

A new species of *Xerochrysum* (Gnaphalieae: Asteraceae) from western Tasmania, Australia

Alex M. Buchanan

Tasmanian Herbarium, Private Bag 4, Hobart 7001

Abstract

Xerochrysum collierianum A.M.Buchanan (Asteraceae) a new species from siliceous mountains in western Tasmania is described. Ecological notes and a distribution map are provided.

Introduction

Active collecting in the mountains of western Tasmania in recent decades has contributed to a better understanding of the taxonomy and distribution of this long-recognised but, until now, undescribed 'everlasting'. Under the nomenclature used in The Student's Flora of Tasmania, Part 2, (Curtis 1963) this plant would have belonged in *Helichrysum*. However, Anderberg and Haegi (in Anderberg, 1991) erected the new genus *Bracteantha* (pp. 102-5) for those everlasting with relatively large, conspicuous capitula having several series of relatively rigid, entire bracts, smooth glabrous achenes and barbellate pappus bristles. Unfortunately, these authors (*loc. cit.*) were unaware that Tzvelev (1990) had already erected the genus *Xerochrysum* for the same taxon, thus rendering *Bracteantha* a superfluous name (Bayer, 2001). The genus *Xerochrysum* comprises 8 species and is endemic in Australia.

Taxonomy

Xerochrysum collierianum A.M.Buchanan *sp. nov.*

Xerochryso subundulato (Schultz-Bip.) R.J.Bayer affine, sed bracteis exterioribus late, lanceolatis non triangulatis, utrinque albis non brunneis et aureis que differt.

Type: Tasmania, Central Highlands region, St Valentines Peak 1100 m, 41°22'S 145°45'E, 13.i.1986, *P. Collier 1206*, (holotype HO 116970 !).

Perennial herb to 20 cm tall with a short, more or less erect, woody, branching rootstock or vertical rhizome, 3–5 mm in diameter and densely invested with old leaf-bases through which the crowded roots arise. *Stems* arising from the branched rootstock, one to several, usually unbranched above ground level, slender, erect, leafy, with sparse, short, glandular hairs. *Leaves* loosely crowded at the base and more distant on the upper stem, alternate, oblanceolate to narrow obovate, acute, flat, sessile, attenuate to stem clasping, more or less concolorous, 20–50 mm long, 4–10 mm wide (shade leaves to 18 mm wide, e.g. Collier 5178); margins entire with a fringe of arachnoid hairs, sometimes long and tangled; upper surface with scattered to dense short glandular hairs, lower surface with similar indumentum but sparser, or glabrous. *Capitula* terminal, solitary, or occasionally with one or two subsidiary capitula developing after the terminal one nears maturity (e.g. Buchanan 15908, Rodway 395), 20–40 mm in diameter, subtended by 2-5 leaf-like bracts. Involucral bracts white, pink on the outer face when young, the outermost broadly lanceolate-acuminate, 6–10 mm long, 2.5–6 mm wide; margins usually denticulate to finely lacinate, the mid to inner ones lanceolate-acuminate 15–25 mm long, 5 mm wide, more or less entire, often notched in the apical region, not strongly reflexed at maturity;

innermost bracts shorter, often lacinate, with a dark or greenish undivided stereome sometimes extending to about midway or more along the bract; disk flat, pitted at floret attachments, otherwise more or less smooth. *Florets* 200–300, yellow, 4–6 mm long, filiform female florets in the outer whorl only and sometimes discontinuous; pappus about as long as the floret, white, finely barbellate, persistent. *Achenes* cylindrical to fusiform, glabrous, pale brown, 2–3 mm long. (Fig. 1)

Etymology: The epithet *collierianum* commemorates the extensive, enthusiastic and carefully detailed field work of Phil Collier and his wife, the late Sue Collier, in all parts of Tasmania during the period 1984 to 1992.



Figure 1. Habit of *Xerochrysum collierianum*. Scale bar = 1cm.

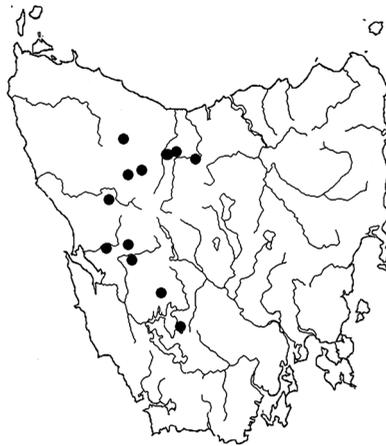


Figure 2. Distribution of *Xerochrysum collierianum* as known from herbarium specimens.

Distribution & Ecology: *Xerochrysum collierianum* is endemic to western and north-western Tasmania from St Valentines Peak in the north to the Ragged Range in the south (Fig. 2). It typically occurs on the open, rocky summits and ridge-tops of the Ordovician conglomerate and some quartzite mountains. These are old, very low-nutrient, siliceous rocks that support a suite of plants adapted to extremely oligotrophic sites. This plant usually grows in cracks and crevices in the rocks, in full sun, where few other flowering plants can survive. Occasional plants, growing in the shade, are taller than average and have leaves that are broader (up to 18 mm) and more rounded at the apex, e.g. Collier 5178.

Notes: *Xerochrysum collierianum* closely resembles *X. subundulatum* in habit but differs in its outermost involucre bracts being broadly lanceolate, not triangular as in *X. subundulatum*, and white on both sides, not pale brown and golden as in *X. subundulatum*. The taller shade-grown plants also resemble *X. palustre* in habit but differ by the absence of a long rhizome.

Xerochrysum collierianum is illustrated in Kirkpatrick (1997), figure 30d on page 70, and the common name, 'white alpine everlasting', is aptly applied to it.

Conservation Status: Although *Xerochrysum collierianum* is uncommon and confined to a small number of mountain summits and ridges, more than half of the known occurrences are in national parks or other reserved lands. There are substantial populations in Cradle Mountain-Lake St Clair National Park and in Franklin-Gordon Wild Rivers National Park.

Representative specimens examined (all at HO), listed in sequence from north to south: St Valentines Peak 1080 m, 17 i. 1980, S.J. Jarman s.n. (HO 411428); St Valentines Peak, 17 i. 1980, G. Kantvilas s.n. (HO 506944); Mt Roland summit 1230 m, ii. 1906, L. Rodway 395 (HO 12378); Mt Roland near summit 1230 m, 2 iv. 1991, P. Collier 5192 (HO 142597); Round Mount, iii. 1971, K. Gillanders s.n. (HO 34891); Mt Claude Lookout 690 m, 1 xii. 2001, A.M. Buchanan 15908 (HO 516530); Mt Claude 840 m, 04 iv. 1988, A. Moscal 15683 (HO 407162); Gog Range 700 m, 1 v. 1983, A. Moscal 2245 (HO 99492); Dove River - Knyvet Falls track c. 4 km N of Cradle Valley 850 m, 27 i. 1956, A.M. Gray 641 (HO 81277); Mt Remus 1075 m, 16 i. 1988, P. Collier 3097 (HO 110066); Mt Murchison 1250 m, 13 ii. 1995, G. Kantvilas s.n. (HO 411359); Raglan Range 1000 m, 26 i. 1994, S.J. Jarman s.n. (HO 307381); Mt Jukes, West Coast Range, ii. 1973, D.A. & A.V. Ratkovsky s.n. (HO 52418); Frenchmans Cap, 13 iii. 1977, D. Wythes s.n. (HO 58192); The Spires, N of Lake Gordon 1000 m, 13 ii. 1991, P. Collier 5178 (HO 142583); Summit of Ragged Range 760 m, 28 i. 1995, G. Kantvilas s.n. (HO 411639).

Acknowledgments

I am grateful to Gintaras Kantvilas for assisting with the Latin diagnosis and to Paul Wilson for his helpful comments on the manuscript.

References

- Anderberg, A.A. (1991). Taxonomy and phylogeny of the tribe Gnaphalieae (Asteraceae). *Opera Botanica* 104: 5-195.
- Bayer, R.J. (2001). *Xerochrysum* Tzvelev, a pre-existing generic name for *Bracteantha* Anderb. & Haegi (Asteraceae: Gnaphalieae). *Kew Bulletin* 56: 1013-1015.
- Curtis, W.M. (1963). The Student's Flora of Tasmania. Part 2. Government Printer, Hobart.
- Kirkpatrick, J.B. (1997). Alpine Tasmania. An illustrated guide to the flora and vegetation. Oxford University Press, Melbourne.
- Tzvelev, N. (1990). Notae de Asteraceis nonnullis partis Europaeae URSS. [Notes on the Asteraceae of the European part of the USSR]. *Novitates Systematicae Plantarum Vascularium* 27: 151-2.