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# *Sinopora*, A New Genus of Lauraceae from South China

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**ABSTRACT.** The new genus *Sinopora* J. Li, N. H. Xia & H. W. Li is reported for the Lauraceae from Hong Kong in South China and is based on *Syndiclis hongkongensis* N. H. Xia, Y. F. Deng & K. L. Yip. The new genus is distinguished from *Syndiclis* Hooker f. by its trimerous flowers. The new genus is similar to *Hexapora* Hooker f., but its anthers are originally introrse and tubular, with two anther cells near each other and apically opening by minute pores, the staminodes as large as the stamens, but not produced above the stamens.

**Key words:** China, IUCN Red List, Lauraceae, *Sinopora*.

The species *Syndiclis hongkongensis* N. H. Xia, Y. F. Deng & K. L. Yip, collected from Tai Mo Shan, Hong Kong, China, was recently described for the Lauraceae (Xia et al., 2006) and greatly attracted our attention. After carefully checking the type specimens, the description, and the figure of the new species (Hu, 2003; Xia et al., 2006), we confirmed that it did not belong to the genus *Syndiclis* Hooker f. because of its trimerous flowers. This species has small, bisexual flowers in a slender axillary panicle of nine to 12 flowers. Its flower has six ovate tepals; the exerted stamens are six in two whorls, sessile and eglandular; the tubular anther is 2-celled, these cells apically open by minute pores, the joint between the cell and the flap is on the abaxial side, the anthers are originally introrse; the staminodes of the third and fourth whorls are six, opposite to and as large as the stamens but not produced above them; the ellipsoid, sessile ovary is sparsely tomentose.

Vegetatively, the material looks quite like *Hexapora* Hooker f. species with slender branchlets and alternate, penninerved, conspicuously reticulate leaves. The axillary few-flowered paniculate inflorescence conforms to the basic configuration in *Hexapora*. The flower appears quite *Hexapora*-like with a short perianth, six exerted stamens, a 2-celled anther, its cells opening by minute pores, and six staminodes. However, we considered that the species is different from the monotypic genus *Hexapora* (Hooker, 1886, 1890; Kostermans, 1957; Kochummen, 1989; Rohwer, 1993; van der Werff, 2001). *Hexapora curtisii* Hooker f. has orbicular tepals and subquadrate anthers; the two anther cells are rounded, extrorse, and distant from each other; and the staminodes of the third and fourth whorls are produced above the stamens.

*Syndiclis hongkongensis* is also similar to species with six stamens in the genus *Beilschmiedia* Nees (Li et al., 1984; Hyland, 1989; Nishida, 1999). However, stamens in the latter genus have slit-like openings that open inward, with anther cells oriented sideways. We consider that this taxon from Hong Kong in South China does not fit a known genus within the Lauraceae and certainly represents a new genus, which we describe here.

***Sinopora*** J. Li, N. H. Xia & H. W. Li, gen. nov.  
TYPE: *Sinopora hongkongensis* (N. H. Xia, Y. F. Deng & K. L. Yip) J. Li, N. H. Xia & H. W. Li.

Haec genus affinis *Hexaporae* Hooker f., sed staminibus 6, antheris tubularibus, 2-loculatis, loculis approximatis rotun-

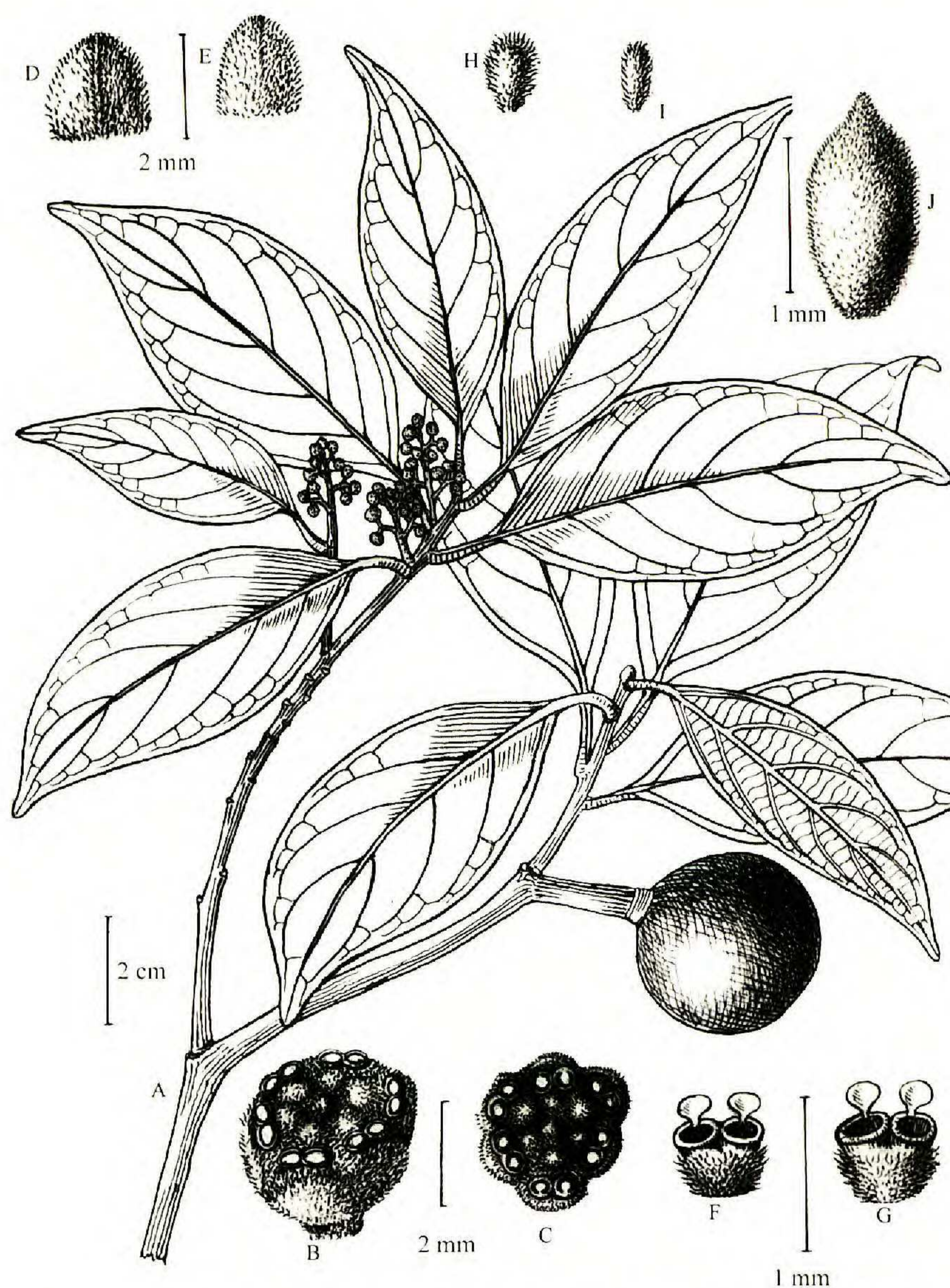


Figure 1. *Sinopora hongkongensis* (N. H. Xia, Y. F. Deng & K. L. Yip) J. Li, N. H. Xia & H. W. Li. —A. Flowering and fruiting branch. —B. Flower (lateral view). —C. Flower (apical view). —D, E. Tepals. —F, G. Stamens of the first and second whorls. —H, I. Stamens of the third and fourth whorls. —J. Ovary. Drawn by H. P. Yu from the type N. H. Xia, Y. W. Lam & K. Y. Tam s.n. (IBSC).

dati, per poros minutos apicales dehiscentibus; staminodiis antheras nec excedentibus differt.

Medium-sized tree; bark reddish brown, peeling off in small pieces; branchlets slender, lenticellate, at apex somewhat angular, glabrescent; terminal buds not perulate. Leaves alternate. Inflorescence axillary, paniculate, 9- to 12-flowered. Flowers small, bisexual and trimerous; perianth tube very short, tepals 6, equal, erect at anthesis, shorter than the stamens; stamens 6, eglandular, anthers tubular, 2-celled, cells small, adjacent to each other, rounded, opening by minute apical pores; staminodes 6, within the third and fourth whorls and opposite to stamens, villose, as large as stamens and not produced above them; ovary ellipsoid, sparsely tomentose, narrowed into a very short style; stigma minute. Fruit globose, rough, glabrescent; pedicel cylindrical.

*Distribution and habitat.* The genus is known from one species in Hong Kong, China, found in

tropical or subtropical broad-leaved forests, at elevations below 450 m.

*Etymology.* The genus name is derived from “Sino” (China) and “pora” (referring to the minute pores of the anther cells).

***Sinopora hongkongensis*** (N. H. Xia, Y. F. Deng & K. L. Yip) J. Li, N. H. Xia & H. W. Li, comb. nov. Basionym: *Syndiclis hongkongensis* N. H. Xia, Y. F. Deng & K. L. Yip, J. Trop. Subtrop. Bot. 14: 75–77, fig. 1. 2006. TYPE: China. Hong Kong: Tai Mo Shan, SE slope, 22°23'N, 114°08'E, 443 m, 20 Oct. 2005, N. H. Xia, Y. W. Lam & K. Y. Tam s.n. (holotype, IBSC; isotype, HK). Figure 1.

Tree to 16 m, ca. 90 cm diam. at base; branchlets reddish brown. Leaf buds ca. 3 mm, minutely puberulent; leaf blade leathery, elliptic, 6–10 ×

2.5–4 cm, base cuneate and asymmetrical, apex acuminate, with sharp tip, margin entire, glabrescent, adaxially dark green, abaxially pale green and glaucous, midrib and lateral nerves brownish, flat adaxially, prominent abaxially, pinninerved, lateral nerves in 4 to 5 pairs, veins densely reticulate; petiole slender, 1–2 cm, flat above. Inflorescences 2–3.5 cm, slender to 1 cm wide, tomentose, shortly pedunculate; peduncles to 0.5 cm, tomentose; bracteoles linear to triangular, rusty tomentose, ca.  $3 \times 1$  mm. Flowers globose in bud, to 1.5 mm, greenish yellow; pedicels 2–4 mm; tepals 6, densely tomentose; stamens 6 in 2 whorls, slightly exserted, subsessile, tomentose; staminodes 6, ca. 0.5 mm; ovary with style tomentose at base. Fruit yellowish brown, to 4 cm diam., with persistent accrescent tepals at the base when young (fide N. H. Xia); fruiting pedicel ca. 2 cm, thickened under the fruit; pericarp woody, ca. 2 mm thick.

*Distribution and habitat.* The genus is very rare, with one mature tree and one young tree found in Tai Mo Shan, Hong Kong, China, at an elevation of 443 m.

*IUCN Red List category.* Following IUCN Red List criteria (IUCN, 2001), the conservation status of this species is Critically Endangered (CR B2ab[v]). Because the species occurs in the Country Park of Hong Kong under statutory protection, ex situ conservation measures are suitable.

*Phenology.* Observed in flower and fruit in October.

*Discussion.* The plant of so-called *Syndiclis furfuracea* H. W. Li was included in *Rare and Precious Plants of Hong Kong* (Hu, 2003) and also recorded in *Checklist of Hong Kong Plants* (Wu, 2002). However, this actually corresponds to *Sinopora hongkongensis* because its collection is from the same type tree in Tai Mo Shan, Hong Kong, South China. *Sinopora hongkongensis* clearly differs from *Syndiclis chinensis* C. K. Allen in its trimerous versus dimerous flowers as noted by Xia et al. (2006).

Up to now, there were no *Syndiclis* species known in Hong Kong but rather two *Beilschmiedia* species (*B. fordii* Dunn and *B. glandulosa* N. H. Xia, F. N. Wei & Y. F. Deng) occurring in that area. It is necessary to distinguish the new genus from *Beilschmiedia* as follows:

- 1a. Tepals longer than stamens; stamens exserted in flower; anther cell opening sideways, introrse or extrorse, slit-like. . . . . *Beilschmiedia*
- 1b. Tepals shorter than stamens; stamens included in flower; anther cell apically opening (originally introrse), rounded . . . . . *Sinopora*

*Paratypes.* CHINA. **Hong Kong:** Tai Mo Shan, SE slope, s.d., L. T. Lo 737 (HK), Y. W. Lam 1276 (HK).

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Literature Cited

- Hooker, J. D. 1886. Laurineae. Pp. 189 in J. D. Hooker (editor), *The Flora of British India*, Vol. 5. L. Reeve, London.
- . 1890. Additions and Corrections. Pp. 862 in J. D. Hooker (editor), *The Flora of British India*, Vol. 5. L. Reeve, London.
- Hu, Q. M. (editor). 2003. *Syndiclis furfuracea* auct. non H. W. Li. Pp. 164–165 in *Rare and Precious Plants of Hong Kong*. Agriculture, Fisheries, and Conservation Department, Hong Kong.
- Hyland, B. P. M. 1989. A revision of Lauraceae in Australia (excluding *Cassytha*). *Austral. Syst. Bot.* 2: 135–367.
- IUCN. 2001. IUCN Red List Categories and Criteria Version 3.1. Prepared by the IUCN Species Survival Commission. IUCN, Gland, Switzerland, and Cambridge, United Kingdom.
- Kochummen, K. M. 1989. Lauraceae. Pp. 98–178 in F. S. P. Ng (editor), *Tree Flora of Malaya*, Vol. 4. Longman Malaysia, Kuala Lumpur.
- Kostermans, A. J. G. H. 1957. Lauraceae. *Commun. Forest Res. Inst., Bogor.* 57: 1–64.
- Li, H. W., P. Y. Pai, S. K. Lee, F. N. Wei, Y. T. Wei, Y. C. Yang, P. H. Huang, H. P. Tsui, Z. D. Shia & J. L. Li. 1984. Lauraceae. Pp. 1–463 in H. W. Li (editor), *Flora Reipublicae Popularis Sinicae*, Vol. 31. Science Press, Beijing.
- Nishida, S. 1999. Revision of *Beilschmiedia* (Lauraceae) in the Neotropics. *Ann. Missouri Bot. Gard.* 86: 657–701.
- Rohwer, J. G. 1993. Lauraceae. Pp. 366–391 in K. Kubitzki, J. G. Rohwer & V. Bittrich (editors), *The Families and Genera of Vascular Plants*, Vol. 2. Springer-Verlag, Berlin.
- van der Werff, H. 2001. An annotated key to the genera of Lauraceae in the Flora Malesiana region. *Blumea* 46: 125–140.
- Wu, T. L. (editor). 2002. *Checklist of Hong Kong Plants*. Agriculture, Fisheries, and Conservation Department, Hong Kong.
- Xia, N. H., Y. F. Deng & K. L. Yip. 2006. *Syndiclis hongkongensis* (Lauraceae), a new species from China. *J. Trop. Subtrop. Bot.* 14: 75–77.