

***Rhododendron aureodorsale* (Ericaceae) comb. nov. from southwestern Shaanxi, China**

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In this paper, we propose that *Rhododendron clementinae* Forrest ex W. W. Sm. subsp. *aureodorsale* W. P. Fang ex J. Q. Fu should be recognized at species rank as *Rhododendron aureodorsale* (W. P. Fang ex J. Q. Fu) Y. P. Ma & J. Nielsen. This species is similar to *R. clementinae*, but has an isolated distribution range, and differs by having tawny indumentum without pellicle on the abaxial leaf surface, sparse hairs on both pedicel and sepals, and always 7 corolla lobes.

Rhododendron L. is one of the largest and most widespread woody plant genera, with at least 1025 species distributed from the northern temperate zone, throughout tropical southeast Asia, to northeastern Australia (Chamberlain et al. 1996). There are 6 subgenera in China with totally 562 species, of which 405 species are endemic (Fang and Min 1995).

Rhododendron clementinae subsp. *aureodorsale* was originally described by Fang (1983). It was considered to differ from *R. clementinae* subsp. *clementinae* by smaller leaves, flowers and fruits, as well as by a thin indumentum and lack of pellicle on the abaxial leaf surface (Hu and Fang 1994, Fang et al. 2005). However, some key floral characters were overlooked and the distribution range was not considered when the subspecies was first described.

During field work on Taibai Mountain by the authors, flowering specimens of *R. clementinae* subsp. *aureodorsale* were collected. After a careful examination and comparison with the type specimen of *R. clementinae* subsp. *clementinae* and other herbarium specimens, we found that *R. clementinae* subsp. *aureodorsale* is evidently different from *R. clementinae* subsp. *clementinae* both in terms of distribution and morphology, especially floral characters. Therefore, *R. clementinae* subsp. *aureodorsale* is here raised to the species rank, as *R. aureodorsale* (W. P. Fang ex J. Q. Fu) Y. P. Ma & J. Nielsen. Voucher specimens have been deposited at KUN Herbarium.

***Rhododendron aureodorsale* (W. P. Fang ex J. Q. Fu) Y. P. Ma & J. Nielsen comb. nov. (Fig. 1)**

Basionym: *Rhododendron clementinae* Forrest ex W. W. Sm. subsp. *aureodorsale* W. P. Fang ex J. Q. Fu, Plant Tsinling (1983, p. 393).

Type: China. Shaanxi: Taibai Mountain, J. X. Yang 888 (holotype: WUK!, isotype: KUN!) (flowering).

Shrub; young shoots glabrous. Petiole narrowly winged, 15–20 mm long, glabrous. Leaf blade thickly leathery, broadly elliptic, 8–10 × 3–5 cm; base rounded; margin slightly revolute; apex rounded, mucronate; abaxial surface with 2-layered indumentum, thick or thin, the upper layer tawny, surface without a pellicle, hairs branched, the lower layer grayish, appressed; adaxial surface slightly rugulose, glabrous. Inflorescence racemose-umbellate, 6–14-flowered; rachis ca 12 mm. Pedicel 2.0–2.5 cm, with sparse hairs; calyx lobes 7, ca 1.2 mm, hairy; corolla cuplike, 2.5–3.0 cm, white, with many crimson dots, lobes 7. Stamens 14, filaments with scurfy hairs on lower half. Ovary and style glabrous; stigma discoid. Capsule cylindric, 10–15 × 6–8 mm. Flowering in May–June, fruiting in July–October.

Distribution

Rhododendron aureodorsale is only distributed in Taibai Mountains, southwestern Shaanxi, China, where only two

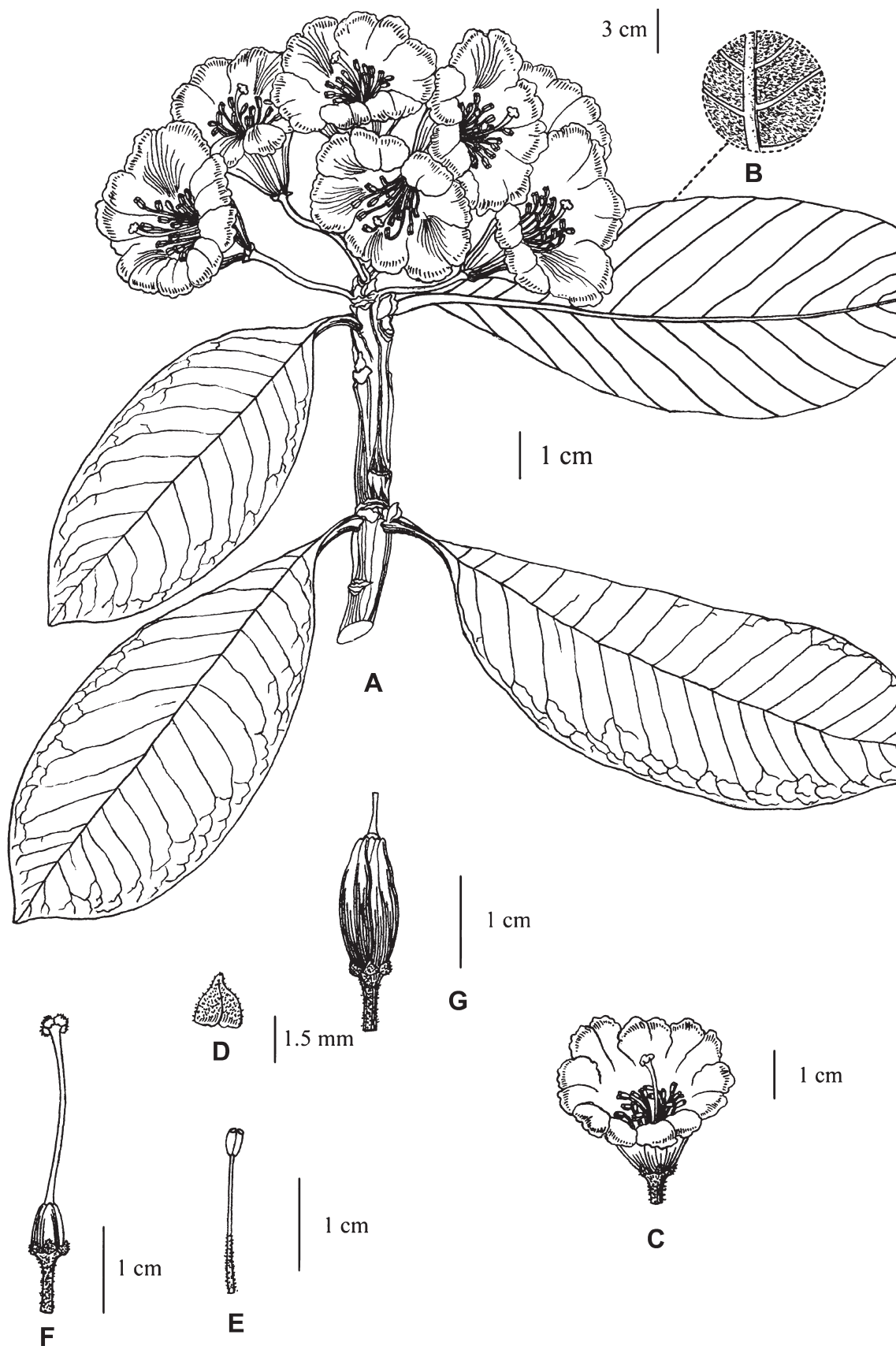


Figure 1. *Rhododendron aureodorsale* (W. P. Fang ex J. Q. Fu) Y. P. Ma & J. Nielsen comb. nov. (A) flower branch, (B) indumentum of abaxial leaf surface, (C) flower, (D) calyx, (E) stamen, (F) gynoecium, (G) fruit. Drawn by Rongmei Zhang from Y. P. Ma 110612.

locations have been known. However, during our field investigation in Oct 2011, we found two additional populations on the same slope from where it has been recorded before. On the other side of Taibai Mountain, populations are also likely to exist since there is a plenty of similar habitats. However, we cannot make a detailed field observation in those military restricted areas. We therefore presume that the species is endemic to Shaanxi, but not seriously threatened at current. It grows in alpine forests and thickets at altitudes between 2700 and 3100 m a.s.l.

Similar species

Rhododendron aureodorsale is similar to *R. clementinae*, with similar characters in leaf and flowers, but is distinct with respect to the leaf indumentum. *Rhododendron aureodorsale* is characterized by a having tawny indumentum

in the upper layer and a surface without a pellicle. Moreover, *R. aureodorsale* is easily distinguished by having sparse hairs on both pedicel and sepals. In addition, these species have very different and isolated distributions. The different characters are summarized in Table 1.

Additional specimens examined (in flower)

China. Shaanxi: Baoji, Y. P. Ma 110613-14 (KUN); Baoji, K. J. Fu 4459 (IBSC); Baoji, K. J. Fu 9459 (WUK); Baoji, B. Z. Guo 4667 (WUK); Baoji, T. P. Wang 6763 (WUK); Baoji, J. X. Yang 888 (WUK); Baoji, Z. P. Wei 1520 (WUK).

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Table 1. Comparison between *Rhododendron aureodorsale* comb. nov. and *R. clementinae*.

Character	<i>R. aureodorsale</i>	<i>R. clementinae</i>
Distribution range	Taibai mountain, Shaanxi, China	northwestern Yunnan and southwestern Sichuan, China
Leaf indumentum	upper layer tawny, surface without a pellicle	upper layer whitish to pale cinnamon, surface with a pellicle
Pedicel	with sparse hairs	glabrous
Sepals	with sparse hairs	glabrous
Corolla shape	cuplike	broadly campanulate
Corolla colour	white	white to bright rose
Corolla lobes	7	6–7

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