A New Species of *Oreobolus, O. tholicarpus* (Cyperaceae), Endemic to Tasmania

Dennis I. Morris

Tasmanian Herbarium GPO Box 252-04, Hobart 7001, Tasmania, Australia

Abstract

Oreobolus tholicarpus, a new species from western Tasmania is described and illustrated. A key to all species of *Oreobolus* recorded in Tasmania is provided.

Introduction

In 1978 S.J. Jarman and R.K. Crowden, while conducting a vegetation survey of the Lower Gordon River area, recorded a number of specimens of an apparently unnamed *Oreobolus* as '*O.* cf. *acutifolius*' (Jarman and Crowden 1978). Later, M.J. Brown, Crowden and Jarman collected more material of the same taxon as '*O.* aff. *acutifolius*' from the Hardwood River valley (Brown *et al* 1982). In all of these collections only the remains of fruiting culms were present, without mature nuts. None of the specimens were at that time lodged at HO and consequently were not available to Seberg (1988) when he prepared his extensive study of the genus, or to Curtis (1994) when describing the genus in Tasmania. More recent collections from western Tasmania have revealed that in the characters of the leaf lamina and of the nut the species differs from any of the previously known species as described by Seberg (1988).

Figure 1. *Oreobolus tholicarpus* D.I. Morris **A** – fruiting culm × 2. **B** – terminal spikelet with subtending bract × 5. **C** – lateral spikelet × 5. **D** – nut × 10. **E** – nut, longitudinal section, × 10.

Taxonomy

Oreobolus tholicarpus D.I. Morris *sp. nov.*

affinis *O. oxycarpo* S.T. Blake a qua nuce doliiformi apice attenuata tholiformi et superficie adaxiali laminae folii stomatibus ad margines differt.

Type: Coffin Bay, Port Davey, Tasmania 43°17' S, 145°58' E, 11. Jan. 1987, *A. Moscal* 13881 (holotype HO; isotype MEL).

Mat-forming perennial herb up to 8 cm high. *Leaves* erect to acutely spreading, spirodistichous; *sheaths* 4–8 mm long, apex rounded or with short erect auricles, margins ciliolate, 5–7-ribbed, golden to reddish-brown, ± shining; *pseudo-petiole* 10–20 mm long, channelled; *lamina* slightly widened at the proximal end, 10–25 mm long, 0.6–1.3 mm wide, tapering gradually to a subacute or rounded apex; margins scaberulous, adaxial surface with 3 faint ribs; stomata confined to the area between the lateral ribs and the margins; ribs prominent on the abaxial surface. *Culms* a little shorter than to ± equal to the leaves, with 1–3 nodes, the lower nodes each producing a branch subtended by a leaf-like

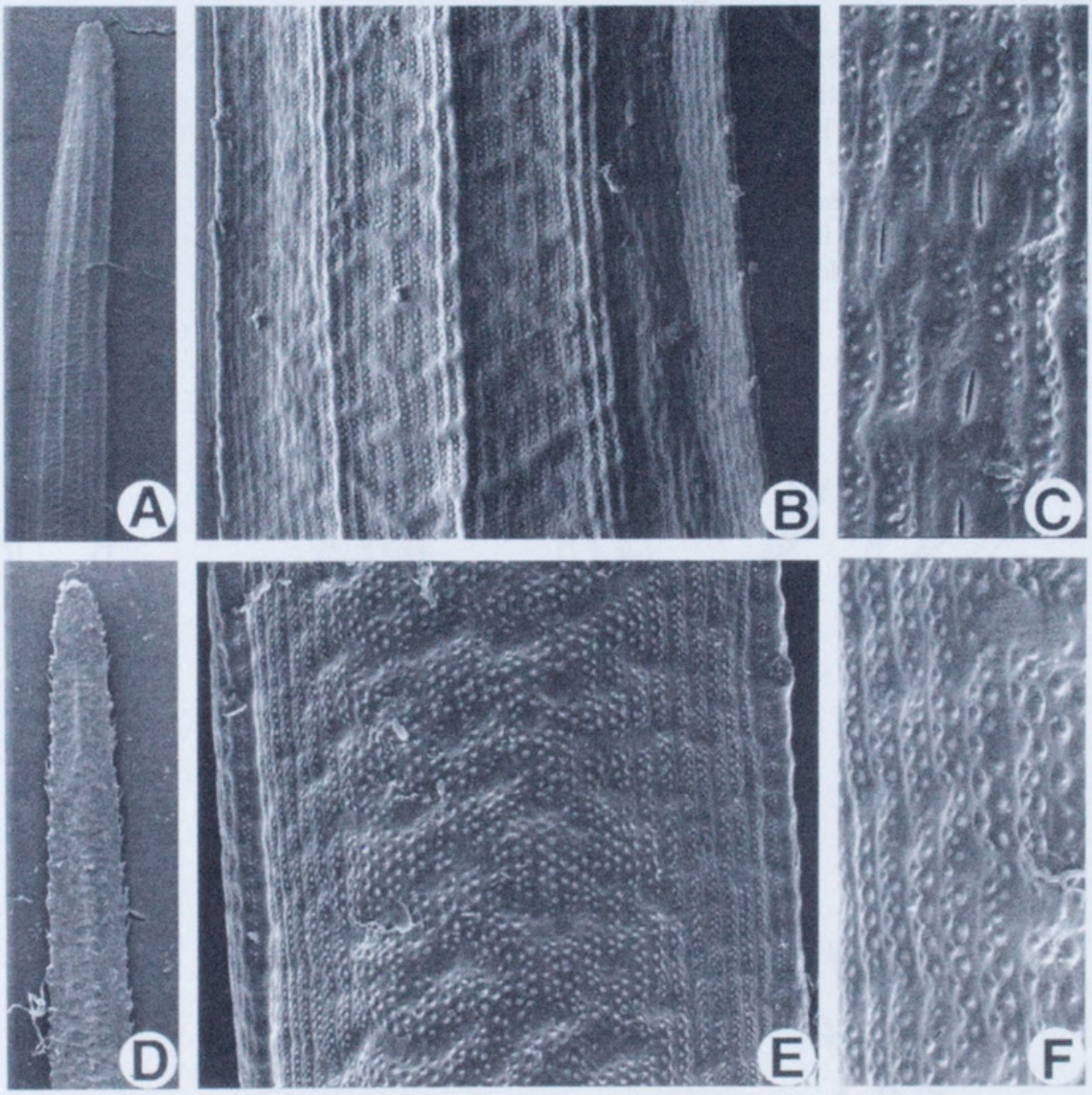

Figure 2. Leaves of *O. tholicarpus* and *O. oxycarpus*, **A–C** *O. tholicarpus* (*Moscal* 13881 HO *408585*) **D–F**, *O. oxycarpus* (D.A. & A.V. *Ratkowsky* s.n. HO *60146*). **A,D** adaxial leaf lamina, × 10; **B,E** adaxial leaf lamina, × 70; **C** adaxial leaf lamina, area between lateral vein and margin, × 300; **F** adaxial leaf lamina, comparable area to that in C, × 300

bract and a prophyll, each branch bearing a solitary spikelet; terminal node producing a sessile or subsessile spikelet subtended by a reduced leaf-like bract equalling or exceeding the spikelet by up to 4 mm. *Spikelet* 3.8–6.5 mm long with 3 narrow-triangular glumes, lowest glume 3.3–6.5 mm long, keel green, often laterally compressed above, margins green, reddish or brown, minutely ciliolate; second glume similar, upper glume often purple, 3.3–5 mm long. *Hypogynous scales* 1.7–2 mm long, narrow-triangular, whitish, margins minutely ciliolate. *Staminal filaments* 3–4 mm long; anthers 1.3–1.7 mm long. *Styles* c. 1.5 mm long, stigmas 2 mm. *Nut* 2–2.3 mm long ± dolioform, slightly constricted at about the mid-point, the upper half a hollow, domed, trilobed elongation, fuscous, shining, crustaceous; lower half yellow or whitish, shallowly trilobed, narrowing abruptly at the base to a short stipe. (Figs. 1, 2)

Distribution: Endemic to Western Tasmania. Most collections are from the Port Davey area and catchments of the Giblin, Hardwood, Olga and Davey Rivers with an isolated specimen from Burgess Hill, near Savage River, from near sea level to c. 500 m altitude. (Fig. 3)

Etymology: From the Latin *tholus*, a dome or cupola and-*carpus*, fruited, in reference to the shape of the apex of the nut.

Habitiat: Open heath and sedgelands, marshy depressions and seepage areas on rocky sites. Soils are mostly peaty on quartzite sands and gravels with some occurrences on alkaline pans and one specimen from a serpentine-derived soil.

Conservation status: Burgess Hill is in a Multiple Use Forest area. All other collections are from the World Heritage Area.

Selected specimens examined (12 examined): **Tasmania**: Olga River at edge of a swamp, 19 February 1976, *Jarman & Crowden* s.n. (HO); Hardwood Valley, 21 January 1978, *Jarman & Crowden* s.n. (HO); Giblin River, 11 January 1986, *Moscal* 11585 (HO, NSW); small lagoon at Mulcahy Bay, 20 January 1986, *Buchanan* 8058 (HO); north west slope of Burgess Hill, 26 January 1990, *Buchanan* 11644 (HO); just south of Melaleuca airstrip on track to Cox Bight, 4 April 1992, Wilson 8468 (NSW, HO).

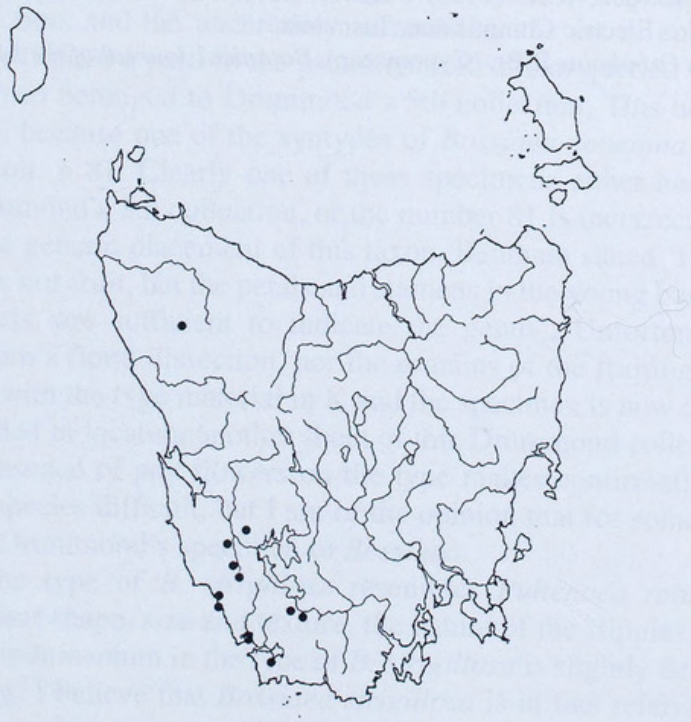

Figure 3. Distribution of *Oreobolus tholicarpus* in Tasmania

A key to Oreobolus in Tasmania

1. Inflorescence a terminal cluster of spikelets on very short pedicels ..... ***O. oligocephalus*** (*Schoenoides oligocephalus* O. Seberg)
1. Inflorescence of 1–3 spikelets solitary at nodes on the culm.....2

2. Leaf-lamina channelled, depressed-triangular in section, 2-veined; achene fusiform with an acute apex.....***O. distichus***
2. Leaf-lamina flat or plano-convex; achene either obovoid to pyriform, apex ± truncate or with an elongated conical or domed apex 3

3. Achene obovoid to pyriform, apex ± truncate 4
3. Achene with an elongated conical or domed apex 5

4. Leaf-lamina long-tapered to an acute apex, upper surface veins obscure, stomates absent .....***O. acutifolius***
4. Leaf-lamina linear, tapering above to an obtuse or subacute apex, upper surface 5–6 veined, densely covered with stomates. .....***O. pumilio***

5. Abaxial surface of leaf lamina with one vein; nut with an elongated conical blackish-purple apex which collapses at maturity. .....***O. oxycarpus***
5. Abaxial surface of leaf lamina 3 veined; nut ± dolioform with a domed fuscous apex which does not collapse at maturity .....***O. tholicarpus***

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