


var. a. Jamasakura (Sieb.) Makino

subvar. a. glabra Makino


Prunus montana Sieb. herb. ex Miq. l. c.


A deciduous tree, with a rounded top. Trunk erect, often attaining the large size, dispersed with numerous old large lenticels which become extended transversely as in the branches; branches erect-patent or ascending, cylindrical, castaneous-grey, with the firm and glossy bark which can tear horizontally; branchlets numerous, spreading or ascending, flexuous, glabrous, castaneous-drab or reddish-castaneous, scattered with numerous
small lenticels. Bud terminal or lateral, laxly or approximately or aggregately placed, imbricated with firmly coriaceous scales, conical in leaf-bud, but oblong-conical in flower-bud which is always lateral; scales nearly similar both in those of flower- and leaf-buds, deciduous, numerous, the lower ones smaller, coriaceous, glabrous, lustrous and bay-coloured, the upper ones gradually larger, herbaceous, greenish, with all the gradation between them; the outer, or inferior ones, ovate to broadly ovate, entire, obtuse, concave within, glabrous; the inner ones ovato-elliptical to oblong-spathulate, concave, sessile, usually obtuse at the apex, mostly reflexo-spreading, about 1 ½cm. or more long in the innermost largest one, the upper ones minute-ly glanduloso-ciliated on the margin, pubescent-villose with adpressed thin or dense hairs within, the uppermost one often trifid in leaf-buds. Leaves sparse, spreading, petiolate, stipulate when young, obovato-oblong, oblong, or oblong-lanceolate, abruptly attenuated into a narrowly acuminate apex with a sharp point, obtuse or rounded-obtuse at the base, 5–13cm. long, 2½–6cm. broad, sharply serrate with ovato-deltoid and more frequently duplicate teeth, which each bears a minute and conical gland on their tips when young, chartaceous, glabrous, bright-green above, but usually more or less glaucous beneath, at first appearing at the same time as the flowers, and at that time their colour are usually of purpureal-red then advancing into proper green hue, deciduous, conuplicate in venation; midrib straight, prominent beneath, naked, but sometimes very scarcely pilose and frequently pubescent at the axil of veins beneath; veins erect-patent, straight or very slightly arcuate upwards, about 3–14mm. apart at their bases, about 8–12 on each side, prominent beneath, they before reaching the margin connected with a branch of the upper next one; veinlets running to each tooth of the margin and obliquely transversely between veins, accompanied by very fine and minute venules; petiole slender, 1½–2½cm. in length, cylindrical, narrowly canaliculate in front, glabrous, smooth, light-green tinged with purpureascent colour, provided with glands above on the edges of the canal; glands
mostly 2 in number, rarely 3, or sometimes also on the basal margin of the blade, small, discoid, prominent, sessile, rounded or elliptical, more or less concave in the centre of the upper surface, purpureal. Stipules 2, placed on both basal sides of petiole and usually shorter than it, simple, or bifurcate, or deeply cut into few or several linear lacinal glandular-ciliated on the margin, herbaceous, caduceous, virescent often shaded with purpurascent colour. Inflorescence lateral on twigs of the last year, spreading, remotely or approximately placed, usually corymbose-umbellate with 2–5-flowers, bracteate, surrounded by deciduous bud-scales at the base; common peduncle usually short, or sometimes attaining about 3cm. in length, terete, straight, smooth, glabrous, light-green, pedicels straight or scarcely arcuate, erect-patent, each subtended by a bract at the base, slenderly terete, very slightly enlarged at the apex, smooth, glabrous, 1½–3cm. long in flower. Bract small, sessile, spathulato-elliptical, or spathulato-ovovate, rounded at the apex, often cuneate below, usually erect-patent, concave within, minutely glanduloso-ciliato-denticulate on the margin, herbaceous, virescent often tinged with rose-colour, glabrous externally, very thinly hairy within, deciduous, 4–7mm. long, with veins anastomosing towards the apex. Flowers coetaneous, numerous, dense or lax on branchlets, about 2½–3cm. in diameter. Calyx glabrous, herbaceous, deciduous; tube broadly cylindrical, tubular, somewhat enlarged above, 4–6mm. long, about 2–2½mm. in diameter in the middle, and about 4mm. in diameter at the throat, obscurely costate longitudinally, green with purpurascent colour, somewhat thickly walled, staminiferous towards the throat internally; lobes 5, patent or somewhat reflexed with obtuse and open sinuses between them, equal to the tube in length, lanceolate, acuminate, often very minutely denticulate or ciliato-denticulate, very slightly dilated at the base, more or less concave within, green shaded with purpurascent colour, 2½–3mm. wide in the middle, triplinerved accompanied by finely reticulated veinlets. Petals 5, inserted on the edge of the throat of calyx-tube, and alternate to the calyx-lobes, patent very widely, white shaded with
very delicate rosy-colour, or nearly white, quinuncially imbricated in prefloration, fugacious, elliptical, emarginate with rounded lobes, usually with a minute projection at the bottom of the nearly closed sinus, obtuse and clawless at the base, entire, thin, delicate, with fine nerves obliquely running upwards, about 1 3/8 cm. long, 1-1 1/3 cm. broad. Stamens numerous, about 40 or more in number, erect, but the outer ones erect-patent, inserted on the throat of the calyx-tube, unequal in length, the innermost ones shortest, the outer longest ones about 8-9 mm. long, deciduous; filament filiform, sharpened towards the tip, mostly a little arcuate inwards, glabrous, at first white but lately turned into rose-colour, one-nerved; anther minute, attached to the filament with its base of the connective, ovato-orbicular or suborbicular, didymous, emarginate at the apex, biauriculate at the base, with a short connective, 2-celled; cells oblong, obtuse at both ends, with membranaceous and smooth wall, yellow, introrse, dehiscing longitudinally, about 8/10 mm. long; pollen very minute, copious, yellow, cylindrical-oblong, obtuse at both ends, smooth, longitudinally 3-grooved. Ovary solitary, superior, small, enclosing within the calyx-tube, ovate, sessile, erect, smooth, glabrous, light-green, one-celled, one-carpellary, thickly walled, with a suture line on the ventral side, about 1 1/2-2 mm. long; ovules 2, collateral, pendulous, minute, narrowly ovate, rounded at the inferior end, anatropous, with an ovoid-oblong nucellus; style 1, terminal on the ovary, erect, straight or somewhat curved, equal to the stamens in height or a little lower or higher than them, cylindrical-filiform, smooth, glabrous, very light green, about 1 cm. or more or lesser long; stigma terminal, dilated, rounded, compressed, convex on the surface with a short furrow reaching to a margin through the centre, finely rough and moist on the surface. Drupes usually 1-4 in number to a peduncle, each supporting by a strict pedicel which is erect-patent and slightly enlarged at the top, subovato-spherical or sphaerical, somewhat flat at the base, with a suture line on the ventral side, 8-10 mm. each way, smooth, glabrous, green when young, shaded with a reddish tint on sun side when nearly matured, and then deeply
atropurpureal when fully ripened; pulp soft, juicy; putamen osseous, adhering to the pulp, stramineous-white, rounded-oval, with a very minute cuspidate tip at the apex, slightly compressed, nearly smooth, with a few oblique nervous elevations towards the ventral edge, obtuse on dorsal and ventral edges, about 5½–6½ mm. long, 4½–6 mm. broad. Seed solitary, ovate, acute at the apex, rounded at the base, rounded-obtuse on dorsal and ventral sides, smooth, about 4½ mm. long, exalbuminous; the outer integument, or testa, thin, loosely and longitudinally nervate, closely adherent to the inner integument which is especially thicker on the back of both cotyledons; cotyledons 2 in number, equal in size and form, elliptical, very thick, nearly plane under the thicker portion of the inner integument on the back, rounded at the apex; hypocotyl very short and minute; plumule minute, concealed between the basal portion of cotyledons.


Hab. Japan, various localities, spontaneous or planted (T. Makino!).

This species comes in the section of Cerasus, and exhibits a striking resemblance to the British-Indian Prunus Puddum, Roxb., with which it was erroneously identified by Miquel. It has proved to be a native of eastern Asia, where it is extensively distributed, being found in Sakhalin (var. ?), Corea, Manchuria, Central and Northern China, and Japan. It is, however, in the latter country that it attains the most luxuriant growth and is commonly found wild and scatteringly growing in woods and mountains everywhere from Kiusiu in the south-west to Ho-kkaidō in the north, it, in the good condition, frequently attaining to the height of 2½ decam. and to the diameter of about 9 decim. It is also commonly planted for ornament, and its blossom is considered the glory of the Japanese Empire, a national flower, and called the "King of Flowers" owing to its grace and beauty, and its profuse flowering in the opening days of merry spring (April), when the trees appear as if covered over with white clouds. So it has also been a favourite subject for poetry and has often
been sketched in our old as well as new paintings. The typical form, \textit{a. Jamasakura}, which I have figured and described in "Icones Florae Japonicae," Vol. I. Part 1, under the name of \textit{Prunus pseudo-Cerasus} Lindl. \textit{a. spontanea} Maxim., is the so-called "\textit{Yama-zakura}," or Mountain Cherry, and may be the origin of our numerous cultivated forms, which all belong to varr. \textit{\beta. hortensis} and \textit{\gamma. Sieboldi} of Maximowicz. The appearance of the young reddish (very rarely greenish) leaves and simple-flowers at the same time in Spring, and the fugacity of the white-rosy-coloured (so-called 'sakura'-colour of Japanese) petals are the common peculiarities of this tree. The leaves commonly fall off in early autumn before many other trees do so, assuming more or less a red tint; but in the northern part it turns a brighter scarlet. The discoid glands of the leaves secrete sweet juice to invite the ants. The fruits mature in May-June, but are scarcely eatable owing to their more or less bitter taste. The wood is hard, fine, close-agained, with very fine and copious medullary rays, the heart-wood, or duramen, reddish-brown in colour, while the sap-wood, or alburnum, is of pale yellowish colour, it is exceedingly valuable, being especially fitted for engraving, but also made into various furniture. The bark is tenacious and smooth, and is also useful for various purposes.

\textbf{forma humilis} Makino.


\textit{Hab. Prov. Tosa} in Shikoku: Sakawa, cultivated (\textit{T. Makino}).

\textbf{forma praecox} Makino. For the description refer the forthcoming page.

\textbf{subvar. b. pubescens} Makino.

A tall tree; young branchlet glabrous. Leaves sparsely pubescent on both surfaces, viridescent and more or less purpuraceous when young, oval-elliptical obovato-elliptical or obovato-oval, abruptly caudato-acuminate at the apex, rounded
obtuso-rounded or rounded-subcordate at the base, sharply subduplicately serrate, 5–11 cm. long, 3–5 1/2 cm. wide; veins about 6–10 on each side; petiole spreadingly pubescent, 2–1-glanduliferous above or sometimes eglandurous; stipules angustatelinear, usually laciniate, glanduloso-fimbriate, caducous. Flowers about 2 1/2–3 cm. across, 1–3, corymbose; common peduncle short or very so; pedicels spreadingly pubescent, 1–2 1/2 cm. long. Calyx nearly glabrous. Petals ovately oval-elliptical, emarginate, pale rosy. Drupe globose, about 9 mm. across, smooth, dark purple when matured, with a strict pubescent pedicel; putamen oval, compressed, smooth, about 7 mm. long.


Hab. Prov. Yamato: Yoshino (From S. Matsuda! April 1895); Prov. Musashi: Tokyo, cult. from ? Hokkaidō (T. Makino! April and June 1908):

I have the specimens collected by me on Mt. Kiyosumi in the province of Awa (Bōshū), April 1898, which bear a very closely allied appearance to this pubescent form, but the serration of the leaves are different; probably it is a hybrid between Prunus pseudo-Cerasus a. Jamasakura Makino and P. incisa Thunb. I have given it a new name of Prunus affinis Makino. The leaves are pubescent on both surfaces, and the serration is rather regular and duplicate, with a pubescent petiole. Flowers coetaneous, 3–3 1/2 cm. across, 2–3, corymbose; common peduncle surrounding by the obovate or obovato-spathulate (in the inner ones) pubescent (in the inner side) perula at the base, thinly pubescent; pedicels thinly pubescent; bracts obovato-oval, serrulato-fimbriate. Calyx-tube tubulosocampanulate, glabrous, about 5–6 mm. long; segments ovate or deltoid-ovate, acute. Petals elliptical, emarginate.

var. β. borealis Makino.


A tall tree, attaining about 12m. in height, with obliquely erect branches; trunk atropurpureo-castaneous, with stout transverse old lenticels. Branches and branchlets atropurpureo-castaneous, terete, dispersed with lenticels. Leaves unfolding after anthesis but young ones with flowers and greenish-purple, petiolate, adult one ample and green, oval, oval-elliptical, lato-ovate, or subobovato-oval, abruptly caudato-acuminate with a sharp point, rounded or subcordate at the base, simply and subduplicately serrate with cuspidato-deltoid teeth (glandular at the tip when young), glabrous, 6–14cm. long. 4–8½cm. wide; midrib prominent beneath; veins 6–11 on each side, erect-patent, parallel, somewhat arcuate upwards; petiole stout, glabrous, canaliculate in front, 2–3–glanduliferous above, 1⅔–3cm. long; glands small, disk-form, deep-purple; stipules angustato-linear, linear, or filiform, simple or sub-laciniate, acuminate, sub remotely gland-tipped-fimbriato-ciliated, viridescent, caducous. Flower-buds lateral, sessile; perulæ deciduous, subnumerous, imbricate, concave, reflexed or not so, the outer ones smaller and firmly membranaceous, depressed-ovate, rufo-ferruginous, the middle ones larger, ovato-rotundate, rounded at the apex, rufo-purpurascent above, palish and herbaceo-membranaceous below, the superior ones longest, elliptical, rounded or sometimes trifid (but in those of leaf-bud larger and often trifid, sometimes foliiferous) at the apex, densely glandular-denticulate on margin, virid-purpurascent or purple, thinly pilose internally, herbaceo-membranaceous, attaining about 13mm. long. Flowers 1–3, corymboso-umbellate, coetaneous, 3–4½cm. across; common peduncle very short (or long), glabrous as are pedicels, viridescent, surrounded at the base by perulæ; pedicels erect-patent, stout, strict, terete, viridescent but purpurascen t above, 2–2½cm. long; bracts obovate, oblong-obovate, or ob lanceolate, rounded at the apex, ciliato-denticulate, herbaceous, greenish, slightly tinged with purple, glabrous externally, sparsely pilose internally, longitudinally veined, about 6–7mm. long. Calyx glabrous, purpurascen t, deciduous; tube tubular and gradually enlarged above, attenuatedly continued to the pedicel, about 6mm. long; seg-
ments equal to or somewhat shorter than the tube in length, patent and then more or less reflexed, deltoid-lanceolate, acut acuminate, slightly concave internally, entire or few-serrulate, about 6mm. long. Petals patent, ample, oval or orbiculate, emarginate, or retuso-emarginate, obscurely unguiculate, about 18–20mm. long, 14–20mm. broad, fugaciously deciduous, rosy. Stamens numerous, erect and ascending, shorter than the petals and the outer longest ones about \( \frac{2}{3} \) of the length of them; filaments filiform, white but lately purpurascent below, glabrous; anther minute, rounded, yellow. Ovary solitary, included, oblong-ellipsoid, green, smooth, glabrous; style nearly equal to or slightly exceeding the stamens in height, slenderly terete, greenish towards the top, glabrous; stigma depressed-capitate, greenish.

Nom. Jap. Ō-yamazakura (nov.).


Fr. Schmidt's var. sachalinensis is probably the same with ours, but the author's diagnosis is unfortunately not full enough for identification. Otto Stapf's plant, which is figured (tab. 8012) in Curtis's Botanical Magazine, is identical with my variety, and it different from the common so-called 'Yama-zakura.' Sargent's figure is also the same with the present one.

var. ɣ. serrulata (Lindl.) Makino.


Prunus pseudo-Cerasus var. donarium Makino MSS.

Prunus pseudo-Cerasus ɣ. hortensis Maxim. in Mél. Biol. XI. p. 697 (1883); Dippel, Handb. Laubholzk. III. p. 620.

Prunus paniculata Edw. in Bot. Reg. tab. 800, non Thunb.


A cultivated variety.

**subvar. a. glabra** Makino.

Leaves pedicels and calyx quite glabrous. Flowers simple or double, white, rose, rarely viridescent.


**Hab.** Japan, cultivated (T. Makino !).

Flowers are vary much in form size and colour, and the garden forms are very abundant. Among them there are **forma viridiflora** Makino, having double and viridescent flowers; **forma Fugenzo** Makino, having double rose flowers with foliaceous green styles.

**subvar. b. Sieboldi** (Maxim.) Makino.


Leaves and pedicels pubescent. Flowers simple or semi-double, white or rosy.


Hairs are dense or thin, sometimes very sparing. Among them there is **forma albida** Makino, having the short common peduncle, short green pedicels (sometimes destitute of hairs), larger green bracts, white simple petals, and green young leaves.

*(To be continued)*