

## SHORT COMMUNICATION

### ***Allocasuarina duncanii*, a new species in *Allocasuarina* section *Cylindropitys* (Casuarinaceae)**

In December 1992, Mr Fred Duncan, a Botanist on the staff of the Tasmanian Forestry Commission, while on a survey of the headwaters catchment of Nicholls Rivulet in the Snug Tiers area south of Hobart, came upon a population of several hundred *Allocasuarina* trees. Their cone and branchlet articles resembled those of *A. monilifera* (L.A.S. Johnson) L.A.S. Johnson but their erect, conifer-like appearance and height caused him to suspect that they represented a distinct taxon. Following a subsequent visit to the area in February 1993, Mr Duncan brought specimens to one of us (D.I.M.) at the Tasmanian Herbarium, and we now consider it appropriate to recognise a distinct species, which, though closely related to *A. monilifera*, appears to be sharply distinguished from that species and to stand outside its range of variation.

***Allocasuarina duncanii* L.A.S. Johnson & D. Morris, sp. nov.**

Inter species sectionis *Cylindropitys* combinatione distinguitur: arbor parva, erecta, usque ad 8 m alta, dioica; articuli usque ad 20 cm longi, sulcis glabratis, phyllichniis complanatis vel rotundo-convexis vel obtuso-angulatis; laminae 0.8–1.5 mm longae, non plerumque imbricatae denique ad apicem marcescentes; inflorescentiae masculae 7.5–1.3 mm longae, generaliter 6–8 verticillis; corpus infructescentiae 1.5–6 cm longum, 12–25 mm diam.; samarae 6–10 mm longa, atrae.

**HOLOTYPE:** Tasmania: Snug Plains, headwaters of Nicholls Rivulet, *D.I. Morris 86488 & R.F. Duncan*, 17 Mar 1993 (HO 300109); isotypes AD, CANB, MEL, NSW.

Dioecious small tree up to 8 m in height, of erect habit. Branchlets up to 20 cm long, articles 4–17 mm long, 0.9–1.4 mm in diameter, smooth, furrows glabrous; phyllichnia flat, rounded or bluntly angled; teeth 7–9, appressed to slightly spreading, usually not overlapping, 0.8–1.5 mm long or on juvenile growth and young plants up to 3.5 mm long, recurved. Male spikes 7.5–13 mm long, early deciduous, usually with 6–8 whorls; anthers c. 1 mm long. Female cones on peduncles 4–10 mm long; cone body 1.5–6 cm long, 12–25 mm in diameter, bracteoles obtuse, the protuberance equaling the bracteole body. Samaras 6–10 mm long, dark brown to black. Figure 1.

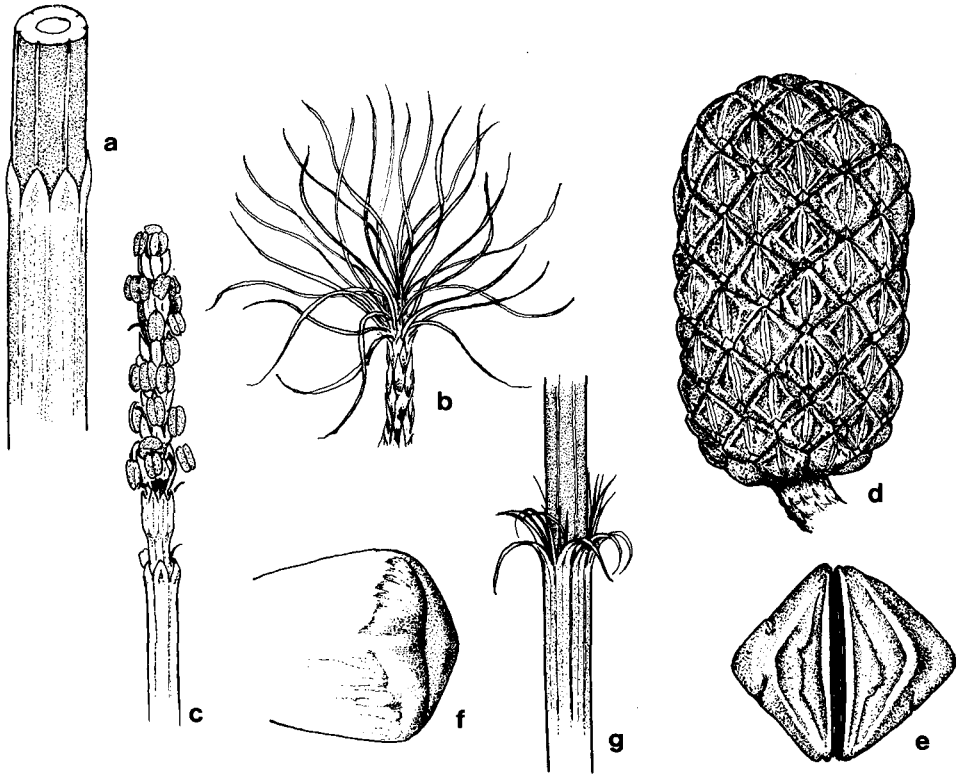
**DISTRIBUTION:** At present known only from the type locality.

**HABITAT:** On dolerite in dry sclerophyll forest of *Eucalyptus delegatensis* subsp. *tasmaniensis* with shrubby undergrowth, NE aspect, altitude c. 600 m.

**NOTES:** Most of the plants in the population appear to be of more or less the same age and probably arose as regrowth following wildfire in summer 1972–73. The notes with a specimen collected from the area in 1979, identified then as *Casuarina monilifera*, described the plants as 'erect shrubs to 5 m', which suggests that the population has since reached its full height. Specimens in which branchlet articles and cones are at the lower range of sizes recorded could be mistaken for *A. monilifera* but the entire size range may be found on the same plant. Male flower spikes do not attain the same length those of *A. monilifera* and appear to be produced less prolifically.

The nearest recorded population of *A. monilifera* is at Longley, some 15 km to the north of the Snug Plains.

**CONSERVATION STATUS:** The area is within a State Forest with Deferred Forest classification, subject to further scientific study for its conservation value. It is intended that



**Figure 1.** *Allocasuarina duncanii*. a, branchlet article x 10; b, female inflorescence x 3; c, male inflorescence x 4; d, cone x 1; e, pair of bracteoles x 5; f, bracteole, side view x 5; g, branchlet article, juvenile growth x 5.

there should be no logging in the area for at least ten years while assessments are being made.

EPITHET: The species is named for Mr Fred Duncan who brought the plant to our attention and who, for many years, has been a discerning plant collector.

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