Four New Species of Himalayan Prunus Subgenus Cerasus (Rosaceae-Prunoideae)

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Abstract Four new species of Prunus, P. topkegolensis H. Ohba & S. Akiyama, P. harae H. Ohba & S. Akiyama, P. taplejungnica H. Ohba & S. Akiyama, and P. singalilaensis H. Ohba & S. Akiyama, are described from eastern Himalaya. The four new Prunus are similar to P. rufa and considered to belong to the same section. A key to distinguish the four new species and P. rufa is provided.

Key words: Bhutan, Cerasus, flora, Himalaya, Nepal, new species, Prunus.

During the preparation of the treatment for Prunus (Rosaceae), sensu lato, for the Flora of Nepal (Watson et al., 2007), we became aware of four novelties of flowering cherries in the Himalayan region. These novelties are considered to be allies of Prunus rufa Hook. f., but different from each other and from P. rufa and allied taxa previously described from the Sino-Himalayan region.

The Himalayan species of Prunus were studied by Koehne (1913), Yü and Li (1986), Hara (1962, 1968 and 1979) and others, however the taxonomy of the genus is still insufficient, with numerous uncertainties including range of variations within species. Koehne (1913) classified Prunus rufa, along with P. campanulata Maxim., P. hosseusii Diels, P. cerasoides D. Don, and P. trichantha Koehne, into section Pseudocerasus subsection Puddum. Yü and Li (1986) moved all of them into section Serrula in the genus Cerasus. The new species, P. topkegolensis closely approaches the Japanese P. incisa Franch. & Sav., which is characterized by doubly serrate leaves and an urceolate calyx tube. Recently, Kawasaki (1991) established a new section, Incisae, of which the type is P. incisa. Except for P. topkegolensis the affinities of the four new species are uncertain. We like describe them as independent species under such situations. They and Prunus rufa are distinguished by a combination of several leaf, flower and pubescence characters, as shown in the following key.

1a. Petals glabrous; hairs on lower surface of leaf blade white or pale brown and straight
2a. Calyx tube urceolate; leaf blade ovate, margins sharply doubly serrate

…………………………...P. topkegolensis

2b. Calyx tube tubular; leaf blade lanceolate or narrowly oblong, margins mostly with simple shallow serrations …………………P. harae

1b. Petals sparsely pubescent; hairs on lower surface of leaf blade brown, crisped
3a. Calyx tube 11–15 mm long; leaf blade 2.8–5 cm wide…………………………P. rufa
3b. Calyx tube 7–10 mm long; leaf blade 0.8–2.7 cm wide
4a. Calyx tube tubular-campanulate; leaf blade 2.6–5.1×0.8–2 cm; lower surface of leaf blade with dense crisped brown hairs
4b. Calyx tube tubular with slight constriction near mouth; leaf blade 6.4–7×2.1–2.7 cm; lower surface glabrous or with sparse brown crisped and straight hairs ……P. singalilaeensis

1) Prunus (subgen. Cerasus) topkegolensis H. Ohba & S. Akiyama, sp. nov.  [Figs. 1, 5a, 6a]

Differt ex Pruno rufa Hook. f. foliis profunde duplo-incisissimis, utrinque glabriusulis exclusio veneris subitus modearato supra sparsim pilosis, flores solitari cum calycem tubo angusti-campanulato plusminusve constricto sub apicem.

Shrubs. Branches slender, spreading, those of

Fig. 1. Prunus topkegolensis H. Ohba & S. Akiyama (H. Kanai et al., 720610, TI-holo).
present year glabrous, greenish; those of former years glabrous, pale reddish purple. Leaves petiolate; petiole 6–11 mm long; blade ovate to narrowly ovate, 4.2–6.6×2.1–3 cm at flowering, base rounded to cuneate, margins doubly serrate, somewhat glandular at apex of serration, apex acuminate, lower surface with sparse to moderate white or pale brown straight hairs near base. Flowers usually solitary. Pedicel ca. 13 mm long. Calyx tube urceolate, ca. 7 mm long; lobes triangular-ovate, ca. 2.5 mm long, with sparse pale brown crisped hairs, margins entire or serrate. Petals white or faintly pink, erect at flowering, suborbicular, ca. 5.5×3 mm, glabrous. Style exerted, apically glabrous. Fruits and seeds unknown.


Since preparing the flora of the Jaljale Himal (Ohba and Akiyama, 1992), we noticed this flowering cherry at Topke Gola in the most interior village in the Mewakhola valley. It appears to be a shrub with numerous slender branches. The leaves with their double sharp serrate margins, are similar to those of the Japanese *Prunus incisa* Franch. & Sav.

*Prunus topkegolensis* differs from *P. rufa* in having deeply doubly serrate, glabrous leaves except for the pilose nerves on both surfaces, and solitary relatively small flowers with an urceolate calyx tube.

2) *Prunus* (subgen. *Cerasus*) harae H. Ohba & S. Akiyama, sp. nov. [Figs. 2, 5b, 6b]


*Prunus harae* is known only from Bhutan. The specific epithet honors the late Professor Hiroshi Hara of the University of Tokyo who organized a research team to study of the flora of Bhutan in 1967 (Hara, 1971) and who collected this cherry.

3) *Prunus* (subgen. *Cerasus*) taplejungnica H. Ohba & S. Akiyama, sp. nov. [Figs. 3, 5c, 6c]


*Pruno rufa* Hook. f. tubo calycis 7–10 mm longo, foliis ellipticis (non lanceolato ellipticoque obovatis) 0.8–2.7 cm latis differt. Ex affinitate *Pruni singalilensis* H. Ohba & S. Akiyama foliis magnitudine 2.6–5.1×0.8–2 (non 6.4–7×2.1–2.7) cm, subtus dense pilis crispulis ferrugineis obtectis divergentex.

Shrubs. Branches slender, spreading; those of present year glabrous, greenish; those of former years glabrous, pale reddish purple. Leaves petiolate; petiole 6–12 mm long; blade elliptic, 3.3–5.6×1.5–2.7 cm at flowering, base rounded to cuneate, margins serrate or sometimes doubly serrate, basal serrations, somewhat glandular at apex apex acute to acuminate, lower surface with sparse to moderate white or pale brown straight hairs near base. Flowers usually 1 or 2. Peduncle obsolete, pedicels ca. 2–2.7 cm long. Calyx tube 6–10 mm long; lobes triangular-ovate, 1.9–2.6 mm long, with sparse pale brown straight hairs apically and densely so basally or glabrous, margins serrate. Petals suborbicular, 5.1–7.8×2.7–5.9 mm, glabrous. Style exerted, basally pubescent, apically glabrous.


*Prunus harae* is known only from Bhutan. The specific epithet honors the late Professor Hiroshi Hara of the University of Tokyo who organized a research team to study of the flora of Bhutan in 1967 (Hara, 1971) and who collected this cherry.
years glabrous, pale reddish purple. Leaves petiolate; petiole 4–14 mm long; blade elliptic, 2.6–5.1×0.8–2 cm at flowering, base rounded to cuneate, margins serrate, with a gland at apex of each serration and one gland on margin on either side at base, apex acute to acuminate, lower surface with brown crisped dense hairs near base. Flowers usually 1 or 2. Peduncle 1–2 mm long, pedicels 0.5–2.8 cm long. Calyx tube tubular-campanulate, 7–10 mm long; lobes triangular-ovate, 2–4 mm long, with brown crisped dense hairs, margins serrate. Petals white, suborbicular, 5–6×3–4 mm, with very sparse brown hairs. Style exerted.

Other specimens examined. **E Nepal.** Mechi Zone, Taplejung Distr., Topke Gola–Sewaden.
Prunus taplejungnica was collected in hilly places around Taplejung, Taplejung District, Mechi Zone. The locality is geographically close (M. Suzuki, N. Acharya, S. Akiyama, H. Koba, S. Noshiro, & K. R. Rajbhandari 9263201, 7 June 1992, TI).  

Fig. 3. Prunus taplejungnica H. Ohba & S. Akiyama (S. Noshiro et al., 9261245, TI-holo).
to the type locality of *P. topkegolensis*. The leaves, elliptic and gradually narrowing toward both ends and with conspicuously double serrated margins, distinguish it from *P. topkegolensis* in shape and serration.

4) **Prunus (subgen. Cerasus) singalilaensis** H. Ohba & S. Akiyama, sp. nov. [Figs. 4, 5d, 6d]


Differt ex *Prunus rufa* Hook. f. tubo calycis 7–10 mm longo, foliis ellipticis (non lanceolato ellipticoque obovatis) 0.8–2.7 cm latis. *Pruno talejungnica* H. Ohba & S. Akiyama foliis magnitudine 6.4–7×2.1–2.7 (non 0.6–5.1×0.8–2) cm, subtus glabriis vel pilis et crispulis et erectis fer-

Fig. 4. *Prunus singalilaensis* H. Ohba & S. Akiyama (H. Kanai et al., 6238, TI-holo).
rugineis sparse obtectis divergente.

Shrubs. Branches slender, spreading; those of present year glabrous, greenish; those of former years glabrous, pale reddish purple. Leaves petio-late; petiole 5–14 mm long; blade elliptic to ovate-elliptic, 6.4–7×2.1–2.7 cm at flowering, base rounded to cuneate, margins serrate or sometimes doubly serrate, with a few glands on margin at base, apex acuminate, lower surface glabrous or with pale brown or brown straight or crisped hairs near base. Flowers usually 1 or 2. Peduncle obsolete, pedicels 5–19 mm long. Calyx tube tubular with slight constriction near mouth, 7–10 mm long; lobes triangular-ovate, 2–4 mm long, with pale brown straight or crisped dense or sparse hairs basally or glabrous, margins

Fig. 5. Leaves at flowering. a: Prunus topkegolensis (H. Kanai et al., 720610, TI). b: P. harae (H. Kanai et al., 26 May 1967, TI). c: P. taplejungnica (S. Noshiro et al., 9261245, TI). d: P. singalilaensis (H. Kanai et al., 6238, TI).

Fig. 6. Flowers. a: Prunus topkegolensis (H. Kanai et al., 720610, TI). b: P. harae (H. Kanai et al., 26 May 1967, TI). c: P. taplejungnica (S. Noshiro et al., 9261245, TI). d: P. singalilaensis (H. Kanai et al., 6238, TI).
entire or slightly serrate. Petals suborbicular, 5–9×3–7 mm, glabrous or with very sparse brown crisped or straight hairs. Style exerted, glabrous apically, pubescent at middle.


**Prunus singalilaensis**, collected in the Singalila Mountains around Phalut by several collectors, differs from the other species described here, especially in the size of the leaves, which reaches 7 cm in length and are shallowly singly serrate. The flowers are similar to those of *P. tapalejungnica* in shape and size, but the calyx tube is tubular or urceolate, never tubular-campanulate as in that species.

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**References**


