

## A new record of *Lepisanthes* Blume for Thailand and lectotypification of two names in *Otophora* Blume (Sapindaceae)

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### ABSTRACT

*Lepisanthes alata* (Blume) Leenh. is presented as a new record from Su-ngai Kolok, Narathiwat, peninsular Thailand. The Flora of Thailand key to *Lepisanthes* is emended. A description and photos of the species are provided. Lectotypes for *Otophora alata* Blume and *O. edulis* C.E.C.Fischer are also selected.

KEYWORDS: Chamma liang pik, lectotype, *Lepisanthes alata*, Sapindaceae

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### INTRODUCTION

*Lepisanthes* Blume is a widespread and variable genus in the family Sapindaceae, which consists of 24 species (Leenhouts, 1969). The distribution ranges from tropical Africa, Madagascar, Sri Lanka, India, China (Hainan), through Malesia to New Guinea and north-western Australia (Leenhouts, 1969; van Welzen, 1999). In the account of the family Sapindaceae for the Flora of Thailand, five species of *Lepisanthes* were reported (van Welzen, 1999). Later, an additional species, *L. amoena*, was a new

record for Thailand (van Welzen & Phonsena, 2004). During an examination of sapindaceous specimens for anatomical and palynological studies, we found a single collection consisting of two sheets in QBG, which were collected in Narathiwat province in peninsular Thailand. It was later identified as *L. alata* (Blume) Leenh., a new record for Thailand.

The key to species of the genus *Lepisanthes* in Flora of Thailand (van Welzen, 1999) and including the additional species, *L. amoena* (van Welzen & Phonsena, 2004), is emended as follows:

#### AMENDED KEY TO THE SPECIES OF LEPISANTHES IN THAILAND

1. Pseudo-stipules present
  2. Petioles and rachises winged **L. alata**
  2. Petioles and rachises not winged
    3. Leaves imparipinnate with a perfect terminal leaflet; leaves with 7–42 pairs of leaflets. Sepals and petals 5. Ovary and fruit 3-locular. Inflorescences terminal and axillary **L. amoena**
    3. Leaves paripinnate or imparipinnate with a reduced terminal leaflet; leaves with 1–8(–14) pairs of leaflets. Sepals and petals 4. Ovary and fruit 2-locular. Inflorescences axillary, rarely terminal **L. fruticosa**
1. Pseudo-stipules absent
  4. Leaves all unifoliate or unijugate (to 6-jugate). Petal scales 2, minute. Fruits lobed **L. senegalensis**
  4. Leaves (some 1- or) 2- to many-jugate. Petal scales single or 2, well-developed. Fruits lobed or not
    5. Leaves pilose underneath. Petals with a single scale with two crests. Disc a high rim, especially in staminate flowers. Fruits lobed. Inflorescences brown hairy when dry **L. rubiginosa**
    5. Leaves pilose to glabrous underneath. Petals with a single (leaves glabrous) or 2 scales, latter not crested when leaves pilose. Disc flat. Fruits lobed or not (when lobed inflorescences golden hirsute when dry)
      6. Fruits strongly wrinkled when dry, lobed. Leaves glabrous. Inflorescences densely golden velvety (ferruginous). Petal scales uncrested **L. ferruginea**
      6. Fruits not wrinkled when dry, not lobed. Leaves glabrous or pilose. Inflorescences sparsely to densely brown pilose. Petal scales crested (leaves glabrous) or not (leaves pilose) **L. tetraphylla**

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## DESCRIPTION

**Lepisanthes alata** (Blume) Leenh., *Blumea* 17: 80. 1969.— *Otophora alata* Blume, *Rumphia* 3: 145. 1847.— *Capura alata* (Blume) Teijsm & Binn., *Cat. Hort. Bog.*: 214. 1866.— *Otolepis alata* (Blume) Kuntze, *Rev. Gen. Pl.* 1: 144. 1891. Type: South Borneo, Bang. Masray, *Korthals s.n.* (lectotype L 0013415!; isolectotype L 0013416!, selected here). Fig. 1.

— *Otophora edulis* C.E.C.Fischer, *Bull. Misc. Inform. Kew* 1932(4): 178. 1932. Type: North Borneo, Tapadong, Segama, Lahad Datu, *Orolfo 1319* (lectotype K 000701947!; isolectotypes K 000701943!, K 000701944!, K 000701945!, K 000701946!, selected here).

Tree or shrub, up to 15 m high. Twigs glabrous, brown. Leaves imparipinnate with a reduced terminal leaflet, 3–5-jugate; pseudo-stipules oblique-ovate, 1–3 × 0.7–2 cm, base cordate, apex acute; petioles 2–6 cm long, winged, wings 6–10 mm wide; rachises 7.5–13 cm long, winged, wings 6–10 mm wide. Leaflets opposite or alternate, lanceolate to linear, 6–16 × 1.2–3 cm; base slightly asymmetric, acute; apex acuminate; both surfaces glabrous; midrib raised beneath, prominent; the reduced terminal leaflet filiform, 5–7 mm long. Inflorescences reddish to dark purple, axillary, on twigs or stems, unbranched or branched near the base of the rachis, 8–40 cm long; flowers scattered, solitary or in 3–5-flowered fascicles along the rachis; pedicels 3–6 mm long. Flowers reddish to dark purple. Sepals 5, obovate to elliptic, 3–4.5 × 1.8–2.5 mm, subglabrous, papillose; apex obtuse; margin entire to slightly undulate with sparse glandular hairs. Petals 5, broadly elliptic to orbicular, 2.5–3 × 2.2–2.5 mm, subglabrous, papillose, sometimes with sparse appressed hairs at base; apex obtuse; margin undulate with sparse glandular hairs. Stamens 8; filaments 0.3–0.5 mm long, hairy; anthers 1.5–1.8 mm long, glabrous, whitish yellow. Ovary 3-locular, whitish; style short, pinkish; stigma dome-shaped. Fruits trigonous to subglobose, 2.5–3.5 × 2.2–3 cm, apiculate, pale green and turning to dark purple when ripe; stalks 1.5–2 cm long.

Thailand.—PENINSULAR: Narathiwat [Su-ngai Kolok, Ban To Wo, 6 Apr. 2002, *La-ongsri 240* (QBG-2 sheets)].

Distribution.—Peninsular Malaysia, Singapore, Borneo, Philippines.

Ecology.—In lowland mixed deciduous forest or along the edges of evergreen forest, up to 450 m alt. Flowering: April–August; fruiting: June–October.

Vernacular.—Chamma liang pik (ช้ามะเลียงปึก).

Uses.—The fruits are edible.

Selected specimens examined. Peninsular Malaysia: Jahore [Pasir Plangie Istana, *Wood s.n.* (SING 23118)]. Singapore: Telok Bangah Hill Park, 6 Jul. 2016, *Boonsuk & Chantaranthai 775* (KKU). Borneo: Sarawak [Kuching, Oct. 1952, *Dickson s.n.* (SING 0188594); Selatan, 21 Sept. 1955, *Pursegloves & Shah 4647* (SING)]; Sabah [Tapadong, Segama, Lahad Datu, 6 Jan. 1931, *Orolfo 1319* (K-5 sheets)].

Notes.—*Lepisanthes alata* is distinctive on account of its winged petioles and rachises, and the oblique-ovate pseudo-stipules with cordate base and acute apex. The pinkish young shoots are in contrast with the mature leaves. Its inflorescences are usually branched and borne on twigs or stems. The pistil in staminate flowers is underdeveloped whereas in pistillate flowers it is very apparent.

Leenhouts (1969) selected *Korthals s.n.* (L) as the (former) lectotype of *Otophora alata* based on two sheets, nos. 908.269-1431 (L 0014316) and 908.269-1432 (L 0014315). According to the Code (Art. 9.14; McNeill *et al.*, 2012) “may be further narrowed to a single one of these specimens by way of a subsequent lectotypification or neotypification”, therefore, we select the latter to be the lectotype because it has distinguished wings of petioles and rachises (the former has an infructescence only). The original description of *O. edulis* C.E.C.Fisher was based on a single gathering of *Orolfo 1319* at K (Fisher, 1932), which has five sheets; K 000701943, K 000701944, K 000701945, K 000701946 and K 000701947. After careful examination, we select K 000701947 here as the lectotype, because it is well-preserved and with complete leaves, inflorescences and flowers.

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Figure 1. *Lepisanthes alata* (Blume) Leenh.: A. young shoot, wings on petioles and rachises; B. pseudo-stipules; C–D. inflorescences; E. staminate flowers; F. pistillate flowers; G. fruits. Photos by B. Boonsuk.

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