

Hamamelidaceae (& Altingiaceae)

***Hamamelis* study weekend IDS**

Arboretum Kalmthout, Belgium

1 & 2 February 2014

Hamamelidaceae (& Altingiaceae)

vegetative key
to species
in cultivation

Morphologically very diverse genera.

With number of species in this key:

*Altingia** [3]

Corylopsis [10]

Disanthus [1]

Distylium [4]

Exbucklandia [1]

Fortunearia [1]

Fothergilla [2]

Hamamelis [6]

*Liquidambar** [5]

Loropetalum [1]

Parrotia [2]

Parrotiopsis [1]

Rhodoleia [1]

Sinowilsonia [1]

×*Sycoparrotia* [1]

Sycopsis [1]

Trichocladus [2]

(Altingiaceae*)

key to families



Altingiaceae

Hamamelidaceae

Altingiaceae



Altingia gracilipes



Altingiaceae

bruised lamina
with sharp scent



Altingia gracilipes

Altingiaceae



bruised lamina
with sharp scent



leaf arrangement
spirally

Altingia gracilipes

Hamamelidaceae



Loropetalum chinense var. *rubrum*

Hamamelidaceae



bruised lamina
scentless

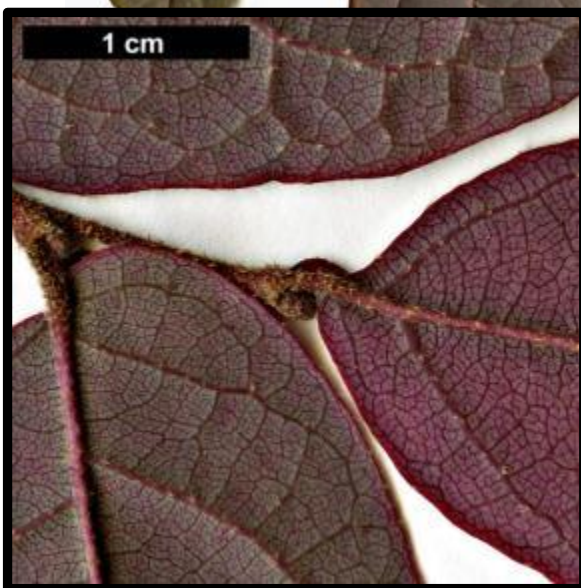


Loropetalum chinense var. *rubrum*

Hamamelidaceae



bruised lamina
scentless



leaf arrangement
two-ranked

Loropetalum chinense var. *rubrum*



Altingiaceae

bruised lamina
with sharp scent



leaf arrangement
spirally

Altingia gracilipes

key to groups



2 groups

each with following

diagnostic characters

GROUP A: LAMINA VENATION PINNATE
(secondary veins scattered along midvein)



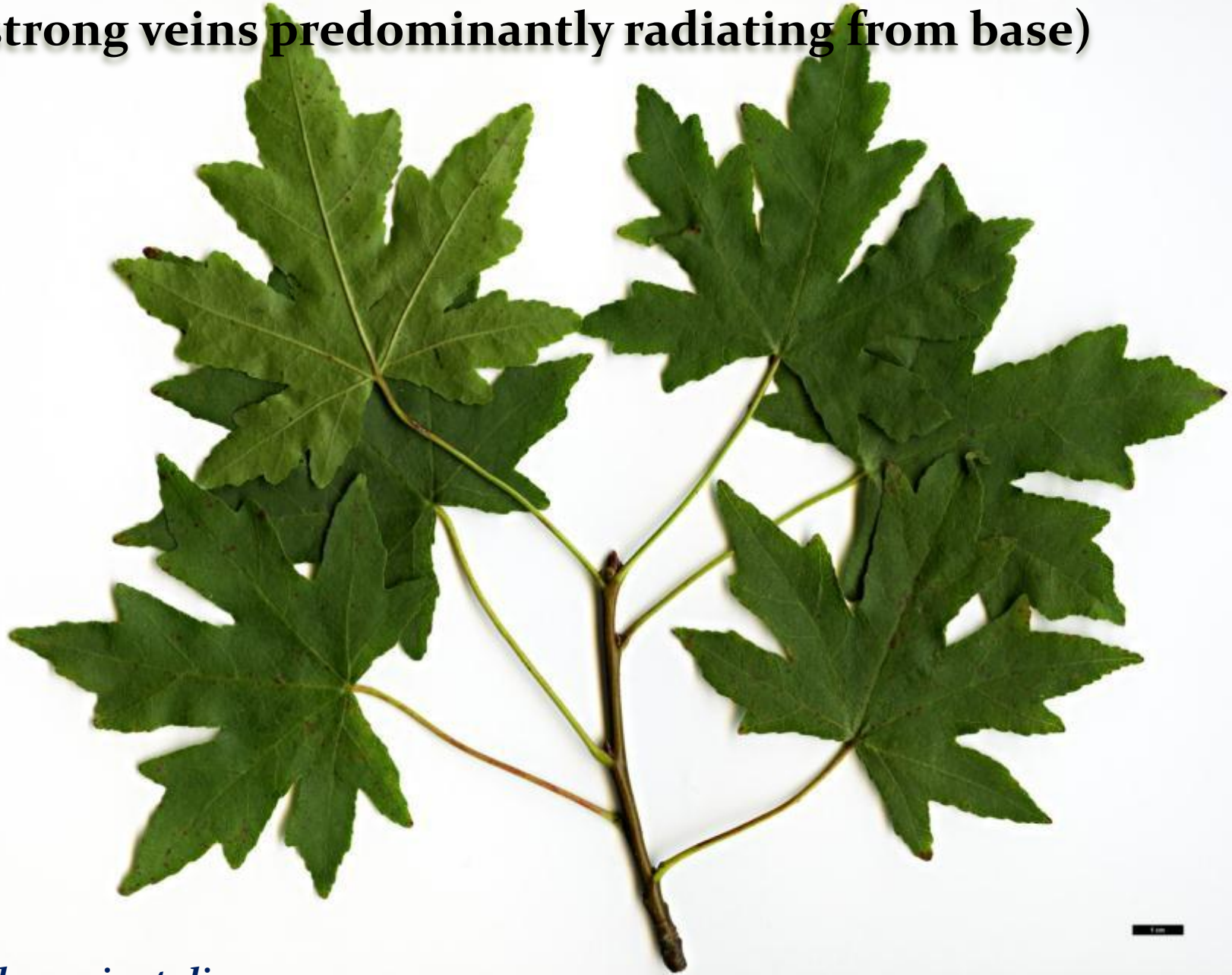
Altingia poilanei

GROUP A: LAMINA VENATION PINNATE
(secondary veins scattered along midvein)



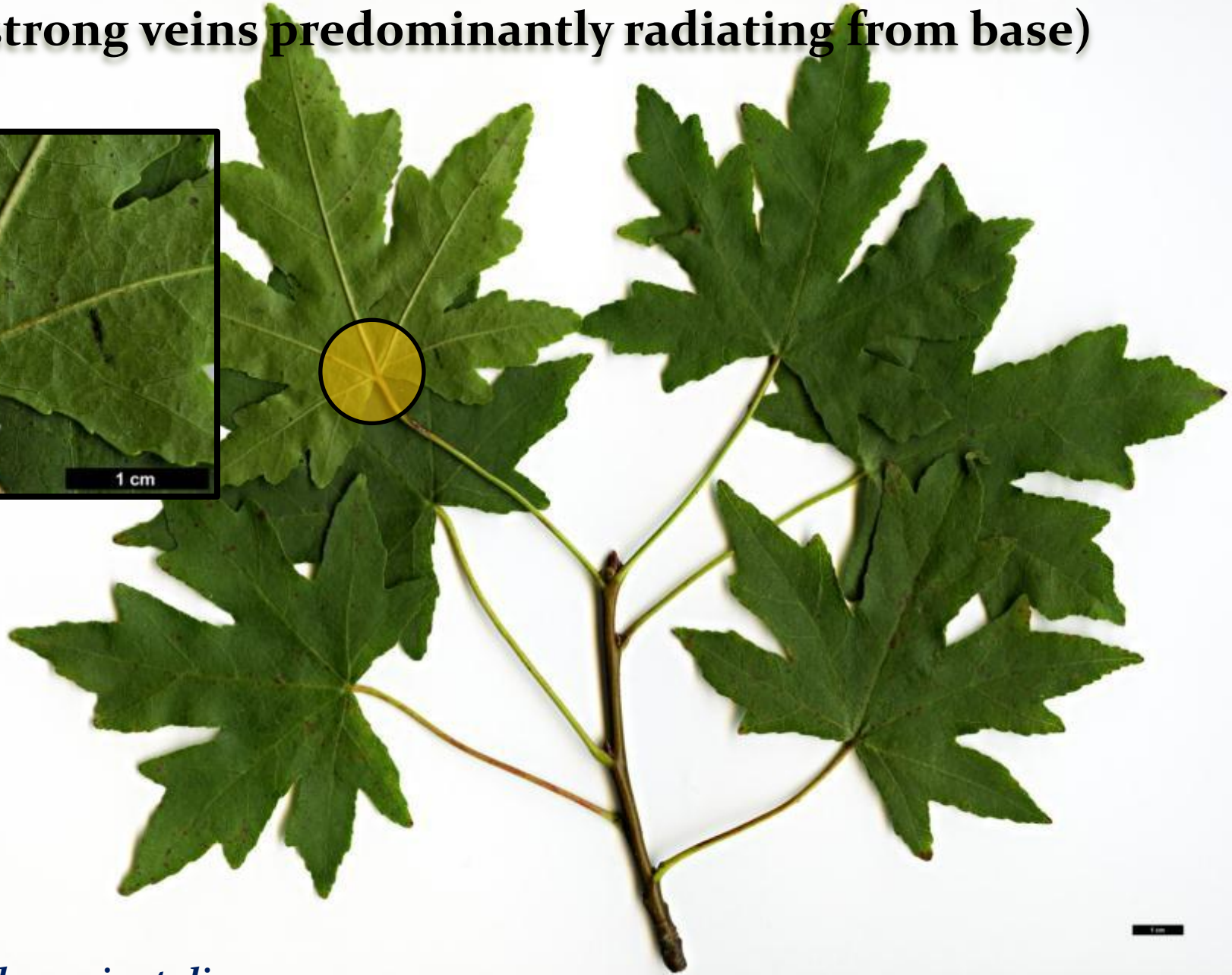
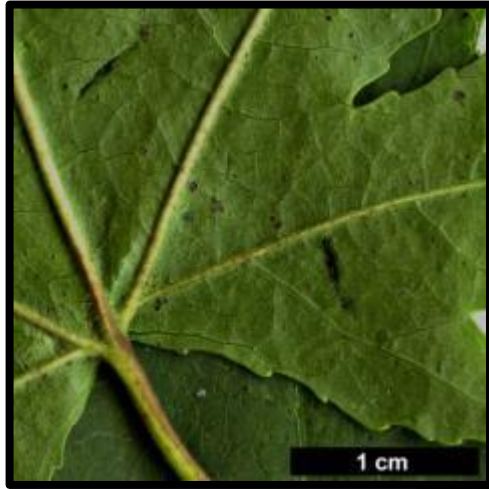
Altingia poilanei

GROUP B: LAMINA VENATION PALMATE
(strong veins predominantly radiating from base)



Liquidambar orientalis

GROUP B: LAMINA VENATION PALMATE
(strong veins predominantly radiating from base)



Liquidambar orientalis

Hamamelidaceae



bruised lamina
scentless

leaf arrangement
two-ranked

Loropetalum chinense var. *rubrum*

key to groups



3 groups

each with following

diagnostic characters

GROUP A

LAMINA VENATION PALMATE

*strong veins predominantly
radiating from base*



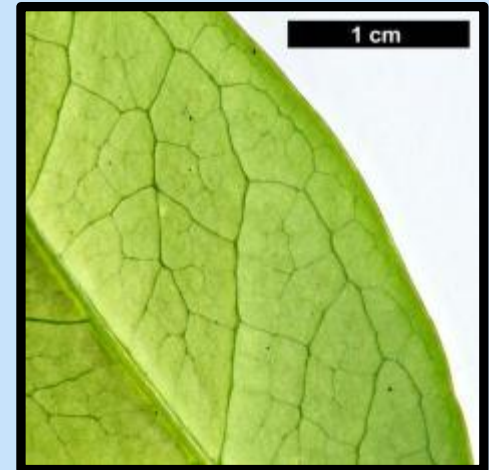
GROUP A

LAMINA VENATION PALMATE
*strong veins predominantly
radiating from base*



GROUP B

LAMINA VENATION PINNATE
*most secondary veins curving +
anastomosing before margin*



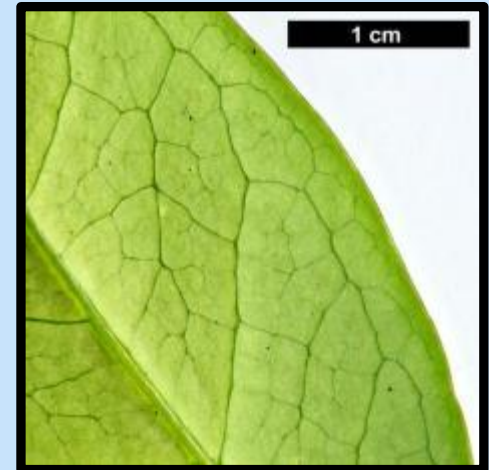
GROUP A

LAMINA VENATION PALMATE
*strong veins predominantly
radiating from base*



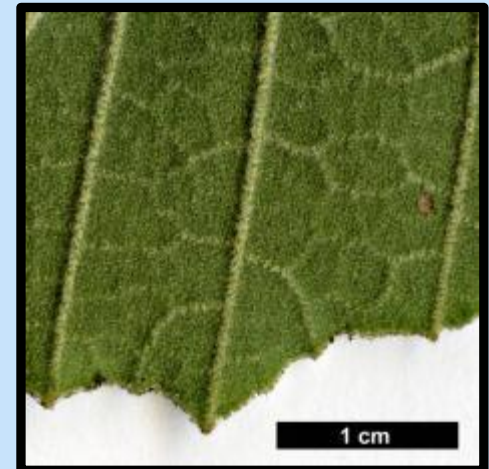
GROUP B

LAMINA VENATION PINNATE
*most secondary veins curving +
anastomosing before margin*



GROUP C

LAMINA VENATION PINNATE
*most secondary veins
ending at margin*



GROUP A

LAMINA VENATION PALMATE

*strong veins predominantly
radiating from base*



GROUP A: LAMINA VENATION PALMATE



Disanthus cercidifolius

GROUP A: LAMINA VENATION PALMATE



Disanthus cercidifolius

GROUP A: LAMINA VENATION PALMATE

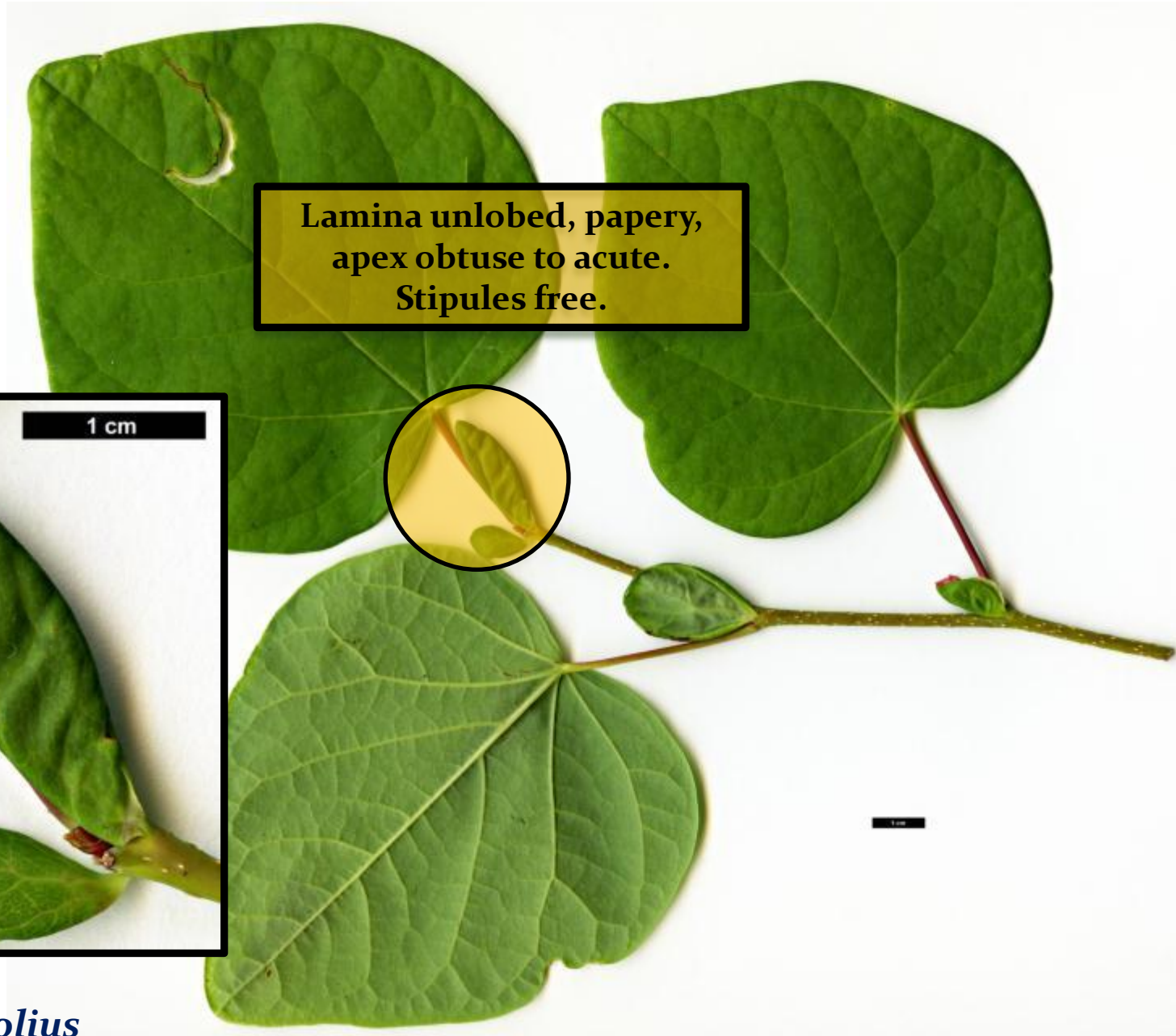
Lamina unlobed, papery,
apex obtuse to acute.



1 cm

Disanthus cercidifolius

GROUP A: LAMINA VENATION PALMATE



Lamina unlobed, papery,
apex obtuse to acute.
Stipules free.

1 cm

1 cm

Disanthus cercidifolius

GROUP A: LAMINA VENATION PALMATE



Exbucklandia populnea

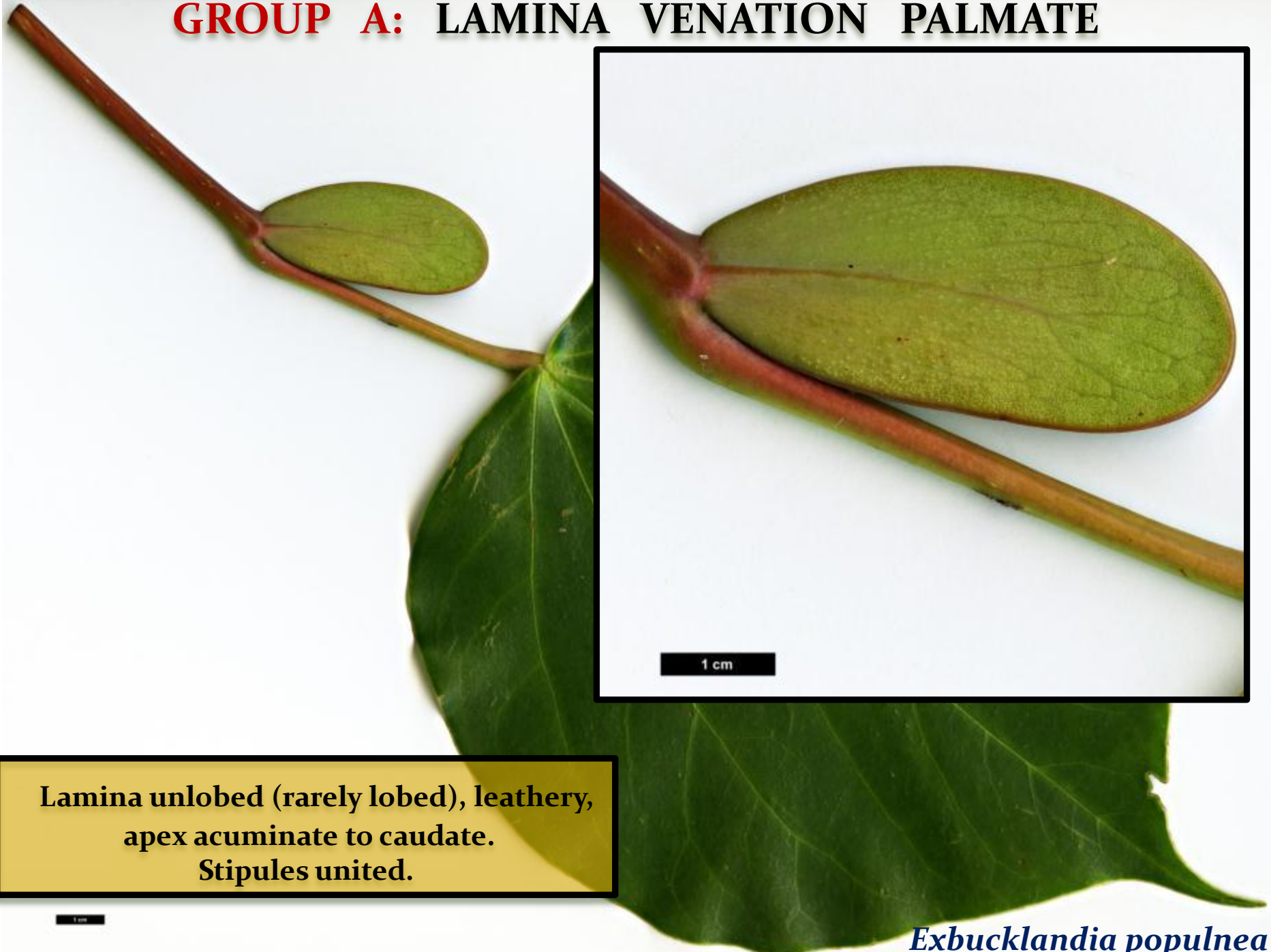
GROUP A: LAMINA VENATION PALMATE



Lamina unlobed (rarely lobed), leathery,
apex acuminate to caudate.

Exbucklandia populnea

GROUP A: LAMINA VENATION PALMATE



Lamina unlobed (rarely lobed), leathery,
apex acuminate to caudate.
Stipules united.

Exbucklandia populnea

GROUP A: LAMINA VENATION PALMATE



Lamina unlobed (rarely lobed), leathery,
apex acuminate to caudate.
Stipules united.

Exbucklandia populnea

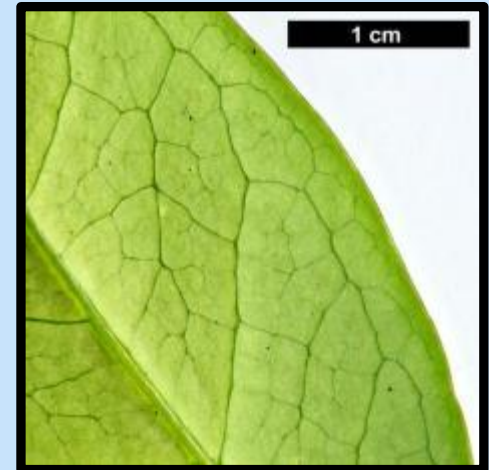
GROUP A

LAMINA VENATION PALMATE
*strong veins predominantly
radiating from base*



GROUP B

LAMINA VENATION PINNATE
*most secondary veins curving +
anastomosing before margin*



GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Distylium racemosum

GROUP B: LAMINA VENATION PINNATE

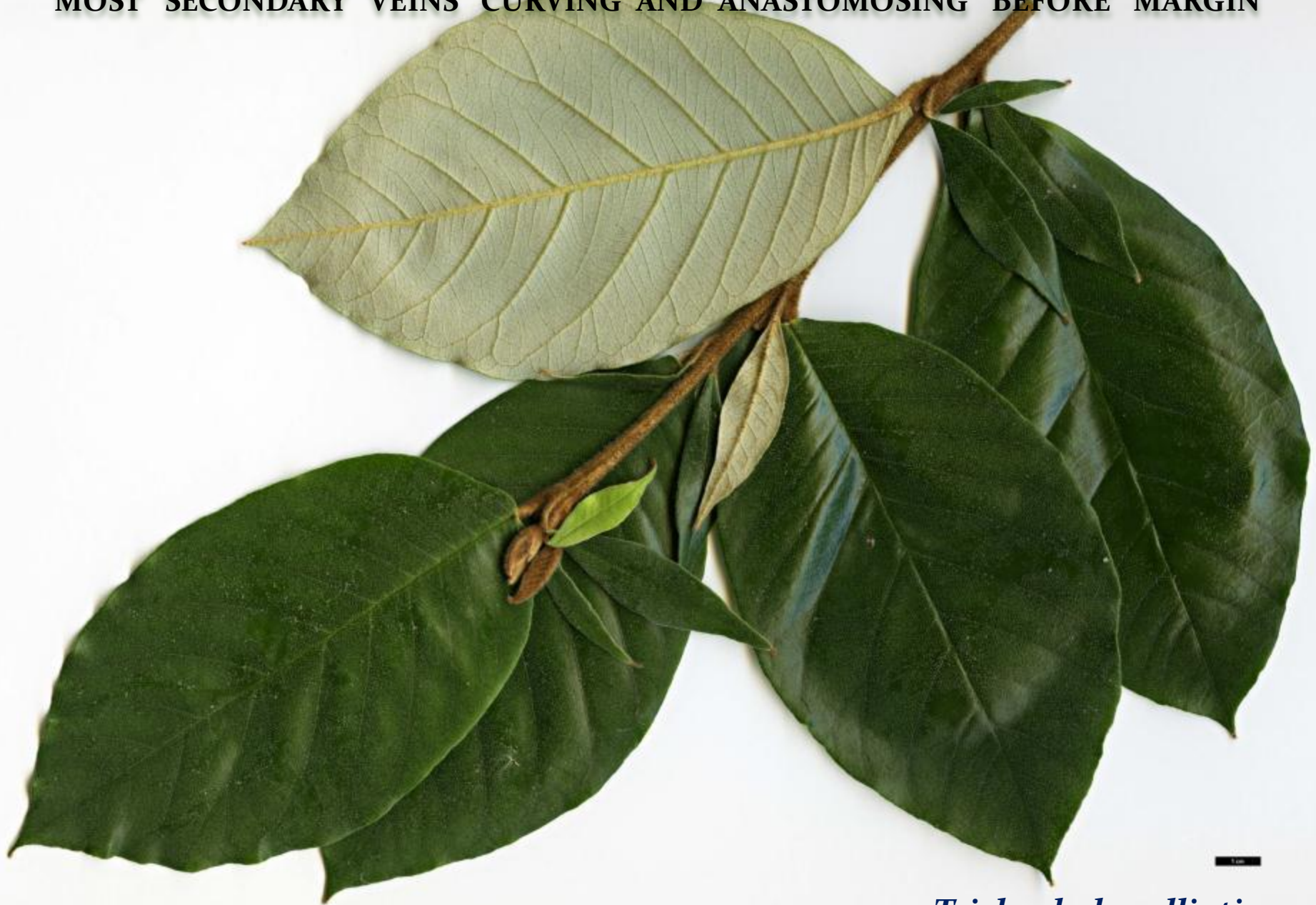
MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Distylium racemosum

GROUP B: LAMINA VENATION PINNATE

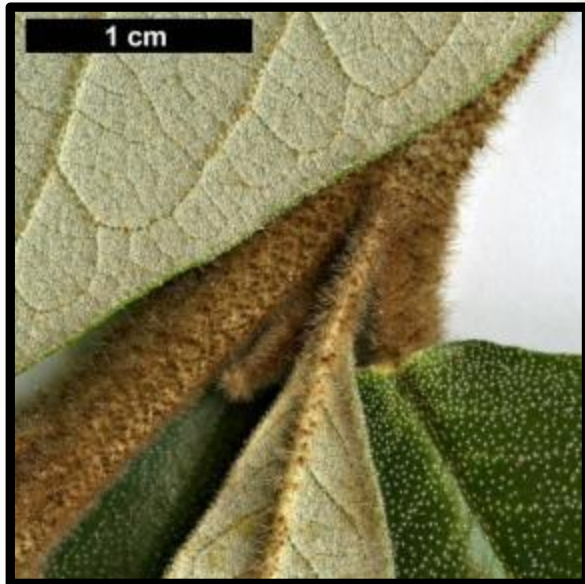
MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Trichocladus ellipticus

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



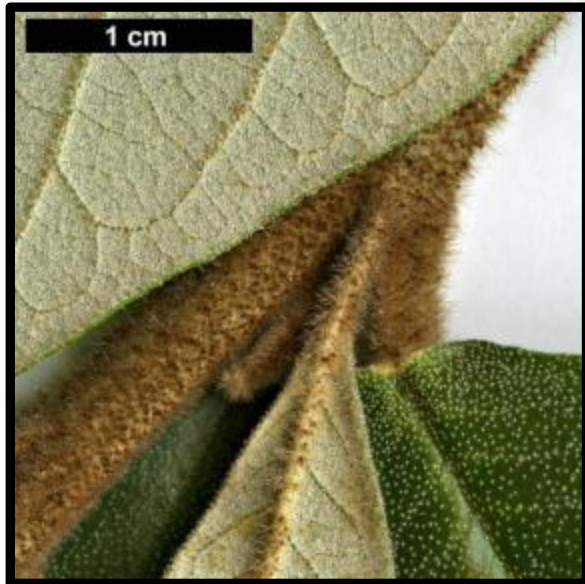
Shoot, petiole and lamina pubescent with long-armed stellate hairs.



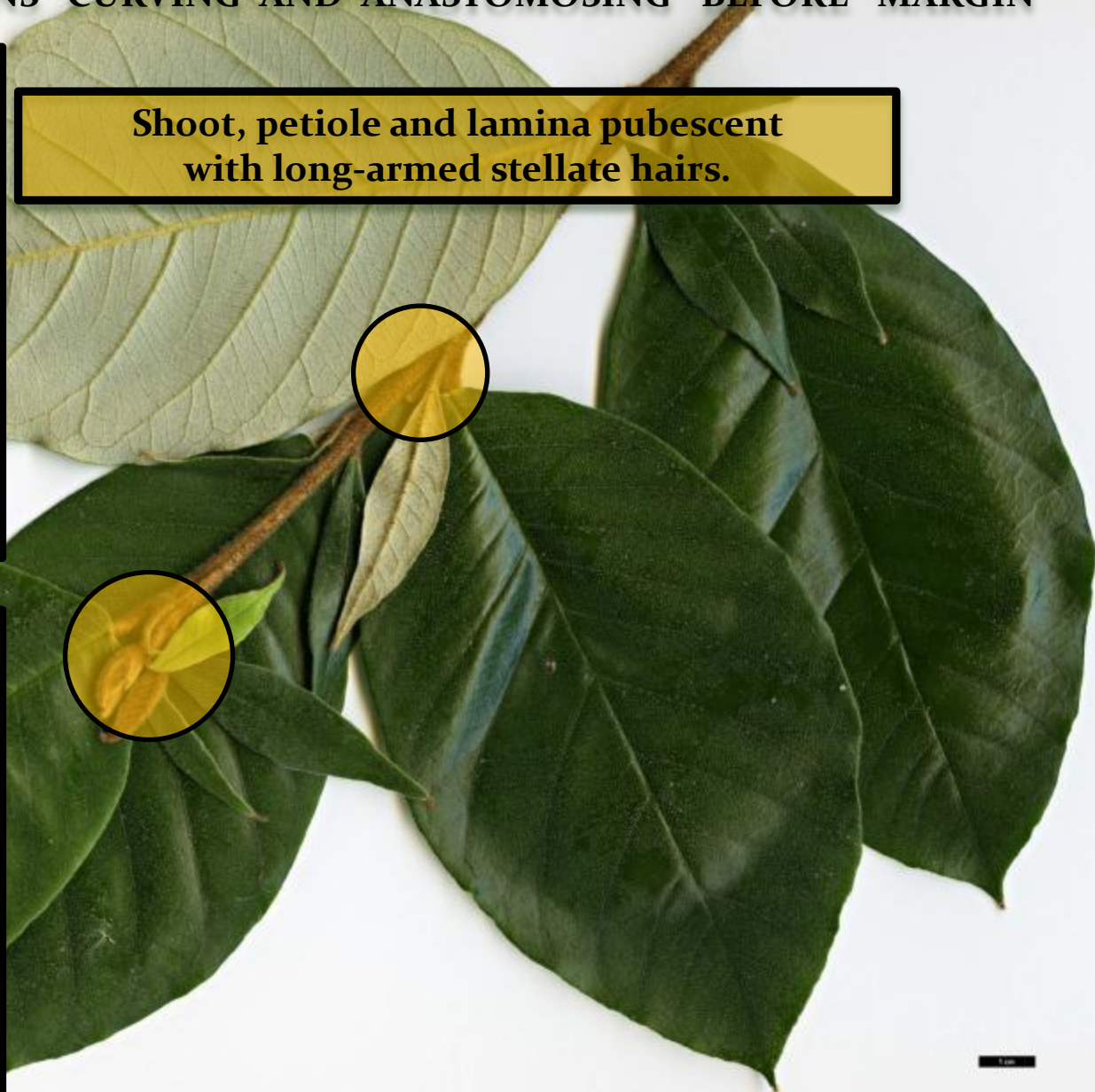
Trichocladus ellipticus

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Shoot, petiole and lamina pubescent with long-armed stellate hairs.



Trichocladus ellipticus

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Loropetalum sinense

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

Shoot, petiole and lamina pubescent
with long-armed stellate hairs.



Loropetalum sinense

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

Shoot, petiole and lamina pubescent with long-armed stellate hairs.



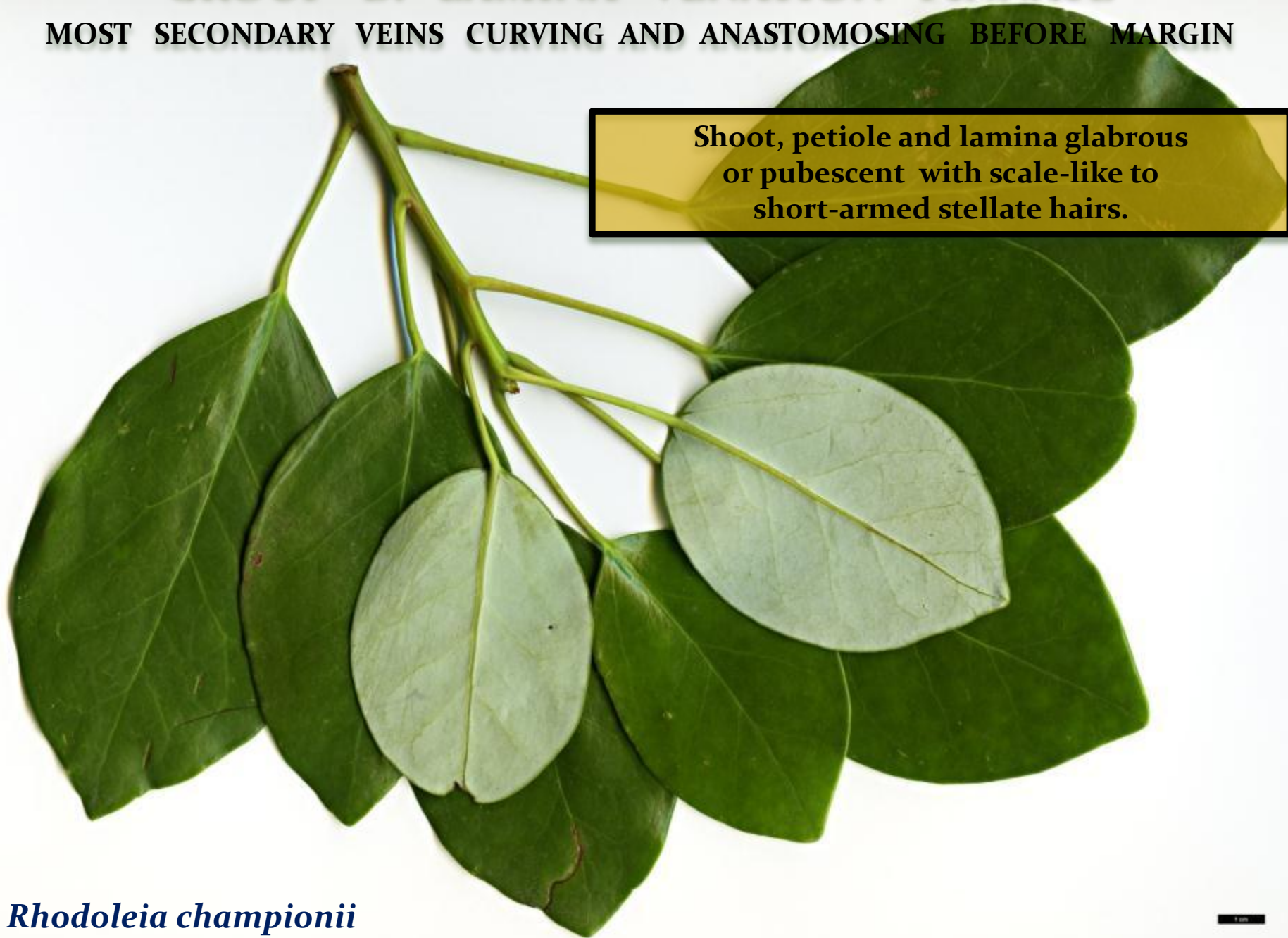
1 cm

Loropetalum sinense

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

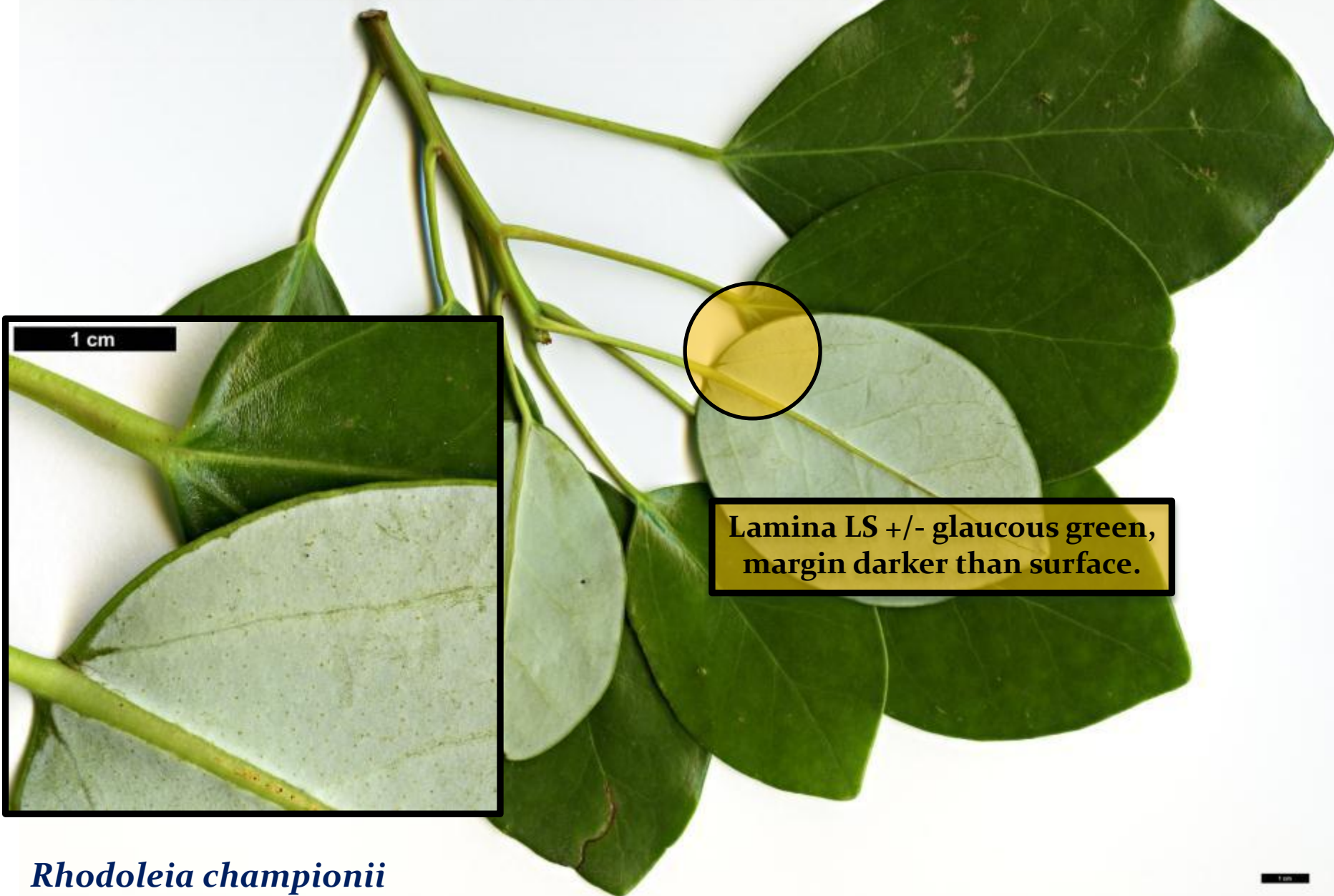
**Shoot, petiole and lamina glabrous
or pubescent with scale-like to
short-armed stellate hairs.**



Rhodoleia championii

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Rhodoleia championii

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

leaf arrangement spirally

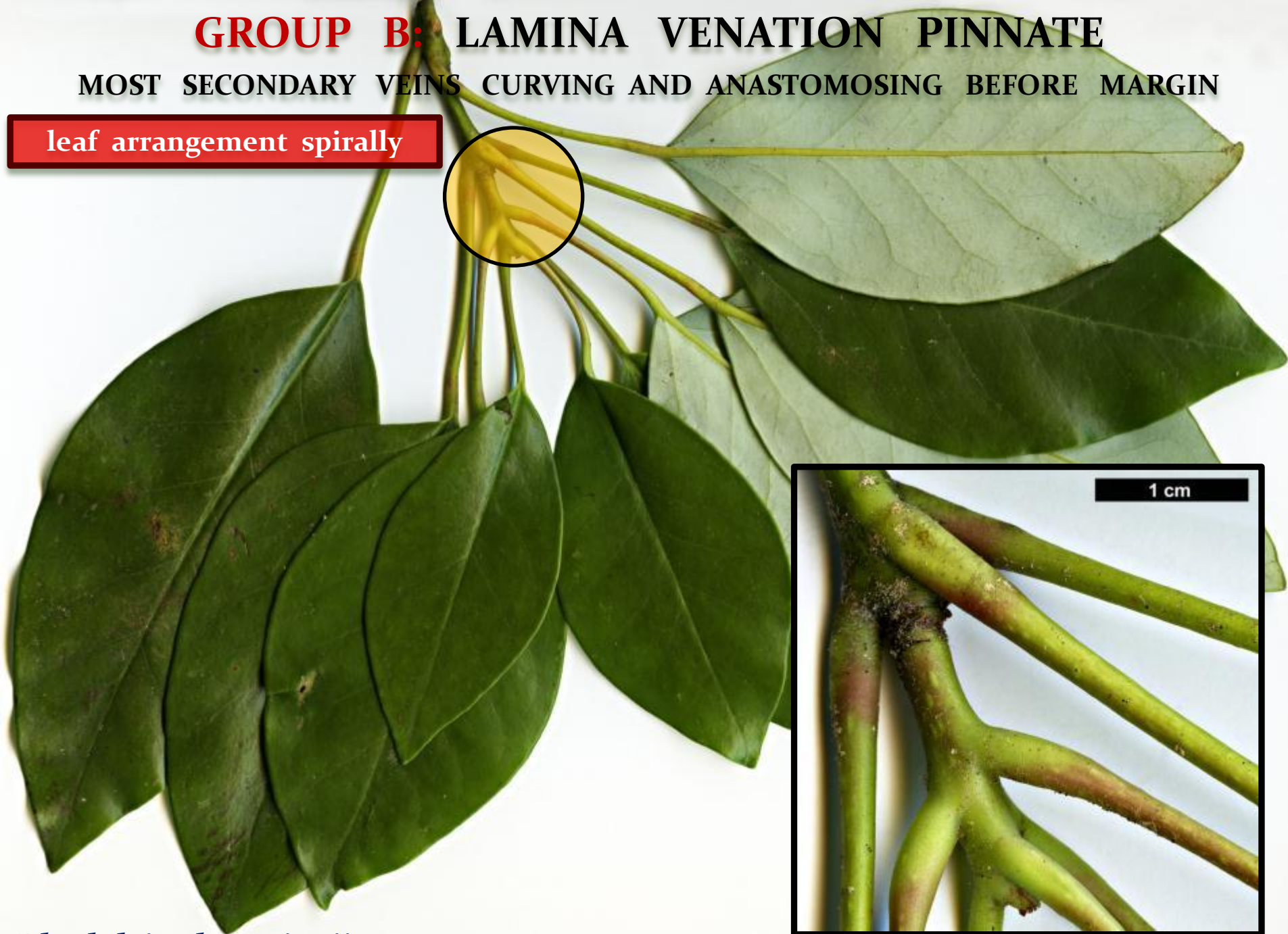


Rhodoleia championii

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

leaf arrangement spirally



Rhodoleia championii

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



lamina rather variable

Rhodoleia championii sensu lato

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Sycopsis sinensis

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

Lamina LS green,
margin translucent (10× LENS).



Sycopsis sinensis

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

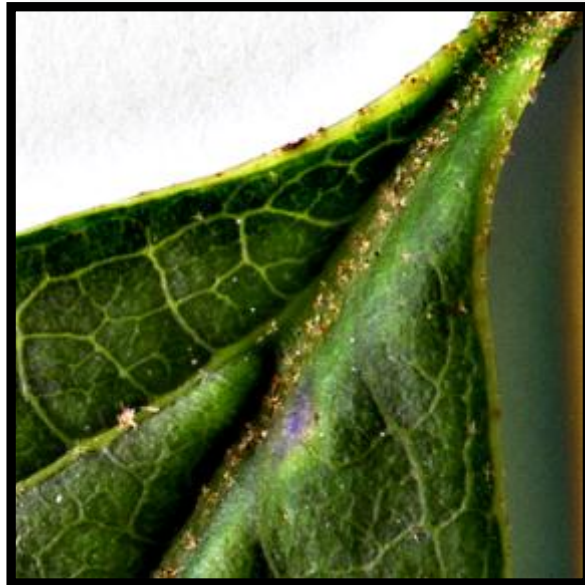
Lamina LS green,
margin translucent (10× LENS).



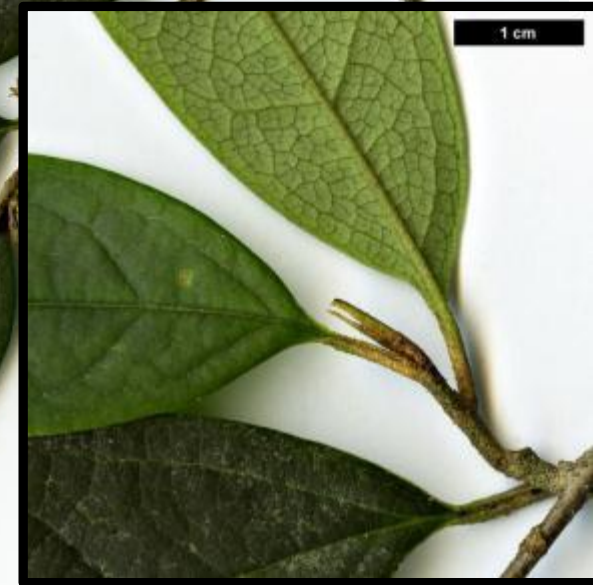
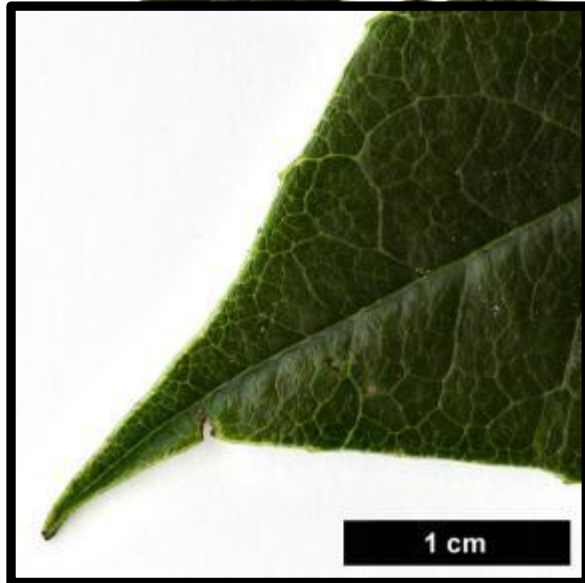
Sycopsis sinensis

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Lamina LS green,
margin translucent (10× LENS).



Lamina apex predominantly
gradually acuminate to (sub-)caudate.

Sycopsis sinensis

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Lamina LS green,
margin translucent (10× LENS).



Distylium myricoides

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

Lamina LS green,
margin translucent (10× LENS).

1 cm

1 cm

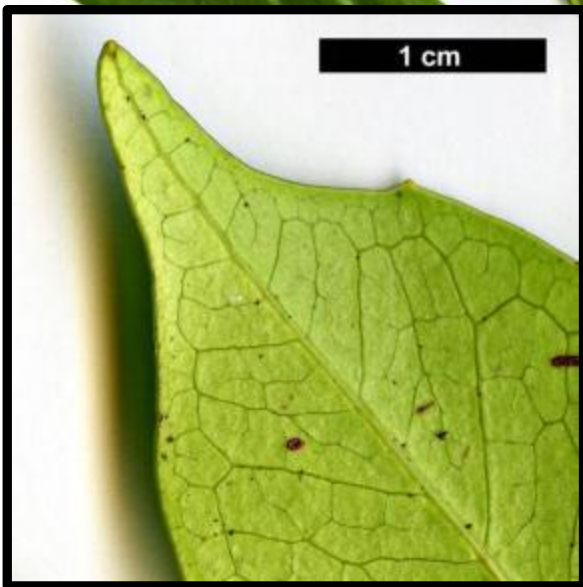
Distylium myricoides



GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN

Lamina LS green,
margin translucent (10× LENS).



Apex obtuse to (abruptly) acute
or abruptly acuminate.



GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Distylium racemosum

GROUP B: LAMINA VENATION PINNATE

MOST SECONDARY VEINS CURVING AND ANASTOMOSING BEFORE MARGIN



Distylium racemosum

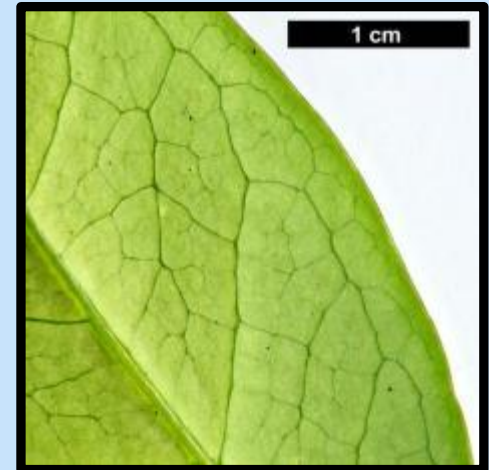
GROUP A

LAMINA VENATION PALMATE
*strong veins predominantly
radiating from base*



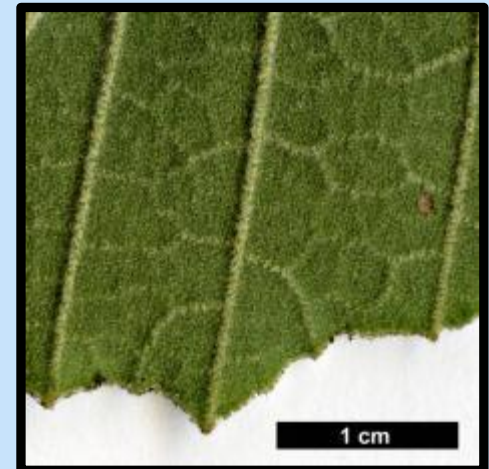
GROUP B

LAMINA VENATION PINNATE
*most secondary veins curving +
anastomosing before margin*



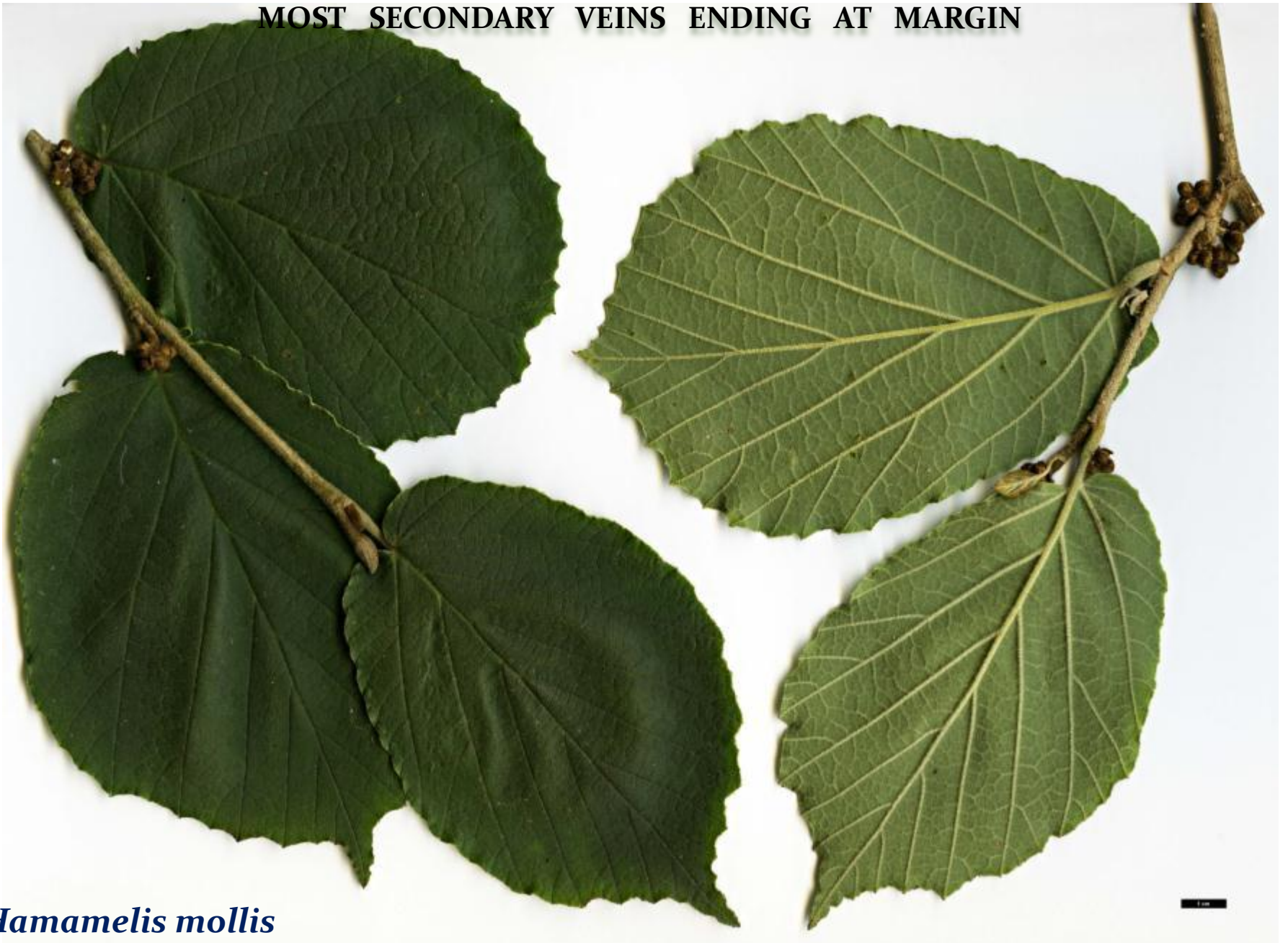
GROUP C

LAMINA VENATION PINNATE
*most secondary veins
ending at margin*



GROUP C: LAMINA VENATION PINNATE

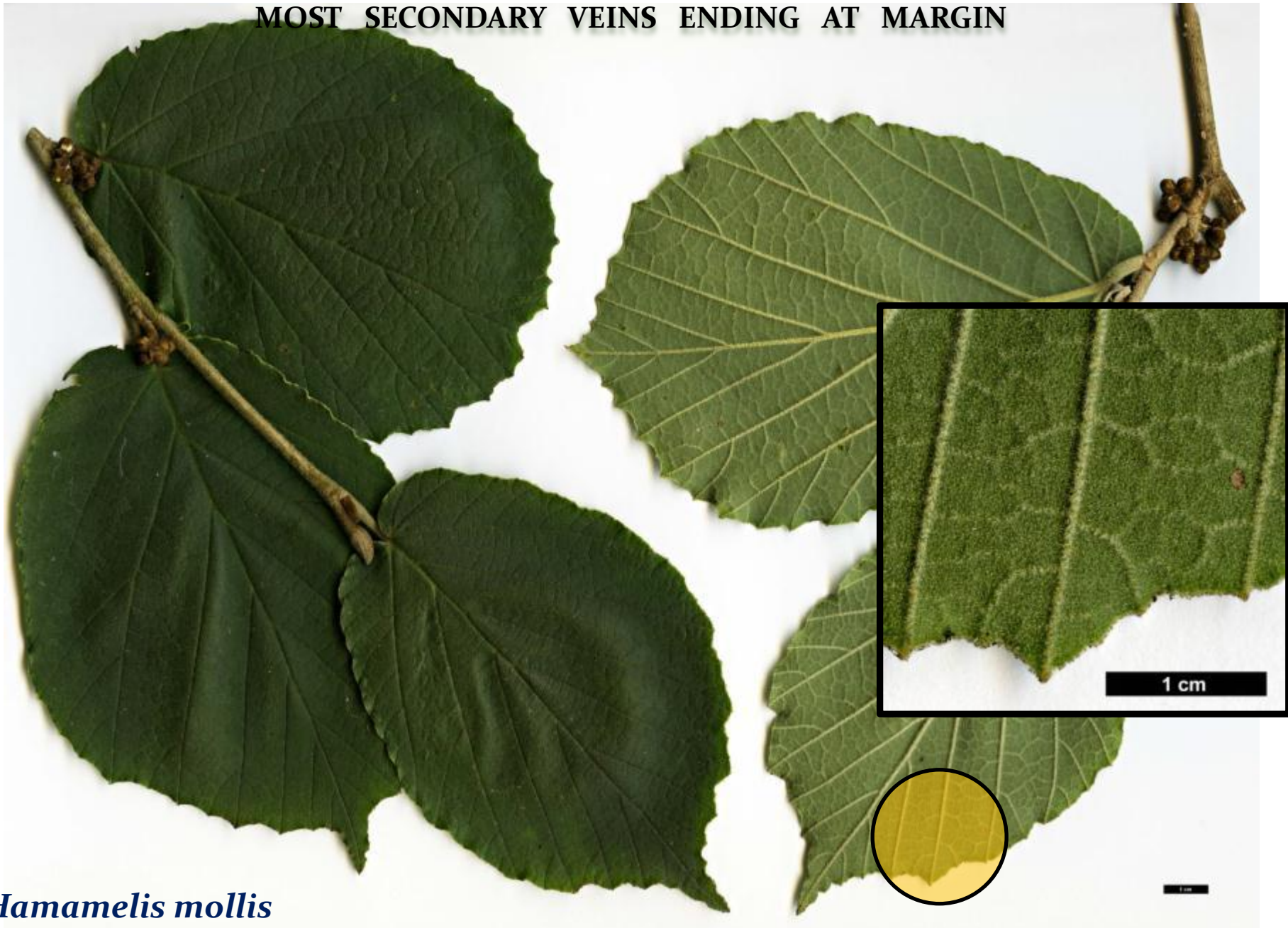
MOST SECONDARY VEINS ENDING AT MARGIN



Hamamelis mollis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN



Hamamelis mollis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

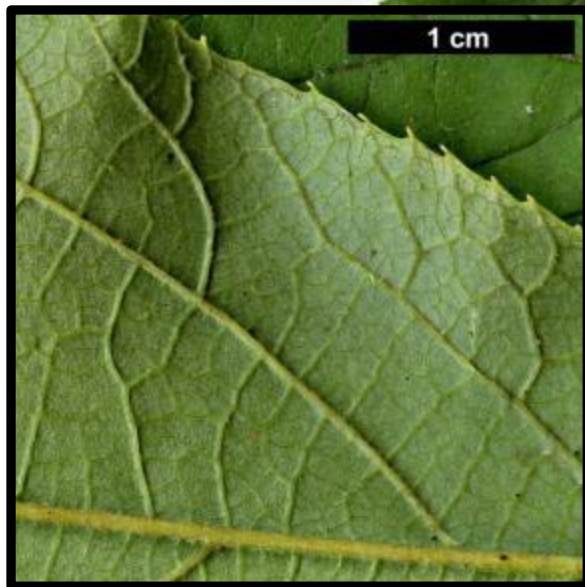


Fortunaria sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina margin with >25
teeth or vein endings/side.*



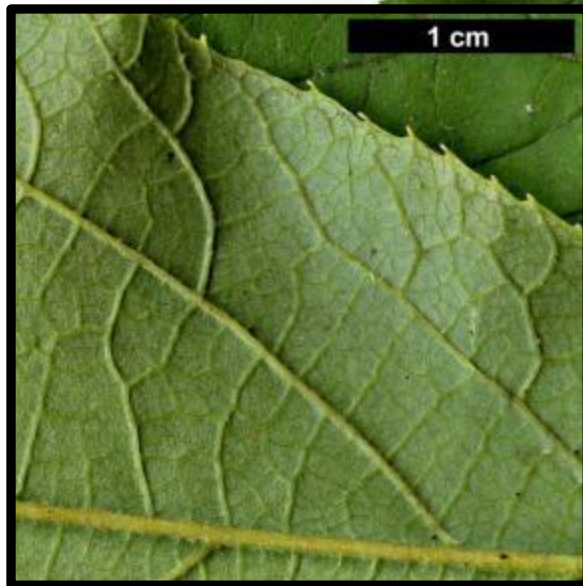
Fortunearia sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina margin with >25 teeth or vein endings/side.

Lamina base rounded to cuneate.



Fortunearia sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

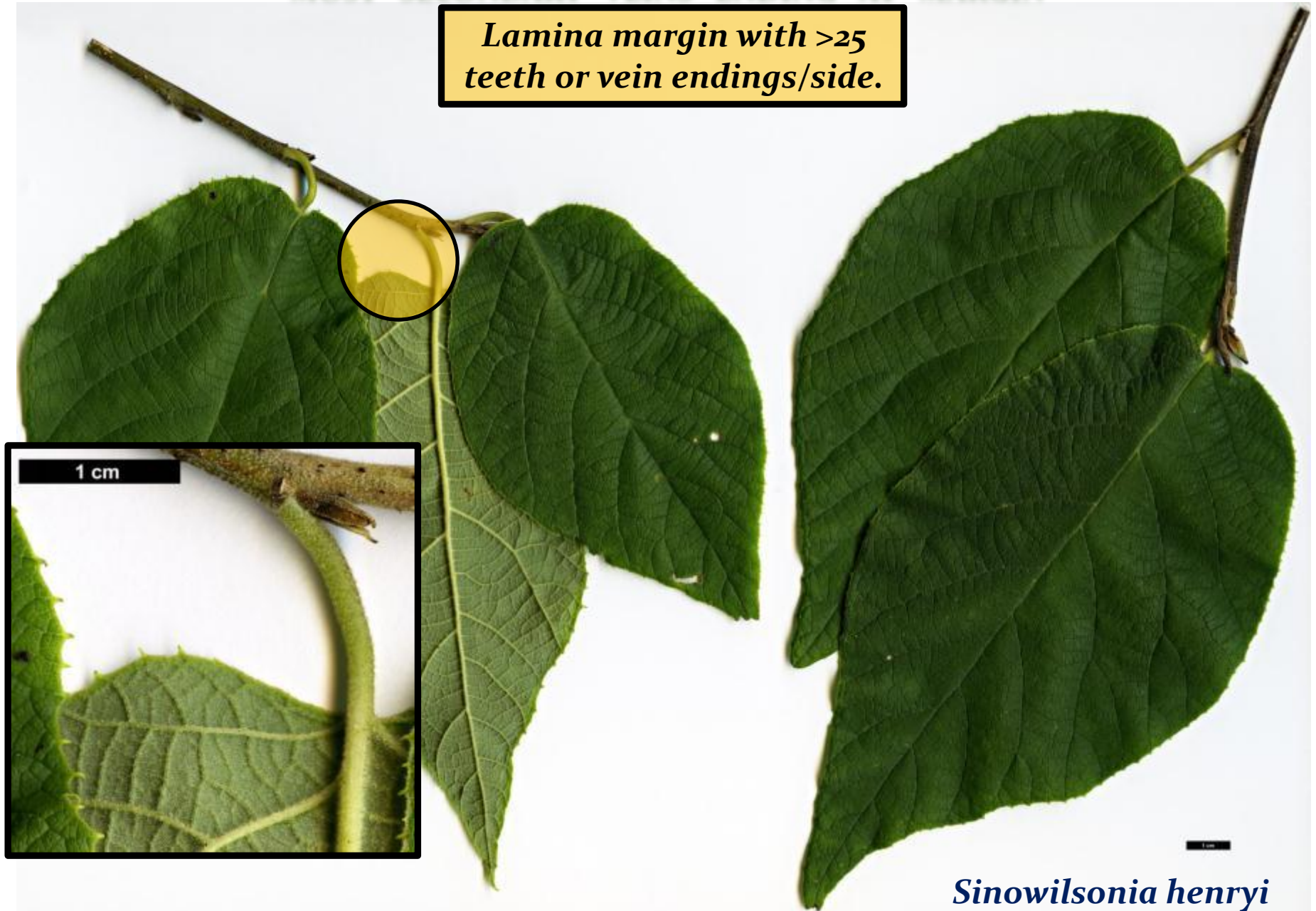


Sinowilsonia henryi

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina margin with >25
teeth or vein endings/side.*



Sinowilsonia henryi

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina margin with >25
teeth or vein endings/side.*

*Lamina base
cordate to obliquely cordate.*



Sinowilsonia henryi

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN



Parrotia persica

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina margin with ≤ 25
teeth or vein endings/side.*



Parrotia persica

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina margin with ≤ 25
teeth or vein endings/side.*



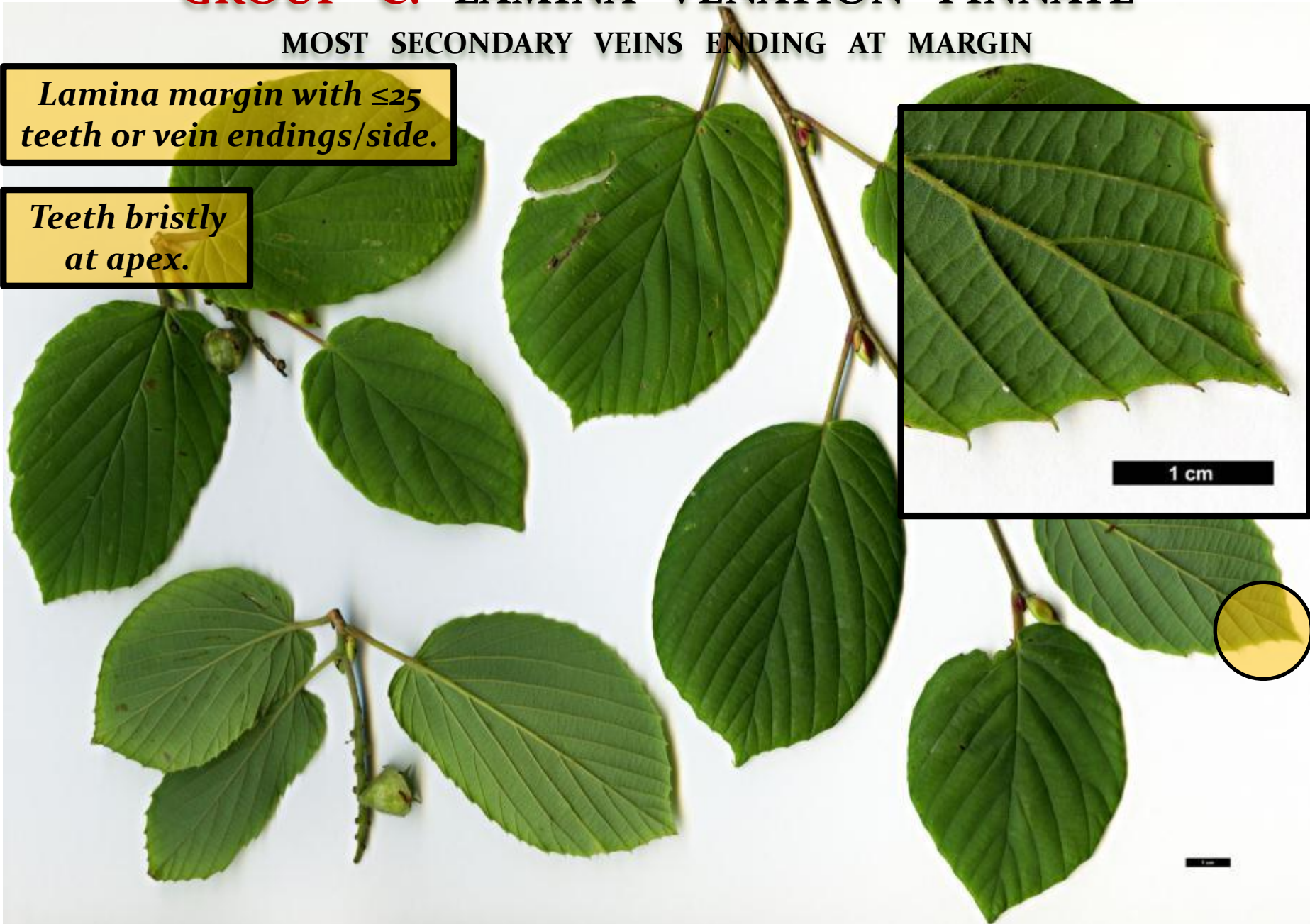
Corylopsis sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina margin with ≤ 25 teeth or vein endings/side.

Teeth bristly at apex.



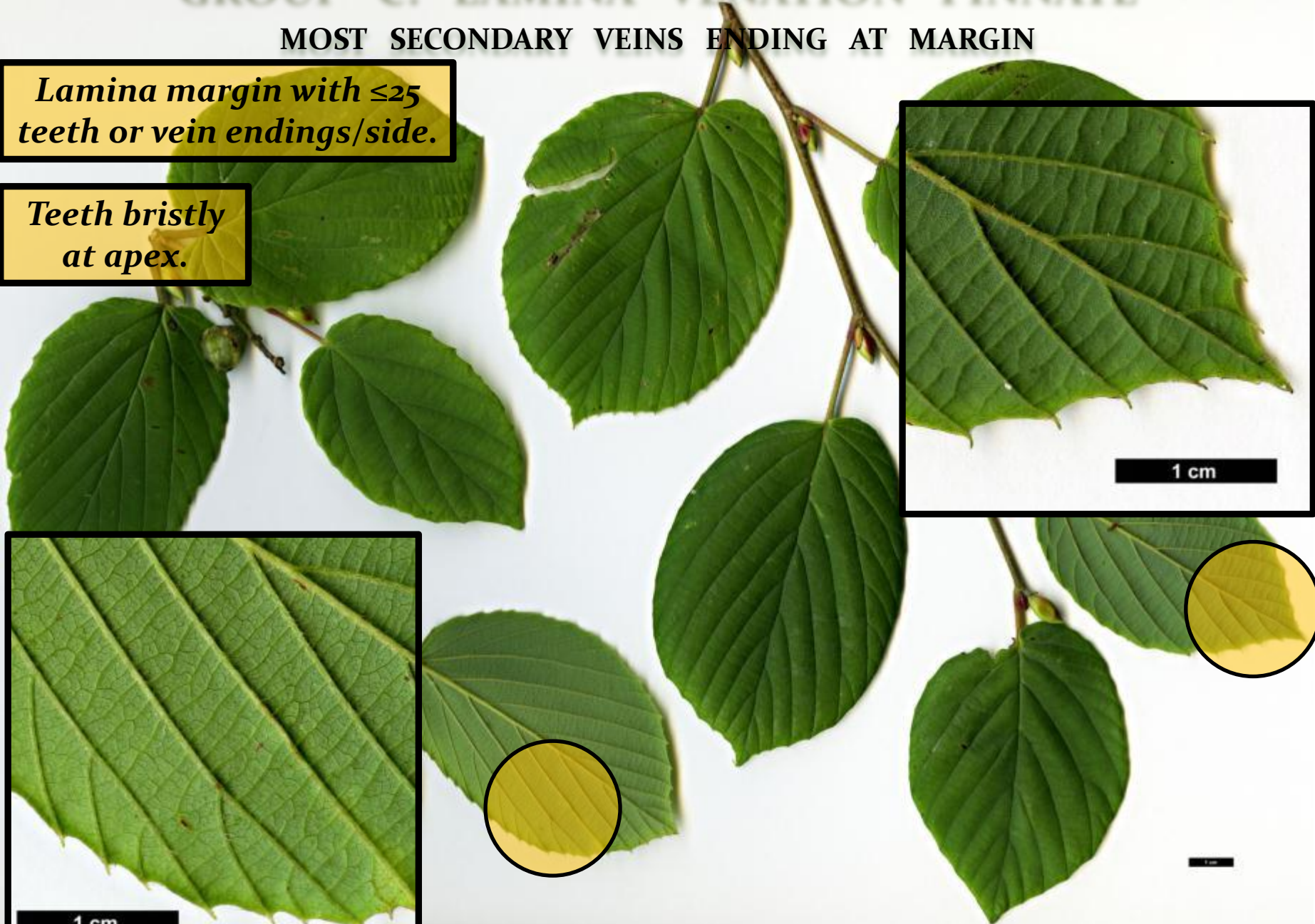
Corylopsis sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina margin with ≤ 25 teeth or vein endings/side.

Teeth bristly at apex.



Corylopsis sinensis

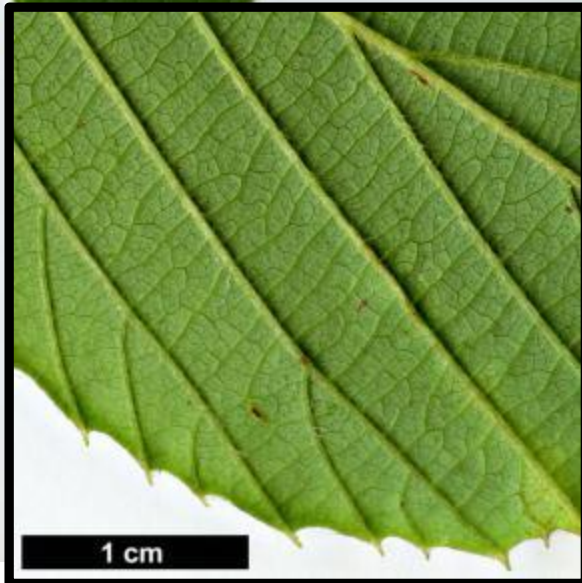
GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina margin with ≤ 25 teeth or vein endings/side.

Teeth bristly at apex.

Lamina base cordate.



Corylopsis sinensis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN



Hamamelis mollis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lamina LS with
lowermost secondary vein
completely surrounded by
leaf tissue.*



Hamamelis mollis

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

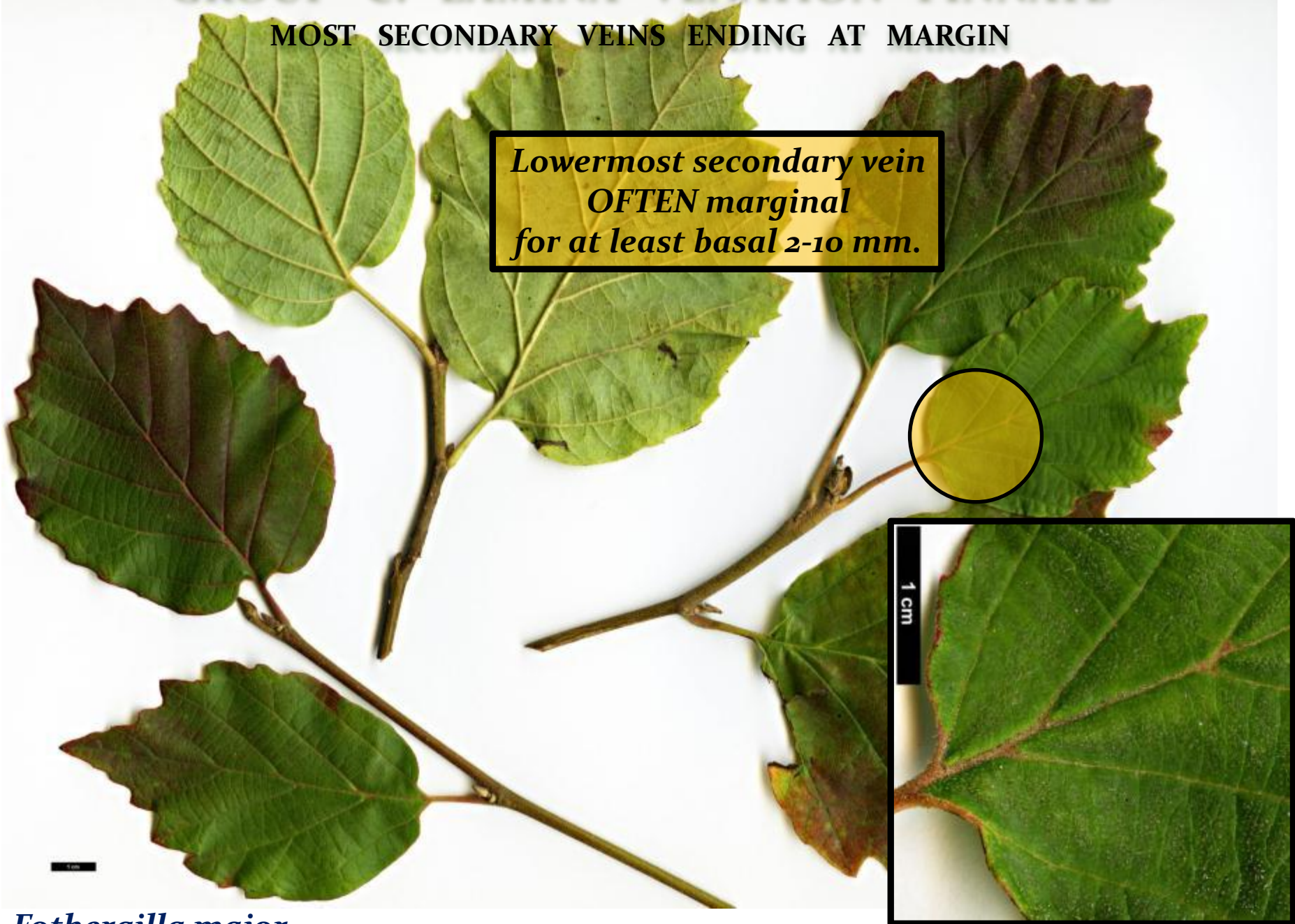


Fothergilla major

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lowermost secondary vein
OFTEN marginal
for at least basal 2-10 mm.*

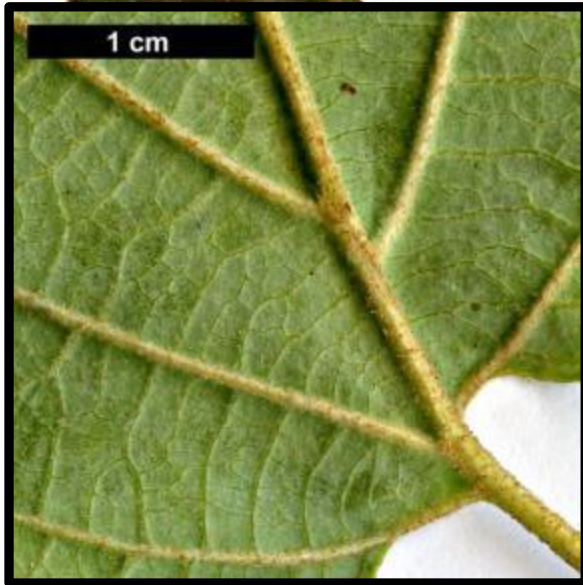


Fothergilla major

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

*Lowermost secondary vein
OFTEN marginal
for at least basal 2-10 mm.*



Fothergilla major

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN



Hamamelis japonica

GROUP C: LAMINA VENATION PINNATE

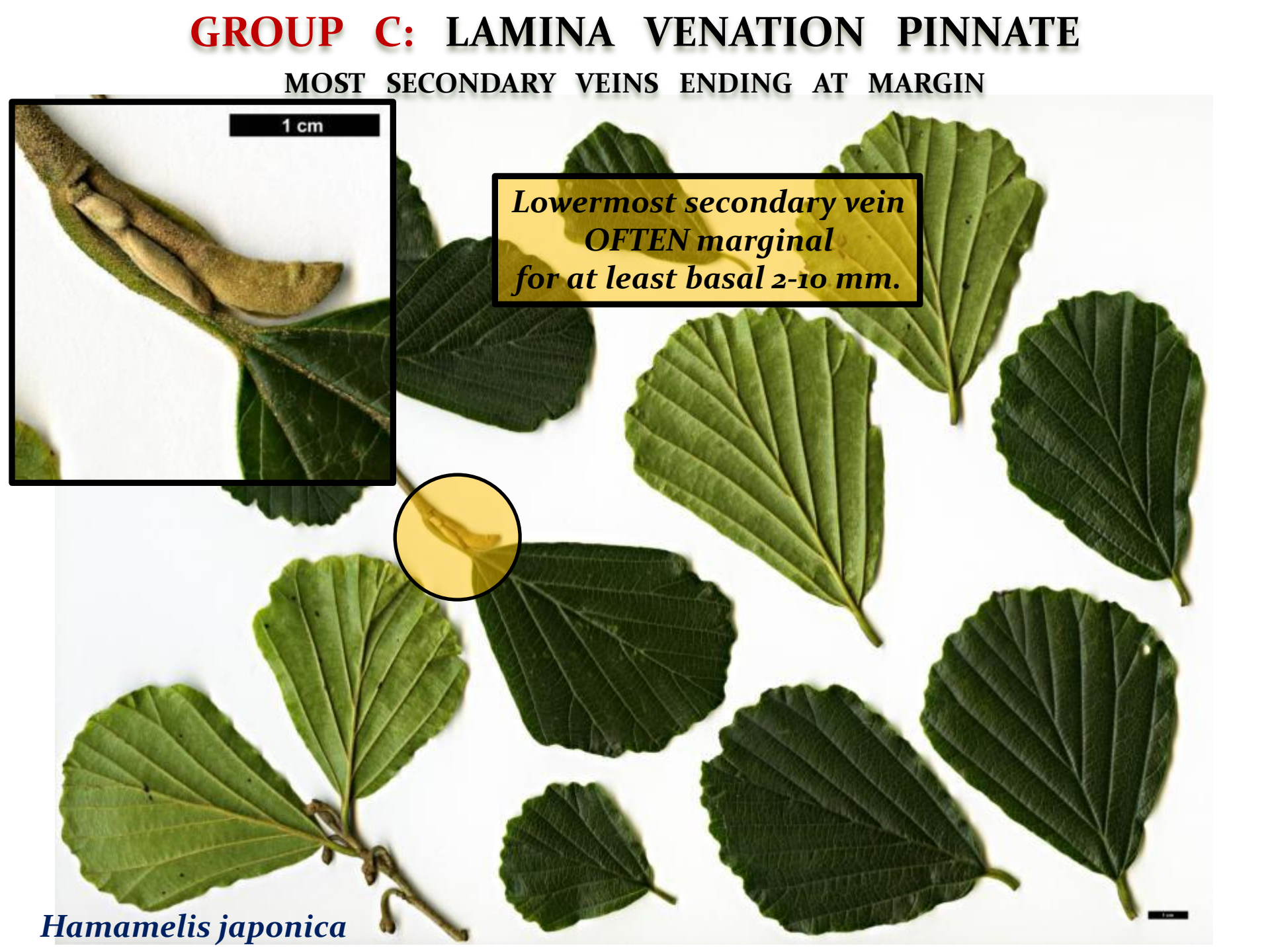
MOST SECONDARY VEINS ENDING AT MARGIN

*Lowermost secondary vein
OFTEN marginal
for at least basal 2-10 mm.*

1 cm

Hamamelis japonica

1 cm



GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

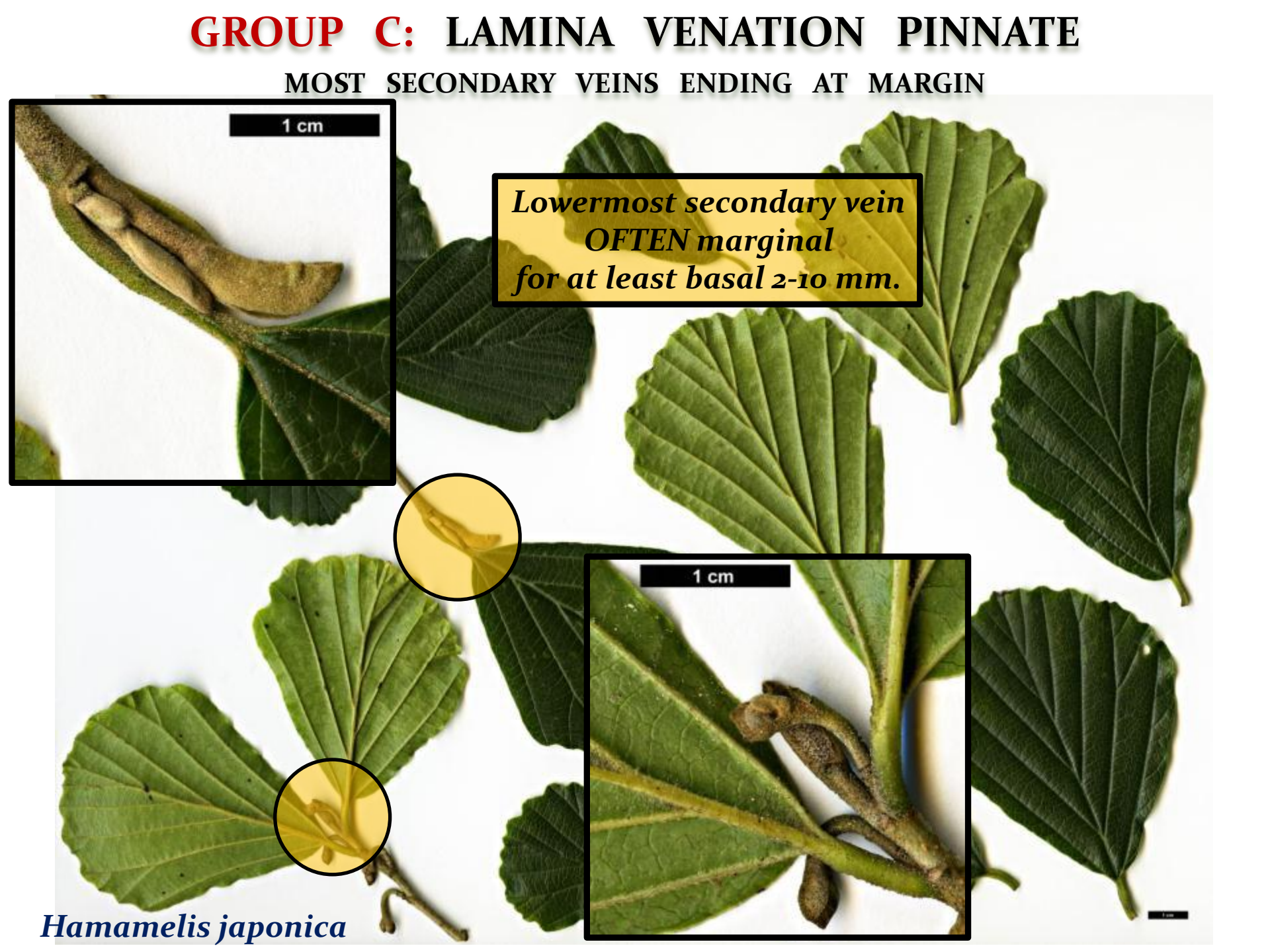
*Lowermost secondary vein
OFTEN marginal
for at least basal 2-10 mm.*

1 cm

1 cm

Hamamelis japonica

1 cm



GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

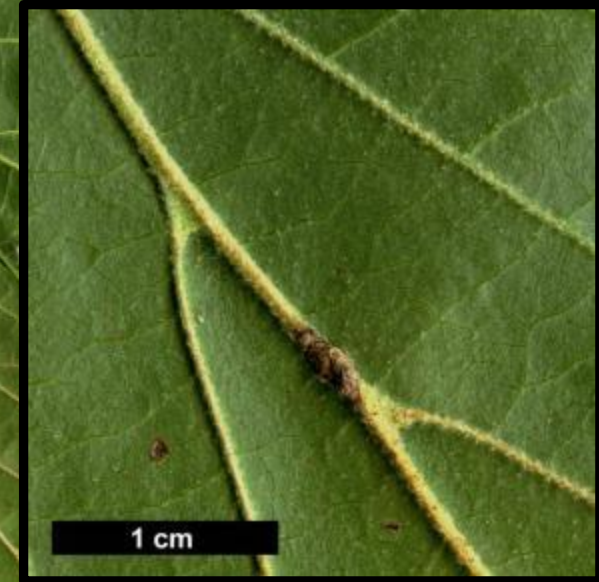


Parrotia persica

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina LS secondary vein axils with tiny membranous domatia.



1 cm

Parrotia persica

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN



Parrotiopsis jacquemontiana

GROUP C: LAMINA VENATION PINNATE

MOST SECONDARY VEINS ENDING AT MARGIN

Lamina often suborbicular.



Parrotiopsis jacquemontiana



Ghent University Botanical Garden

JDL

vegetative identification keys
jan.de.langhe@telenet.be

www.arboretumwespelaar.be



- Home
- Mission and history
- Contact and visits
- Search a plant
- Map of the arboretum
- The plants collection
- Species conservation
- Image gallery
- Trees in Belgium (Beltrees)
- Identification keys
- Publications & Downloads
- Links

Identification keys

Please find below some links to vegetative identification keys (pdf files in English) for selected woody plant genera in Western European cultivation, composed by Jan De Langhe, dendrologist at [Ghent University Botanical Garden](#) in collaboration with Arboretum Wespelaar. Any comments or remarks are greatly appreciated and can be sent to Jan at: jan.de.langhe@telenet.be.

In our [database of images](#), you can also consult images linked to these identification keys (images for non-commercial use, and with mentioning © Jan De Langhe).

You can also visit the [Plantcol](#) website, showing the largest Belgian plant collections digitally. By entering the scientific name, you can check whether a specific plant exists in Belgian collections.

-  [Acer](#) (Sapindaceae) - 12 January 2012
-  [Alnus](#) (Betulaceae) - 10 April 2013
-  [Betula](#) (Betulaceae) - 12 January 2012
-  [Buxaceae](#) - 28 June 2013
-  [Carpinus-Ostrya-Ostryopsis](#) (Betulaceae) - 12 June 2013
-  [Castanea](#) (Fagaceae) - 26 November 2012
-  [Corylus](#) (Betulaceae) - 12 January 2012
-  [Fagus](#) (Fagaceae) - 10 September 2013
-  [Fraxinus](#) (Oleaceae) - 17 September 2013
-  [Hamamelidaceae](#) (incl. Altingiaceae) - 13 March 2013
-  [Juglandaceae](#) - 12 January 2012
-  [Quercus](#) (Fagaceae) - 6 July 2012
-  [Stewartia](#) (Theaceae) - 12 January 2012
-  [Tilia](#) (Malvaceae) - 12 January 2012
-  [Viburnum](#) (Adoxaceae) - 21 October 2012

thanks to

IDS

Wolfgang Bopp

Peter Brownless

Koen Camelbeke

Tom Clark

Francisco Garin

Paul Goetghebeur

John Grimshaw

Tom Hudson

Jaime Morin

Jacky Pousse

Abraham Rammeloo

Paul Reader

Rolf Zumbrunn

Arboretum Kalmthout

Arboretum Wespelaar

Ghent University Botanical Garden

Hillier Gardens and Arboretum

Iturraran Botanical Garden

Polly Hill Arboretum

Royal Botanic Gardens Edinburgh

Royal Botanic Gardens Kew