

6. OYAMA (Nakai) N. H. Xia & C. Y. Wu, **stat. nov.**

天女花属 *tian nü hua shu*

Basionym: *Magnolia* sect. *Oyama* Nakai, Fl. Sylv. Kor. 20: 117. 1933; *M.* sect. *Gophantera* Dandy.

Trees or shrubs, deciduous. Bark usually gray, smooth or sometimes coarse and deeply furrowed. Twigs with annular stipular scar. Leaves at first distichous, later spirally arranged, folded in bud, erect when young; leaf blade membranous or papery, abaxially grayish green or glaucous and pubescent, margin entire. Flowers terminal, solitary, bisexual, often overtopped by a growing axillary vegetative bud and thus seemingly axillary. Peduncle slender, nodding but pendulous or erect at anthesis. Tepals 9–12, 3 per whorl, usually white, subequal. Stamens red, caducous; filaments flat; connective not exerted, apex obtuse or emarginate; anthers dehiscing introrsely. Gynoecium without a gynophore; carpels few to many, distinct; ovules usually 2 per carpel; styles curved outward, adaxially papillate. Fruit ellipsoid when mature, pendulous; mature carpels distinct, leathery or subwoody, dehiscing along dorsal sutures, persistent on torus, apex shortly beaked.

Four species: E and SE Asia; four species (two endemic) in China.

- 1a. Twigs purplish red or purplish brown; leaves widest toward base from middle; stipular scar nearly as long as petiole.
- 2a. Leaf blade oblong-ovate to elliptic-ovate, 6.5–12 cm, abaxially gray appressed villous; flowers pendulous during anthesis 1. *O. wilsonii*
- 2b. Leaf blade elliptic-ovate to ovate, 10–24 cm, abaxially reddish brown and with long curved trichomes; flowers slightly pendulous or erect during anthesis 2. *O. globosa*
- 1b. Twigs pale grayish yellow or grayish brown; leaves widest toward apex from middle; stipular scar 1/2–2/3 as long as petiole.
- 3a. Leaf blade obovate, secondary veins 9–13 on each side of midvein, abaxially pale yellow villous; stipular scar nearly 2/3 as long as petiole; flowers pendulous during anthesis 3. *O. sinensis*
- 3b. Leaf blade obovate to broadly obovate, secondary veins 6–8 on each side of midvein, abaxial surface with brown and white multicellular trichomes and scattered with golden yellow dots; stipular scar nearly 1/2 as long as petiole; flowers slightly pendulous during anthesis 4. *O. sieboldii*

1. *Oyama wilsonii* (Finet & Gagnepain) N. H. Xia & C. Y. Wu, **comb. nov.**

西康天女花 *xi kang tian nü hua*

Basionym: *Magnolia parviflora* Blume var. *wilsonii* Finet & Gagnepain, Bull. Soc. Bot. France 52(Mém. 4): 39. 1906 [“*wilsonii*”]; *M. globosa* J. D. Hooker & Thomson subsp. *wilsonii* (Finet & Gagnepain) J. Li; *M. liliifera* Baillon var. *taliensis* (W. W. Smith) Pampanini; *M. nicholsoniana* Rehder & E. H. Wilson; *M. taliensis* W. W. Smith; *M. wilsonii* (Finet & Gagnepain) Rehder; *M. wilsonii* f. *nicholsoniana* (Rehder & E. H. Wilson) Rehder; *M. wilsonii* f. *taliensis* (W. W. Smith) Rehder.

Shrubs or small trees, rarely to 8 m tall. Bark grayish brown, conspicuously lenticellate. Old twigs gray; annual twigs purplish red, at first brown villous. Stipular scar 4/5–5/6 as long as petiole. Petiole (0.5–)1–3(–5) cm, densely brown villous; leaf blade elliptic-ovate to oblong-ovate, 6.5–12(–20) × 3–5(–8) cm, papery, abaxially silvery gray appressed villous, adaxially grayish yellow pubescent along midvein and secondary veins, trichomes on midvein and secondary veins usually brown, base rounded to sometimes slightly cordate, apex acute to acuminate. Peduncle pendulous, 1.5–5 cm, brown villous. Flowers appearing at same time as leaves, cupular at first, plate-shaped at anthesis, 10–12 cm in diam., fragrant. Tepals 9(–12), white; outer 3 tepals broadly spoon-shaped to obovate, 4–6.5(–7.5) × 3–4.5(–5.5) cm, subequal to inner ones, base clawed, apex rounded. Stamens purplish red, 0.8–1.2 cm; filaments red, 1.5–2 mm; connective rounded or emarginate at apex; thecae distinct, 8–9 mm. Gynoecium green, ovoid-cylindric, 1.5–2 cm; carpels

ca. 1 cm. Fruit red and then becoming purple when mature, terete, 6–10 × 2–3 cm, pendulous; mature carpels beaked. Seeds obovoid, ca. 6 mm. Fl. May–Jun, fr. Sep–Oct. 2n = 38*.

- Forests; 1900–3000 m. Guizhou, C and W Sichuan, N Yunnan.

This species is grown as an ornamental and is used medicinally.

2. *Oyama globosa* (J. D. Hooker & Thomson) N. H. Xia & C. Y. Wu, **comb. nov.**

毛叶天女花 *mao ye tian nü hua*

Basionym: *Magnolia globosa* J. D. Hooker & Thomson, Fl. Ind. 1: 77. 1855; *M. tsarongensis* W. W. Smith; *Yulania japonica* Spach var. *globosa* (J. D. Hooker & Thomson) P. Parmentier.

Trees, to 10 m tall. Bark black, smooth. Young twigs, young leaf blade adaxial midvein and secondary veins, leaf blade abaxial surfaces, petioles, and peduncles reddish brown and curved villous. Twigs reddish brown to dark purplish red. Stipular scar nearly reaching petiole apex. Petiole 3–3.5 cm; leaf blade elliptic-ovate, broadly ovate, or elliptic, 10–24 × 5–14 cm, membranous, adaxially deep green, secondary veins 8–12 on each side of midvein, base rounded to subcordate, apex acute to obtuse. Peduncle 5–6.5(–7.5) cm, curved to erect, with a bract scar at ca. 6 mm basal to tepals. Flowers appearing at same time as leaves, cupular, 6–7.6 cm in diam., fragrant. Tepals 9(or 10), creamy yellowish white, obovate to elliptic, 4–7.5 × 2–3 cm, subequal, apex rounded. Stamens dark red, 1.2–1.7 cm; thecae connate to each other, apex slightly emarginate. Gynoecium green, ca. 3.5 cm. Fruiting peduncle thick and

strong, densely villous. Fruit red when mature and later becoming reddish brown, terete, 6–8 cm, apex rounded; mature carpels with curved beaks. Seeds black, cordate, 7–8 × 7–9 mm. Fl. May–Jul, fr. Aug–Sep.

Forests; 1900–3300 m. W Sichuan, S and SE Xizang, Yunnan [Bhutan, India (E Sikkim), N Myanmar].

3. *Oyama sinensis* (Rehder & E. H. Wilson) N. H. Xia & C. Y. Wu, **comb. nov.**

圆叶天女花 *yuan ye tian nü hua*

Basionym: *Magnolia globosa* J. D. Hooker & Thomson var. *sinensis* Rehder & E. H. Wilson, *Sargentia* 1: 393. 1913; *M. sieboldii* K. Koch subsp. *sinensis* (Rehder & E. H. Wilson) Spongberg; *M. sinensis* (Rehder & E. H. Wilson) Stapf.

Shrubs, to 6 m tall. Bark pale brown. Twigs slender; annual twigs pale grayish yellow, 3–4 mm in diam., grayish yellow appressed villous; biennial twigs grayish white or pale yellow. Stipular scar nearly 2/3 as long as petiole. Petiole 1.5–4(–8) cm, pale yellow appressed villous; leaf blade obovate, broadly obovate, obovate-elliptic, or rarely suborbicular, 8–13(–26) × 6–10(–19) cm, papery, abaxially pale grayish yellow villous, adaxially subglabrous, midvein and secondary veins pale yellow appressed villous, secondary veins 9–13 on each side of midvein, base rounded and truncate, broadly cuneate, or sometimes slightly cordate, apex broadly rounded to shortly acute. Peduncle 3–5 cm, curved downward, pale yellow appressed villous at first. Flowers appearing at same time as leaves, cupular, 8–12(–15) cm in diam., fragrant. Tepals 9(or 10), white; outer 3 tepals ovate to elliptic, shorter and smaller; inner tepals broadly obovate, 6–7.5 cm, larger. Stamens 0.9–1.3 cm; filaments purplish red; anthers 7–10 mm, thecae distinct, apex rounded to rarely slightly apiculate. Gynoecium green, narrowly obovoid-ellipsoid, ca. 1.5 mm. Fruit red, terete, 3–5.5(–7.5) × 2–2.5 cm; mature carpels narrowly ellipsoid, only dehiscing along dorsal sutures, beaks curved outward. Seeds nearly cordate, 5–6 × 6–7 mm; testa bright red; endotesta black. Fl. May–Jun, fr. Sep–Oct.

- Forests; ca. 2600 m. C, N, and S Sichuan.

This species is used medicinally.

4. *Oyama sieboldii* (K. Koch) N. H. Xia & C. Y. Wu, **comb. nov.**

天女花 *tian nü hua*

Basionym: *Magnolia sieboldii* K. Koch, Hort. Dendrol. 4. 1853, based on *M. parviflora* Siebold & Zuccarini, Abh. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. 4(2): 187. 1845, not Blume, Bijdr. 9. 1825; *M. oyama* Millais, nom. illeg. superfl.; *M. verecunda* Koidzumi, nom. illeg. superfl.

Trees, to 10 m tall. Annual twigs pale grayish brown, slender, ca. 3 mm in diam., silvery gray appressed villous at first. Stipular scar nearly 1/2 as long as petiole. Petiole 1–4(–6.5) cm, brown and white appressed villous; leaf blade obovate to broadly obovate, (6–)9–15(–25) × 4–9(–12) cm, membranous, abaxially glaucous and usually covered with brown and white multicellular trichomes, scattered golden yellow dots, and white long sericeous hairs along midvein and secondary veins, adaxially curved pilose along midvein and secondary veins,

secondary veins 6–8 on each side of midvein, base broadly cuneate, truncate, or subcordate, apex abruptly narrowly acute to shortly acuminate. Peduncle 3–7 cm, densely brown and grayish white appressed villous. Flowers appearing at same time as leaves, cupular at first but plate-shaped at anthesis, 7–10 cm in diam., erect or slightly nodding, fragrant. Tepals 9, white, subequal; outer 3 tepals oblong-obovate to obovate, 4–6 × 2.5–3.5 cm, base with white trichomes, apex broadly rounded to rounded; inner 6 tepals smaller, base gradually narrowing to shortly clawed. Stamens purplish red, 0.9–1.1 cm; connective

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not exerted; filaments 3–4 mm; anthers ca. 6 mm, thecae adnate, apex slightly emarginate. Gynoecium green, ellipsoid, ca. 1.5 cm. Fruit red when mature, obovoid to ellipsoid, 2–7 cm; mature carpels narrowly ellipsoid, ca. 1 cm, dehiscent into 2 valves along dorsal sutures, apex with a ca. 2 mm beak. Seeds cordate, 6–7 × 6–7 mm, apex finely tipped; testa red; endotesta brown. Fl. Mar–Apr, fr. Sep–Oct.

Forests; 1600–2000 m. Anhui, N Fujian, Guangxi, Guizhou, Hebei, Hubei, Hunan, Jiangxi, Jilin, Liaoning, Zhejiang [Japan, Korea].

This species is grown as an ornamental. It is used medicinally and for timber.

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