

61. NEOHYMENOPOGON Bennet, Indian Forester 107: 436. 1981.

石丁香属 shi ding xiang shu

Chen Tao (陈涛); Charlotte M. Taylor

Hymenopogon Wallich in Roxburgh, Fl. Ind. 2: 156. 1824, not *Hymenopogum* P. Beauvois (1804) [Musci].

Shrubs, usually epiphytic, unarmed, often deciduous, often rather succulent. Raphides presumably absent. Leaves opposite, apparently without domatia; stipules persistent, interpetiolar or shortly united around stem, generally ovate, acute to rounded. Inflorescences terminal, corymbose-cymose, many flowered, pedunculate, bracteate; bracts subtending 2 or more cymes per inflorescence enlarged, petaloid, stipitate (i.e., similar to a calycophyll). Flowers pedicellate, bisexual, monomorphic. Calyx limb 5-lobed. Corolla white to pale green, salverform or salverform-funnelform with tube prolonged, inside reflexed villous in throat and on lobes; lobes 5, valvate in bud. Stamens 5, inserted below corolla throat, included; filaments short; anthers dorsifixed, shortly bifid at base. Ovary 2-celled, ovules numerous in each cell on peltate axile placentas; stigmas 2, linear, partially exerted to included. Fruit capsular, oblong-ellipsoid, obovoid, or turbinate, apically prolonged into short beak, septicidally dehiscent through beak or sometimes splitting deeply into 2 valves, papery to slightly woody, with calyx limb persistent; seeds numerous, medium-sized, fusiform, acute to caudate at each end, with hilum lateral; testa membranous; endosperm rich; embryo minute; cotyledon ovate; radicle short.

About three species: Bhutan, China, India, Myanmar, Nepal, Thailand, Vietnam; two species (one endemic) in China.

The lack of raphides has not been specifically noted but is presumed here based on the classification of this genus in Cinchoneae in FRPS (71(1): x. 1999). The enlarged petaloid bracts of the inflorescences resemble the calycophylls of many other Rubiaceae species, but in *Neohymenopogon* many of these structures are inserted below the base of the hypanthium and are thus actually considered bracts. Puff et al. (Rubiaceae of Thailand, 172. 2005) noted that *N. parasiticus* grows in a variety of seasonal to evergreen epiphytic and epilithic [micro]habitats, that, not surprisingly, it is very variable morphologically, probably in correlation with habitat, and that the petaloid bracts persist on the fruit and appear to function in seed dispersal as well as in pollination. The length of the corollas of *N. parasiticus* for example is notably variable, by 300%, but there seems to be continuous variation and no clearly separable subgroups. Raizada and Bennet (Indian Forester 107: 432–437. 1981) noted that the name *Hymenopogon*, long used for these plants, was a later homonym of a moss genus and published a new name for the genus; their article contained no information about the plants apart from a summary of general geographic ranges, which were not entirely correct even then. The specific epithets of these species have sometimes been spelled as “*parasiticum*” and “*oligocarpum*,” but the “-us” ending is correct (*Vienna Code*, Art. 62.2(a)).

- 1a. Leaves elliptic-oblong, oblanceolate, or elliptic, with apex acuminate, with secondary lateral veins to 11 pairs and well separated, i.e., 8–16 mm apart at midrib; fruit pilosulous to glabrous 1. *N. oligocarpus*
- 1b. Leaves elliptic-obovate, lanceolate, oblanceolate, or obovate, with apex obtuse to acute, with secondary veins 15–28 pairs and closely set, i.e., 5–11 mm apart at midrib; fruit villosulous to pilosulous or strigillose 2. *N. parasiticus*

1. Neohymenopogon oligocarpus (H. L. Li) Bennet, Indian Forester 107: 436. 1981.

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Hymenopogon oligocarpus H. L. Li, J. Arnold Arbor. 25: 316. 1944.

Shrubs, ca. 2 m tall; branches flattened to subterete, glabrous. Leaves often crowded at stem apices; petiole 0.6–3 cm, pilosulous to strigillose; blade drying membranous, green adaxially, often whitened abaxially, elliptic-oblong, oblanceolate, or elliptic, 10–21 × 3–6 cm, strigillose to pilosulous on both surfaces with pubescence denser on principal veins, base cuneate to obtuse, apex slightly to markedly acuminate; secondary veins 7–11 pairs; stipules ovate, 3–5 mm, perhaps strigillose. Inflorescences strigillose to pilosulous; peduncle 1–5 cm; branched portion ca. 2 × 3 cm (not including petaloid bracts); bracts triangular, ca. 2 mm, petaloid bracts with blade portion elliptic-oblong to lanceolate, 2–3 × 0.5–1 cm, strigillose to pilosulous, with 3 principal veins, with stipe 1–3 cm; pedicels 0.5–1 cm. Flowers unknown. Capsules ellipsoid, ca. 1 × 0.5 cm, glabrous to pilosulous, with persistent calyx lobes lanceolate, ca. 5 mm, acute; seeds black, ca. 6 mm. Fr. Aug.

- Forests on mountains; ca. 2400 m. W Yunnan.

The only description of the flowers was given by W. C. Chen (in FRPS 71(1): 233. 1999), who listed the corolla as green-white and gave the flowering period as Aug. Chen distinguished this species in part by its glabrous fruit, but the accompanying illustration (p. 232, t. 57, f. 4) shows pilosulous fruit, as added to the description here.

2. Neohymenopogon parasiticus (Wallich) Bennet, Indian Forester 107: 436. 1981.

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Hymenopogon parasiticus Wallich in Roxburgh, Fl. Ind. 2: 157. 1824; *H. parasiticus* var. *longiflorus* F. C. How ex W. C. Chen.

Small shrubs, 0.3–2 m tall; branches stout, villosulous to hirtellous sometimes becoming glabrescent with age. Leaves sometimes grouped at apex of shortened branches; petiole 0.4–2 cm, villosulous to hirsutulous; blade drying papery or membranous, often grayish black, elliptic-obovate, lanceolate, oblanceolate, or obovate, 5–25 × 1.5–11 cm, adaxially puberulent to hirtellous, strigillose, or glabrescent, abaxially strigillose to pilosulous at least on principal veins, base obtuse to acute, apex obtuse, acute, or rarely acuminate; secondary veins 15–28 pairs; stipules ovate to suborbicular, 6–12 mm, strigillose to glabrous, cuspidate or obtuse to rounded. Inflorescences tomentulose to

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villosulous or villous, sessile and 3- or 5-partite, 4–18 × 4–24 cm (including petaloid bracts); bracts stipuliform, ovate, 5–15 mm, acuminate to 2-lobed, petaloid bracts white to cream, with blade portion drying papery to stiffly papery, elliptic-oblong to elliptic, 3–10 × 1.5–3.3 cm, strigillose to pilosulous or glabrescent, obtuse to acute, with stipe 2.5–4 cm; pedicels 0.8–1.2 cm. Calyx densely villosulous to tomentulose; ovary portion obconic, ca. 3 mm; limb deeply lobed, strigillose to glabrous; lobes lanceolate to narrowly triangular, 6–10 mm, acute. Corolla white [to pale green in Thailand], outside crisped villosulous to strigillose or strigose; tube 25–60 mm; lobes ovate-oblong to ovate, 5–10 mm, acute to obtuse. Capsules ellipsoid-oblong to ellipsoid, smooth or longitudinally weakly ridged, 1.5–3 × 0.6–1 cm, villosulous to pilosulous or strigillose; seeds 5–6 mm. Fl. Jun–Aug, fr. Sep–Dec.

On trees or rocks in thickets or forests in valleys; 1200–2700 m. Xizang, Yunnan [Bhutan, N India, Myanmar, Nepal, Thailand, Vietnam].

Hymenopogon parasiticus var. *longiflorus* was originally distinguished by its corolla length (5–7 cm vs. 2.5–4 cm in var. *parasiticus*). W. C. Chen (in FRPS 71(1): 233. 1999) synonymized these with some commentary.

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