

Quercus tungmaiensis Y.T. Chang in cultivation

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For several years, an unusual oak has grown in the National Collection of oaks at Chevithorne Barton, home of Mr Michael Heathcoat Amory. Tentatively listed as *Q. lanata*, but obviously different from that species, it had defied all attempts to identify it further. However, the first author recently discovered a perfect match for the Chevithorne plant in *Q. tungmaiensis* in the Chinese Virtual Herbarium (<http://www.cvh.org.cn/>). This invaluable resource provides access to images of numerous herbarium specimens, including types, held in Chinese herbaria.

According to the original description of *Q. tungmaiensis* (Chang, 1966) it is a deciduous tree to 27 m tall with densely hairy shoots and thinly leathery, lanceolate to oblong lanceolate leaves to 20 cm long and 4.5 cm wide and fruits that ripen the first year. Chang did not mention the affinities of the species when he described it, except that it was placed in subgenus *Quercus*, but it seems to be in section *Cerris*. The holotype was collected in Tung-mai (Tongmei), Tibet in 1965 (Y.T. Chang & K.Y. Lang 887, PE). Tongmei is a small town at about 2000 m in the Palong Tsangpo gorge about 90 km west of Bomi county in Tibet. *Q. tungmaiensis* grows here on the mountain slopes and can also be found in the Yalu Tsangpo gorge 50 km west of Tongmei.



Q. tungmaiensis, Rushforth 5565, at Chevithorne Barton.

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Although the species was recognised by Huang et al. (1998) and Govaerts & Frodin (1998), Huang et al. (1999) regard *Q. tungmaiensis*, as well as *Q. leucotrichophora* A. Camus, as synonyms of *Q. lanata* Sm. Indeed, the holotype specimen of *Q. tungmaiensis* is annotated “*Q. leucotrichophora* A. Camus (*Q. tungmaiensis* Y.T. Chang)”. While *Q. leucotrichophora* and *Q. lanata* are closely related, and possibly not distinct, at least at specific level, there is no doubt that *Q. tungmaiensis* is different from these and should be recognized as a distinct species.

The plant of *Q. tungmaiensis* at Chevithorne came as a rooted cutting from Tom Hudson at Tregrehan in Cornwall and derived from seed collected by Keith Rushforth in Tibet in October 1997. (Rushforth 5565). The locality for this collection was given as Pome, (Bomi) between Showa La and the confluence of the Yigrong Tsangpo and Po Tsangpo at 2100 m. It was described as a tree of 25 m. In cultivated plants the leaves are downy above with stellate hairs when young and strongly revolute as they unfold becoming more or less glabrous and glossy green. The lower surface of the leaf is glabrous even when young except for persistent hairs on the veins. A distinct feature of this species is the deeply impressed venation on the upper surface of the leaf. At Tregrehan and Chevithorne, plants have reached 2.5 m tall. Several other collections in the area by Rushforth in 1997 and 1999 may also be referable to this species.

Q. tungmaiensis seems to be one of a group of species related to *Q. engleriana*, of which the taxonomy is not completely resolved. Tom Hudson (pers. comm.) reports seeing a similar or identical plant in the Dulong Valley, in NW Yunnan and a similar plant is cultivated at the Hillier Gardens from seed collected at Pianma, near the Yunnan-Myanmar border, approximately 100 km further south.

References

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The holotype of *Q. tungmaiensis* at Beijing