

## *Buddleja subcapitata* (Buddlejaceae), a new species from SW Sichuan, China

En-De Liu & Hua Peng\*

Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650204, China  
(\*corresponding author)

Received 13 Feb. 2004, revised version received 31 May 2004, accepted 15 June 2004

Liu, E.-D. & Peng, H. 2004: *Buddleja subcapitata* (Buddlejaceae), a new species from SW Sichuan, China. — *Ann. Bot. Fennici* 41: 467–469.

*Buddleja subcapitata* E.D. Liu & H. Peng, a new species of the Buddlejaceae from SW Sichuan, China, is described and illustrated. The morphological characteristics of *B. subcapitata* are compared with those of the related species.

Key words: Buddlejaceae, *Buddleja*, new species, taxonomy

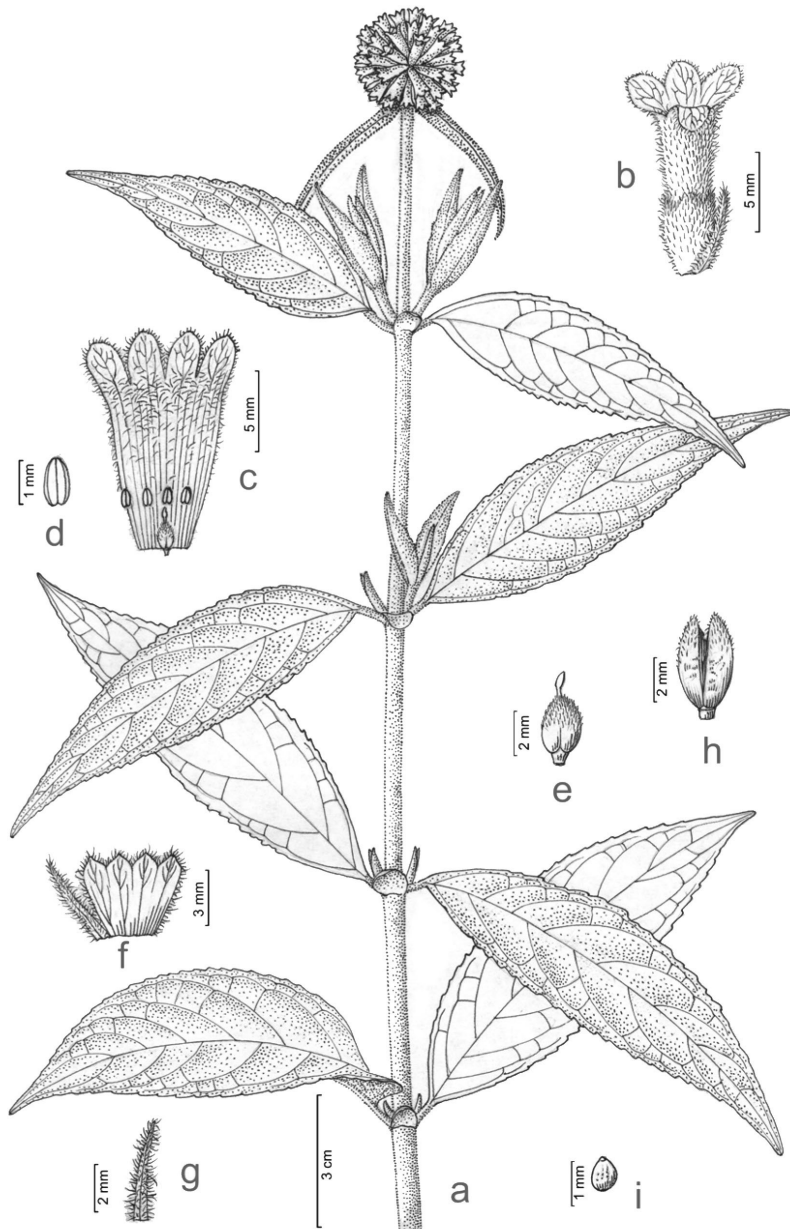
During an expedition to Yanbian County, Sichuan Province, China, in August 2003, we collected more than 1000 specimens, among which we found six specimens (from the same plant) of *Buddleja*, which differ clearly from the congeners in China and the neighbouring countries. After a morphological study, literature searches (Hooker 1890, Marquand 1930, Hara 1971, Li 1982, 1992, Li & Leeuwenberg 1996, Norman 2000) and examination of many specimens, we concluded that it represents a new species.

***Buddleja subcapitata*** E.D. Liu & H. Peng,  
*sp. nova* (Fig. 1)

*Species nova peculiaris, a B. yunnanensi differt panicula comfertim capitiformi, stipulis interpetiolaribus auricularibus, stigma clavato; primo visu B. brachystachyi, laminis margine crenato-serratis vel interdum subintegris, nervis lateralis valde conspicuis, foliis subsessilibus differt.*

Yanbian–Zemulong 155 km, 2200 m, roadside on edge of forest, 26.VIII.2003 Peng Hua 5153 (holotype KUN; isotypes CANT, H, K, MO).

Shrubs 1–1.5 m high. Branchlets four-angled, opposite, densely tomentose; bark of old branches coming off in strips, sometimes glabrescent. Leaves opposite, subsessile, leaf blade thick-papery; interpetiolar stipules auricular; leaf blade lanceolate or obovate-lanceolate, 3.5–11.0 cm long, 1.1–3.1 cm wide, thick but very crisp when dry; upper surface tomentose, rugose, brown or gray when dry; lower surface densely tomentose, gray or yellowish when dry; base cuneate to decurrent into very short petiole, apex acuminate; margin crenate-serrate, or sometimes subentire; lateral veins five to eight pairs, depressed on upper surface, conspicuous on lower surface. Inflorescences terminal, on stout erect peduncles, mostly with a pair of leafy bracts at base of each inflorescence; many cymes forming a compact panicle, capitulum-like, 1.7–2.5 cm long, 1.9–2.5 cm wide, flowers numerous. Pedicel very short. Bracts linear, densely



**Fig. 1.** *Buddleja subcapitata* (from holotype, drawn by Xi-Lin Wu). — **a**: Part of a flowering branch. — **b**: Flower. — **c**: Flower opened, showing stamens and pistil. — **d**: Anther. — **e**: Pistil. — **f**: Bract and calyx. — **g**: Bract. — **h**: Fruit. — **i**: Seed.

tomentose, usually about as long as calyx. Calyx campanulate, outside densely tomentose, inside glabrous; tube 3.0–3.5 mm long, 1.8–2.0 mm in diameter, lobes four, triangular, 0.6–0.8 mm long, 1.1–1.2 mm wide. Corolla lilac, outside densely tomentose, inside with long hairs on tube wall especially at throat, glabrous near base; tube cylindrical, 9.0–10.5 mm long, 2.0–2.2 mm in diameter; lobes four, oblong or obovate, 2.0–2.5 mm long, 1.1–1.5 mm wide, outside tomen-

tose, upper inside glabrous or with scattered hairs. Stamens four, inserted below middle of corolla tube; anthers four, oblong to obtusely sagittate, 0.4–0.5 mm long, 0.3–0.5 mm wide; filaments very short. Ovary ovoid, 2.0–3.0 mm long, 1.2–2.1 mm in diameter, tomentose. Style 0.5 mm long, tomentose at base; stigma clavate. Capsule elliptic to ovoid, 4.0–4.5 mm long, 2.0–2.1 mm in diameter, tomentose, glabrescent. Seeds brown, numerous, 0.5–0.7 mm long,

**Table 1.** Comparison between *Buddleja subcapitata* and *B. yunnanensis*.

Features	<i>B. subcapitata</i>	<i>B. yunnanensis</i>
Branchlet	four-angled, not winged, with long tomentum	four-angled, narrowly-winged, with short stellate tomentum
Leaf	thick-papery, adaxially tomentose	thin-papery or membranous, adaxially glabrous or with scattered stellate hairs
Stipule	interpetiolar, auricular	linear
Inflorescence	capitulum-like, 1.7–2.5 cm long, 1.9–2.5 cm in diameter	densely spicate, 2–6 cm long, 1.5–2 cm in diameter
Calyx	lobes triangular, 0.6–0.8 mm long	lobes narrowly triangular, about 1–2 mm long
Corolla tube	cylindrical, base not inflated	crook-like, with inflated base
Stamen	inserted below middle of corolla tube, anthers oblong to obtusely sagittate	inserted near base of corolla tube, anthers ovate, with a cusp at apex
Style	very short, tomentose at base	short, without tomentum
Stigma	clavate	subcapitate, apex bilobate

0.3–0.5 mm in diameter, unwinged. Flowering July–September, fruiting August–October.

*Buddleja subcapitata* resembles *B. yunnanensis* by having short inflorescences and lilac corolla. However, there are many differences that render identification easy. *Buddleja subcapitata* has capitulum-like compact panicles, interpetiolar auricular stipules, and clavate stigma. *Buddleja subcapitata* also resembles to some extent *B. brachystachya*, but the former has crenate-serrate leaves, conspicuous lateral veins, an inconspicuous petiole and a clavate stigma. A morphological comparison between *B. subcapitata* and *B. yunnanensis* is given in Table 1.

### Acknowledgements

The work was supported by the grants numbered as KSCX2-1-06B from CAS and 2003CB415100 from MOST.

### References

- Bao, S. Y. 1983: Loganiaceae. — In: Wu, C. Y. (ed.), *Flora Yunnanica* 3: 454–473. Sci. Press, Beijing.
- Hara, H. 1971: Buddlejaceae. — In: Hara, H. (ed.), *The flora of Eastern Himalaya, second report*: 106–107. Univ. Tokyo Press, Tokyo.
- Hiller, A. W. 1933: *Hooker's Icones Plantarum*, vol. II: Tab. 3164. — Dulau & Co. Ltd., London.
- Hooker, J. D. 1890: Loganiaceae. — In: Hook, J. D. (ed.), *Flora of British India*, vol. IV: 81–82. Reeve, L. & Co., London.
- Li, P. T. 1982: A study on the genus *Buddleja* L. of China. — *Acta Bot. Yunnanica* 4: 227–240.
- Li, P. T. 1992: Loganiaceae. — In: Chang, M. C. & Qiu, L. Q. (eds.), *Flora Republicae Popularis Sinicae* 61: 265–309. Sci. Press, Beijing.
- Li, P. T. & Leeuwenberg, A. J. M. 1996: Loganiaceae. — In: Wu, Z. Y. & Raven, P. H. (eds.), *Flora of China*, vol. 15: 320–332. Sci. Press, Beijing.
- Marquand, C. V. B. 1930: Revision of the Old World species of *Buddleja*. — *Bull. Misc. Inform. Royal Bot. Gard. Kew* 5: 177–207.
- Norman, E. M. 2000: Buddlejaceae. — *Flora Neotropica* 81: 1–225. New York Bot. Garden, New York.