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RESEARCH ARTICLE

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Rhododendron chamahensis (*Ericaceae*), a new species from Peninsular Malaysia

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Key words

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Abstract *Rhododendron chamahensis* Rafidah, sp. nov., an epiphytic shrub from Gunung Chamah, Kelantan, Malaysia, is described and illustrated.

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INTRODUCTION

As part of the botanical exploration programme of the Flora of Peninsular Malaysia project (Kiew & Rafidah 2007), an expedition was organized to Gunung Chamah because the east side of the Main Range, a very biodiverse area, is poorly known botanically. Gunung Chamah lies in the south-western corner of Kelantan and is the fifth highest mountain in Peninsular Malaysia with an elevation of 2 171 m. During the expedition, the team collected three species of *Rhododendron*, *R. malayanum* Jack and *R. wrayi* King that were common, and the new species.

Accounts for *Rhododendron* in Peninsular Malaysia include those by Sleumer (1966), Dransfield et al. (1978), Ng (1978), Soepadmo (2002) and Argent (2006). The last *Rhododendron* from Peninsular Malaysia to be described as new was *R. seimundii* J.J.Sm. from Gunung Tahan, Pahang, described in 1935. With their big, showy flowers rhododendrons are relatively well-collected so it is surprising that after a gap of 75 years a new rhododendron is discovered.

The new species is most similar to *R. seimundii* in its leaf shape, white, rotate-campanulate shaped flowers and corolla lobe shape, but it is different from this species by a combination of characters listed in Table 1. While the difference in leaf size may be attributed to differences in habitat – *R. seimundii* grows in shallow soil in exposed conditions compared with the moist shaded condition where the new species grows – characters, such as its leaves being four times longer than broad, the tip of the leaf apex without a protruding gland, the rounded bracts, the longer pedicel, and the densely hairy ovary confirm that it is a distinct new species. The new species is also similar to *R. lanceolatum* Ridl. from Borneo by having white flowers and a hairy ovary but it is different in its much larger leaf (7–12 by 2.5–4.5 cm).

In addition, in its lower montane habitat *R. chamahensis* is unusual among Peninsular Malaysian rhododendrons that are mostly species of the upper montane ericaceous forest, although one or two are lowland species.

By having sessile scales, lobed entire, the centre not dark-coloured (Plate 1), rotate-campanulate corolla and the stamina filaments hairy from the base, the new species belongs to section *Schisanthe* Schltr. subsect. *Euvireya* H.F.Copel. (Craven et al. 2011). However, its subsectional position need to be confirmed when fruits and seeds become available.

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Rhododendron chamahensis Rafidah, *sp. nov.* — Plate 1, 2

Rhododendron seimundii similis sed foliis longitudine quam latitudine 4-plo (non 2–3-plo) excedenti apice glande protusa nulla (in *R. seimundii* glande hujusmodi praesenti), bracteis rotundatis (non filiformibus), pedicellis 1.6–2 cm longis (non 0.5–1 cm), ovario dense indumentoso (non lepidoto) differt. — Typus: *P. Wilkie et al. FRI 72071* (holo KEP; iso E), Peninsular Malaysia, Kelantan, Gua Musang, Gunung Chamah, 3 Aug. 2010, N5°12'22.20" E101°34'16.30".

Etymology. The epithet refers to the locality, Gunung Chamah.

Epiphytic shrub. *Scales* scattered, sessile, with an entire margin, the centre not dark-coloured. *Branches* slender, c. 20 cm long, sometimes lepidote; internodes 2.2–3.5 cm long. *Leaves* in pseudowhorls of 4–6; petiole pale green, 4–7 mm long, slightly glaucous, glabrescent; lamina narrowly elliptic to oblong elliptic, 2–6.5 by 0.5–1.5 cm, in living material dark green above and beneath, coriaceous, sometimes scattered lepidote above and beneath, base attenuate, margin slightly crenulate, sometimes entire, slightly revolute, apex obtuse, tip without

Table 1 Characters that distinguish *R. chamahensis* from *R. seimundii.*

Character	*R. chamahensis*	*R. seimundii*
Habit	epiphyte	terrestrial
Petiole		
length (mm)	4–7	2–4
indumentum	glabrescent	lepidote
Lamina		
shape	narrowly elliptic to oblong elliptic	oblong-obovate to narrowly elliptic
length by width (cm)	2–6.5 by 0.5–1.5	1.3–2.8 by 0.6–0.9
length : width ratio	4 : 1	2–3 : 1
tip of apex	without a gland	ending in a small protruding gland
Bracts		
shape	rounded	filiform
size (mm)	5 by 5	8 by 2
Pedicel length (cm)	1.6–2	0.5–1
Corolla		
colour	pure white	white with red scales
lobe size (mm)	9–11 by 8–10	15–25 by 14–26
Anthers	white	maroon
Ovary	densely hairy	densely lepidote

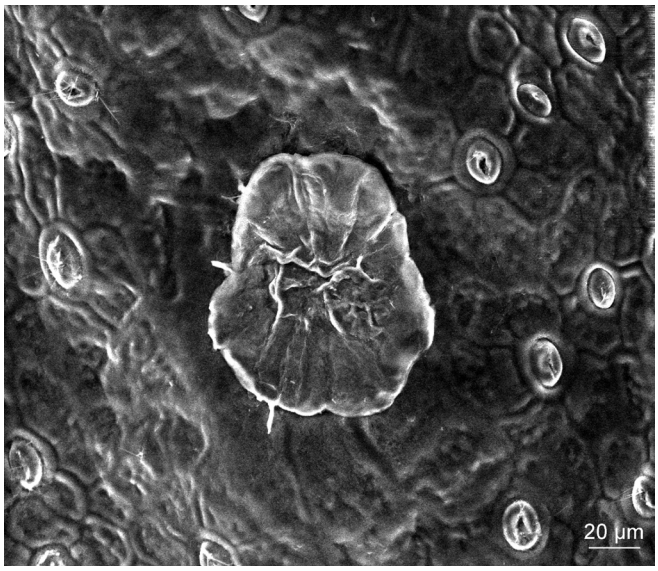

Plate 1 Scales of *Rhododendron chamahensis* Rafidah.

a protruding gland; midrib deeply sunken above, strongly prominent beneath, lateral veins scarcely visible. *Inflorescence* a 2–3-flowered umbel; perulae pale green, rounded, c. 5 by 5 mm, membranous, minutely rusty hairy outside, glabrous inside; pedicel pale to whitish green, 1.6–2 cm long, slender, minutely hairy. *Flowers*: calyx pale green, 2.5 mm wide, lobes rounded oblique, hairy outside, glabrous inside; corolla pure white, rotate-campanulate shaped, c. 18 mm long, c. 22 mm wide, glabrous, tube narrowly cylindric, short, 6–9 mm long, 3–4 mm wide at base, 6–7 mm wide below the lobes, lobes spreading, erect, broadly obovate, apex rounded, 9–11 by 8–10 mm; stamens 8–10, filaments white, c. 1.6 cm long, hairy at the base, anthers white, 2 mm long, 1 mm wide; nectary (disc) black when dry, shortly cylindric, less than 2 mm high; ovary pale green, 2–4 mm long, c. 2 mm wide at base, densely hairy, gradually attenuate into the style, style whitish green, 12–15 mm long, sparsely hairy to minutely hairy towards the stigma, stigma capitate, c. 1.5 mm wide. *Fruits* and *seeds* unknown.

Distribution — Endemic in Peninsular Malaysia, Kelantan: known only from Gunung Chamah in the Gua Musang district.

Ecology — A rare species collected from the lower montane forest at altitudes of 1200–1700 m (not from the peak) growing as an epiphytic shrub collected from a fallen tree by the river.

Other specimen examined. Peninsular Malaysia, Kelantan, Gua Musang, Gunung Chamah, 30 July 2010, *Ong et al FRI 71142* (KEP).

Conservation status — Rare (RA).

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Plate 2 *Rhododendron chamahensis* Rafidah. a. Habit; b, c. flowers. — Photos by P.T. Ong and K. Imin.