



Ghent University Botanical Garden

Garryaceae

Aucuba Thunb.

Garrya Douglas ex Lindl.

**VEGETATIVE KEY TO SPECIES
CULTIVATED IN WESTERN EUROPE**

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Vegetative identification key.

Introduction:

This key is based on vegetative characteristics, and therefore also of use when flowers and fruits are absent.

- Use a 10x hand lens to check leaf margin incisions and pubescence in general.
- Look at the entire plant. Avoid young specimens, shade- and strong shoots as these give an atypical view.
- Beware of hybridisation, especially with plants raised from seed other than wild origin.

Abbreviations used in this key:

- **L/W** = length/width
- **LS** = lower surface
- **US** = upper surface

Taxa treated in this key: see page 3.

Synonymy and questionable/frequently misapplied names: see page 3.

References:

- JDL herbarium
- living specimens, in various arboreta, botanic gardens and collections
- literature:

Bean, W.J. & Clarke, D.L. - (1976) - *Aucuba* in Bean's Trees and Shrubs hardy in the British Isles, VOL.1, p.358-360. - and [online edition](#)
Bean, W.J. & Clarke, D.L. - (1981) - *Garrya* in Bean's Trees and Shrubs hardy in the British Isles, VOL.2, p.247-249. - and [online edition](#)
Boufford, D.E. & Xiang, J. - (2005) - *Aucuba* in Flora of China, VOL.14, p.222-226. - and [online edition](#)
Dahling, G.V. - (1978) - Systematics and evolution of *Garrya* in Contributions from the Gray Herbarium of Harvard University No.209, p. 1-104.
Krüssmann, G. - (1976) - *Aucuba* in Handbuch der Laubgehölze, VOL.1, p.194-195.
Krüssmann, G. - (1977) - *Garrya* in Handbuch der Laubgehölze, VOL.2, p.99-100.
RHS - (2014) - *Aucuba* in The Hillier Manual of Trees & Shrubs, p.35-36.
RHS - (2014) - *Garrya* in The Hillier Manual of Trees & Shrubs, p.147.

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[**Plantentuin Universiteit Gent**](#)

[**Arboretum Wespelaar**](#)

KEY TO GENERA

Lamina margin predominantly distantly (sometimes minutely) dentate. genus *Aucuba*

Lamina margin always entire. genus *Garrya*

key to genus *Aucuba*

01 a Lamina US secondary veins slightly elevated to slightly impressed AND margin predominantly dentate in upper 1/2(-2/3) with 0-5 (sometimes tiny!) teeth/side (10× LENS).
..... *A. japonica*

- Lamina US irregularly yellowish spotted or blotched. *A. japonica* var. *variegata*

- Lamina US green.

- Lamina LW ratio 6/1-3/1. *A. japonica* f. *longifolia*

- Lamina LW ratio <3/1.

- Shrub 1-3 m. *A. japonica* var. *japonica*

- Dwarf shrub, usually 30-60 cm. *A. japonica* var. *borealis*

b Lamina US secondary veins and tertiary veins clearly impressed AND margin predominantly dentate from apex +/- towards base with 5-12 (sometimes tiny!) teeth/side (10× LENS). 02

02 a Lamina LS densely pubescent on midvein, secondary- and tertiary veins with spreading hairs (10× LENS). *A. confertiflora*

b Lamina LS glabrous to sparsely pubescent on midvein (and secondary veins) with +/- appressed hairs (10× LENS). 03

03 a Lamina width 6-10 cm. 04

b Lamina width <6 cm. 05

04 a Lamina US glossy, LS +/- minutely pubescent on veins (10× LENS). *A. chinensis*

b Lamina US dull, LS glabrous (10× LENS). *A. omeiensis*

05 a Lamina US green. *A. chlorascens*

b Lamina US irregularly yellowish spotted. 06

06 a Lamina length/width ratio +/- 3/1. *A. himalaica* var. *himalaica*

b Lamina length/width ratio 6/1-9/1. *A. himalaica* var. *dolichophylla*

key to genus Genus *Garrya*

- 01 a Lamina midvein length 12-20 cm, OR L/W ratio predominantly $\geq 2/1$ [inflorescence branched (or at least in part so = hybrids)]. 02
- b Lamina midvein length <12 cm AND L/W ratio predominantly $\leq 2/1$ [inflorescence unbranched]. 06
- 02 a Current year shoot, petiole and lamina LS completely glabrous (10× LENS). *G. glaberrima*
- b Current year shoot, petiole and lamina LS variably pubescent (10× LENS). 03
- 03 a Lamina LS pubescent with short appressed curly hairs (10× LENS). 04
- b Lamina LS sparsely to densely pubescent with long straight or wavy hairs (10× LENS). 05
- 04 a Lamina width predominantly 2-6 cm. *G. laurifolia*
- b Lamina width predominantly 6-10 cm. *G. laurifolia* subsp. *macrophylla*
- 05 a Lamina LS sparsely and scattered pubescent with long straight hairs (10× LENS).
..... *G. wrightii*
- b Lamina LS +/- densely pubescent with long interwoven +/- wavy hairs (10× LENS).
..... *G. xthuretii*
- 06 a Lamina margin flat AND LS glabrous to scattered pubescent (10× LENS). 07
- b Lamina margin undulate AND/OR LS (densely) pubescent (10× LENS). 08
- 07 a Lamina elliptic to broadly elliptic, base rounded to cuneate. *G. buxifolia*
- b Lamina oblong to elliptic, base attenuate to cuneate. *G. fremontii*
- 08 a Lamina margin predominantly conspicuously undulate. *G. elliptica*
- b Lamina and margin variable: undulate to flat. 09
- 09 a Lamina LS densely pubescent, secondary veins and tertiary veins obscured. 10
- b Lamina LS sparsely to densely pubescent, BUT secondary veins and tertiary veins clearly visible. 11
- 10 a Current year shoot and petiole with long +/- straight hairs (10× LENS). *G. congdonii*
- b Current year shoot and petiole with short curly hairs (10× LENS). *G. veatchii*
- 11 a Lamina LS and petiole +/- densely pubescent with long and +/- straight hairs (10× LENS).
..... *G. flavescens*
- b Lamina LS and petiole sparsely pubescent with scattered short hairs (10× LENS).
..... *G. xissaquahensis*

Taxa treated in this identification key.

Aucuba chinensis
Aucuba chlorascens
Aucuba confertiflora
Aucuba himalaica
- var. *dolichophylla*
- var. *himalaica*
Aucuba japonica
- var. *borealis*
- var. *japonica*
- f. *longifolia*
- var. *variegata*
Aucuba omeiensis

Garrya buxifolia
Garrya congdonii
Garrya elliptica
Garrya flavescens
Garrya fremontii
Garrya glaberimma
Garrya × *issaquahensis* (*G.elliptica* × *G.fremontii*)
Garrya laurifolia
- var. *macrophylla*
Garrya × *thuretii* (*G.elliptica* × *G.fadyenii*?)
Garrya veatchii
Garrya wrightii

Synonymy and questionable/frequently misapplied names.

Some plants in collections under the name *Aucuba chlorascens* with relatively large leaves probably belong to *A.chinensis*.

Plants in collections under the name *A.himalaica*, with narrow leaves, rather not impressed venation and up to 4 teeth/side in apical half belong to *A.japonica* f. *longifolia* or a selection of the latter.

Plants in collections under the name *A.omeiensis* are close to *A.chinensis*, and synonymous for the latter fide FOC, both taxa are kept apart in this key due of the clear differences.

Plants in collections under the name *Garrya fadyenii* (this taxon is restricted to the Greater Antilles - USDA zone 12/13), lamina LS with short appressed curly hairs, usually are a form of *G.laurifolia*; plants with long wavy interwoven hairs are *G. xthuretii*.

Plants in collections under the name *G.fremontii* with lamina LS clearly pubescent are hybrids.

