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Validating *Durio perakensis* (Malvaceae) from Peninsular Malaysia

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ABSTRACT. *Durio perakensis* Salma is described (together with a diagnosis) and typified to meet the requirements of the International Code of Botanical Nomenclature.

Keywords. *Durio macrophyllus* (King) Ridl., *Durio testudinarum* Becc. var. *macrophylla* King

Introduction

Between 1 January 1935 and 31 December 2011, for a new species to be validly published a diagnosis or description in Latin was compulsory (Turland et al., 2018, Art. 39.1). Unfortunately, the original publication of *Durio perakensis* in 2011 was without a Latin diagnosis or description and therefore the new species was not validly published. However, on or after 1 January 2012 in order to validly publish a name of a taxon the description or diagnosis could be either in Latin or English. *Durio perakensis* Salma is therefore here published in English with a full description, diagnosis and type to validate the name.

The new species

Durio perakensis Salma, **sp. nov.** (Fig. 1)
Most similar to *Durio macrophyllus* (King) Ridl. in leaf characters, it is distinguished by its pink or red flowers with buds with an acute apex, stamens with 6–8 filaments per phalange and 7–10 anthers forming a globose head (*D. macrophyllus* has white flowers, buds with a rounded apex, stamens with 8–10 filaments per phalange and 12–20 anthers forming a globose head), red, oblong fruits with conical spines (*D. macrophyllus* has green, globose fruits with pyramidal spines), and the indumentum of the lower leaf surface has few scales and dense stellate hairs (in *D. macrophyllus* the lower leaf surface has dense scales and few stellate hairs). – TYPE: Peninsular Malaysia, Perak, Kuala Kangsar District, Piah Forest Reserve, Compt. 82, 12 July 1969, *Rahim et al. KEP 99842* (holotype KEP).

Durio of Malaysia (2011) 75, nom. nud.

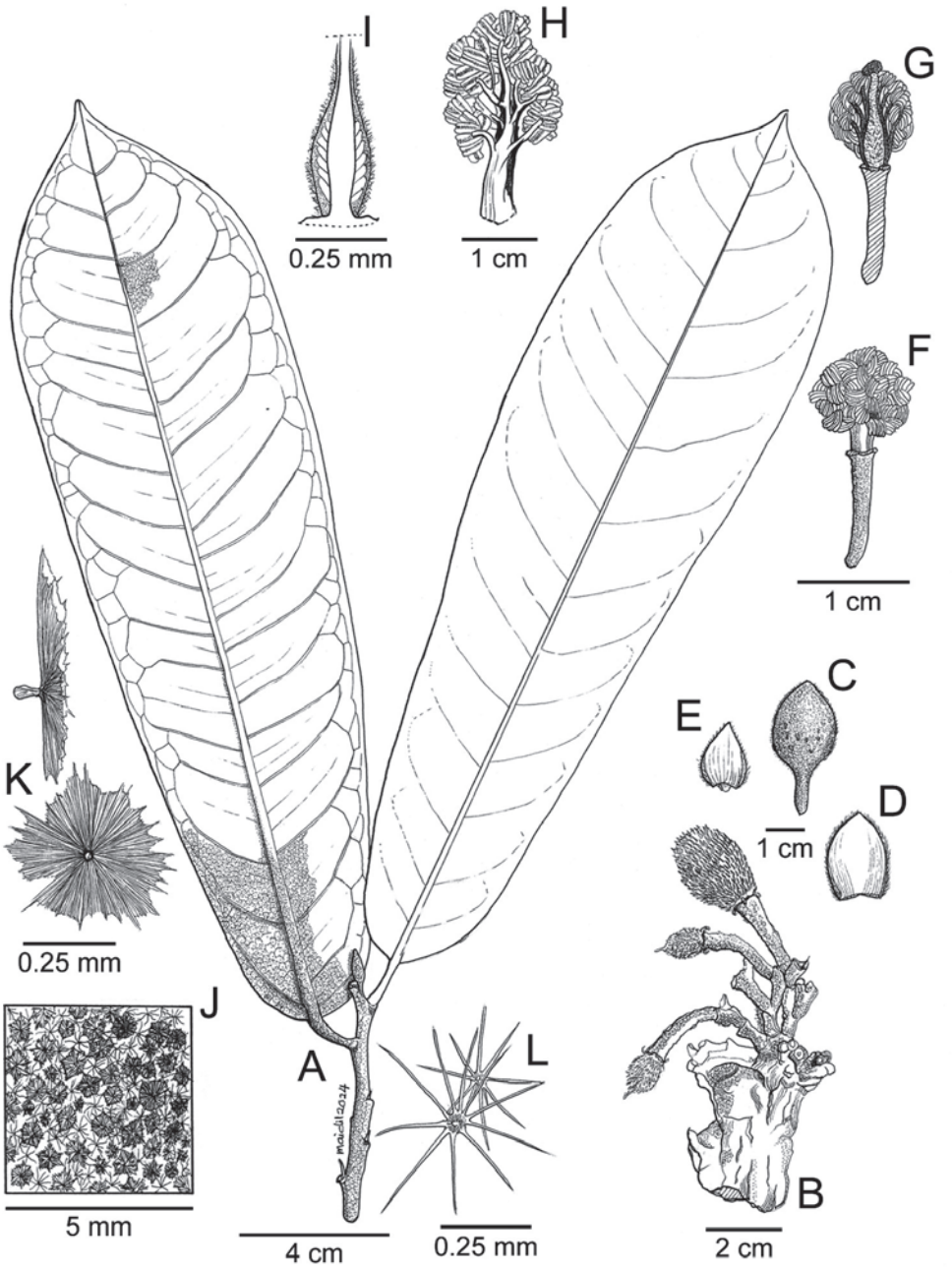

Fig. 1. *Durio perakensis* Salma. **A.** Leafy twig. **B.** Cluster of young fruits produced from the trunk. **C.** Flower bud. **D.** Calyx. **E.** Epicalyx. **F.** Anther cluster. **G.** Flower with calyx and corolla removed to show carpel. **H.** Filament and anthers. **I.** Longitudinal section of ovary. **J.** Lower leaf surface showing scattered scales above stellate hairs. **K.** Lepidote scale (above and side view). **L.** Stellate hairs. All from Rahim *et al*. *KEP 99842*. Drawn by N. Mohamad-Aidil. (Reproduced with permission of the Flora of Peninsular Malaysia Project, Forest Research Institute Malaysia)

Small tree to 15 m tall, bole c. 8 cm diam.; crown dense and bushy. ***Bark*** grey, smooth to cracking, widely fissured. ***Twigs*** thick, brown, densely covered with fimbriate scales. ***Stipules*** ovate-lanceolate, c. 6 × 2 mm, with dense fimbriate scales outside and stellate hairs inside. ***Leaves:*** petiole cylindrical, (1.5–)1.8(–2) cm long, 4–5 mm thick, thickened distally, densely covered with fimbriate scales; lamina oblong, elliptic or obovate, (25–)26(–28) × 6–9 cm, base cordate, apex short acuminate, acumen 1–2 mm long, thickly leathery, upper surface glabrous, very glossy, lower surface with loosely attached dense long-stalked stellate hairs and with few scattered scales; midrib sunken above, prominent beneath; lateral veins (16–)17(–18) on either side of the midrib, conspicuous on both surfaces; intercostal venation reticulate. ***Inflorescences*** on the trunk, 2–3-flowered cymes. ***Flower buds*** ovoid, apex acute, 20–23 mm long, 18–20 mm wide; pedicel c. 3 cm long; epicalyx lobes 2–3, ovate, apex acute, c. 2.5 × 1.5 cm, outside densely covered with fimbriate scales with short stellate hairs underneath, inside with dense stellate hairs. ***Sepals*** 5, oblong, apex acute, outside densely covered with fimbriate scales, inside glabrous but with stellate hairs at apex. ***Petals*** 5, pink to red, oblong, apex acute, base thickened, c. 4.4 × *1.4 cm, outside densely covered with* long stellate hairs and a few fimbriate scales, inside glabrous. ***Stamens*** c. 6.5 cm long, forming a tube c. 4 cm long, glabrous outside, inside with sparse stellate hairs; phalanges 5, c. 2.5 cm long, each branched into 6–8 filaments c. 1 cm long; anthers reniform, 7–10 forming a globose head, dehiscing through a slit. ***Ovary*** ovoid, pentagonal, densely covered with fimbriate scales; style slender, c. 6.5 cm long, densely covered with stellate hairs and fimbriate scales at the base; stigma capitate. ***Fruits*** red, oblong, 5-lobed; spines conical, c. 1 cm long, densely covered with stellate hairs. ***Seed:*** testa shiny, brown; aril not known.

Distribution. Endemic to Peninsular Malaysia, known from three localities: Perak (Piah Forest Reserve and Upper Perak, exact locality not specified) and Pahang (Merapoh Forest Reserve).

Ecology. In primary lowland dipterocarp forest on hill sides and ridges.

Etymology. The specific epithet refers to Perak, Peninsular Malaysia.

Additional specimens examined. PENINSULAR MALAYSIA: **Perak:** Kuala Kangsar, Piah FR (Comp. 82), 12 Jul 1967, *Rahim et al. KEP 99842* (KEP [KEP 230031]); ibidem, 15 Jul 1967, *Kochummen FRI 2455* (KEP [KEP 230032], SING); Upper Perak (without precise locality), *Wray 3397* (K [K000671513, digital image]). **Pahang:** Kuala Lipis, Taman Negara, Merapoh FR, 14 May 1980, *Kamaruddin FRI 28714* (KEP [KEP 230033], SAN).

Notes. King (1891) described a new variety, *Durio testudinarum* Becc. var. *macrophylla* King based on two specimens: *Wray 3397*, a small tree with red flowers produced on the trunk, and *Kunstler 7497*, a big tree with white flowers produced on the branches. Apparently, Ridley (1922) had noted the great difference between these two specimens because when he raised the variety to species and corrected its gender to *Durio*

macrophyllus in his Flora, he did not cite the Wray specimen. Wyatt-Smith (1953) considered the possibility that more than one species was involved, as did Kostermans (1958) who typified *Durio macrophyllus* based on *Kunstler 7497*.

As more specimens became available that are similar to *Wray 3397*, Salma (2011) was able to separate *Durio perakensis* as a new species from *D. macrophyllus*. Besides being different in flower and fruit colour, the two species also differ in indumentum of lower leaf surface and flower characters (see diagnosis above). *Rahim et al. KEP 99842* is selected as the type specimen because it includes flowers as well as young fruits.

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