

## NEW TAXA IN VICTORIAN POACEAE

by

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### ABSTRACT

Walsh, N. G. New taxa in Victorian Poaceae. *Muelleria* 7(3): 379–387 (1991). — Four new species *Poa sallacustris*, *Poa lowanensis*, *Danthonia lepidopoda*, *Deyeuxia talariata* and a new variety *perlaxa* of *Puccinellia stricta* are described and illustrated. Their distribution, habitat, abundance and relationships with other species are discussed.

### INTRODUCTION

In the course of preparing an account of the Victorian Poaceae for a forthcoming state flora, several previously unnamed taxa were encountered. The majority of these are presented here. Others requiring further investigation or which are relevant to current research by specialists, will be described if necessary at a later date.

### TAXONOMY

#### POA L.

*Poa sallacustris* N. G. Walsh *sp. nov.*

*P. fordeana* F. Muell. affinis sed foliis angustioribus, laevibus, spiculis brevioribus, glumis equalibus vel longioribus quam lemmate inferno et habitatione dissimili differt.

TYPUS: Victoria, Lake Corangamite, SW of Causeway and Lake Martin, 11.5 km SW of Cressy, 27 km NNW of Colac P.O., 12 Sept. 1977, A.C. Beaglehole 56460 & G.J. Hirth. (HOLOTYPUS: MEL; ISOTYPI: BRI, NSW).

*Rhizomatous perennial*, culms ascending to erect, terete to somewhat compressed, to 30 cm high. *Leaves* smooth and glabrous; sheaths tubular in lower part; blades loosely to closely folded, firm, to 12 cm × 2 mm when flattened, abruptly tapered to a keeled, acute, often slightly incurved apex; ligule thinly membranous, acute to obtuse, 1–2 mm long. *Inflorescence* an ovate panicle, to c. 10 × 7 cm, the branches bare for the greater part, finally widely spreading; spikelets 4–6 flowered, 5–8 mm long; glumes subequal, 3-nerved, equal to or slightly longer than the adjacent lemmas, smooth or scaberulous along keel; web not or weakly developed; lemma acute, 5-nerved, c. 3 mm long, rather firm, lower lemmas mostly with long hairs on the keel in the lower half, and occasionally also along the lateral nerves near the base, the internerves usually glabrous, upper lemmas with rather few, short hairs near base; palea equal to lemma, scabrous along the keels in the upper half, otherwise glabrous or with scattered hairs on the internerve area in the lower half.

#### OTHER SPECIMENS EXAMINED:

Victoria — Lake Terangpom Wildlife Reserve, 12 Jan. 1979, A.C. Beaglehole 63155 (MEL, HO, BRI); Krause Swamp Wildlife Reserve 10 Jan. 1979, A.C. Beaglehole 63036 (MEL, BRI); SW shore of Lake Linlithgow, 14 Dec. 1990, D. Frood (MEL); N end of Black Lake, c. 15 km NNW of Skipton, 20 Dec. 1990, D. Frood (MEL).

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Fig. 1. *Poa sallacustris*. a —  $\times 1/2$ . b — spikelet  $\times 6$ . c — florets from upper and lower part of spikelet  $\times 6$ . All drawn from Beaglehole 56460 (MEL). *Poa lowanensis*. d — habit  $\times 1/3$ . e — spikelet  $\times 6$ . f — floret  $\times 6$ . All drawn from Beaglehole 29505 (MEL). *Puccinellia stricta* var. *perlaxa*. g — habit  $\times 1/3$ . h — spikelet  $\times 6$ . i — floret  $\times 6$ . All drawn from Albrecht 522 (MEL).

## DISTRIBUTION AND CONSERVATION STATUS:

Apparently endemic in Victoria where known only by a few collections from margins of salt lakes west of Melbourne between Colac and Hamilton. Two of the lakes are within wildlife reserves managed primarily for waterfowl. Considering the small number of collections and the abundance of apparently suitable habitat (*i.e.* salt lakes) across the volcanic plain, it is likely that the species has diminished as a consequence of habitat modification through clearing and grazing. Field observations indicate that *P. sallacustris* does not persist following regular grazing (D. Frood *pers. comm.*) Its conservation status is therefore assessed as "vulnerable" with Risk Code 3VCi (Briggs and Leigh 1989).

## HABITAT:

All collections of the species are from verges of slightly to strongly saline lakes on the Victorian volcanic plain (Quaternary basalt). The substrates include sticky grey clay, sandy buckshot gravel mixed with basalt pebbles, and at Lake Corangamite, deep deposits of the small aquatic snail *Coxiella striata*. *P. sallacustris* occurs above the saltmarsh zone if such a zone is present at the site. Associated species include *Schoenus nitens*, *Wilsonia backhousei*, *Epilobium billardieranum* and *Plantago coronopus*.

## NOTES:

By the closed leaf-sheath, the membranous ligule, rhizomatous habit of growth and lacustrine habitat, *P. sallacustris* is clearly closely related to *P. fordeana* F. Muell. a robust species which occurs chiefly on the Murray River floodplain in Victoria and in similar situations in Queensland, South Australia and New South Wales. *P. sallacustris* is readily distinguished from *P. fordeana* by its overall smaller stature, smooth, narrower leaf-blades, smaller spikelets, and glumes which are as long as or longer than their adjacent lemmas. The saline conditions prevailing where *P. sallacustris* occurs are also quite different from the non-saline, alluvial sites inhabited by *P. fordeana*. The epithet *sal* (salt) + *lacustris* (lakeside), is derived from the species' habitat.

Specimens of *P. sallacustris* have in the past been identified as *P. ensiformis* Vickery, typically a species of wet mountain forests, and the introduced, widespread *P. pratensis* L.. From the former, *P. sallacustris* differs in its non-tussocking habit, its non-membranous lemmas on which the hairs are virtually confined to the midvein and lateral nerves, and in its unpigmented leaf-sheaths. From *P. pratensis*, *P. sallacustris* differs in having firm, acute lemmas with the web not or only weakly developed. Neither *P. ensiformis* nor *P. pratensis* have closed leaf-sheaths or are they characteristic of lacustrine environments.

Collections from Lake Linlithgow and at nearby Krause Swamp differ slightly from others in having lemmas which are sparsely hairy to glabrescent basally, but are consistent in all other features examined.

***Poa lowanensis* N.G. Walsh *sp. nov.***

***P. poiformis*** (Labill.) Druce affinis sed culmis duplo longioribus foliis plerumque, spiculis purpurascensibus, lemmatis truncatis vel emarginatis, marginibus membranaceis late, et habitatione dissimili differt.

TYPUS: Victoria, Wyperfeld National Park, NE corner of "The Hump", 11 Nov. 1968, A.C. Beaglehole 29505 & E.W. Finck (HOLOTYPUS: MEL).

*Tufted or shortly rhizomatous perennial, culms erect, to c. 90 cm high. Leaves usually stiffly erect and sharp-tipped, up to c. half as high as the culm, green or somewhat glaucous; sheaths pale or purplish, glabrous, smooth; blades inrolled and 0.5–1.5 mm diam., loosely inrolled or folded, to 3 mm wide when flattened, smooth on the outer (lower) surface, scabrous or scabrous-pubescent on the inner*