# RHODODENDRON CHILANSHANENSE (ERICACEAE), A NEW SPECIES FROM TAIWAN

#### Y. KURASHIGE\*

Rhododendron chilanshanense, a new species of Rhododendron subgenus Tsutsusi sect. Brachycalyx, is described from Taiwan. It is distinguished from closely related species by its leaves scattered along the upper branchlets and the stipitate glands on both the floral and vegetative parts.

Keywords. Alternate leaf arrangement, new species of Rhododendron, stipitate glands, subgenus Tsutsusi section Brachycalyx.

### INTRODUCTION

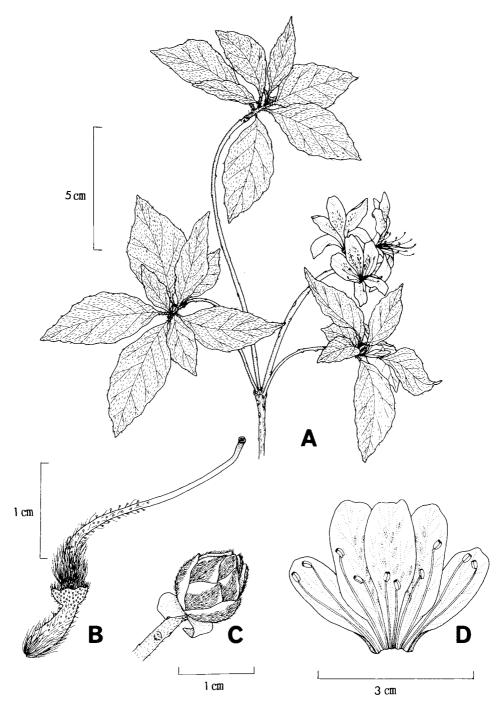
In the course of a detailed investigation of flowering plants grown under the name 'Rhododendron lasiostylum', originally collected by A.S. Kirkham and M. Flanagan in Taiwan, I found that the material is recognizable as a new species. It shares characteristics of subgenus Tsutsusi sect. Brachycalyx, such as a mixed bud (vegetative buds and inflorescence enclosed within the same bud scales), monomorphic and deciduous leaves, and lack of flattened strigose hairs on young shoots (Chamberlain & Rae, 1990).

# Rhododendron chilanshanense Kurashige, sp. nov. Fig. 1.

Affine *Rhododendro mariesio* Hemsl. & Wilson, sed ramulusis et stylusis glanduliferis, stamnibus 8–10 et inaequalis longitudinae et foliis alternatis differt.

Loosely branched, deciduous shrub to 2m tall. *Branchlets* viscid, covered with adpressed light brownish filiform hairs intermixed with short-stalked stipitate glands. *Older branches* sparsely pubescent, glandular. *Leaves* monomorphic, chartaceous, deciduous, loosely pseudoverticillate of 5–8 at anthesis, scattered along the upper branchlets later. Leaf blade ovate-lanceolate, variable in size, 3–8 × 1.2–3.5cm; the apex acute and terminating into a gland, cuneate at base; the margin minutely ciliate-dentate; midvein impressed below; lateral veins 4–5 per side; upper surface light green, covered with adpressed light brownish villose hairs, also with stipitate glands; lower surface pale green, sparsely glandular, pubescent mainly on midrib. *Petioles* 7–11 × 1mm, covered with light brownish hairs that are 1–2mm long and glands, both continuing from the leaf blade, especially on upper side. *Flower bud* terminal, solitary, 1.2 × 8mm, ovate, vegetative buds enclosed; outer bud scales broadly ovate, 7 × 5mm, the margin glandular, with dense villose hairs mainly on central part, also

<sup>\*</sup> Laboratory of Botany, Akagi Nature Park, Yuhikami 892, Minami-Akagiyama, Akagi-mura, Setagun, Gunma 379-1113, Japan.



F1G. 1. Rhododendron chilanshanense Kurashige. A, habit; B, gynoecium; C, inflorescence bud; D, corolla with stamens. Drawn from ETOT 136 by F. Endo.

with glands abaxially, with viscid glands adaxially. *Inflorescence* a terminal umbel of 2–3 flowers, opening after the leaves. *Pedicels* at anthesis, 5–7mm long, green, densely glandular, with curved whitish hairs of c.1mm long, especially on lower part. *Calyx* minutely 5-lobed, 3–3.5mm wide, sparsely villose, densely glandular, densely villose on margins. *Corolla* broadly funnel-shaped, deep reddish purple (RHS Colour Chart 1995: 61B, 64D) with dark purple spots on upper three lobes,  $3 \times 3.5$ cm, glabrous on both surfaces; tube 7–8mm long; lobes oblong,  $2.3-2.7 \times 7-8$ mm; lower two corolla lobes divided nearly at the base. *Stamens* 8–10, filaments unequal, 1-2.2cm, pale reddish purple, glabrous; anthers  $c.2 \times 1$ mm, dark purplish brown. *Ovary* ovate,  $5 \times 3$ mm, with dense whitish villose hairs, glandular; style 2–2.1mm long, pale reddish purple, with glands intermixed with sparse whitish hairs of 1mm long on lower half. *Mature fruit* not seen.

Type: Taiwan. Summit of Mt Chilanshan, Taipei County (24°41′N, 121°40′E) at 1700m altitude, ETOT 136 (the Royal Botanic Gardens, Kew Expedition to Taiwan 1992), 22 October 1992 (holo.: K; iso.: TAIF). Collected by A.S. Kirkham and M. Flanagan under the aegis of the Taiwan Forestry Research Institute. In clearing at the edge of *Chamaecyparis formosensis* woodland, in rich understory vegetation with *Viburnum furcatum*, *Trochodendron aralioides*, *Hydrangea paniculata*, and *Pieris japonica*. On a north-west facing slope in light shade. Wet though free draining, rocky substrate with localized pockets of organic detritus (RBG Kew living collection records 1992). Additional collection: Taiwan. Lake Yuanyanghu Natural Preserved Area, Chienshih Hsiang, Hsinchu Hsien (24°34′16″N, 121°24′37″E) at c.1670m, 8 v 1995, *Hsiao-Ying Shen* 756 (E ex HAST). Along the trail of the lake. Broad-leaved and *Chamaecyparis* mixed forest, mosses and liverworts abundant. On exposed trail-side slope.

Etymology: The specific epithet is derived from Mt Chilanshan, Taiwan where this species was found.

Rhododendron chilanshanense bears some resemblance to R. mariesii Hemsl. & Wilson from south-eastern China and Taiwan (Chamberlain & Rae, 1990: 144) sharing the ovate-lanceolate leaves broadest below middle and other characteristics with this species, but the former has the following distinctive characters: (1) 5-8, loosely pseudoverticillate leaves that are scattered along the upper branchlet later; (2) stipitate glands on both the floral and vegetative parts; (3) stamens fewer in number (8–10) and filaments of unequal length; and (4) flowers appearing after the leaves. This phyllotaxis type, which characterizes sect. Tsutsusi, is unknown in sect. Brachycalyx, thus this shared character indicates a close relationship between R. chilanshanense and species within sect. Tsutsusi. Of other closely related species: R. wadanum Makino shares the stipitate-glandular styles, but it is distinguished by its styles lacking sparse hairs, 1-2-flowered inflorescence, rhombate leaves, and vegetative organs without stipitate glands; R. dilatatum Miq. is quite distinct in its glabrous styles, five stamens, and rhombate leaves; R. weyrichii Maxim. has the glabrous or pubescent styles without stipitate glands, a vermilion corolla, and wider leaves (up to 6cm).

## **ACKNOWLEDGEMENTS**

The author would like to thank Ms Fusako Endo for preparing the illustrations and Dr Tomohisa Yukawa of Tsukuba Botanical Garden, National Science Museum for helpful comments on the manuscript. Mr Mark Flanagan has kindly allowed his field notes of ETOT 136 to be used and gave invaluable information. The author would also like to thank Dr D.F. Chamberlain for identifying material of *R. chilanshanense* in E.

## REFERENCES

CHAMBERLAIN, D. F. & RAE, S. J. (1990). A revision of *Rhododendron*. IV Subgenus *Tsutsusi*. *Edinb. J. Bot.* 47: 89–200.

ROYAL BOTANIC GARDENS KEW (1992). Living Collection Records, *Rhododendron lasiostylum* ETOT 136.

ROYAL HORTICULTURAL SOCIETY (1995). RHS Colour Chart. London: The Royal Horticultural Society.

Received 3 July 1998; accepted with revision 29 July 1998