

# A New Species of the Genus *Rhamnus* (Rhamnaceae) from China

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**ABSTRACT.** *Rhamnus mongolica* Y. Z. Zhao & L. Q. Zhao (Rhamnaceae) is described from Inner Mongolia, China. The new species is related to *R. gilgiana* Heppeler, but distinguished by its leaves oblanceolate or obovate-lanceolate and glabrous on both surfaces.

**Key words:** China, Inner Mongolia, Rhamnaceae, *Rhamnus*.

The genus *Rhamnus* L. contains approximately 200 species, about 57 of which are found in China. Of these, 10 species are found in Inner Mongolia.

The cited specimens in this paper had previously been confirmed as *Rhamnus erythroxylon* Pallas, *R. parvifolia* Bunge, *R. ussuriensis* J. J. Vassiljev, and *R. tumetica* Grubov; furthermore, their distributions have been cited in *Flora of Inner Mongolia*, 2nd edition (Ma, 1989). In the course of additional study of the genus *Rhamnus* in Inner Mongolia, we found that these specimens were previously misidentified and now describe them as a new species.

***Rhamnus mongolica*** Y. Z. Zhao & L. Q. Zhao, sp. nov. TYPE: China. Inner Mongolia: XilinGol Meng, Baiyinxile, 24 July 1959, *Inner Mongolia Univ. Stepp. Exped. 185* (holotype, HIMC).

Haec species *R. gilgiana* Heppeler affinis, sed foliis oblanceolatis vel obovati-lanceolatis, utrinque glabris differt.

Frutex, 1–2 m tall. Branchlet patulous, opposite, rarely approximate opposite or alternate, dark brown, spinescent at apex. Leaves papyraceous, opposite, tufted at brachyblast, oblanceolate or obovate-lanceolate, 1–3 cm long, 5–10 mm wide, argute or obtuse at apex, cuneate at base, crenulate at margins, lateral nerves 3 to 4 pairs, above green, below light green, glabrous on both surfaces; petiole 2–7 mm long, glabrous. Flowers imperfect, tetramerous, yellow-green; staminate flowers 3–4 mm long, 20 to 30 tufted at leaf axils of brachyblast, sepals 4, ovate-triangular, 2–2.5 mm long, argute at apex; petals 4, oblong, ca. 1 mm long, pedicels 2–4 mm long, glabrous; pistillate flowers not seen. Drupes spheroidal, ca. 4 mm diam., with cotyliform persistent calyx at base, 2 putamens; carpodium 4–6 mm long, glabrous; seeds elliptic, dark brown, with a vertical sulcus at back as long as 4/5 of the seed.

**Habitat and distribution.** *Rhamnus mongolica* occurs in valleys in the Xilinhaote, Duolun, Key-

ouqianqi, Daqing Mountain, and Manhan Mountain regions of Inner Mongolia.

**Phenology.** Flowering in June; fruiting from July to August.

**Paratypes.** CHINA. **Inner Mongolia:** Duolun, 31 May 1959, *Inner Mongolia Univ. 98* (HIMC); Keyouqianqi, 22 Aug. 1982, *Medic. Exped. s.n.* (HIMC); Mt. Daqing, 1 June 1982, *Shi-Quan Zhou et al. 820615* (NMAC); Mt. Manhan, 12 July 2002, *Yi-Zhi Zhao 3102* (HIMC).

The chief morphological differences between the new species and five similar species with which it may be confused are summarized in the following key. The six species of *Rhamnus* also have the following characters in common: small yellow-green imperfect flowers, dioecism, epigynous ovary, and spheroidal drupe.

## KEY TO DISTINGUISH *RHAMNUS MONGOLICA* FROM SIMILAR SPECIES

- 1a. Leaf and branchlet alternate, rarely approximate opposite; leaf linear or linear-lanceolate . . . . .  
. . . . . 1. *R. erythroxylon* Pallas
- 1b. Leaf and branchlet opposite or approximate opposite, rarely alternate.
  - 2a. Sulcus at back of seed closed; leaf elliptic-ovovate, 3–13 cm long . . . . .  
. . . . . 2. *R. ussuriensis* J. J. Vassiljev
  - 2b. Sulcus at back of seed open, as long as 4/5 of the seed; leaf 0.5–4 cm.
    - 3a. The back of leaf with tufted villi in the axils of nerves; leaf rhombic-ovovate or rhombic-elliptic, 1.2–4 cm long . . . . .  
. . . . . 3. *R. parvifolia* Bunge
    - 3b. The back of leaf without tufted villi in the axils of nerves.
      - 4a. Leaf small, ovate-rotund, obtuse at apex, not more than 1 cm long; plant short and small; branches coarctate . . . . . 4. *R. tumetica* Grubov
      - 4b. Leaf large, usually more than 1 cm long, acute at apex; plant tall; branches lax.
        - 5a. Leaf elliptic or lanceolate, pubescent on both surfaces . . . . . 5. *R. gilgiana* Heppeler
        - 5b. Leaf oblanceolate or obovate-lanceolate, glabrous on both surfaces . . . . . 6. *R. mongolica* Y. Z. Zhao & L. Q. Zhao

## Literature Cited

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