty I.R.A.), like so many "Big Houses" libraries and records were torched. Steiner was quoted "each generation loses 99% of all of the accumulated knowledge".

Our group paused at our second Oak Tree and a common Yew Tree (believed to be very old) tucked in beneath its' friends truly venerable and somewhat horizontal limbs. From 30 years measuring, this perfect copy of an Irish oak, lays down 1 cm per year. As stated,

only through a "meditative" disposition can one witness this ornament and glory of Macrooms' Demesne.

Gathered beneath its' lovely floating outstretched branches did we begin to know a Copper Beech and the "Principle of Oscillation Damping". From the Upper Terrace its canopy is deeply pigmented, from beneath, its "disaster prevention function" of "pigment" is subtle. The only (and probably one of several) Copper Beech that remains, it lost its "co-dominant" trunk and being decayed throughout its "heartwood", how on earth might such a pillar of many tons remain standing at 24 metres?
It is sheltered from the prevailing wild west wind, rooted in a well drained and sloping site, it faces no competition above or below ground - adjoining the "scent" of moving water and has avoided the eyes of "Men and Machines" looking for something to do.

Mature trees if guarded from those "Men and Machines" develop robust crown architectures with a built in "Bio - mechanic" capability to move with and partially revolve with wind gusts up to 180 m.p.h. and at times graciously surrender limbs in the upper crown to sustain both its internal suspension and shock absorbing capacity. Such is "Oscillation Damping" well known to Engineers who construct bridges.

Thankfully our trees have not lost "their genetic memory of their nature and how to be in the world". Their capacity to seal and heal even catastrophic battle scars by specialised "callous" cells, enable them to maintain their composure and personify decorum. (Tensile elongated rapidly dividing cellular tissue beneath a tree's bark work tirelessly and under such pressure that quite defies explanation, let alone gravity, so that the internal plumbing is protected not alone from atmospheric air thick with saprophytic and pathogenic spores but also from latent "endotrophic" saprophytic spores.) Rackham is worth repeating (1986) "One Old Oak supports more biodiversity than 500 X 100 year old Oaks". In his last publication that coincided with his premature passing in 2016, "The Ash Tree" his research led him to state that "one 200 year old Ash Tree supports more life than 5,000 X 50 year old ash trees".
From a recent U.N. convention of biodiversity in Japan, we learn that more than three quarters of all life forms live in, on or under a tree.

Ted Cook

AFTERTHOUGHTS

The broad range of material alluded to during our field study of Veteran Habitat ought not be taken as "definitive" - Nobel Prize Winner Mario Molina reminds us that: "Science proceeds upon probability". At best, the several phenomena encountered over our near four hour tour remain "imperfectly understood", we proceed along the lines of "description and interpretation". Because ecology as a new discipline, foremost is a "way of thinking", "explanation / objectification" robs the observer of the whole attention that the "Presence of life" absolutely deserves.

Participants requested details of Prof. B.Sykes "Blood of the Isles", Bantam Press 2006 / Corgi Edition 2007. The author, leading geneticist at Oxford explores readably and tracks our D.N.A. ancestry and though described as the first scientist to demonstrate connections between D.N.A. and surnames SHEP visitors were introduced to an early 20th century publication by Prof. Eoin McNeill: "Celtic and Teutonic Religions".

Among our Crinniú were a Cullinane a McGinnity - the former surname being a variation of Cullen; Culhane and McQuillan, deriving from Crann Cuilleann - Holly Tree. McGinnity

likely survives at "Ochtach" - Scots Pine. In Ulster Irish "Tuair ochtach ort" translates to "Take Courage". Also in Mid-Ulster we have the frequent names of "Coll" and "McColls". (Coll - Hazel); McCool is more common in that Province's northeast. "McDara" and "McBeth" are yet found in Co.Antrim and the Scottish Highlands - "Dara" and "Beth" being Oak and Birch.
The ancient "Irish Tree Alphabet" (18 letters) was briefly shared - consult Dineen's Focloír (1927 Edition). Working to restore our relationship with our Native Woodlands remains a worthy and noble cause - a Forest People without their forest bodes ill and carries implications for our "Genetic Memory" and consequently our mental wellbeing. The functions and Eco services of "Mycorrhizza /ae" were introduced - a symbiotic friendship between soil borne fungi and the feeding root of Plants.

Atomic labelling of Plant nutrients demonstrates how allied Fungi chemically pretreat and deliver a Plant's food/mineral requisites in exchange for carbohydrates.

"Saprophytic Fungi" were encountered - specialised "Decomposers" on deadwood. (Sapro - Decay)

"Latent Endotrophic Fungi" are organisms that lie dormant throughout the vascular bundles of woody plants - on the bark and bundles being breached by Atmospheric Air, these fungi are activated and feed on the resulting decay while a healthy tree effectively compartmentalises the zone of breach.

Planting of Oaks, Ted Cook

Consequently, sound knowledge of pruning - the why, hows and whens is crucial for tree health. Almost universal ignorance of sound tree practices, including among so called "Professionals" prompted the story of the "Apprentice Physician" more concerned with the "Cult of Appearance" than the "Art of Medicine". SHEP Earth Aware's offer of a return field study to these Castle grounds during the fall was well received among the 25 or so visitors.

Recommended reading: Global Forest. (Penguin 2010) D.B.Kroeger
Laudato Si. Papal Encylical Letter. June 2015
History of the Countryside. Oliver Packham. 1987 paperback

Ted Cook

TRACTON ARTS FESTIVAL FIELD OUTING TO GORTIGRENANE WOOD
SATURDAY JULY 7th 2018

Penning dedicated to marking the 40th Anniversary of the Tracton News Sheet

By Ted Cook

Arriving earlier than planned at the meeting point in advance of our 'Bio-diversity Walk', the author sauntered by the Minane watercourse adjacent the car park.

In his 'Parochial Survey of Ireland' by the Rev.d W. Alleyn Evanson, published in 1819, we read of a 'navigable estuary at Minane Bridge' - a chance encounter with Mick Hoey who graciously apologized for the overlapping canoeist event that day, Sat June 7th, yielded the remarkable fact that tidal waters up to recent times, reached three miles inland to Minane. Alas, no vegetation associated with brackish waters (between salt and fresh) were yet discernible.

A passer-by enquired about the 'leper-like' condition of the Alders by the bridge – one recalls the late Dick Warner describing what we now know as the lethal '*Phytophthora alni alni*' at an early Burren Wildlife Symposium (1990). First officially discovered in southern England in 1993, this Alder disease is spread by water-borne zoospores and has been identified in remotest Alaska. Risk factors for infection include warming waters that are slow flowing. The disease may cause rapid death – or as in Minane's case, the Alders have succumbed slowly over many years. (Author noted die-back in these Alders during a field walk with Minane primary school in 2006). Along stretches of the Blackwater and Lee rivers, the author has recorded resistant individuals – moreso within the Gearagh (Special Area of Conservation) near Macroom. Globalisation of 'plant trade' was named as the culprit by the late Oliver Rackham.

Our walk commenced by the iconic Copper Beech – the perfect copy of its species – keeping watch by the entrance to Gortigrenane Wood. (See author's article in Tracton News Sheet Volume 40 No 8.) At shoulder height we measured its circumference at 276cm. (272cm during late spring 2011.) Assigning 2cm to one year's growth in a healthy and actively growing hardwood tree, we calculated this tree's age at 138 years. But 1880 corresponded with the period of the break-up of estates – and author's record shows a mere 4cm increase in girth in 7 years. As with all organisms, the rate of growth slows down on reaching maturity. On closer scrutiny we note that additionally this specimen has endured a number of stresses – up to a third of its root plate has been severed by the roadworks – and an additional one third has been piled with tonnage of rubble such that it was difficult to determine the appropriate 'shoulder height'. Because trees breathe equally through their surface roots, and because the 'root feeding zone' rarely exceeds 12 inches in depth, the impact of compaction has hindered this tree from its requisite 'weight gain'. Consequently, standard girth measurement cannot be applicable. Research tells us that the 'rage' within Ireland's designed landscapes for Copper Beech, can be dated to the 1840's/1850's.

Casting our eye towards the Minane watercourse below the Coillte forest entrance, we note the extensive 'Sally Carr' (Wet Willow Woodland) – and wonder whether the emphatic browning of the linear 'Carr' has been caused by the persistent 'heatwave'. Indeed not! This is our Rusty Sallow (or Willow) – and the most common of Ireland's five native Salix. (Rusty Willow is a subspecies of our Grey Willow).

Instead of continuing by the public forest route we continue, with the landowner's consent, along the former avenue to Gortigrenane House from its 'Fairy Doctor' gate lodge, under stout overhanging oak trees that have clearly been coppiced.

Back to the Rev.d Evanson's account of 200 years ago – 'in the demesne of Gortigrenane, a few native Oaks and Hazels are still to be found' (P. 464). What within our 'toolbox' can guide us on the question of whether this site possesses 'Ancient Woodland'? If Ancient Woodland (as distinct from 'Long Established Woodland' - a term used in Northern Ireland) can be defined as woodland having survived since 1600A.D. we must be clear concerning 'Criteria, Indicators and Verifiers'. Evanson is of assistance – his notes point us to the 1700's and likely/probably earlier.

In a recent research paper (Myerscough Forestry College, Lancs, UK) we learn that historically, despite escheats; forfeitures and confiscations of the British and Irish Estates, since Norman times, it invariably remained 'commonplace' to retain pre-existing woodland features including Wood Pasture, Parkland and Deer Park. We read in McCracken (1954) of express 'Prohibitions' directed to Ireland by the Tudors to preserve existing woodlands. 'Propter Decorum' required absolutely their compliance with Crown Dictat by the endless caravan of colonisations of Ireland since Henry II set foot in Waterford during Lent of 1172. 'Emparkment Statutes' since early Medieval Times laid down strict conditions precedent that preserved

woodlands for ‘Royal Chase and Princely Enjoyment’. Tellingly ‘Woodcock’ (Old Man of the Woods) is ‘not scarce’ says Evanson.

Recourse to the now online Downe Survey (1656) will partially aid our quest. This survey records, townland by townland (parish by parish), the presence or otherwise of ‘Timber Wood’. Additionally, the O.S. (6inch) maps of the early 19th century faithfully records woodlands – and importantly maps all individual trees within the then thousands of ‘polite/designed landscapes’ extant in Ireland.

In his ‘Search for Ancient Woodland in Ireland’, published 1986 (History of the Countryside. Weidenfield and Nicolson), Dr. O. Rackham, ‘Archdruid of Historic Ecology’ (author’s words) laments that, at best, one fifth of one percent of the 20,000,000 acres of our darling island, possesses definitive ‘Ancient Woodland’. David Cabot echoes this estimation. ‘Ancient Woodland may be described as residual/remnant woodland shreds that possess the genetic material of ‘THE WILDWOOD’, itself characterized by ‘unbroken continuity’ since the Glacial Period that survived not only our first farmers (Neolithic) but the ‘Iron Age Plough’ of the early Celtic period. (Interestingly, Rackham lists the ‘Glen of the Downs’ in Wicklow as possessing the requisite qualifying features). Oliver Gilbert (‘Lichens’. Harper Collins. 2000) lists the 31 lichens of the New Index of Woodland Continuity – primarily the Lobaria Assemblage. Gortigrenane’s utter modification closes off this option. Lungworth lichen are absent.

Toothworth

Readers are urged to scrutinize the supporting picture (**Toothworth).** Described in some ‘Botanies’ as ‘a rare native’, in others as ‘possibly indicating nearby ancient woodland, the parasitic Toothworth (*Lathraea squamaria*) presents us with as sound a ‘verifier’ as we could hope for.

Readers may recall our National Heritage Week field study at Gortigrenene on August 25th, 2013 when no less than Diana Beresford-Kroeger, nuclear botanist, acceded to the author's request to accompany our bio-diversity walk. Several of us arrived armed with her best-selling 'Global Forest' (Penguin 2010) for her autograph, a must! Uncanningly, intuitively more likely, Diana described the significance of several plants along the route, suggesting that late April offered the optimum time for tracking Toothworth – that it was parasitic on ancient coppiced hazel woods, themselves a component of Ireland's 'Climactic Optimum' Oak Forest following the post glacial forest advance via the as yet unsubmerged landbridges. Averaging 20cm in height, it can easily be overlooked amidst the litter of winter's waste – though its deathly pallor that precedes its almost magnolia humour has given it the vernacular name of Corpse Plant. At a number of sites (Askeaton, Macroom Demesne etc.) it can achieve up to 26cm. Fortunately Toothworth is perennial – dispiritingly, the very few spots where it has been recorded near Minane Bridge (by Rodney Daunt of Cork Nature Network) have been repeatedly subject to herbicide spraying.

Like Leopold Aldo's 'Sand County Almanac' when the author looks in those green eyes of the last wolf of the mountain, having shot it for trophy, and knowing in his heart that the mountain has forever lost some undefinable part of itself, so too Gortigrenane's last Toothworths, *Palaeo relictuals* barely with toehold.

Other 'Lords of the Forest' (Brehon Law) encountered along the route included fine Ash, Holly and Wild Apple (likely the Crabapple subspecies) in addition to Hazel and Oak – the remaining of the 'Seven Lords' being Yew and Scots Pine.

Wild Cherry, heavy with reddening fruits abound locally.

Lepidopterist (moth specialist) Ken Bond joined our company as we rested in the Oakwood – assuring us that '*Haematopota crassicornis* '(cleg/horsefly) – that 'real nuisance to man especially in thundery heat' avoids shade. Bless arnica ointment!

Both Rodney Daunt and author are volunteers with the National Butterfly Survey – the entire 3 hours could have been devoted to butterfly ID and their respective food plants. Of note were the prevalence of Silver-washed Fritillary with their clear swift flight and hectic orange pigment. A rarity along the author's 4km transect in the upper Lee valley! Also encountered were Speckled Woods, Meadow Browns, Large Whites, Wood Whites, Ringlets, and the coastal Gatekeeper. It was the author's lesson on the day to learn from Ken Bond that Gatekeepers' most northerly range corresponds with his Lee valley/Toon valley transect. Walking his transect the very next day (Sun 8th), the author recorded 33 Gatekeepers – more than the entire 10 years of recording at weekly surveys from April to September annually. Ken is best placed to interpret whether this species has extended its northerly range with the current onshore southerlies – neighbours have been remarking that these warm southerlies bring more than a hint of sea air.

Flowering native plants included the arrestingly beautiful Rosebay Willowherb (*Epilobium angustifolium* – in some botanies named *Chamerion angustifolium*), Hoary Willowherb, Great Willowherb (which Ken informs represents the solitary foodplant for a number of Irish moths), Marsh Willowherb, Short-fruited Willowherb and the pale pink petalled broad leaved species (the latter 2 being uncertain). Purple loosestrife was thinner on the ground than exactly 365 days ago – but to die for, regardless. Our five native St. John's Worts are well represented at Gortigrenene – with the exception of the perforate form that was not recorded on the day. One participant mistook 'Tutsan' (*Hypericum androsaemum*) for Japanese Knotweed – thankfully absent – though prima faciae similar. Effective eradication of Jap. Knotweed, other than herbicide, was introduced at a number of sites 20 years ago; the spreading and pinning down of farmers' used sileage black plastic proved successful after 18 months. This plant has not since returned.

Facilitating work experience supervision for adult students during April (in advance of the 8th Amendment referendum) and on encountering Japanese Knotweed along the river Sullane (Ballyvourney vicinity) and explaining its scientific name '*Fallopia japonica'* (hollow-stemmed), one of the 'fairer gender' students exclaimed 'always blaming the women'. A humorous rumpus ensued when it was pointed out that only the female Horseflies are voracious blood-suckers – the male content with nectar feeding.

Furze (Gorse), as a pioneer on bared ground was profiled – participants urged to source John Lucas' 'Furze' through the library service. Though invasive, this shrub's highly specialized attributes, being a member of the 'Clover Family', have long been lost to memory. Up to the 1940's, farmers sowed '*Ulex*' as a 'green manure' rotation crop, field by field – to nourish and build soils through the plant's bacterial root nodules – thus fortifying and stimulating Soil Mycorhizzae – improving pasture without the aid of 'men and machines'. The resultant gorse fodder was fed to plough horses who gorged on the wilted foliage, which was additionally used for animal bedding during the winter months. Farmers attested that such bedding warded off 'red water' and other bovine afflictions. The last market for furze seed was held in Castletownroche in the late 1940's. Verily, 'there's nothing new under the sun' – including green manuring.

The author appeals to farmers - leave a few 'Hare's Corners' (cuán na ngiorraí), if for nothing else but the Wren, Woodmouse, Shrew, Hedgehog and Primrose. We are not the only things trying to stay alive! A clump of furze beats all!

SHREWS' PRAYER
Plough your fields busy farmers
Sow your wheat and your grain
By the sweat of your brows shall the needy be fed
But leave us our corners our sad hearts to gladden
Man lives not by bread alone
You've surely heard said.

NATIONAL TREE WEEK 2018 (March 4th to 11th)

'ASCENDENCY LANDSCAPES IN POST-INDEPENDENCE IRELAND'

(Abridgement and elaboration of a Talk presented by Ted Cook at Macroom Library, Tuesday, March 6th, 2018)

Macroom Castle c. 1877, facing west above its' 200 acre emparked Demesne

The presentation commenced with a question put to the participants (numbering 57) – Who recalls the 'Great Storm' of October 16th 1987 that hit England and Wales? Surprisingly few hands were raised – fewer again were aware that Hurricane Midge struck the U.K. near precisely to the very hour, 30 years earlier to the day, that Oephelia's severest gusts hit Ireland.

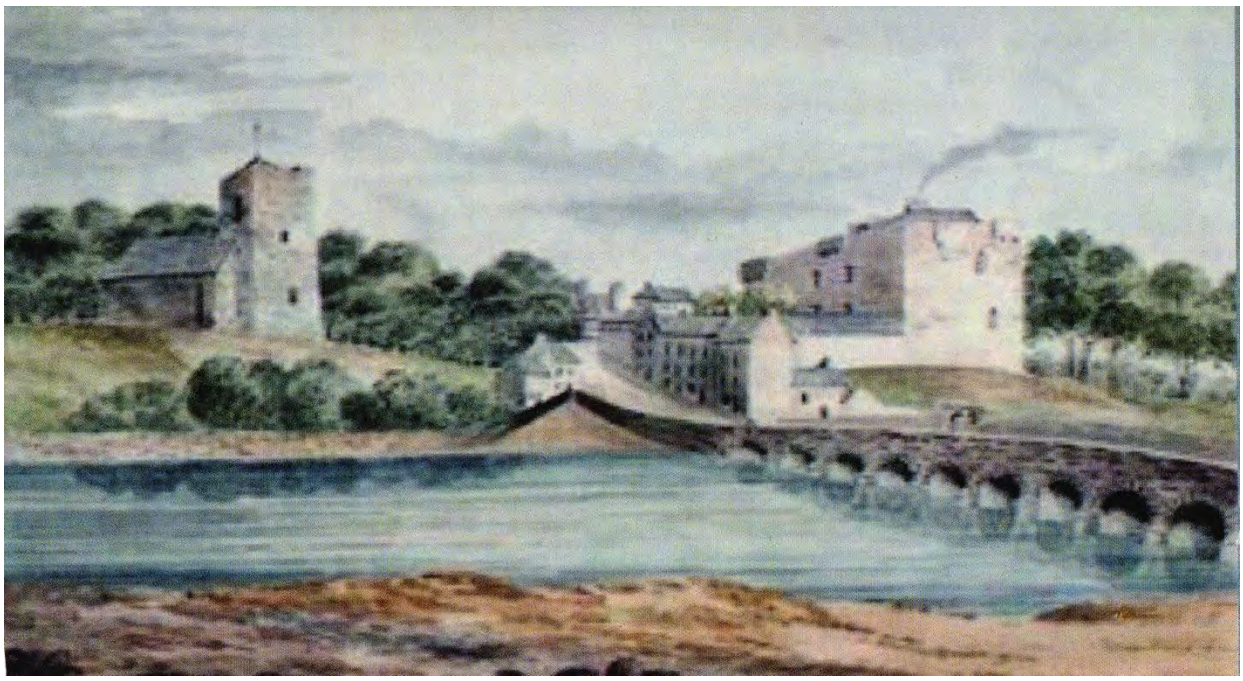
Details of Dr. Oliver Rackham's research in the wake of 'Midge' were elucidated (see 'Field Walk along the Munster Blackwater', November 2017 on this website). Included in Rackham's lists of those Trees that withstood the 1987 Hurricane that wind-threw circa one quarter of the entire hardwood resource of the U.K. were the hollowed out Veteran and Ancient Trees.

These tens of millions of Trees that did succumb 'were poorly planted 300 years earlier' and to grasp this proposition, we must remind ourselves of the frenzied destruction of the English Parklands and Demesnes in the earlier years of Cromwell's so-called 'Common Wealth' (1649 – 1656). Decapitation

of King Charles I was the introit to the reign of terror against the 'Aristocracy', unleashed by Cromwell and his fellow fundamentalist Iconoclasts. Those 'polite' Landscapes of the Royalist faction, themselves deeply symbolic of Feudal Overlordship, became the target of the self-proclaimed 'Lord Protector of England' – himself of subsistence farming roots.

On his accession to the British throne in 1660, King Charles II and his loyal magnates proceeded in haste to recreate the Designed Landscapes of Wood Pasture and Deer Park throughout the period of his reign until 1685.

According to Cork County Council's research, there remains in Ireland, c. 6,000 Demesne/Designed Landscapes – with 1,000 in County Cork's 7,457 square kilometres, many of which serve as Golf Courses; Public Parks (or both) and Private Estates.



Macroom Castle and St. Colman's Parish Church c. 1824 (refer to Post Notes II)

Twilight of the Ascendency

Bence-Jones has defined the 'Ascendency' as 'the Lords and Landlords and their families 'that held political power up to circa 1880.

Mitchell (als. Abbé MacGheoghegan) in his 'History of Ireland from the Treaty of Limerick' surmises that six sevenths of Ireland supported 13,000 Estates, many with Demesne Land (and associated Mansion).

Both Elizabeth Bowen ('Bowen Court') and Mannix Joyce ('Atlacca and Dromin Parish'), in their scholarly research, trace the origins of land confiscation and regrant during the Cromwellian and Williamite periods – in the former, Cromwell unilaterally granted away millions of Irish acres in lieu of payment to his army. In the latter, land was conveyed by 'Crown Grant' – in both instances, grantees covenanted to maintain and promote the 'English Lifestyle' and sublet only to 'Loyal

Unionists'. (In the manner of 'Propter Decorum', enunciated by the Norman Conquerors of Britain during the 11th – 14th centuries). 'Proper Decorum' extended to the specific style and design of the grantees' landholdings under the Emparkment Statutes. In the summary 'Munster Blackwater', we traced the introduction of the English Beechtree to Ireland via the Earl of Wicklow's Nurseries at Shelton Abbey during the 1680s – by the 1740s we note Beech, in addition to both small leaved Lime (and *Tilia X europea*) and Spanish Chestnut being planted in the 'replicated' English landscapes.

Tree-lined Avenues, themselves symbolic of an indefinitely 'secure' future for the 'Anglican-Irish' appear during the latter reign of George III – and take off in the 1830s (Victoria). Participants were introduced to the 1794 publication by Samuel Hayes who laid out Avondale Demesne (County Wicklow), whose descendant C. S. Parnell inherited ('Coppicing and Woodland Management in Ireland'). In his tours and recording of many Irish private Parks from 1760s, he notes a predisposition for Ash; Oak and Spanish Chestnut – but he deplores the practice of grazing coppiced lands and general failure to fence out livestock.

Parnell, incidentally, was the descendant of the Mayor of Congleton, Chesire (a draper) who purchased an Estate in Ireland c. 1660, from Cromwell's confiscations.

Coolattin Estate in South County Wicklow

Hayes' 'model Irish Estate' was the 56,000 acre Coolattin Estate in South County Wicklow, a 'coppice with Standards' Forest regime. (see photo of Coolattin House with its' 124 rooms at the heart of the Demesne). But the 'Cult of Appearances' allied with the Ascendency's scandalous Private Luxury in an island reduced to Public Squalor, was ipse facto doomed to disintegrate.

Because ‘Title’ to succession was contingent on producing a Male Heir (Condition Precedent), and in an earlier summary (Castlefreke Estate) we observed that entitlement could proceed through a ‘son-in-law’ who adopted the Family name, the principle of ‘Propter Decorum’ demanded the Male Heir Apparent serve in the Crown Forces abroad (e.g. America 1777; Crimea and the Boer War in South Africa).

Progressively, fewer Male Successors-in-title were returning from battlefields.

The ‘Body Blow’ to the ‘Ascendency Landscape’ was the ‘Great Hunger’ of ‘Black 47’ – though, as shared with our listeners, Famine and associated Typhoid and Cholera had already surfaced in 1818 and 1833 in Munster.

Between the obscene excesses of the Landed Class and their ravenous Middlemen and the imposition of Church Tithes (levied by Proctors), the Tenants in their millions were bereft of the wherewithal to pay rents to the ‘Big House’.

Under the 1849 ‘Encumbered Estates Act’, 10,655 Estates went to the wall by 1870. In 1852 there remained 700 Landlords with Estates in excess of 5,000 acres, who owned half of Ireland’s 20 million acres (more correctly 48% of the island).

A newly emergent British Merchant Class acquired many Irish Estates, under the 1849 statute, at knock down prices – and being entrepreneurs, the first to go were the valuable hardwoods – the former late Medieval Parklands were cleared for Cattle ranching. Dr. E. McCracken’s published papers of 1954 and in a subsequent masterly contribution to the Cork Historical and Archaeological Journal, describes ‘the Holocaust of Trees’.

Gladstone’s Land Acts (at Parnell’s behest) laid the blueprint for the breakup of Estates during the 1880s (with Windham’s 1903 Land Act to follow). Freehold titles became vested in the Tenant farmers – many of whom had long associated hardwoods with Landlordism. The ‘Holocaust of Trees’ accelerated. Shamefully we read in an account of the Sale and clear-felling of Castlefreke’s Old Growth Oakwoods, valued at £3000 during 1920 (‘Jasper Wolfe of Skibbereen’. Collins Press. 2008).

Recalling Samuel Hayes’ appeal in 1794 to all shades and aspirations within ‘Irish Life’ – ‘we can never be too careful of the Trees we already possess’, one of the first enactments by our New State in 1923 provided for the Compulsory Acquisition of the remaining Estates and Demesnes – but with little or no provision for Tree Preservation.

Clearly it was this 1923 Statute that prompted scores of Ireland’s remaining Landed Families to gift their Estates to the State or directly sell to syndicates – in the hope that their ancestral ‘Old Homes’ would be preserved in perpetuity. Among the leading Anglican Irish Families to ‘surrender’ their Demesnes in 1924, were Lady Gregory of Coole Park and Olive, Lady Ardilaun of Macroom Castle, who sold at a nominal price. Killarney National Park was bequeathed the State by the Bourne-Vincents and latterly the Smith-Barry sisters (Evlyn and Rosemary) placed their ancestral Fota Island Demesne in Trust, as did the De Courtenays their Newcastle West Parklands in County Limerick.

The large crowd who attended the Ascendency Landscapes talk by Ted Cook in Macroom Library

VETERAN TREE ECOLOGY:

As Peterken and Rackham have observed, trees within the Forest rarely reach over-maturity (veteranisation) due to the natural and intense competition within such ecosystems.

Ireland's remaining 'Ancient' and 'Veteran' Tree resource are to be found in our former 'Ascendency Landscapes' – they grow as solitary Specimens mainly. What do we understand when Rackham (The Ash Tree 2014) writes – 'one 200-year-old Ash can be a series of ecosystems for which 10,000 x 50 year old ashes are of no use at all'? Again in his 1986 publication of 'Trees and Woodlands', Rackham, as the acknowledged Global authority on 'Historic Ecology', tells us that one ancient Oaktree supports more Biodiversity than 5,000 x 100 year old Oaks.

In his 2016 (English translation) 'Hidden Life of Trees', P. Wohlleben provides ample science that demonstrates how senescent (O.A.P.) Trees impart disease resistance and climate adaptability to an upcoming generation; mycorrhizally (nutrient-sharing and messaging via root networks). As he says 'A 500 year old Tree has surely had few surprises in its life'.

The function of Fungus in nature is to break down dying organic materials – none so visible as the Decomposer Fungi on dead and dying Trees that drive the 'Growth and Decay' dynamic. (Saprophytes – Sapro = Decay). Relays of progressively rare and vulnerable Saprophytes, associated only with veteranising Trees alongside Decomposer Insects (Saproxylic), many of them 'Red Data' Long-horned Beetles found only in the rotting trunks – (whose larvae can take several years to develop) are critical to Woodland Continuity.

But 'keystone' Saproxylic Insects are not endowed with mobility – few can fly or walk. Hence, successive habitats for our rarest Veteran Tree occupants are utterly dependent on our zero tampering. The 'Call of the Forest' urges us to 'not just do something – sit there'. Consequently,

Ireland's 'Ascendency Landscapes', apart from being the 'Jewel' of Irish Tourism (and in time Eco-Tourism, the fastest growing 'spend' on the Planet), are home to species that the Global Forest loses at Life's universal peril.

All development should contribute to Nature's recovery – our 2014 Forestry Act (enacted May 2016) has failed our Veteranising and Dying Pillars of Nature regardless that the Act purports to preserve all Trees over 150 years old but exempts Dead Trees; Dangerous Trees; Trees impacting on the E.S.B. network; Trees within 30 metres of a house; Trees within Urban Districts and County Boroughs; Trees that impeded road maintenance, etc., from this 150 year rule. O.P.W. drainage Schemes are exempt.

In conclusion – 'Many Trees in cities and forests worldwide are in trouble. Insects, diseases and pollution are not the major causes. The major causes are mistreatments by man. Mistreatments are linked to misunderstandings about Trees. Give Wildlife a chance' (Alex Shigo, 1984).

Written by Ted Cook, transcribed by Conor Nelligan

(Talk lasted 105 minutes - author acknowledges Library Service)

The planting of a Limetree following the talk at Macroom Library

Ascendency Landscapes – Post Notes I

In early Feudal Law, inheritance followed Primogeniture – where the first born male was entitled to succession. The legal devise of a 'Will' did not exist. A deceased landowner's Widow enjoyed a 'Life Interest' in one third of the Estate under Feudal Dower.

Throughout the Period of Confiscation and Resettlement (late 16th – mid 18th century), the 'Planters' held land under 'Entail' where each succeeding Male Heir held his Estate in trust for his first born son.

'Noblesse Obligé' was introduced during the Library presentation. As practiced among the French Aristocracy and adopted by the Normans (having settled and established the Dukedom of Normandy), the 'Nobility's Obligations included Benevolence towards the lower tiers of Feudal Society. The 'Big House' certainly adhered to 'Propter Decorum' – less so 'Noblesse Obligé'.

Several Estates in Ireland, North and South, remain in the same Families since time immemorial, e.g. Slane Castle Estate (Coyninhams); Birr Castle Demesne (Rosse/Parsons); Curraghmore, County Waterford (Beresford-De Paors); Westport House (Brownes); Florencecourt (Fermanagh) and Baronscourt (Tyrone); Doneraile Court (St. Ledgers)' Carton Estate (Mahons); Castletown House Demesne (Fitzgeralds) are examples of Estates that were acquired by the State – also Woodstock and Mount Congreve (County Kilkenny). Ballyseedy (Blennerhassetts) near Tralee was acquired mainly by Public Subscription in 1993 and now vests in the Local Authority under Forest Service Management. Several former Estates are designated S.A.C. (Special Area of Conservation) – these vast once private enclosures evolved as Nature Refugia, e.g. Killarney National Park's Old Growth Oakwoods; Glenveagh National Park, County Donegal (respectively the Herberts and Adares). In Northern Ireland Lissan (Cookstown); Mount Stewart (County Down); Belvoir (near Belfast) and Gosford Park, among many, provide Public Amenity to their local Communities.

Austin Clarke's elegant capture of these 'Ornaments' is apt – 'for the house of the Planter is known by the Trees'.

Ascendency Landscapes – Post Notes II

The 'Windele Painting' of Macroom Castle from the far bank of the Sullane River that flows west to east was acquired by the R.I.A. (Royal Irish Academy) in 1865, the year of the painter's passing over. The watercolour measures 21cm x 37cm and has never been placed on public show due to its' easily degradable leather frame. It is available for viewing on appointment.

John Windele, born in 1801 was a leading amateur Antiquarian of his day – and a Corkman - and though R.I.A. record 1835 as the 'creation year; this gem obviously precedes 1824.

Church of Ireland Parochial Records published in 1863 record that St. Colman's Church was rebuilt in 1824 – that a new bell-tower, dressed in white limestone was built to replace the crumbling medieval tower that year. In the (circa) 1877 photograph of the castle we note this pinnacle Church Tower rising amid the trees. In Windele's watercolour we are viewing the old St. Colman's Parish Church.

Those familiar with the view of the 9 arches bridge and Castle Street will note that the existing tower overlooking the terrace of houses climbing Castle Street is missing – as is the decorative retaining wall overlooking the Sullane.

Midcentre of Windele's capture can be discerned the iconic Castle Arch with its' towers – the Town's former 'Museum' at the foot of Castle Street and comprising the Rectory's Glebeland, which was earlier the Town's Protestant school. It is a credit to the family that acquired the Rectory that this historic building has recently been renovated and secured for the upcoming generations to admire. After the burning down of their Ballyvourney school during the 'Troubles', its' scholars removed to this schoolhouse.

What is captured in Windele – and eclipsed by the curtains of ivy in the photograph is what Swift in his 1723 'Munster Travels' referred to as the 'double-towered Castle of Macroom'.

Photographs taken by the Town's celebrated Photographer (Mr. Dineen) during the 1968 demolition of this 'twin Irish Tower House' reveal the shells of two structures. Windele faithfully records the features of the Medieval Tower House – additionally, witness accounts of the 'ball and chain' event recount the exposed spiral cut stone stairwell ascending the Tower facing the bridge.

Consulting the 1829 O.S. (6 inch) map we note that what yet remains of an 18th Century Beech Avenue (flanked by Lime trees) – what is known locally as the 'Double Rank' – stops short of the lower lawn (below the 'haha' in the photograph). This O.S. recorded established Parkland Trees and Avenues. In Windele can be observed what may well be the continuation of the 'Double Rank' to the Castle.

The author has, with the Trustees' approval, since 1999, hosted Heritage Week within this historic Landscape – readers are welcome to participate in the forthcoming Heritage Week (late August 2018) event where it is planned to visit and observe this Demesne's Double Rank – many of which mature Trees now near their 'end of life' episode. Additionally, 2017 published research (Stolze and Monecke) suggesting Beech, Walnut, Maple and Hornbeam were once native to Ireland, will be shared and discussed with visitors on the day.

Ted Cook
(Heritage Specialist)

‘THOU BREATH OF AUTUMN’S BEING…’ with Ted Cook

FIELD WALK ALONG THE MUNSTER BLACKWATER

Sunday, November 12th, 2017

Noreen O’Brien, Farm Manager at Nano Nagles’ ‘Centre for Spirituality and Ecology’ proposed a follow up walk at the Heritage Week Cruinniú last August 26th August – participants at Broadford’s Wildlife Arboretum, Co. Limerick signed up.

From our carpark meeting place (Nano Nagles’, Kilavullen, Mallow, Co. Cork) with its overview of the swollen Blackwater that bisects the Convent Demesne, we could encompass the rolling fertile heartlands of the former De Naglo Fiefdom – enclosed by the near distant Nagle Mountains.

The low arc of the noon sun imparted a welcome heat as new and familiar faces were introduced – we each had our tales of Oephelia who had swung by one lunar month earlier.

Remarkably despite the violent hurricane gusts from the south, no trees were wind-thrown within the grounds of the Centre.

Foremost Scholar and Temperate Woodland Specialist, Oliver Rackham, in the aftermath of Hurricane Midge that hit England on the night of October 15th, 1987, published detailed research.

Some participants could name the B.B.C. weatherman who earlier on that evening (Oct. 15th, 1987) reassured his T.V. audience concerning a rumoured hurricane – 'if you're watching, don't worry, there isn't'. Michael Fish got it wrong – the most damaging storm since the 1670's toppled millions of Oak, Lime, Walnut, Beech, Yew, Hornbeam and Ash and killed 18 people and injured many thousands.

Rackham carefully studied a vast sample of upturned rootplates, finding: -

1) Many of the mature trees' rootplates indicated poor planting and insufficient site preparation during the reigns of Charles II and James II (1660 – 1689).
2) Well managed Pollards and coppiced Parkland Trees escaped impact.

The 'clean-up' operations, ordered by the then Prime Minister Ms. M. Thatcher and undertaken by the Army, caused severe and longer term damage than had the storm. Little or no provision was made for the storing and seasoning of Yew, Walnut and Oak timbers. The frenzied 'tidy up' swept away meaning and beauty.

Along the 'Cosmic Walk', young Common Oaks drew our attention – the last clinging Oak leaves were covered with a thick, black, bushy 'sooty mould'. Samples were gathered and despatched to a leading Mycologist (greek – Mukes: Fungus). Results tell us that it is neither pathogenic nor caused by air pollution – rather it is a Fungus that grows on the sugary exudates from leaf sucking insects. Furthermore, this 'mould' develops late in the life of the leaf and does not therefore impede photosynthesis. Convent Prioress, who joined our walk, will be no doubt relieved on receipt of the detailed results.

We reach the Ornament of the Blackwater Catchment – for some the largest Ashtree ever encountered – for others, their first experience of a full mature hardwood.

Measuring circa 6 metres plus at 1.7 metres height, this maiden (never having been coppiced), dominates the skyline in all directions. She (and he), this Ash bearing flowers of both genders, presents the archetypal crown discipline of a solitary Specimen Ashtree. She (he) is, like Cherry, Alder, Hazel, etc., wind pollinated – observe and distinguish its flowers during March.

On an earlier walk (2010), a Sister Marcella, thinking aloud beneath its spreading green mantle, imagined Nano and her first cousins Edmund Burke (described as the finest Political Philosopher in History) and Peter Hennessey (of the Cognac province) playing swings during the 1720's on this perfect copy of its species. (Would there was an Edmund for Brexit!).

On joining the Riverside path, barely above the restive water course (the downpours of the preceding 2 days – and up to 10am on the day were swelling the Blackwater such that we could discern its associated floodplain of river meadows), we noted this River's reputation across Europe as likely the finest and pristine Salmonoid (Wild North Atlantic) freshwater, peopled with Otter and a significant genetic population of Freshwater Pearl Mussel.

A site was chosen for our potted Bird Cherry (*Prunus padus*) of 'wildwood' provenance, by the River – alongside earlier plantings of Spindle, Ash and Hazels – and all at home on the alluvium overlying the limestone geology.

We considered additional follow up research undertaken in the wake of Midge at the Alice Holt Lodge (U.K. Forestry Commission Research Centre, Surrey).

Oak, Ash, Cherry and Conifers were planted the same day in March 1988, as seedlings. By 1991, some are 'small and spindly'; some are 'tall and strong at 6 feet' and the third batch are close on the heels of the latter. The 'spindly' mix had competing grass and weeds regularly close cropped; the 'tall and strong' had their encircling vegetation treated with herbicide and the runners up were left untended for the 3 year study. What accounts for the marked divergence of growth rates? Cutting the encircling grass and weeds 'increases the stress and competition by the stock for moisture', rendering them weakened. For those uneasy with toxic sprays, let the planter cut a circle of sward – the diameter being determined by the rootball or bareroot mass – and pare away the turf (sward) no more than 3 inches depth. Cut across the middle of the sod to be lifted – spend time thoroughly aerating the pit (as we would prepare the baking mix in the bowl) – add seaweed dust during Springtime plantings. Pay careful attention to positioning the root collar (soil line) level with the backfilled pit and return both 'half moons' upturned.

Crossing the bridge that leads to Kilavullen Village, we pass near to the G.A.A. pitch's serious inter Parish football game – flags and emblems adding colour to the clamour.

By the gatelodged entrance to Carrigacunna Castlegrounds (Edmund Burke's Home), we note a disease free Wych Elm (*U. glabra*) – indigenous to Ireland – time permits a brief profile of Elm and its predisposition to a variety of Fungal Pathogens. Its seeds are collected from the 3rd week in June and sewn at once.

We enter and begin our march in silence, as we would a Cathedral with vaulted roof – here is one of few mature Beech Avenues of considerable length.

Planted between 1841 and 1859 (after Storm Darwin that struck us February 12th, 2014, I counted tree growth rings on a sample of logged windthrown Beeches along this kilometre Avenue during May 2014), this curvilinear experience, punctuated by the early evening roosting Rooks overhead, prompted a discussion initiated by the late Dick Warner in the 1980s. Dick always asserted that Rooks possessed a vocabulary far more sophisticated than our own – modern experiments vindicate his claim that Rooks do recognise humans. Their Parliaments are so much more alive and articulate than other human fora.

Walkers nibbled toadstools – we had a walker with us with competency – the Common Puff Ball was snapped up (*Lycoperdon perlatum*), being careful to leave plenty after to enable sporulation.

Profiling the introduction to Ireland of the Beech Tree in 1689 at his Shelton Abbey Demesne Nursery (Co. Wicklow), Samuel Hayes writing in 1796 from his Avondale Estate descrives how the Earl of Wicklow was anxious to promote English Parkland/Wood Pasture and Deer Park landscapes among the newly arrived Cromwellian Colony. ('Coppice Management in Irish Estates' *S. Hayes.* Published 1796. R.D.S.).

In conclusion, and in tying in Carrigacunna's Rank of mature Beeches, Avenues became associated with the early years of Queen Victoria's Reign (1837).

Alas, time was up – the setting sun to our west drew chill November mists up from the adjoining Blackwater and we recited Austin Clarke's 'Lost Heifer'. And hadn't we a rendezvous at Nano Nagle's for refreshments.

As the wheeling Rooks gathered for bed, Kilavullen's Pubs were making hay – wasn't there the tactics and missed chances and yellow cards to mull over – and a singsong well under way at Magners' Bar by the River.

Written by Ted Cook (I.N.T.O. Heritage Specialist)
Images courtesy of Micheál Rowsome and Eric (The Bigger Picture)
Transcribed by Conor Nelligan

HERITAGE WEEK AT RATHBARRY (ROSCARBERY)

‘FOR THOSE WHO NEED NATURE’ – With Ted Cook

Sunday, August 27th, 2017

The author was invited in early May, 2017, to host a Heritage Week event at Rathbarry Village (Parish of Rathbarry and Ardfield and former autonomous Medieval Diocese of Ross with its Bishop’s See at Roscarbery Cathedral).

Our Heritage Week walk, initially scheduled for 1pm to 3pm, mutated into an all-day celebration of Rathbarry’s achieving ‘Best Kept Town in Ireland 2017’ commencing with a Welcome Reception at 12:30p.m. in the Village Shop Gardens.

As agreed in early May, our ‘Walk in Nature’ kicked off with a picnic (provided by Rathbarry’s Tidy Towns Committee) in the sensitively landscaped Village Shop Gardens. Verily, it was a ‘Loaves and Fishes’ criunniú regaled with the traditional music, song and dance provided by Comhaltas Ceoiltóirí Cloch na gCoillte.

In consultation with Rev’d McCarthy P.P. and Deirdre Hodnett, it was proposed that the author would facilitate two walks, interspersed with a ceremonial Yew Tree planting in the Burial Ground adjoining St. Michael’s Church.

FIELD WALK (No. 1)

Proceeding from the Village Gardens, we followed the 'Old Town Road' (Sean Bothar na Bhaile) that runs parallel to a water course, reminding us that Ireland's first roads were 'Cow Paths' (Bóithre) – the earliest of which followed water courses. This course drains into Kilkernan Lake.

The larger than anticipated number of participants (thanks in part to Rev'd McCarthy's repeated encouragement from the public address system) [over 50 people] were introduced to and identified our Sycamores and Beeches – the former introduced in early Norman Times and latter being an introduction before the Williamite Wars (c. 1680s) – and both casting dense shade along our route's western slopes. Ivy, Ireland's only evergreen native climbing shrub, thrives the length of this planted east facing slope. Invariably, our native ground; field and shrub layers are 'depauperate' – more so under closed Beech canopy, with the exception of Ivy and Bluebells.

Ivy prompted the topic of 'Cattle' (a word that once referred to Cows; Sheep; Pigs and Horses) – the Cave Art/Motif of Southern France's limestones depict long-horned cows 'browsing' Ivy and the verge foliage of the Wildwood, 40,000 years ago. Sound husbandmen know the value of Ivy to lactating Cows – we ruminated on whether indeed our hedgerows measure the success of the Irish Farm. Because it is inherent in all organisms to retain 'Genetic Memory of Nature', it is 'Animal Cruelty' to corral any livestock by shock wire under a Solstice Sun or Wet Pelt of a November Hill. The habitat requirements of our '*Bos Primigenius'* – the evolutionary ancestor of our modern Friesian – for the Shade and Shelter of the Wildwood's edge, has not changed.

To our right hand of this roadway we recognise the natural flora of the voiceful watered glen – buttressed by fine water Ash trees. Taxonomists (classifiers of species) are divided on whether our temperate zone fields two Ash Types – this one being the 'Water Ash. No 'Chalara' (Ash dieback) is discernible at Rathbarry. Neither is the Alder pathogen '*P. alni alni*' present within this former Barrymore Estate. (In Tudor maps, Rathbarry is the Chief Seat of Barry Roe, bounded on the east by the Kilbrittain McCarthys and Cremins and on the west by the Clan Loughlin).

Additional plants of note along our northbound route include Angelica (Archangelica); St. John's Wort (the larger *Hypericum tutsan* or Rose of Sharon); dense swathes of Nettle in full fruit which participants, hesitantly, tasted and to our waterside we identified various species of Liverworts. We traced the introduction of the Nettle to Britain by the Romans and the antiquity, in plant evolution, of the Liverworts and Mosses (Bryophytes). Rather than 'spray' our Liverworts, as one walker proposed, we do need to guard and appreciate our primordial indicator plants at Rathbarry.

Himalayan Balsam was encountered and identified – and despite its attractive blossom, walkers were alerted to its' tendency, like Japanese Knotweed and Giant Hogweed, to choke and expel our native alluvial plant life. We lifted a number carefully with their root, shaking the soil and left them dry away. This exotic balsam, if ignored, poses both a 'pressure and a threat' (in aboracultural speak – a 'stress and a strain') on local biodiversity.

We mounted the 'Church Steps' hedged by Beech and emerged into the elevated cool calm of St. Michael's precincts, sitting on the rim of the glacially sculpted gorge whence we climbed.

Images courtesy of Ronnie O'Reilly

In Plantagenet times, from the reign of Henry II (1154 A.D.) to the reign of Richard II (1377 A.D.), i.e. the period of Norman Settlement in Carbery, the cult (veneration) of St. Michael the Archangel was robust. Adherence to Patron Saints of both Parishes and Diocese has continued unbroken since earliest Church Times, e.g. all land between the Rivers Lee and Blackwater comprise the ancient diocese of St. Colmán – the diocese of Cork, being the land south of the Lee, being dedicated to St. Fin Barre.

The one time autonomous diocese of Ross remains under the protection of St. Fachtna. Dedications to St. Michael; St. Mary; St. Catherine of Alexandria; St. Thomas; The Holy Cross; The Blessed Virgin; St. John Baptiste; St. Nickolas, etc. are associated with the newly arrived Norman faithful (e.g. the Norman Fitz Stephens dedicated Aghada Parish to St. Erasmus, the 4th Century Italian Patron Saint of Sailors).

The appointed site for our (Common) Yew Tree, adjoining Chapel Road, had earlier been prepared. Seaweed dust was applied liberally and dug in – the Yews being fonder of an elevated Soil p.H.

St. Colmcille's Fifth Century reference to the Hermitage Yews
(as translated by the Four Masters)

'Ten Hundred Angels were there
Dear to Me is that Yew Tree
Would that I were set in its Place'.

The cult or practice of the Churchyard Yew was briefly introduced. St. Colmcille had chosen for his 'Derry; Hermitage a grove of Ancient Yews – his abhorrence of the 'sound of the axe' among his Yews has come down to us a millennium and a half later. During research of its ancient Churchyard Yew population, the Church of England discovered that many of its pre-Reformation Churches had been constructed to accommodate the roots of the pre-existing Yews – as evidenced by the curiously circumventing designs of the vaulted crypts. In one Parish in West Muskerry Barony, survives a 'palao-relictual' Yew Tree in the curtilage of a long abandoned Church – a veteran as well as an ancient specimen that had been added to the 'List of Champion Trees of Britain and Ireland'. In his County Cork History (1747), Charles Smith makes reference to the 'Yews as big as any Oak' along this stretch of the upper Lee Catchment.

Since earliest Church Times, we have face-painted our foreheads with the ash of burnt Yew branches – Palm Sunday in our oldest 'Foclóir' reads 'Domnach an Iúr' (Yew Sunday). Lent, which in Medieval times lasted 80 days, continues in our day to be associated with the Yew. It is of interest that in the 'Fíor Ghaeltacht', the Yew is known as 'Crann Bile' (Sacred Tree).

Our store of Beara Seaweed was passed around and tasted by what morphed into a 'congregation'; who were lead in prayer by Rev'd Chris Peters of our Church of Ireland, for all at rest in St. Michael's Catholic Cemetery - 'Till He Come'.

Our first of two Heritage Week events concluded and we returned to the Shop Gardens via Chapel Road where refreshments go leor and the Comhaltas Tunesmiths provided a welcome nourishment for body and soul.

Image courtesy of Ronnie O'Reilly

Field Walk (No. 2)

Our second Field Outing set out at 4:20 p.m. for Old Rathbarry Church at the heart of the De Barry Demesne adjacent their Norman Castle. We followed the forest track parallel to the Owenahincha Road, having entered the walled enclosure by the eastern Gatekeeper's Lodge.

In addition to the 'Castlefreke Estate' being the largest of the West Cork landholdings in the 'Landowners' Survey 1875', at 13,500 Acres, since 1621 here was the Seat of the Earldom of Carbery in the person of the Welsh Courtier John Vaughan until 1713 whereupon King George created the Lordship of Carbery for George Evans in 1715.

William Evans who settled in Limerick during the early reign of Elizabeth I, and who was in the cadet line of descent of the ruling Celtic/Welsh House of Eferles, was the ancestor of the 1st Baron Carbery, George. Anyone familiar with the Treaty of Limerick in 1691 will recognise the signatures of Patrick Sarsfield, Earl of Lucan (for the Catholic Cause) and George Evans (for the Crown Cause).

William of Orange and his (Stuart) Queen Mary II who mounted the English Throne in 1689 (until 1702) expressly directed George Evans to take a moderate stance with Sarsfield 'in the face of considerable opposition' from a progressively fundamentalist Protestant English Parliament. Evans defied this Parliament proclaiming 'I gave my word on your behalf - let no man make a liar of me'.

The present 12th Baron Carbery is descended from no 'manufactured aristocracy' nor 'ignorant squire'. What made this Barony the wealthiest in Ireland was not that it was by far the largest Barony in either Britain or Ireland, but its long established Trade routes to France and Spain. In its day, Carbery, including the southern shore of Bantry Bay, extended north to the Bandon River and northwest to Uibh Laoighaire Parish where tribute was exacted from a large Church of that Parish's southwestern Townlands (9).

Our historians disagree on the origins of the name 'Carbery' – just as the O'Leary Clan had been driven from Roscarberry to West Muskerry, under the same Norman pressures (this time the Cambro-Norman FitzGeralds), the Uí Cairbre Clan of the 'O'Donovans' had been expelled from County Limerick and settled among the O'Mahonys and O'Crowleys – themselves subject septs of the McCarthy Reagh's who were the Regional Kings of South Munster. Clan Cahil O'Donovan occupied central Carbery until the Cromwellian forfeitures after the 1641 Rebellion.

Whence the name Castlefreke'?

Having identified and named several Sallys (Willows) themselves encroaching as scrub along the forest tract – and several ferns (notably the Hard Fern that tells of local acidic geology) – and the Rosebay Willowherb with its as yet imperfectly determined provenance, our walk reached the Church enclosure of Old Rathbarry with its extraordinary overview of the De Barry Castle, Seat of the Lords Barrymore. The particular quality of late August light - not quite Vespers – influenced likely by the proximate Atlantic with Demesne Woodlands in the backdrop, made stark this 15th century fortress of battleship grey stone. It stands on the site of its former Norman Keep – and possibly a pre-Norman structure.

It remains unclear what a certain Captain Arthur Freke (pronounced 'Freck-ha') of 'Flemish extraction, was doing in the Barony. One record purports that he 'acquired' Rathbarry Castle in 1630 from Barrymore – by purchase or conquest remains unclear. The 'Subsidy Rolls' wherein are listed those Cromwellian soldiers that were paid in Irish lands after 1649 do not record a Captain Freke, who is described as 'an English Adventurer'. Having hardly 'put the kettle on' on his return to Rathbarry from England with his newly wedded Mrs. Freke, the garrisoned Castle withstood a 112 day siege. It was, presumably by subsequent remarriage, Mrs. Freke having fled back to England not to return, that his grandson Sir Ralfe began the construction of Castle Freke during the 1770s. Because entitlement to succession was contingent on producing a male Heir, Sir Ralfe, producing only daughters, entailed the Freke Estate to his son – in Sir John Evans (6th Baron, Lord Carbery) who adopted the Surname Evans-Freke. The 10th Lord Carbery, John, inherited the title at the age of 6 in 1898 with its 1,000 acre Demesne at the heart of a 13,500 acre Estate.

Our cruinniú gathered at the Evans-Freke mausoleum, respectfully, recounting that the 11th Baron Carbery Peter Ralfe Harrington Evans-Freke, who worked tirelessly to restore Castle Freke, passed over in 2012 (aged 92) and rests in this vault with his ancestors 'Till he Come'.

Very few others of Ireland's documented 6,000 surviving 'designated landscapes' and demesnes quite capture that sense of both man-made and natural continuity that one can so easily intuit at Rathbarry. Since early post glacial times hunters and gatherers and herders and our first farmers followed by wave after wave of Bronze Age settlers and Iron Age Celts – our earliest Copts and screaming Vikings – the Anglo-Norman Crusaders and Elizabethans and Cromwellians and Williamites – and in our day the steady trickle of Eastern Europeans and Syrian Refugees fleeing death and iconoclasm and as explained during our Yew Tree planting (and echoing her Climate Justice initiative by former President Mary Robinson) it is inevitable that soon a vaste and helpless humanity fleeing the 'glow ball' warming of Mother Africa will knock on our doorstep for Shade and Shelter.

Written by Ted Cook, transcribed by Conor Nelligan.

POST NOTES

Despite enquiries, we failed to identify the 'Dedication' of Old Rathbarry Church – participants from the locale presumed the Church Site with Burial Enclosure was dedicated to St. Michael.

The Rectories of Kilkerrin, Kilgarriff, Ardfield and Rathbarry from c. 1216 A.D. were held by the Augustinian Canons of the Priory of St. Thomas á Becket (St. Thomas the Martyr), Buttevant (formerly Ballybeg), North Cork.

St. Thomas Priory, with its 3,400 acres, founded by the De Barry Lordship as their principal religious house provided Rectors to coastal Ibane (Barryroe), Old Rathbarry may well be the 'Church of St. Thomas'.

'Demesne' derives from Latin 'Mensa' (a table). What strikes one about Castlefreke is the enormity of its demesne, the average, since 1066 A.D. in England and Wales being between 150 to 200 acres. Demesnes were authorised by Royal Licence and in subsequent centuries under the Emparkment Statutes. Always walled or similarly enclosed, the Seat of Mansion of the Lord or Bishop at its centre – the food for its 'table' being produced within the enclosure demesne while the outlying estate provided the 'Mansion' with rental incomes.

The De Barry (Di Barri) Knights (Warriors on Horseback) who delighted in hunting and hawking and being rarely arrested by the scruples of Justice were Norman. The 'Phenomenon' of the Normans has never been adequately understood by Historians or Anthropologists.

We traced their origins on concluding our second walk. Within three generations a band of savagely fierce Norwegian Pirates had occupied Normandy (1016 A.D.) and renounced their Gods for the God if the Christians – as dikes of Normandy they acknowledged the feudal overlordship of the Pontiff. Three generations in the warner French Climate had refined the, - they adopted the manners and language of the French and their motto 'Obedience and Unity', in a martial age, revolutionised the Social, Religious; Philosophical and Architectural face of Europe from Sicily to Carbery. By 1080 A.D. these former Mercenaries had perfected the arts of fortification and defence. Their 'invention; of 'Laws and Property' (Common Law_, 850 years later, remains little altered in 'Ireland's Best Kept Village'.

The author acknowledges the €40 contribution towards his travel by the Tidy Towns Committee.

Ted Cook I.N.T.O. Heritage Specialist

The Gearagh 1987 – 2017

'Paying Attention to Life' (May 14th 2017)

(Dedicated to the Memory of Dick Warner)

During our 'Cruinniú na Cásca' field outing on April 17th 2017 at Ballincollig's Regional Park, which is summarised on this website, participants were introduced to the residual pockets of mid riparian vegetation (Riverside Sally, Ash, Alder, Mayflower, Hemlock etc). The remnant flora, indicative of the Park's historic ecology, prompted a description of the last extensive alluvial wildwood upriver at the Gearagh (2kms south of Macroom). It was agreed that our Cruinniú (Gathering) would reconvene a month hence and observe what the Park resembled before this stretch of the Lee water-course was canalised and drained in the 16th + 17th centuries.

Auspiciously, 2017 marks the 30th anniversary of the State's designation of the Gearagh as an 800 acre National Nature Reserve, signed off by Minister of Finance R. McSharry during September 1987. (see Post Notes).

Deriving from 'Gaoire' (Wooded River) which word occurs in scores of our 64,000 townlands and placenames, here we witness the last functioning extensive forest within Western Europe, west of the River Rhine. In German, the Gearagh's equivalent is 'Wald Alnes'. 'Wald' meaning 'natural forest' gives us the English 'wealth' – the common weal. The adjunct 'Alnes' (Alnus/Alder: Latin) we associate with wetland and River Meadow complexes.

Despite incomprehensible physical, hydrological, chemical and genetic pressures, participants during our 5 hour study, observed and were arrested by the Gearagh's capacity for 'self-repair' over the caravan of centuries. 'Self-Repair' capacity within a habitat is now the legal yardstick to assess whether developments, adjacent or distant, will cause 'significant adverse impacts'.

The writer recalls wholesale extraction of massive Oaks in the earlier 1980s from this site and associated Agricultural Drainage to the south and west of what is now an EU Special Area of Conservation (S.A.C.) under the 1992 Habitats Directive. Ancient Residual Alluvial Forest represents a Priority S.A.C. due to its endangerment of disappearance from Europe. Ancient Yew Wood; Bog Woodland and Limestone Woodland are the additional 3 Priority Forest S.A.C.s within Ireland.

The Government's option to sanction 2 downriver hydroelectric dams at Carrigadrohid and Inniscarra in 1954, attracted the attention of our Royal Irish Academy's botanist Helen O'Reilly. Helen's baseline survey of the vegetation which she compiled in 1957 (when the Lee Valley was flooded by the operational dams) would prove invaluable though her survey was lost in the hard-drive of memory. The 'sleeping beauty' wildwoods key ecological services and functions were assumed beyond recovery and time moved on.

Fast forward 30 years to 1987 and An Taoiseach CJ Haughey's personal intervention, having met with members of our Macroom District Environmental Group, on its achieving the Ford Environmental Award. Our group delegation was headed by De La Salle Science Teacher Kevin Corcoran who earlier had tutored his young student Tim Hickey to compete in the Aer Lingus Young Scientist's Competition. Tim's project 'Gearagh Feasibility Study' caused incredulity among senior academics – with the exceptions of wild salmon and yew, the entire of Helen O'Reilly's rediscovered lists had survived 3 decades of inundations based on the city's energy demands which determined water levels. Tim's achieving first place coupled with our group's site research attracted both the attentions of our National University and Trinity's Dr. D. Kelly in addition to several institutions as far away as Pallacky University, Czechoslovakia. Leicester University commenced site assessments.

Freshwater sponge, freshwater pearl mussel; buckthorn (its only site in Co. Cork); Bird Cherry (UN Red Data List); Dutch Pipes (*E. hymale*) in addition to 108 vascular plants (Tasea) and 90 fungi species were still at home, prompting a leading Irish botanist to declare the phenomenon as 'imperfectly understood' during late 1987.

A wiser generation would recognise 'a pearl of great price'.

From the third bridge from the northern entrance carpark, curiosity got the better of an Otter who rose from the swift clear water – a first for many of our 50 strong Cruinniú who observed its submerging powerful tail in a slow motion dive.

Because, as has been personally observed, a cohort of participants at the writer's field study/outings (since 1985) 'avoid people and places where they cannot be themselves', our 5 hour walk commenced with a sit – down picnic. Access to Butterfly Island was passable – a dream venue for us. Online and other promotions had broadcast a request to 'bring extra for sharing'. The warm 'sun in its jealous sky' beamed approvingly. Those who most need nature are prone 'not to love man less, but nature more'. Perhaps they were 'powered off' – not a single mobile device interrupted our 5 hours.

As a forest culture without its forest, time passed in this truly wild place – the last of an otherwise vanished countryside – taps into our genetic memory. The Ghost forest of exposed oak and yew stumps, covering some vast acreage does have an initial bewildering impact on the first time visitor. To observe the forest re-colonizing visibly from the west is emotionally redemptive and inspiring.

Disaster Prevention functions of flood plains include dissipation of floodwaters and the repositioning of silts away from the main channel, thus benefitting homebound spawning salmon and their evolutionary allies the freshwater mussels. The sites 2km width of floodplain, comprising glacial gravels overlying carboniferous limestone bedrock and summed up by Gibbings as bejewelled 'by a thousand wooded islands – impenetrable jungle' continues to attract and mesmerise geomorphological, hydro-engineering and biological academics from across the continent. And while qualified arboraculturalists describe 'bio-mechanics' within veteran trees, our geologists study the 'geo-mechanics' of this 10,000 year old uncanalised vast wet wonderland buttressed by mile after mile of braided channels that absorb the furies of storm waters (anastomisation).

Along the route we observe the flattened mountaintops of Shehy and Deamhas and Doughill to our west. At nearly 2000 feet this Shehy Range lay entombed in frozen crystal – what we term the 'Cork – Kerry icesheet'. It rained snow 24/7/365 century following century. Water trickled as temperatures rose – climatologists describe the 'fast melt'. The earth's 3rd (some say 4th, others 5th) Global warming, which continues in our day, had begun. This quiescent phase is still in progress. How long it will last, none can tell. It may well be that by the time our earth awakens to her next bout of geological jerks, the activities of mankind, a slight episode in cosmic history, will have ceased. Because the preservation in the cosmos of the Presence of Life would seem to be the evolutionary scheme by 'Trial and Errror', organisms that fail to progress from the parasitic stage to some symbiotic semblance (or stasis) tend to be upstaged, asteroid impacts excepted.

Our study site is also a Special Protection Area (S.P.A.) (EU Wildbirds Directive 1979). Wildbirds are 'birds in the Natural state'. The Gearagh's wildbird populations include wigeon, teal, golden plover (2000 in 1994), mallard, grey lagged geese), tufted duck, crested grebe and the refugee Whooper swans escaping the 'frost giant of the north.' July will see coots. Mute swans appear to be a permanent presence. The lowered water levels on the day allowed us to discern the pattern of tiny field enclosures to our east. The early medieval 'old port road' to Maclinagh was visible.

The stillness of the deep Quarry Pond, peopled with pike, invited an impromptu group silence. We were together alone – alone together, unlike the solitary Whooper Swan that 'climbs the air' in our approach. A Whooper Swan in May? One plausible interpretation is that having lost her mate 4 years ago, she stayed behind. She feeds and roosts adjacent but apart from her tribe that make it home for Christmas from the Polar North. Whooper numbers have fluctuated wildly this 30 years – from 110 to 39.

Passing through the deserted village of Annahalla, we emerge from the (post 1957) colonising Sally Woodland into wide open space dominated by acres of water-body fed by swift streams from the north-facing uplands ahead. The 'snow whites' with pristine yellow feet – the little egrets are peening (and preening) and sun-bathing, displaying no apprehension of our colourful Cruinniú.

Birdwatchers among us tell us that it first bred here in 1997 and like the Kerry slug that can indicate expansion or contraction of our western Atlantic Hyper – oceanic micro climate, the 'snow-whites' indicate our warming climate'.

Our path crosses 'Bandon Bog'. An east – west boundary, no longer visible, marks the bounds of the Ardilaun and Bandon Estates. Following the break-up of Irish estates during the Cromwellian Period of Land Confiscation, the Clancarty Lordship was divided out. The Lords Bandon acquired the valuable Turbary Rights here and carted it all the way to their Castle Barnard Demesne. Initially, Cromwell himself granted Macroom Castle Demesne to his friend Admiral Penn whose son embraced Quakerism – dynastic prospects were unreal and the Admiral left for and founded Pennsylvania. Barnard acquired the Macroom estate, leasing it back to Lord Clancarty during the Restoration Period at £1000 annual rent, but reserving the Quarry Rights to the lucrative limestone bedrock of the Gearagh.

Noteworthy are the huge butts of Bog Oak that protrude through the cutaway Bog on the nearby Kilmichael Pitch and Putt. The glacial weight that had flattened the mountains, with the grinding action of terrestrial icebergs that moved at 5km annually, pulverised the Gearagh's Old Red Sandstone, thus exposing the limestone. The resulting sand and gravel was deposited downriver at Kilumney. To the west, the melting mass burst through the Shehy Range forming the 'glacially cut' Pass of Keiminagh.

Our 'thousand islands' of alluvial silt offered early toehold to the pioneering plants migrating from all directions – most notably the 'Micronesian' plants that are associated with the warm wet Gulf Stream. Some such indicator plants include Irish Spurge (*Euphorbia Hibernia*) and the Killarney Fern (*Triochomanes speciosum*) formerly the Killarney Bristle-Fern that occurs within the Gearagh S.A.C. which comprises Toonbridge Wood to our site's Northwest. Whilst absent from the Gearagh, the Kerry slug is present upriver.

'Paying Attention to Life' comes easy here – the things in our life have little place and distractions have been left at the carpark. What resonated with one troubled young offender were 'the sounds'. The swifts and swallows overhead became the background music – the woodpigeons retrieve a wandering mind – how the wren can project such amplified melody defies our logic. The first bird encountered was a willow warbler – one recent addition to this 'sacred chord' is the plaintive and distant Sea Eagle overhead. We notice a pattern of dead and dying alder trees to each side of the track – 'lepers' was one response from within our band.

The writer recalls the late Dick Warner describing the symptoms 25 years ago of an alder tree disease that had reached some waterways in south Leinster. This pest has infected many Alders within the remnant 150 acres of Gearagh wildwood to our west and seems to continue upriver for c. 4 kms. Large stretches of the Blackwater's riparian Alder population have succumbed. Dick expressed doubts whether the pathogen was waterborne. We now know that the spores of the fungus 'P. alni alni' are having their day. It is airborne – but may also be waterborne. One local biologist suggests it came with infected plant stocks from Europe – a pattern of infection being associated with hardwood afforestations.

Nature's 'toolbox' may have resistant strains – maybe our global forest is re-shuffling – western Europe's scatter of wild sown ash trees represent surviving remnants of our once vast pure ash woods. Ash die-back may not be so new after all.

We acknowledge the private landowner in Dromkeen that invited us to view the last of it's name – a wild Gearagh yewtree transplanted as a sapling during the 1860s. To meet with this yewtree – 'Cainem sen' in early Irish (Fairest of the ancients) under its farflung bottlegreen canopy is to meet an Archetype spirit – a rescue tree –'Airig fedo' (Lord of the Forest) and last of its tribe. This male continues each spring ('since I first made my count') to post off its fertilising powdered pollen to the winds, in the hope that way down the river a hundred miles or more other lady yew trees might take his genes ashore.

To mark Heritage Week 2017, the writer hopes to host 4 events in County Cork - including a talk at Macroom Library, Tuesday August 22nd entitled 'Gearagh – 1987 – 2017' followed by tree- planting in the nearby Macroom Castle grounds. Other venues include Ballincollig Regional Park on Sunday August 19th and Ballyvourney and Rathbarry. Check out www.heritageweek.ie

Bless All,

Ted Cook

Post Notes

Our earliest farmers and earlier 'Herders' would have been aware of the dangers to livestock and humans that wandered into the once c. 5000 acres of the Gearagh – with its mouth at Ballingeary (Béal Áth an Ghaoire). Readers are urged not to access the residual wild wood without appropriate guidance. Geo-subsidences that have silted up are said to have 'swallowed horses' not dissimilar from the 'swallow holes' of the east Galway/Clare griked limestone.

One of the 'Malachi prophecies' recounted to the writer 30 years ago by Jamsie Kearney (seanachaí and poitín maker) - 'the Lee will flow backwards!' When wading between the linear east-west wooded islands, one observes both upriver + downriver currents as a consequence of the dammed channel downstream. Maintaining foothold on the polished gravels, many the wader have been swirled in cross- currents and swept sometimes upriver or downriver. We have no record of fatalities.

Gearagh Biodiversity Designations

(i) The Nature Reserve (The Gearagh) Recognition Order became law in September 1987 under S.16 of Wildlife Act 1976. This Order provides that the site 'be managed for conservation of the alluvial forest ecosystem'. (Statutory document 231/87)

(ii) Special Protection Area (S.P.A.) Site Code 109 (323 hectares) arising under EU Wildbird Directive 1979. Species include Scaup, Greenshank, Lapwing, Dunlin (rare inland presence), Curlew, Green Sandpiper, Snipe, etc.

(iii) Special Area of Conservation (S.A.C.) Site Code 000108 arising under EU Habitats Directive 1992. Gearagh S.A.C. extends upriver 7kms to Dromcarra Bridge. Because of the rarity of the Gearagh's Biogenetic function – the Habitats Directive further confers 'Priority Status' on this site 'because of the danger of its disappearance from the European Continent'. Three additional Irish woodland types, namely yew wood, bog woodland and limestone forest, have been designated 'priority'.

(iv) Natural Heritage Area (N.H.A.) arising under Wildlife Act 2000.

(v) Ramsar Convention on Wetlands (UN 1971) lists the Gearagh.

(vi) The site is listed as a UN Biogenetic reserve making it a global centre for evolutionary Biology Studies.

National Tree Week 2017 – write-up by Ted Cook

Sunday 5th March 2017 – St. Gobnait's Wood Ballyvourney:

With the consent of N.W.P.S. (Wildlife Service) who are charged with the guardianship of St. Gobnait's Wood (S.A.C. Habitats Directive), Ballyvourney, participants gathered at noon on Sunday March 5th 2017 and planted specimen stock of Bird Cherry (*Prunus Padus*), Wild Cherry (*Prunus avium*), Spindle (*Euonymous europaeus*) and Hazel (*C.avallana*). Plans are afoot to add a Birch and Aspen linear grove along the banks of the adjoining Sullane River- and add Alder directly within the protected Old Grove Oakwood site. The score or so participants braved torrential rain throughout. Michael and Nora Lucey of Ballymakeera guided the Wood Walk while Wildlife Ranger Dan O'Keefe relayed N.P.W.S. management plans for ongoing sustainable maintenance of this precious Oak remnant. Ted Cook highlighted current research that describes the immediately tangible benefits for our blood pressure when walking in old and stable native woodlands – those significant Indicator plants of the Ground and Field plant storeys and the vast diversity of Fungal lichens and mosses (Bryophyta) were introduced.

The walk continued by the fulacht fiadh (primitive cooking arrangement) on to the early 'Church of Bairneach' Ecclesiastical complex and earlier Iron Age working site – concluding at St. Gobnait's Holy Well and associated Sacred Tree (Crann Bile)

Tuesday 7th March 2017 – Macroom Library and Castlegrounds

2017 Tree theme is 'How Can I make a difference?' an extended Tree Week presentation (noon-1.50pm) occurred at Macroom Library. We explored US sixth President's motto 'Alteri seculo' in 1826, meaning 'for other generations'. This Latin motto first appeared in Cicero's wisdom texts (De Senectate), the fuller meaning being 'They who plant trees do so for other generations'.

The same President's father (also John Adams who succeeded A. Lincoln) wrote: 'How can I make a difference- I must study politics and war that my children may read Philosophy and study Mathematics'. Priorities differ in changed times – the past can resemble an alien landscape. 'Alteri seculo' underlines boldly what is required absolutely by this generation of individuals and communities – that efficient ecological services be sustained so that 'Nature and humans do not die off' (R. Steiner, 1912).

In his published research following Hurricane Charlie (Oct 15th 1987), our late Oliver Rackham highlighted two central factors in the hurricane's aftermath across England – painstaking observation and interpretation found that across the early Norman Deer Parks and Parklands, the millions of trees planted 300 years (and more) ago were poorly planted. And that the 'clean up' that followed under Prime Minister's personal direction, inflicted many more times the impact on the receiving environment than Charlie itself. The Army took control of the 'Clearance' – cubic metres of walnut were on offer for ten shillings. Rackham argued that windthrown mature trees and entire blown groves might be left to self-repair. Woodland creatures have not adapted to years of mechanical extraction and associated noise and compaction. Windthrows have mastered 'Biomechanical adjustment' – Rackham tells that a mature hardwood can restore itself with only one-sixth of its rootplate anchored in the land.

'Restraint' which we associate with the English people, was absent during 1987 -1990. If we are to make a difference, we need to heed scholarship lest we lose our know-how to manage our Earth's fragile resources. Pre-occupation with 'The Cult of Appearance' poses unendurable pressures on Earth Ecology says His Holiness, Pope Francis (Laudato encyclical. June 2015). Massive disruption of evolution in our countryside resulted from Rule 5 of the 1995 version of R.E.P.S. (Rural Environmental Protection Scheme) that emphasised 'neatness' and 'appearance' of our field boundaries – farmers were to be penalised for not restricting their hedgerows to 5 feet in height. With few exceptions, our 65 or so native songbirds raise their families above the 2 metre treeline.

Northern Ireland research reckons every driver of a standard car will need to plant and maintain 59 hardwood long-living trees that sequester the released carbon over the average life of the car. A cartoon handout was circulated at the Library talk that depicts 12 functions and benefits of trees that are allowed mature into the foothills of Middle Age. Afterwards a share of participants repaired to the nearby Castlegrounds and hurled their hearts out preparing sites and planting native trees, including Alder, Bird Cherry and Mountain Ash on the north-facing slope (c. 1.7 acres) below Macroom Golf Clubhouse that drains into the Sullane River. The Castle Trustees acknowledge the time and input of the Volunteers that turned up – to make a difference. In all, over the Tuesday (7th) and ensuing Saturday and Sunday (March 11th- 12th) 40 volunteers including children made time to muck in. We planted c. 120 trees, many provided by the Castle Trustees. Silver birch, beech and rowan, were freely provided by Coillte Teo. (Irish State Forestry Board). Yew, hazel, and wild crabapple stock were donated by local growers.

Heritage Week 2014

Sunday August 24th 2014

Nano Nagle Centre for Spirituality and Ecology, Ballygriffin, Killavullen, Mallow, Co. Cork

'Recalling the Uprooting and Destruction in 982AD by Malachi, King of Ireland, of the Sacred Inaugural Oak of the McKennedy Clan of the Dalcassian Race.'

For the third consecutive year the Presentation Sisters have invited a Heritage Week Event at their convent demesne – Birthplace of their order's foundress, Nano Nagle. Much has been broadcast during 2014 via our print and electronic media concerning the death in 1014 AD of Brian McKennedy (Boru) High King of Ireland. Little, if any, reference has been made to the seminal act at Maigh Adair in 982AD. Our presentation sought to gain retro-millennial insights into the forest culture of Ireland's 10th century – in particular the cult of *Doire na Phoball* (Tree of Assembly).

In his chapter "Primeval Forest and Early Man" (*History of Irish Forestry)* Eoin Neeson refers to such inaugural trees as *Crann Bile* – believed to be imbued with the mystic qualities of *fidnemed* (*fid* - tree; *nemed* – noble). *Fidnemed* translates as sanctuary. A papal decree (Council of Nantes, 895AD) ordered all Christians to destroy all venerated trees and their memory. Such sacred trees, allowing for different customs of different Scottish and Irish tribes, normally were the centre piece of an ancestral cairn atop a hill or mound. Royal power was invested in the clan's newly appointed *Taoiseach* beneath the over spreading canopy of what was a solitary tree.

Fr Martin Ryan writing in Volume 1 "The Other Clare" claims that trees that canopied inauguration were held in 'great veneration' by the people – that 'the greatest triumphs a tribe could achieve over its enemies was to cut down their *crann bile.* In the townland of Carns, Co Roscommon, can still be observed the hill of Carnfree, where the O'Connors, Kings of Connaught, were inaugurated.

Near Dungannon, Co Tyrone the O'Neill inauguration mount at Tullahoge (*Telec Oc*) remains intact – its centre-piece oak was cut down 1111AD by the Midians. Brehon Law demanded a fine of 3,000 cows. In Scotland their then Chief of the Kingdom, was 'married to Ann, Earth Goddess' (inauguration) at Dunadd, Argyllshire.

Readers familiar with Carnahalla (Doon, Cappamore) will recall its large amphitheatre with its central mound and flat top surrounded by a fosse and bank c.20 feet high. Maigh Adair today resembles this description. Due to Eirinn's isolation before the Celtic Iron Age and because the Romans were hesitant about "Hibernia" also called Ierne, Iverna and Iuverna that translates "winter", the Ireland of the 10th century was socially and economically a woodland culture. (Read O'hEogain *Sacred Isle*/Kelly *Ancient Irish Farming/ Early Irish Laws*/ Burleith's *Twilight of the Lords).* Early Christian records describe the inauguration witnessed by the hereditary historian. A "white rod" or hazel was handed to the future chieftain or king. The Hazel (Coll) to a forest people was known as the tree of hidden wisdom – possession of this wand ensured a sound rule and soil fertility/ good harvests as well as protecting against corrosive elitism. The *crann bile* would stand witness and hold the chieftain or king to his sacred duty throughout its long life and in the very furniture or timber that eventually yielded in the bile's 'passing over.'

We have description of the sacred groves of Gaul by Caesar himself. Was this the route whereby our Crann/Fednemed Cult reached Iuverne? Or were our forebears – the last of Western Europe's forest dwellers, honouring a practice from Erin's youthful days – the Bronze age? Is it important to us, a forest people without their forest to recall an advanced civilization that honoured their tree-centric culture – can we restore that relationship between communities and their native woodlands? Might our aboriginal genetic memory of nature be awakened? The alternative route offers dangerously unnatural homogenisation – the ultimate depravity of consciousness.

After the talk those present took part in a tree planting ceremony on the grounds of the Nano Nagle Centre. The tree planted is a grafted scion from the celebrated Brian Boru Oak at Tuamgraney, Co Clare. All participants added a handful of earth to the newly planted tree and prayers were said for the wellbeing of all present.

Then Ted Cook read the following verse from a poem by Alice Milligan:

Fallen in Erin are all those leafy forests
The Oaks lie buried under bogland mould
Only in legends dim are they remembered
Only in ancient books their fame is told

Author: Ted Cook
Transcribed by Lonán Ní DDhúbháin | Photos by Conor Nelligan, Stuart MacMurdo and James Feeney

Heritage Week 2014
Sunday, August 24th 2014
Carrigacunna Castle Grounds, Killavullen, Mallow, Co Cork

'Restoring our Relationship with the Self through Biodiversity'

At the invitation of *Dia Dhuit*, a Suicide Prevention Charity, Teddy Cook and Kevin Corcoran guided a heritage walk the length of Carrigacunna's stunning Beech Avenue – likely the longest continuous Beech Avenue within the island of Ireland.

Participants were joined by Seanie Nagle, a local historian and direct descendant of the Anglo-Norman family of the same name.

Carrigacunna's late Norman Manor House was home to James 1st's Attorney General, Sir Richard Nagle. In his *Concise History of Ireland*, Joyce describes Sir Richard's descendant, Edmund Burke as 'the greatest Political Philosopher in history.' Burke's first cousin Nano Nagle founded the Presentation Order of Nuns during the early 1800's. Nano's birthplace which lies across the river from Carrigacunna was birthplace of Burke's mother. Burke was born in 1737. At 28, Burke was Private Secretary to Prime Minister Lord Rockhingham – a critical period of the Penal Laws in Ireland. This name will not soon pass out of history – as Protestant champion of human rights for the Catholic and Dissenter populations of these islands. Rightly, Edmund rests before the High Altar of Westminster Cathedral, adjoining the former tomb of Thomas à Becket.

The walk commenced at Carrigacunna Gate Lodge (locally Killavullen lodge) at 2.30pm – the meeting point for visitors being Killavullen Bridge at 2pm. Kevin introduced the simple technique of dating the ages of our trees – a recently felled beech tree adjacent to the lodge was chosen for observation. The clean-cut beech, at 5 feet height revealed 187 rings. With measuring tape Kevin counted 382 centimeters circumference at shoulder height. The tree was planted between 1825 and 1835 because in a healthy, normally growing hardwood, one year's growth is equivalent to 2 centimeters.

Avenues of beech became popular among the recently settled Cromwellian colony since the 1670's. In her *Bowen's Court*, Elizabeth Bowen describes the growing self-confidence of the colony, such that in early Victorian times, the forebears of the Anglo-Irish were planting up their demenses and opting for outspoken treed entrances.

Dia Dhuit acknowledges the owners Rosaleen and Rod Springett for their kind consent. Forty plus participants joined the walk – learning to identify the wild plants encountered along the avenue. Remnants of last spring's bluebells and wood anemone peeped from the earth banks that support the mature beeches. Late wood violets flowered on the day – despite the forecast, the afternoon was dry and bright. Woodruff, many fern species, woodrush, foxglove, both ground and creeping ivy and autumn toadstools occupied our attention. A squirrel's drey reminded the group of the presence of red squirrel that commute the riparian corridors below the avenue. A jay was discerned. Seamlessly the avenue projects one back to an earlier period – to at least a century earlier (1730). Giantess oak trees take up the baton of the linear (and yet meandering) beech avenue.

Veteran Oak of near 6 meter circumference with their wealth of epiphytic ivy, lichens, tree ferns and mosses, transport us from the cool battleship grey of introduced beech to aboriginal forest, under-canopied with holly, spindle, hazel; associated ground and field flora of ancient woodland, fine ash and fertile elm are noted.

Long decomposing stumps of oak host several species of saprophytic fungi (decomposer bracket fungi) – massive beefsteak fungi and honey fungus. We are reminded that life proceeds along the tightrope of growth and decay. Without our decomposers our pilgrim planet would suffocate in organic waste and turn our precious air to methane (CH_4).

Kevin (former deputy principal of a large secondary school in North Cork) shared stories of his eye witness accounts of the impacts of nature on troubled folk – the rediscovery of the vital 'self' when introduced to the deeper scrutiny of the natural world.

Ted outlined the accelerating loss of contact with wilderness spaces since the Neolithic period of our first farmers. Agriculture relentlessly continues to annexe both riparian, coastal, upland and lowland habitat – driving plants and their dependent animals to their limits. To observe losses in our freshwater pearl mussel populations and consequently our wild salmon, in our hedgerow removal and fragmentation of corridors that provide for genetic dispersal and exchange across rural Ireland, our failure to secure mass ecological education as envisaged in 1993 at the UN Convention on Biodiversity visibly contribute to our declining psychic vitality and mental wellbeing.

The author thanks Killavullen Community for its provision freely to our group of an abundance of refreshments.

Ted Cook
4 September 2014

Heritage Week 2014

"Ensuring and Guarding Affordable Housing for Biodiversity"

Macroom Library, Tuesday, August 26th, 2014

Themed "ensuring and guarding Affordable Housing for Biodiversity", the aim of the presentation was to introduce participants to the language of what is understood by "Sustainable Development". We all understand the growing need in Ireland to provide "Affordable and Social Housing" for those of our Citizens that lack the finance to procure a Bank Loan. And a noble aspiration it surely is.

The Heritage Talk commenced with the question – "Are you breathing? Thank a Tree", intended to remind us of the value of our Air. We breath long, deep, joyful breaths because of the Global Forest and the Food Chains within our Woodlands – a mature Tree eats the CO_2 of two adults and 2 children annually. By "atmospheric exchange" our Carbon Exhausts (out-breath) are absorbed by Green Plantlife and by Chemical action combined with Sunlight, Oxygen is produced abundantly. Mammals can survive 5 minutes without oxygen.

Three quarters of life on Earth (Biodiversity) are dependant on or associated with native Woodlands and Individual Trees. Our Irish Oak supports 264 Irish Insects – the introduced Horse Chestnut according to research, hosts 4 insects.

The Global Water Cycle is intimately connected to and affected by our Global Forest – the reverse is equally true. As Deforestation accelerates in the developing World – to feed; clothe and shelter our rapidly expanding Human Population – the Climatic Thermostat is impacted. The Forest uptakes Surface and Ground Waters and "respires" (Mammals "perspire") fine aerosols of pure H_20 into the Biosphere. Mammals can survive 5 days without Water.

Our Air and Water are produced by the functions and cycles of Earth's Biodiversity. But Nature needs space to function!

"Hedgerows measure the success of the Irish Farm" according to Diana Beresford-Kroeger (Nuclear Botanist/U.C.C. Graduate). Bats and Butterflies travel our countryside by field boundaries – the former being Nature's Pest Controls Corps – the latter an important pollinator – more so since the decline of Ireland's Honeybee population.

Diversity within Species was demonstrated – we presented two Irish Oaktrees with very different features: - the Upland Sessile Oak and the Lowland Common form. Each has mastered their chosen habitat.

Our potted Oak Specimens sat easily with their primitive ancestor – the Common Yew Tree. Deciduous Trees evolved in recent geological Time. Coniferous Forests once covered a hot-humid-swamp landscape with dinosaurs roaming (all 60 ton of them) during the Upper Jurassic.

Within our Upland Blanketing Bogland (and Raised Bogs), 192 Species of Plant and Animal have found their home. Capacity to adapt to very acidic environments reminds us of the Passion for Existence inherent in all life-forms.

Recalling John Paul II's reference to Dante's description of Earth, as "Only Flower Garden of Cosmos" – the loss of Species to Extinction, as subtle as the growth of our fingernails, will unravel Earth Ecology.

Human inroads into areas that support Vulnerable and Endangered Habitats represent "Bad Planning" – unless the impacts can be proven not to pressurize or threaten that Habitat's capacity to "Self-repair". We call this "Sustainable Development" – balancing the needs of 9 Billion Humans (2050) with safe-guarding the very Engine that maintains Life on our Pilgrim Planet.

Participants afterwards gathered in Macroom Demesne and planted a grafted Brian Ború Oak Sapling and 2 Common Yews on a 1.6 Acre site, provided by the Demesne Trustees for a 3 Year Community Woodland Planting Project.

The Author thanks Macroom Library for the venue – the volume of attendance both endorses Heritage Week in Macroom and bodes well, we pray, for our guardianship of Wilderness Space – no matter how big or small. The 167 associated Insects on an Irish Silver Birch in a Town garden need that particular species of Tree – guard their home.

Author: Ted Cook

Photos and Transcription by Conor Nelligan

"Origins, functions and benefits of our Hedgerow Resource"
Minane Bridge, Tracton, County Cork

Heritage Week 2013 (Sunday 25th August)

- *Guest Speaker **Diana Beresford-Kroeger**, Canadian based Irish Scientist very kingly accompanied our Themed Heritage Week Field Study at Minane Bridge. Diana accepted the invitation two days earlier. She and a film crew, based in the Maritime Hotel, Bantry had been filming at a number of locations in Ireland throughout latter August.*

- ***Ted Cook** introduced both the theme and Diana to participants who gathered in the village church car park. The entire 3 hours (2pm – 5pm) were filmed.*

Origins

Ted began by listing the main provisions of the Cromwellian "Cow Act" (1667) - enclosure of lands in both Ireland and Britain represented a new beginning in the 6,000 year history of agriculture in both islands.

Enclosure on scale began in Britain from 1700 – 1730. Having arrived "to quell Ireland" in 1649, Cromwell confiscated lands wholesale from those Gaelic Families associated with the 1641 rebellion. The "Downe Survey" published in 1656 incorporated much of the earlier 1640/1 Mapping Of Munster.

Clans' lands were held either singly or in multiples of townlands (we have 64,184 townlands in Ireland's 20 million acres). Water-courses and geological features as well as large earthen ditches delineated the townland – as many continue so today.

Enclosing the land with "hedgerows" was compulsory under the 1667 enactment for the newly planted colony of Cromwellian Grantees – many of them soldiers who were paid in Irish Land. Initially 2 million acres were declared "forfeit". But great confusion ensued in 1660 on the "restoration" under Charles II of much of the granted acreage back to catholic families. A generation later saw the seizure of 80% of Ireland after the siege of Limerick and defining victory of protestant William in the Boyne Valley (Brú na Boinne/Valley of the dead kings). Enclosure of fields and road-building; erection of fortified houses; canalising of rivers and land drainage and the planting of woodlands were covenanted to the existing as well as the newly arriving Williamite Colony.

Lands were granted in townlands to tenants of English or Protestant Extraction with conditions – To plant a certain mileage of "field boundary" in each townland and to sublet only to the "colony". Read the Treaty of Limerick for the lists of gaelic/catholic families colonist/catholic families that were permitted to retain their estates and holdings in fee (freehold ownership).

The Act specified hawthorn (Orse. Maytree or Whitethorn); Blackthorn (sloe bush); broom and furze and privet bush in addition to quantity of plants per chain (20 metres). Drains were to be dug initially and the excavated earth and stone formed linear mounds which were planted up and maintained.

In time the "plundered and outraged dispossessed" formed nuclei of "Whiteboys" who became known as "The Levellers". Hardly the ditch was planted that the "Levellers" levelled under cover of night.

The "1667 Act outlawed "Booley" – the ancient (Neolithic) collective herding system described in Brehon Laws. Enclosure obstructed the herding families. Most parishes (119) in Co. Cork include at least one townland that incorporates the gaelic "Boola". (Knockboola; Carrainboola; Mullaghbool; Pairce booley etc). Read Mitchell's "History of Ireland from the treaty of Limerick" and Burleith's "Twilight Of The Lords". The Irish Parliament (up to 1800) bemoaned that landlords in the rural west had settled large portions of their estates on the catholic small farmers – who in turn covenanted in the leases (normally 31 years) to subdivide and enclose the foothill countryside.

Under Penal Law (1693 – 1782) in both Ireland and Britain, on their father's decease, each child of a catholic had right to an equal subdivision. Primogeniture by request was forbidden – only protestants were permitted to will land to a named heir. Enclosure accelerated to the point where field sizes were reduced to a quarter acreage all over west Munster and hence Ireland's "Patchwork Landscape" reckoned to run for between 680,000 and 840,000 kilometres. Detailed research in Northern Ireland puts hedgerow length at 165,000 kilometres.

Functions and benefits

Enclosure delivered a fatal shock to the pre-existing Brehon Land System which measured land not in acreage but in "Gneeves" and "Ploughlands". The latter was the measure of the volume of land ploughable from dawn to dusk by one man with a horse-drawn iron-shod ploughshare. The length of the day and season was a factor. One "Gneeve" was 20 "ploughlands". Enclosure measured acreage – for royal tax purposes. For the farmer, thorn hedging (was our late S. Heaney calls "Thornstrip") provided "stockproofness" which facilitated "selective breeding" of cattle, sheep and horses. On exposed uplands the hedgerow enabled "dairying" – shade during the then long parched summer months and shelter from the "wind chill factor". A thriving export of hides; pelts; tallow; butter; cheese; beef and wool out of Cork; Youghal and Dungarvan has been well researched by Dickson (Old World Colony).

Enclosure permitted rotation of Oats; Rye; Breadwheat and Barley effectively and without "animal trespass" that could cause the tenant to quit for want of rent or payment-in-kind to his superior landlord. Potato-growing from c.1600 required very carefully maintained "enclosure". Importantly, livestock (including horses and pigs) browsed the "woodland Edge" – ivy, holly, hazel, foliage; wild cherry and crab apple were gorged upon. Broad margins traditionally were left to their own evolution – livestock know their medicinal herbage and copper or zinc or selenium-rich grasses and wild flora along the hedges.

Benefits

Diana reminded us of the "air-scrubbing" benefits to all: - hedgerows filter out air-borne particulates at less than 2.5 microns. Valuable if roundup spraying be in progress upwind. She continued – hedgerows erect Chemical Atmospheric Barriers against bacteria, harmful fungi and the growing number of pathogens taking advantage of the increasing carbon concentration in our biosphere.

"The success of the Irish Farm is measured by its hedgerows". Diana has emphasised for many years – notably in her "Global Forest" (Penguin 2010).

Sunday 25th August was a hot 23 degrees Celsius in Tracton – as we proceeded towards Cooragrennane through a verdant tunnel of over-arching canopy Elm and Ash with its dense botanically rich shrub layers and diverse field and ground storeys. Gathered under a mature multi-stemmed Willow Copse we learned how our native trees and hedgerows offer "preening sites" – which is the ability of a bird to change its' pro-vitamin D into an Active Vitamin D, without which reproduction and egg-laying is poor. Our birds must "sunbathe" – and consequently when "preening" feathers, the birds absorb potent vitamin D traces by ingestion.

Diana also described the critical necessity of individual trees within the "fencerow" as "staging grounds" for hungry and exhausted trans-world migrations of butterflies, insects and birds. As an acknowledged "Ancient woodland Specialist", Diana introduced the gathering to "germ plasm" found only in native natural forests. This "plasm" houses the "genetic Memory of Nature" – that has lasted 350 million years. Diana was categoric "if we are to have a future, we must have native trees – it will be necessary to plant native forests that can genetically mingle with the ancient woodland components".

Because what we still possess of aboriginal forest (to be found along our hedgerows – self-sown invariably) contains a genetic memory of low level atmospheric O2 and toxic levels of CO2, the DNA within the "chloroplast" of every leaf of all native trees of Irish Woodlands, holds this vital memory code.

By 4.00pm the message was very clear – the life of Ireland's primordial forest is not gone. Rather the primitive fungi and earlier Slime Moulds; the Liverworts and Moss Species (in their scores and scores) the ferns ("retrograde" from Swamp Forest Trees); the vascular flowering plants; the deciduous and evergreen climbing shrubs of Ivy; Woody Nightshade; Honeysuckle and Dog Rose – the "Epiphytes" – and more Epiphytes, the 300 or so lichens associated with Hyper-Oceanic Atlantic Woodland (out of a near total of 870 Irish Lichens) that are associated with our low-lying Common Oak; Ash and Elmwoods or our upland Sessile Oak; Rowan; Holly and Hazelwoods (Hazel being common to both Wood Ecologies) continue to genetically exchange and disperse in and throughout these "corridors".

(Author: Ted Cook)

(Photographs provided courtesy of Carol Bereta)

"A Walk Through Silver Grove Townland (Inchigeelagh Parish) With Kevin Corcoran and Teddy Cook Who Will Trace The Gradual Changing Landuse Since the 1640 Survey" –

Heritage Week 2013 (Sat. August 24th)

Conor McAuliff O' Leary is listed in the 1640/1 Muskerry Survey (published in 1656) as landowner of 1,800 acres in the Parish of Inchigeelagh, including the Townland of 'Deryargid' of 395 Acres. Both subsequent 19th Century Ordinance Surveys (1849/1879) describe this Townland as Silver Grove – a translation of 'Doire Airgid'. Very many of our Parishes' Townlands (318) include the gaelic 'Doire – Derry – Derreen' in the placename.

Participants gathered in advance of the Outing (through Toby and Jenny Roses' 130 Acre Farm) in the recently reroofed and rescued single storey early house of Dan Patsy Dan McCarthy's early 19th Century dwelling. Throughout the 19th Century's various Census and Tithe Records – including the 'Survey of Landowners 1875' and later Griffith Survey (available at all libraries in Co. Cork) this Townland is held by 3 McCarthy Farmsteads – there has always been a Daniel; John or Cornellius and Patrick – hence the distinguishing colloquial "Dan Patsy Dan".

A stone's throw west is a second dwelling (likely a 1920/30's replacement farmhouse) and a stone's throw east is likely later 19th Century (itself also a replacement farmhouse). The late Johnny McCarthy (d. 2010) who passed over without direct heir, occupied this eastern 2 storey farmhouse – Johnny told the author that his people could trace 14 generations in Silver Grove – and all 3 families came from this one. Neighbours have verified the '14 generations' claim. In 1641, the 70 square mile Parish had 2 McCarthy Landowners – both holdings far to the west towards Gougane Barra.

Of the 39 landowners in 1641, 36 were “O’ Leary” – hence the pseudonym “Uibh Laoighre”. The 39th was an “O’ Connell” – a wheelright in Keemcorrovolly Townland. Silver Grove was one of 15 Townlands granted to James Barry, Cromwellian Officer who garrisoned nearby Carrignaneelagh Castle (1656).

The Toon River marks the northern Parish Boundary – townlands run “rundale-like” South – North on a gradual north-facing slope to the Toon’s clear swift waters that support Pearl Mussel and Otter. But it is to the north of the River where one discovers a wealth of pre-historic man-made enclosures; circular forts and features associated with Bronze Age Agriculture.

Silver Grove, as yet, remains partially clothed in Old Growth Woodland – Sessile Oak with Hazel and Holly under canopy – and a botanical and lichenous wealth associated with long unbroken periods of natural succession woodland.

Kevin surmised along the walk through the fields (whose boundary hedgerows have remained unchanged since the first 19th Century Ordinance), that “farming” came late to Doire Airgid and although the enclosure hedges are likely 200 years old, farming across the river was at least early Bronze Age. Our early farmers cultivated first the south-facing slopes of the river valleys and sunny uplands that supported the necessary glacial till and boulder clays for grazing their herds.

In all, the NPWS has submitted part of Silver Grove and adjoining Townlands of Cooleen (Clunesere East in the 1640-56 Survey) and Cleanrath North to Minister Jimmy Deenihan for designation as a Natural Heritage Area.

Outgoing Chief Scientist (NPWS) John Cross described the proposed 150 acre Reserve as "the finest undesignated Native Woodland in the entire Country" by letter to the Author 2009. Both Kevin and the Author have requested a "Recognition Order" for these precious aboriginal tree'd remnants for 25 years.

Participants imbibed the vista of unbroken Gearagh-like Oak-Sally canopy below us along the Toon – expressing concern at the on-coming Spruce Blocks peeping over the mountain to our northwest – a legacy of the 1906 British Forest model in Ireland.

Large swathes of marginal land were acquired from Upper Lee Valley (including its tributary the Toon) farmers in the 1950's at £1.00 per acre. The 1956 Forestry Act granted compulsory purchase powers to the then Department of Forestry and Lands – the Author's research suggests the lands were acquired without the use of the Power. In the Gort (East Galway) catchments, uplands were acquired by the State compulsorily at 10 shillings per acre. (Seven thousand acres at Derrybrien?).

A number of long gone McCarthy Family relations joined our "370 Year Review" and shed more light on their "ancestral Silver Grove" – the presence of additional derelict stone dwellings deep within the re-encroaching Hazels were pointed out – and correspond with the 1842 history maps.

As we gathered in the lower water meadow en route for “refreshments” at their modern (1924) “McCarthy Farmhouse” (known as Moll’s locally) – now occupied and “sustainably” renovated by Toby and Jenny – the garrulous Jays cried out their territorial Vespers from the Woods – it was near the bedtime for Bird and Butterfly – and the Red Squirrel that have their stronghold in the Grove. The first “Leislers” Bat of the evening – audible to some - darted across the crown of a massive coppiced Oak. Honeysuckle and late flowering Meadowsweet amplified their perfumed aerosols – nectar for the “All Ireland” of Moths as continues here in Silver Grove since Erin’s youthful days. In the dead of the night our huge-eared Wood Mouse vanish up the ivied staircases to feast on Acorns and Hazelnuts while Lesser Horseshoe Bats go leor forage for crop pests a few feet from the ground through the open corridors and tracks that criss-cross from heath to water to meadowland to woodland – all night – and return at dawn to their roosts – usually long abandoned and forgotten stone mortar outhouses.

All of Irelands’ 10 Bat Species and their Summer and Winter Roosts are “Strictly Protected” under U.N.; E.U. and Domestic Regulations – their “affordable housing” will soon be placed on a statutory basis via N.H.A. – and their protection strengthened, thankfully.

Toby and Jenny welcome a follow-up event in Heritage Week 2014.

(Author: Teddy Cook)

(Photographs provided courtesy of Pat Fleming)

National Heritage Week 2013: "The Descent of Olive, Lady Ardilaun"

(A Presentation in Macroom, Tuesday August 20th, 2013, by Kevin Corcoran and Teddy Cook)

As participants discovered, Olive Ardilaun was no Aristocratic Upstart.

On bequeathing in Trust, in perpetuity, her Walled Demesne to the Townspeople of Macroom in 1925, Olive was conveying intact her ancestral Castlegrounds – the Seat of the O' Flynns, Lord of Muskerry and subsequently the Seat of the "McCarthy Láidir" – the Cadet Line of the Cashel Kings – Olive's lineage.

But as we have equally learned – through her Great Great Grandmother Helena Herbert of Muckross, Olive was in direct descent through both her mother Jane, Countess of Bantry, and her father, William Bantry White, nephew of Robert Hedges Eyre of Macroom Castle (himself the only son of Helena Herbert) to the McCarthy Title. We acknowledge the forensic research of this lineage by its' author – the late Peter O' Leary of Derryvane, Inchigeelagh who kindly volunteered his own Primary Research through the Ardilaun Papers (Oxford University) during 1990-92. Peter himself was descended from the same Cadet Family, through his ancestor Cormac McCarthy (Láidir) Viscount Muskerry who died in 1640.

Cormac Láidir's two daughters Maria and Julia each married Viscount Kenmare (a widower) and his son the young Viscount. Kenmare was a Browne – Catholics of Norman Irish stock who had kept their lands and title throughout the Elizabethan, Cromwellian and Williamite confiscations of 80% of the 20,000,000 Acre Island. Maria McCarthy-Browne was the Great Great Grandmother of Helena Herbert who married back into the McCarthy Seat on her betrothal to Richard Hedges Eyre of Macroom (1719-1780). Helena's Great Granddaughter Jane Herbert for the second time married back into the McCarthy Demesne, 130 years later, on her marriage to William, 3rd Earl of Bantry (1801-1884) – making them second cousins.

In her letter to the Secretary of the Trustees dated January 23rd, 1925, Olive stated – "from the time of Cormac McCarthy, surnamed Láidir, born in 1411, (my castle) has always remained in the position of families allied by blood, except during periods of confiscation after which it always came back to its' original owners. My father is the direct descendant of Cormac McCarthy Láidir" (Maria's father was the direct descendant of the earlier Láidir of 1411).

Like no other, Olive knew her roots back five centuries. And on her marriage in 1869 to Baron Ardilaun (Arthur Guinness), Olive became the wealthiest woman in both Britain and Ireland. Only the British Monarch was wealthier.

Readers are urged to source Katherine Everett's "Bricks and Flowers" (Published 1949) – as Olive's first cousin through her mother Jane Herbert, here we have sound biographical details of the "Tans" and later the "Irregulars" occupying her Macroom Castle and 16th Century Gardens. Included by Katherine are graphic descriptions of the burning of Macroom Castle – reminiscent of Bowen's "The Last September".

The presentation, on Tuesday, 20th August, included eye-witness accounts of Olives generosity to the Dublin Poor. Olive is attributed with the presentation to the Dublin Citizenry of St. Stephen's Green – landscaped and planted with many Holm Oaks by her Husband Arthur. Additionally, Olive bequeathed her Ashford Castle (inherited on Arthur's death 1917) to the State.

Attached is the lineal Descent of Olive Ardilaun – compiled by Peter O' Leary (R.I.P. – August 9th, 2013).

Organisers wish to thank John O' Sullivan, Macroom, for the loan of an original photograph of Olive as a young woman – not seen before in a public space. John is directly descended from Olive Ardilaun's Housekeeper Mrs. McNally who lived in Macroom Castle until the day of the "burning". According to John, historic references to the Castle Housekeeper as Mrs. McCarthy are erroneous.

Our Heritage Event concluded with a commemorative planting of a Common Yew on the banks of the Sullane River – together with a re-enactment of Olive's descent with the co-operation of the wonderfully attentive participants.

All are in agreement that the erection by our County Council of a Commemorative Plaque to Olive's memory, in the Curtilage of her Castle, would serve to remind a new generation of Townspeople and Visitors of a Noble Woman named Olive (1850-1925).

We thank "Castle Café", Macroom for providing venue.

The above was written by Teddy Cook.

"ESPECIALLY FOR THOSE THAT NEED NATURE"

A summary of the Event in the Regional Park, Ballincollig with a talk by Ted Cook, in respect of National Tree Week Saturday 10th March, 2013, -

The talk began adjacent to the carpark in the Regional Park, Western End, with a discussion on Lichens which are epiphytic (anything that grows on another plant) and there are approximately 700 to 800 species of Lichens in this part of the County. It was also noted that ivy is the greatest epiphyte in Ireland and represents our only native evergreen climbing shrub of which we have 2 forms – common ivy and its' rare sub-species Irish Ivy (*Hedera helix Hibernia*). Other examples of Epiphyte include Honeysuckle; Woody Nightshade; Liverworts; Mosses and Polypody Tree Ferns.

Following this brief introduction Ted Cook posed a very interesting question – What is a Tree? However, he noted that there is no satisfactory answer in this regard and with thought, he conveyed, by far the more appropriate question is – what is the significance of a tree? Ted noted that quite often a question of this magnitude is best answered through one's feelings and not necessarily through the mind.

Ted commended the Council staff on their approach to the Park, by not spraying the walls to remove lichens, ivy, mosses, etc. It is interesting to note that lichens are neither a plant nor fungus – but both. It has yet to be placed in the evolutionary Tree of Earth's Plant Kingdom. Many of the recently discovered 600 chemicals/compounds in Lichens are new to Chemistry.

Ted's talk covered many fascinating areas of our natural heritage as the walk proceeded down along Beech Walk within the Park. He explained the significance of the Irish Elm which is seed fertile unlike our suckering European Elm which is seed sterile. Elm as well as Yew are important food sources for our Wood Mice – which are threatened by the introduced Bank Vole which competes with Wood Mice – as does the introduced White-toothed Shrew compete with our indigenous Pigmy Shrew.

Ted informed that Beech Walk was most probably an avenue that grew out of control, and contains some very old beech and lime trees. Ted also discussed the health status of trees, and to look out for the 3 "D's" – disease, dieback and deadwood. If the 3 "D's" are not present then the tree in question is in a good condition generally. The presence of Decomposer Bracket Fungi on the trunk or limbs are the definitive indicators of decay in our higher woody plants.

Ted also volunteered information on some of the bird species in the area which led to the group discussing the Crow Family. The magpie, it was noted by Ted Cook is an exotic species introduced by man and other species within the Crow Genus include the Jay and Chuff.

Ted conveyed the importance of trees throughout the walk as it continued in an easterly direction and aptly noted that tree's are nature's highest achievement. He even alluded to the importance of deadwood to a tree, which retains the minerals within the area and he advised that deadwood should as such never be removed from the vicinity of a tree. Die-back/deadwood in the crown of mature Oak is a common feature and ought not be confused with disease.

Another tree Ted Cook commented on along the walk was the Elder which he described as the "Granny" of the Forest. He noted that rats cannot go near elder as it releases a cyanide gas and that due to such poisonous properties it should never be burned. It is interesting to note

however that Elder flowers and fruits have been used as a Tonic since antiquity by humankind without toxic affects! Ted also commented on the Alder which is a pioneer of the forest and a fantastic nitrogen fixer. He noted that no deciduous broadleaved trees have cones except for alder. In sharing his knowledge of Ireland's native trees Ted pointed out that these native trees have even lent themselves to a historical language - Ogham, which is the language of the forest.

The purpose of the day's event, as part of a celebration of National Tree Week, was to plant a Yew Tree within the Park. Ted noted that the Yew Tree, which is shade tolerant, appeared 140 million years ago and impressed that it was possibly the tree of the Garden of Eden in biblical times, given that it is the only poisonous tree with little red fruit that would resemble apples. Ted pointed out that all trees evolved from Ferns and that Yew and Gingko are very primitive – appearing at the same time as songbirds as we know them. Ted noted that they, like other species, have a genetic memory of nature, i.e. with reference to Ferns, in that they need damp, shady places, akin to the conditions that they would have first encountered in Swamp Forests.

In addition to the planting of a Yew tree, the group also collectively assisted in the planting of almost 50 other trees, consisting of both alder and birch. The area designated for this planting was decided upon when looking at the early OS maps which indicated a wildlife corridor between the Sally and the Oak at this location almost 200 years ago and it was deemed appropriate to concentrate efforts on recreating that ecological corridor. Ted noted the importance of such corridors in that bats and several of their prey insects commute along hedgerows and treed corridors – Ireland's largest man-made naturalised feature.

Ted shared his expertise in respect of the day's planting. He noted that birch and alder live between a Ph of 5.2 to 6.8 and that the soil present would be most suitable to encourage their growth, noting that birch does however need a lot more light than alder and in addition that the birch should be set upon dryer ground than would be acceptable for alder. In respect of the Yew tree however, it was necessary to add some seaweed which Ted Cook provided in order to alter the Ph, making it suitable for the initial stages of Yew growth. Ted advised not to allow bare-rooted stock to dry out and to have the planting pits ready before removing the plants from the bags. Touch neither roots nor stems with metal planting tools – with the exception of a secateurs where damaged roots are severed cleanly. Ted used an analogy in this regard by referring to worms which are cold blooded and by touching them it affects the worms in a negative manner.

When the trees were being planted Ted advised that the sod should be upturned over the surface roots of the sapling because the grass will rot and turn into nitrogen and inhibit competition from grass growth, both of which objects will benefit the tree's growth in it's first growing season. Water during May – and during easterly winds which thieve moisture from leaf and stem. The trees were placed in pure stands and each specimen was set, approximately 2 metres from one another.

Ted also volunteered information for those interested in planting within their urban gardens. He noted that some nice species to this effect were spindle, holly, hawthorne, wild cherry, crab apple and blackthorne.

Overall the event proved most successful and was attended by approximately 20 people who thoroughly enjoyed the day. Thanks as always to Ted Cook for presenting a most insightful, fascinating event.