

***Microtropis* (Celastraceae) from the Daweishan Range, SE Yunnan, China**

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Abstract. Twelve species of the genus *Microtropis* Wall. ex Meisn. (Celastraceae) occur in the Daweishan Range, based on a detailed study of abundant specimens now available. *Microtropis wui*, a distinct new species, is here described and illustrated.

Keywords: Celastraceae; China; Daweishan Range; *Microtropis*; Taxonomy.

Introduction

The Daweishan Range lies between Pingbian and Hekou Counties of SE Yunnan Province, China, south of which is Lao Cai of Lao Cai Province, Vietnam (Figure 1). The range occupies about 25,000 ha, from ca. 22°28' to ca. 22°45'N and from ca. 103°39' to 103°51'E. It is surrounded by three high mountains: NE-Laojunshan (2,997 m), S-Fansipan (3,140 m), and W-Wutanshan (3,000 m). This situation is expressed in its name: "Daweishan" means "be closed" in Chinese. The highest peak in the range itself is 2,363 m in elevation, while the lowest point is only 76 m. As a result, the topography is composed of deep V-shaped valleys. The range is bounded by the Nanxi and Red rivers, which flow together at Hekou City in China and Lao Cai in Vietnam. The range faces the warm and moist monsoon from the Pacific Ocean along the Red River. In the range, both limestone and non-limestone landforms interlock everywhere. The range is dominated by a warm, moist climate and is not influenced by the Quaternary Glacier.

The Daweishan Range is also an important floristic crossroads. It lies not only between Kingdom Eastern and Paleotropic, but also between Sub-kingdom Sino-Japanese and Sino-Himalayana. The mossy dwarf evergreen forest of the summit (Wu and Zhu, 1987) is dominated by *Rhododendron sinofalconeri* Balf. f. and *Michelia floribunda* Finet & Gagnep., while the moist rain forest of the basin is dominated by *Dipterocarpus retusus* Bl., *Shorea wangtiana* Wang Hsie, *Hopea mollissima* C.Y. Wu, and *Madhuca pasquierii* (Dubard.) Lam. et al. Preliminary statistics show that about 3,994 species of 1,260 genera in 230 families of seed plants have been recorded from the range (Shui, 2000), making it one of the richest floras in China.

In Celastraceae, the genus *Microtropis* Wall. ex Meisn. has more than 60 species worldwide, which are distributed in the warm and tropical portions of E Asia, SE Asia and Africa. (Cheng and Kao, 1999), and so its areal-type is Trop. Asia & Trop. Amer. disjunct (Wu, 1991). The main characteristics of *Microtropis* are: 1. Leaves opposite and entire; 2. Inflorescences cymose; 3. Stipules filiform on the top of shoots; 4. Floral disc shallowly cup-shaped or lacking; 5. Capsules ellipsoid, without persistent axile; 6. seeds born on slightly protruded placentas from base of ovary, testa slightly carnose and arillate. In China, there are 24 species of *Microtropis*, 15 of which occur in Yunnan Province. So far, twelve species of *Microtropis* Wall. ex Meisn. are known from the Daweishan Range, which amounts to 84%, 50% and 20%, respectively, of the total representatives of the genus in Yunnan, China and the world. The Daweishan Range is thus a major center of diversity for this genus. In the present study, most of the specimens collected in the Daweishan Range since 1894 (Henry, 1897) were examined. They are attributed to the following sources: Merrill and Freeman (1940), Merrill (1942), Hou (1963), Wu (1984) and Cheng and Kao (1988, 1999). A key to the species of *Microtropis* from the Daweishan Range follows.

Key to the Species of *Microtropis* (Celastraceae) from the Daweishan Range

1. Inflorescences dichasial; peduncles more than 1 cm long; flowers loosely aggregated. (Sect. *Remotiflorae* C.Y. Cheng & T.C. Kao)
 2. Flowers 5-merous.
 3. Inflorescences 2-4-branched; peduncles 1-3 cm long; flowers more than 7 in an inflorescence.
 4. Leaves chartaceous or nearly coriaceous, 8-15 cm long, 3.5-7 cm wide, apex obtuse, nerves 3-5 pairs; capsules ca. 5 cm long 9. *M. petelotii* Merr. & F.L. Freeman

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4. Leaves subcoriaceous, 6.5-13 cm long, 2-4.5 cm wide, apex acuminate, nerves 9-13 pairs; capsules ca. 1.5 cm long. 8. *M. macrophylla* Merr. & F.L. Freeman
3. Inflorescences 1-2-branched; peduncles ca. 1 cm long; flowers less than 7 in an inflorescence.
5. Branchlets terete; leaves 3.5-7 cm long, 1.5-3.5 cm wide, nerves 4-7 pairs; pedicel 0.5 cm long. 11. *M. submembranacea* Merr. & F.L. Freeman
5. Branchlets tetragonal; leaves 8-13 cm long, 2.5-5 cm wide, nerves 6-9 pairs; pedicel 0.5-1 cm long. 12. *M. tetragona* Merr. & F.L. Freeman
2. Flowers 4- or 6-merous.
6. Inflorescences 3-4-branched; flower buds pyramidal; flowers 4-merous. 10. *M. pyramidalis* C.Y. Cheng & T.C. Kao
6. Inflorescences 1-2-branched; flower buds subglobose; sepals 4, petals 6.
7. Leaves 4-7.5 cm long, 1.5-3 cm wide; inflorescences 3-flowered. 7. *M. hexandra* Merr. & F.L. Freeman
7. Leaves 4-15 cm long, 3-5 cm wide; inflorescences 3-7-flowered. 6. *M. henryi* Merr. & F.L. Freeman
1. Inflorescences conferti-dichasial; peduncles less than 1 cm long; flowers dense. (Sect. *Microtropis*)
8. Leaves carnose, with irregular dots when dry; peduncles less than 0.2 cm long, subsessile.
9. Leaves 6-11 cm long, oblong-elliptic; inflorescences 3-7-flowered. 2. *M. oligantha* Merr. & F.L. Freeman
9. Leaves 36-50 cm long, obovate or rhombic; inflorescences 15-20-flowered. 4. *M. wui* Y.M. Shui & W.H. Chen
8. Leaves chartaceous or slightly carnose, glabrous when dry; peduncles more than 0.2 cm long.
10. Peduncles more than 0.3-0.8 cm long; flowers usually 4-merous, rarely 5-merous. 5. *M. yunnanensis* (Hu) C.Y. Cheng & T.C. Kao ex Q. H. Chen
10. Peduncles more than 0.2-0.5 cm long; flowers 5-merous.
11. Leaves chartaceous, nerves 7-11 pairs. 3. *M. pallens* Pierre
11. Leaves slightly carnose, nerves 5-7 pairs. 1. *M. discolor* (Wall.) Arn.

Synopsis of *Microtropis* (Celastraceae) from the Daweishan Range

I. Sect. *Microtropis*

1. *Microtropis discolor* (Wall.) Arn., Ann. Nat. Hist. 3: 151. 1833; Merrill & Freeman, Proc. Amer. Acad. Arts 73:

292. 1940; Tardieu-Blot, Fl. Gen. Indo-Chine Suppl. 4: 795. 1948; Hou, Blumea 13: 408. 1966; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 169. 1999.

Cassine discolor Wall. in Roxb., Fl. Ind. 2: 378. 1824.

Microtropis discolor Wall., Cat. 4337. 1830, nom. nud.

Microtropis sessiliflora Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 284. 1940; Wu, Index Fl. Yunnan. I: 760. 1984; Cheng & Kao, Iconogr. Cormophyt. Sin. Suppl. 2: 250, fig. 8829. 1983. syn. nov.

The Daweishan Range. Pingbian County, a large shrub in forests, Y. Tsiang 13365 (holotype of *Microtropis sessiliflora*: photo, A); ibid., Yupingqu to Pujiqing, 1,600 m, 29 Mar 1958 (fl.), K. M. Feng 21793 (KUN); ibid., Shuiweicheng, 1,660 m, 25 Mar 1997 (fl.), Exp. Daweishan 0572 (SWFC).

Habitat. In evergreen forests, alt. ±1660 m.

Distribution. China (S Yunnan), Vietnam, Thailand, Myanmar, Malaya, India.

2. *Microtropis oligantha* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 288. 1940; Wu, Index Fl. Yunnan. I: 759. 1984; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 172. 1999.

The Daweishan Range. Pingbian County, Yi-Qu, Ao-gaxiang, Podou, 1,650 m, 22 Sep 1954 (fr.), K. M. Feng 4639 (KUN).

Habitat. In evergreen forests, alt. 800-1,660 m.

Distribution. China (SE Yunnan).

3. *Microtropis pallens* Pierre, Fl. Forest. Cochinch. Fasc. 20: t. 305b. 1895; Wu, Index Fl. Yunnan. I: 759. 1984.

The Daweishan Range. Pingbian County, Yi-Qu, Qianjinxiang, Mizuhe, 400 m, 23 Nov 1953 (fl.), P. I. Mao 3139 (KUN).

Habitat. In seasonal rain forests, alt. ±400 m.

Distribution. Indochina, China (SE Yunnan). The occurrence of this species in China was neglected in Fl. Reipubl. Popularis Sin. (Cheng and Kao, 1999).

4. *Microtropis wui* Y.M. Shui & W.H. Chen, sp. nov.—
TYPE: China. Yunnan: Hekou County, Nanxi Zhen, Anjiahe to Liangzi, 22°40'N, 103°53'E, in secondary forests on a limestone hill, alt. 800 m, climbing shrub, 1.8 m high, 21 Nov 2000 (fr.), Y. M. Shui, C. X. Pu & Z. L. Nie 14554 (holotype, KUN 0765765; isotype, KUN 0768162).

Figure 2

Species *Microtropis obscurinerviae* Merr. & F.L. Freeman similis, sed foliis obovatis vel rhombis, 36-50 cm longis, basi auriculatis, apice obtusis, fructis apiculatis et numerosis ad 20-30 differt.

Glabrous shrub, scandent, 1-2 m high; branches terete, brachlets 0.8-1.3 cm in diam. brownish, internodes 12-15 cm long, leaf scars semioricular. Leaves opposite, obovate or rhombic, 36-50 cm long, 16-18 cm wide, apex obtuse, base auricular, margin slightly revolute, deep green above,

grey-green beneath, midrib prominent above and very prominent below, lateral nerves 12–15, anastomosing adjacent to margin, petioles stout, 0.4–0.6 cm long, 0.25–0.35 cm in diam. Cymes axillary or extra-axillary, conferted, peduncles 1–2 mm long, pedicels incrassate, ca. 3–3.5 mm long; sepals ovate, persistent on mature fruits; fruits 15–20, fasciculate, ellipsoid or ovoid, 1.8–2 cm long including a rostrum and 8–9 mm in diam.; rostrum 2–3 mm long.

The new species is similar to *Microtropis obscurinervia* Merr. & F.L. Freeman in its sessile peduncles and carnose leaves, but differs in its 36–50 cm-long, auriculate-based, obovate or rhombic leaves and more numerous fruits.

Paratype. Hekou County, Xiaonanxi, on limestone hill, 600 m, 30 Jan 1959 (fr.), *Anonymous s. n.* (KUN).

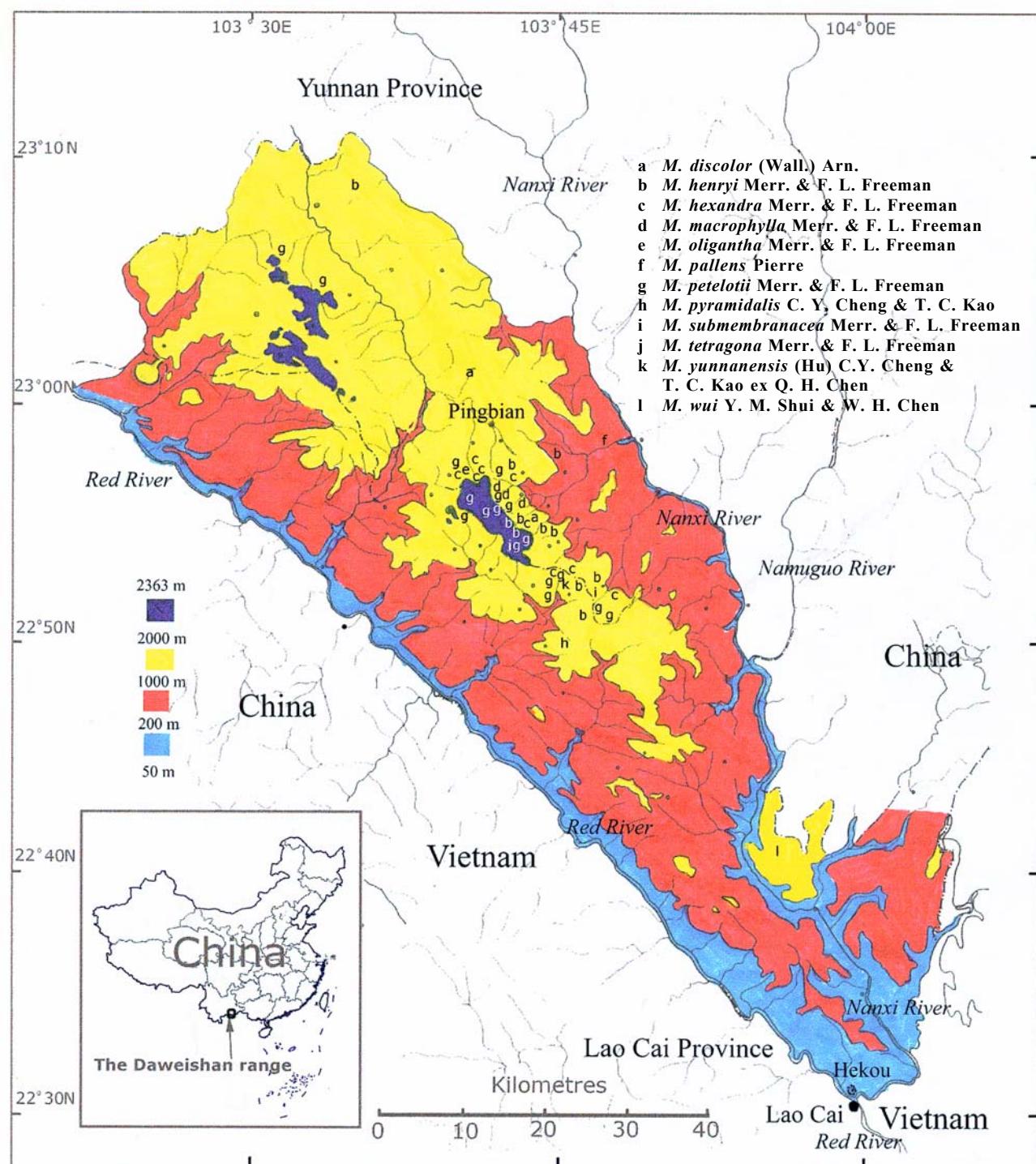


Figure 1. Distribution of *Microtropis* in The Daweishan Range, China.



Figure 2. *Microtropis wui* Y.M. Shui & W.H. Chen. A, Stem and infructescences; B, Leaves and buds; C, Base of leaves; D, Fruit; E, Longitudinal section of fruit; F, Transverse section of fruit. Scale: A = 3 cm; B = 6 cm; C = 3 cm; D-F = 1 cm. Drawn by Yitao Liu from the holotype (Y.M. Shui, C.X. Pu & Z.L. Nie 14554, KUN).

Habitat. In secondary forests on a limestone hill, alt. 600-800 m.

Distribution. China (SE Yunnan).

Prof. C.Y. Wu first saw a specimen of the new species in Feb 1959 at KUN, i.e., the paratype, *Anonymous* s. n., which comprises nothing but a few dried fruits. At that time, he named it (in herb.) *Microtropis permagna*. It was not possible to describe the new species until a more complete specimen, *Y. M. Shui, C. X. Pu and Z. L. Nie 14554*, was collected in Nov 2000. With this new specimen as the type, the authors name the new species *Microtropis wui*, in honor of Prof. C.Y. Wu and his keen eyesight.

5. *Microtropis yunnanensis* (Hu) C.Y. Cheng & T.C. Kao ex Q.H. Chen, Fl. Guizhou. 2: 419. 1986; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 165. 1999.

Microtropis illicifolia var. *yunnanensis* Hu, Bull. Fan Mem. Inst. Biol. 7: 214. 1936.

Microtropis fokiensis auct. non Dunn: Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 292. 1940, p. p.

Mysine chaffanjoni H. Lév., Fl. Kouy-Tchéou 287. 1914.

The Daweishan Range. Hekou County, Yaoshanqu, Liangzixiang, Sanchaheqing, 1,580 m, 3 Mar 1954 (fr.), *P. I. Mao 4099* (KUN).

Habitat. In secondary forests on limestone hill, alt. 1, 580-2,000 m.

Distribution. China (SE Yunnan, SW Guizhou, W Guangxi).

II. Sect. Remotiflorae C.Y. Cheng & T.C. Kao, Fl. Reipubl. Popularis Sin. 45(3): 154. 188. 1999.

6. *Microtropis henryi* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 289. 1940; Wu, Index Fl. Yunnan. 1: 759. 1984; Cheng & Kao, Iconogr. Cormophyt. Sin. Suppl. 2: 247, fig. 8825. 1983 et Fl. Reipubl. Popularis Sin. 45 (3): 160. 1999.

The Daweishan Range. Pingbian County, mountain to the southeast (=Mengtze formerly), 1,666-2,000 m, *A. Henry 11443* (Holotype, K; Isotype, N; photo, A); ibid. Adakou, Niuchang, 1,500 m, 4 Jul 1956 (fr.), *Exp. Sino-Russ. 3504* (KUN); ibid., Daweishan, 800 m, 23 Jun 1956 (fl.), *Exp. Sino-Russ. 3783* (KUN); ibid., Yi-Qu, Xinlongxiang, Shidouzai, Caoguoqingliangzi, 1,400 m, 12 Jul 1953 (fl.), *P. I. Mao 2570* (KUN); ibid., Yi-Qu, Maweixiang, Huoshan (Bomushanqin), 1,500 m, 12 Apr 1953 (fr.), *P. I. Mao 3264* (KUN); ibid., Yi-Qu, Xinnongxiang, Shibanxiang, Adakou, Shuiweicheng, 1,600 m, 6 Oct 1954 (fl.), *K. M. Feng 4763* (KUN); ibid., Daweishan, 1,900 m, 8 Aug 1985 (fr.), *Yunnan Forest Inst. 85118* (YFI); ibid., Shuiweicheng, 2,030 m, 22 Mar 1997 (fl.), *Exp. Daweishan D0099* (KUN, SWFC); ibid., Dajianshan, 2,040 m, 25 Mar 1997 (fl.), *Exp. Daweishan D0701* (KUN, SWFC); ibid., Shuiweicheng, 2,000 m, 30 Aug 1999 (fl.), *Y. M. Shui & W. H. Chen 10371* (KUN); Hekou County, Daweishan, east of Xinzai, 1,500 m, 19 Jan 1933 (fl.), *H. T. Tsai 52629* (A, PE); ibid.,

Tiantouhuoshan, 1,700 m, 9 Apr 1997 (fl.), *Exp. Daweishan D3202* (KUN, SWFC).

Habitat. In montane humid evergreen forests, alt. 800-2,040 m.

Distribution. China (SE Yunnan).

7. *Microtropis hexandra* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 289. 1940; Wu, Index Fl. Yunnan. 1: 759. 1984; Cheng & Kao, Iconogr. Cormophyt. Sin. Suppl. 2: 247. fig. 8824. 1983 et Fl. Reipubl. Popularis Sin. 45(3): 162, fig. 37: 1-2. 1999.

The Daweishan Range. Pingbian County, Ao-ga, ca. 1,400 m, 29 Jul 1934 (fl.), *H. T. Tsai 60498* (Holotype: A; Isotype; PE, KUN); ibid., Yi-Qu, Maweixiang, Huoshan (Bomushanqin), 1,380 m, 7 Aug 1954 (fl.), *P. I. Mao 2787* (KUN); ibid., Jiansexiang, Aogadaoqing, 1,540 m, 17 Jun 1953 (fl.), *P. I. Mao 2132* (KUN); ibid., Ao-ga, 1,270 m, 25 Nov 1997, *Exp. Daweishan 62-0005* (KUN, SWFC); ibid., Forestry Station , 1,640 m, 25 Nov 1997, *Exp. Daweishan 6044* (KUN, SWFC); ibid., Shuiweicheng, 1,800 m, 3 Sep 1997, *G. Y. Zhao 973242, 973244* (SWFC); ibid., Huoshan, 1,070 m, 1 Jan 1998, *Exp. Daweishan 7149* (KUN, SWFC); ibid., Ao-ga, 1,540 m, 25 Nov 1997 (fr.), *Y. M. Shui 06402* (KUN); Hekou County, Summit of Daweishan Mountain, 1,700 m, 8 Apr 1997, *Exp. Daweishan D4061* (KUN, SWFC).

Habitat. In montane humid evergreen forests, alt. 1,070-1,800m.

Distribution. China (SE Yunnan).

8. *Microtropis macrophylla* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 299. 1940; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 156, fig. 36: 3. 1999.

Microtropis macrocarpa C.Y. Cheng & T.C. Kao, Acta Phytotax. Sin. 26(4): 313, fig. 4. 1988. syn. nov.

The Daweishan Range. Pingbian County, Adakou, *Musa* forests under Niucheng, 1,500 m, 24 Jul 1956 (fl.), *Exp. Sino-Russ. 3969* (Holotype of *Microtropis macrocarpa*: KUN); ibid., Adakou, Niucheng, 1,500 m, 4 Jul 1956 (fl.), *Exp. Sino-Russ. 3554* (Paratype of *Microtropis*: KUN); ibid., Yi-Qu, Shibanzai, A-dakou, Shuiweicheng, 1,600 m, 6 Oct 1954 (fr.), *K. M. Feng 4762, 4763* (KUN; paratype of *Microtropis macrocarpa*).

Habitat. In evergreen forests, alt. ±1,660 m.

Distribution. China (SE Yunnan, SW Xizang), India.

9. *Microtropis petelotii* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 291. 1940; Tardieu-Blot, Fl. Gen. Indo-Chine 4: 797. 1948; Hou, Blumea 13: 407. 1966; Wu, Index Fl. Yunnan. 1: 759. 1984; Cheng & Kao, Iconogr. Cormophyt. Sin. Suppl. 2: 247, fig. 8823. 1983 et Fl. Reipubl. Popularis Sin. 45(3): 157. 1999.

The Daweishan Range. Mengtze (=Pingbian County now), in forests, 1,500 m, tree 6 m, flowers white, *A. Henry 11417* (K); ibid., mountain to the southeast, 1,666-2,000 m, *A. Henry 10491* (A, M); ibid., forests, 1,500 m, shrubs

1.8 m, *A. Henry* 11491A (A, K); Pingbian County, Jianshan, 1,400 m, 14 Sep 1934 (fr.), *H. T. Tsai* 61953 (A, PE); *ibid.*, Shibanxiang, A-da-kou, Laojianshan, 1,900 m, 12 Oct 1954, in fr. *K. M. Feng* 4914 (KUN); *ibid.*, Yi-Qu, Shibanxiang, A-da-kou, Laojianshan, 194 m, 12 Oct 1954 (fl.), *K. M. Feng* 4902 (KUN); *ibid.*, Maweixiang, Huoshanchun, Summit of Bomushan Mt., 1,900 m, 3 Apr 1954 (fr.), *P. I. Mao* 3691 (KUN); *ibid.*, Ao-ga, slope of Ao-ga, 1,650 m, 22 Sep 1954 (fr.), *P. I. Mao* 4628 (KUN); *ibid.*, Daweishan, Laojianshan, 2,000 m, 24 Jun 1956 (fr.), *Exp. Sino.-Russ.* 4412 (KUN); *ibid.*, Daweishan, Laojianshan, 2,200 m, 23 Jun 1956 (fl.), *Exp. Sino.-Russ.* 3749 (KUN); *ibid.*, Niuchanghoushan, 2,000-2,200 m, 25 Jun 1956 (fl.), *Exp. Sino.-Russ.* 3970 (KUN); *ibid.*, Daweishan, 1,800 m, 24 Oct 1987 (fr.), *Z. H. Yang* 87-0963 (KUN); *ibid.*, Daweishan, 2,100-2,200 m, 6 Aug 1994, *S. G. Wu et al.* 1305 (KUN); *ibid.*, Daweishan, 1,800 m, 6 Aug 1994 (fl.), *Exp. Sino.-Jap.* 1723 (KUN); *ibid.*, Huoshan, 1,610 m, 2 Apr 1997, *Exp. Daweishan D2216, D2318 and D2380* (KUN, SWFC); *ibid.*, Shuiweicheng, 2,000 m, 30 Aug 1999 (fl.), *Y. M. Shui & W. H. Chen* 10374 and 10383 (KUN); Hekou County, Yaoshanqu, Liangzixiang, Sanchaheqing, 1,500 m, 3 May 1954 (fr.), *P. I. Mao* 4105 (fr.); *ibid.*, Shanchahe, 1,650 m, 9 Apr 1997, *Exp. Daweishan D3036* (KUN, SWFC); *ibid.*, Shanchahe, 1,300 m, 7 Apr 1997, *Exp. Daweishan D3073* (KUN, SWFC); *ibid.*, Jianshan to Huazhushan, 2,310 m, 26 Aug 1999 (fr.), *Y. M. Shui & W. H. Chen* 10147 (KUN); *ibid.*, Shijiachao, 1,900 m, 8 Sep 1999 (fr.), *Y. M. Shui & W. H. Chen* 10578 (KUN).

Habitat. In evergreen and mossy forests, alt. 1,300-2,200 m.

Distribution. China (SE to S Yunnan, Guangxi), N Vietnam.

10. *Microtropis pyramidalis* C.Y. Cheng & T.C. Kao, Acta Phytotax. Sin. 26(4): 313, fig. 4. 1988; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 157. 1999.

The Daweishan Range. Hekou County, Yaoshanqu, Chongdouxiang, Dazupeng, 1,450 m, 10 Apr 1954 (fr.), *P. I. Mao* 3753 (Paratype: KUN).

Habitat. In seasonal evergreen forests, alt. 800-1,450 m.

Distribution. China (SE Yunnan, SW Guangxi).

11. *Microtropis submembranacea* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 291. 1940; Cheng & Kao, Iconogr. Cormophyt. Sin. Suppl. 2: 243, *in clavi*, 1983 et Fl. Reipubl. Popularis Sin. 45(3): 159, fig. 38: 3-4. 1999.

The Daweishan Range. Pingbian County, Maweixiang, Huoshan, Bomushan, 1,880 m, 3 Apr 1954 (fr.), *Mao P. I.* 3677 (KUN).

Habitat. In evergreen forests, alt. 1,000-1,800 m.

Distribution. China (S Guangxi, Guangdong, Hainan; new report for Yunnan).

12. *Microtropis tetragona* Merr. & F.L. Freeman, Proc. Amer. Acad. Arts 73: 290. 1940; Cheng & Kao, Iconogr. Cormophyt. Sin. 2: 663. 1972; Cheng & Kao, Fl. Reipubl. Popularis Sin. 45(3): 160. 1999.

The Daweishan Range. Pingbian County, Shuiweicheng, 2,120 m, 28 Mar 1997, *Exp. Daweishan 0936* (KUN, SWFC).

Habitat. In mossy evergreen forests, alt. 1,000-2,120 m.

Distribution. China (SE Yunnan, S Guangxi, Hainan, SE Xizang).

Alphabetical list of the Specimens of *Microtropis* from the Daweishan Range:

- Anonymous s.n.: *M. wui*
- Exp. Daweishan 0572: M. discolor*
- Exp. Daweishan 0936: M. tetragona*
- Exp. Daweishan 6044: M. hexandra*
- Exp. Daweishan 62-0005: M. hexandra*
- Exp. Daweishan 7149: M. hexandra*
- Exp. Daweishan D0099: M. henryi*
- Exp. Daweishan D0701: M. henryi*
- Exp. Daweishan D2216: M. petelotii*
- Exp. Daweishan D2318: M. petelotii*
- Exp. Daweishan D2380: M. petelotii*
- Exp. Daweishan D3202: M. henryi*
- Exp. Daweishan D4061: M. hexandra*
- Exp. Sino.-Jap. 1723: M. petelotii*
- Exp. Sino.-Russ. 3504: M. henryi*
- Exp. Sino.-Russ. 3554: M. macrophyllus*
- Exp. Sino.-Russ. 3749: M. petelotii*
- Exp. Sino.-Russ. 3783: M. henryi*
- Exp. Sino.-Russ. 3969: M. macrophyllus*
- Exp. Sino.-Russ. 3970: M. petelotii*
- Exp. Sino.-Russ. 4412: M. petelotii*
- Feng, K. M. 4639: M. oligantha*
- Feng, K. M. 4762: M. macrophyllus*
- Feng, K. M. 4763: M. henryi*
- Feng, K. M. 4763: M. macrophyllus*
- Feng, K. M. 4902: M. petelotii*
- Feng, K. M. 4914: M. petelotii*
- Feng, K. M. 21793: M. discolor*
- Henry, A. 10491: M. petelotii*
- Henry, A. 11417: M. petelotii*
- Henry, A. 11443: M. henryi*
- Henry, A. 11491A: M. petelotii*
- Mao, P. I. 2132: M. hexandra*

- Mao, P. I. 2570: *M. henryi*
 Mao, P. I. 2787: *M. hexandra*
 Mao, P. I. 3139: *M. pallens*
 Mao, P. I. 3264: *M. henryi*
 Mao, P. I. 3677: *M. submembranacea*
 Mao, P. I. 3691: *M. petelotii*
 Mao, P. I. 3753: *M. pyramidalis*
 Mao, P. I. 4099: *M. yunnanensis*
 Mao, P. I. 4105: *M. petelotii*
 Mao, P. I. 4628: *M. petelotii*
 Shui, Y. M. & Chen, W. H. 06402: *M. hexandra*
 Shui, Y. M. & Chen, W. H. 10147: *M. petelotii*
 Shui, Y. M. & Chen, W. H. 10371: *M. henryi*
 Shui, Y. M. & Chen, W. H. 10374: *M. petelotii*
 Shui, Y. M. & Chen, W. H. 10383: *M. petelotii*
 Shui, Y. M. & Chen, W. H. 10578: *M. petelotii*
 Shui, Y.M., Pu, C.X. & Nie, Z. L. 14554: *M. wui*
 Tsai, H. T. 52629: *M. henryi*
 Tsai, H. T. 60498: *M. hexandra*
 Tsai, H. T. 61953: *M. petelotii*
 Tsiang, Y. 13365: *M. discolor*
 Wu, S. G. et al. 1305: *M. petelotii*
 Yang, Z. H. 87-0963: *M. petelotii*
 Yunnan Forest Inst. 85118: *M. henryi*
 Zhao, G. Y. 973242: *M. hexandra*
 Zhao, G. Y. 973244: *M. hexandra*

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Literature Cited

- Cheng, C.Y. and T.C. Kao. 1988. New taxa of the Chinese Celastraceae (1). *Acta Phytotax. Sin.* **26(4)**: 310-314.
 Cheng, C.Y. and T.C. Kao. 1999. Celastraceae. In C. Y. Wu (ed.), *Fl. Reipubl. Popularis Sin. 45* (3). Science Press, Beijing, pp. 150-174.
 Henry, A. 1897. Botanical exploration in Yunnan. *Bull. Misc. Inform. Kew* **132**: 99-101.
 Hou, D. 1963. Notes on some Asiatic species of the genus *Microtropis* (Celastraceae). *Blumea* **13**: 404-408.
 Merrill, E.D. 1942. Records of Indo-Chinese plants. *J. Arnold Arbor.* **23**: 174-175.
 Merrill, E.D. and F.L. Freeman. 1940. The Old World species of the Celastraceous genus *Microtropis* Wallich. *Proc. Amer. Acad. Arts* **73**: 271-310.
 Shui, Y.M. 2000. The Preliminary Study of Phytogeography on the Angiosperms in the Daweishan, SE Yunnan, China. Ph.D. Thesis.
 Wu, C.Y. 1984. *Index Florae Yunnanensis* (I). The People's Publishing House, Kunming, pp. 59-160.
 Wu, C.Y. 1991. The Areal-types of Chinese Genera of Seed Plants. *Acta Bot. Yunnan. Suppl.* 4, p. 85.
 Wu, C.Y. and Y.C. Zhu. 1987. The Vegetation of Yunnan. Science Press, Beijing, pp. 352-360.

中國雲南東南部大圍山地區假衛矛屬植物

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本文對產大圍山地區的大量館藏標本進行了檢查，整理出該地區假衛矛屬植物 12 種。吳氏假衛矛 (*Microtropis wui*) 為新種，本文首次描述和繪圖，另確定越南假衛矛 (*Microtropis pallens*) 產於中國。

關鍵詞：衛矛科；中國；大圍山地區；假衛矛；分類。