

SHORT COMMUNICATION

***Chionochloa howensis* (Poaceae), a new species from Lord Howe Island**

This new species is being published to allow its inclusion in the forthcoming treatment of the floras of Lord Howe and Norfolk Islands as part of the 'Flora of Australia' project.

***Chionochloa howensis* S.W.L. Jacobs, sp. nov.**

C. flavicanti similis, a qua differt lemmate dorsali glabro lemmate infimo segmento rhachillae destituto.

HOLOTYPE: 'Razorback, S. end summit plateau, Mt. Gower, Lord Howe Island, J. Pickard 2634, 21.xi.1975. Rare tussock grass to 0.7 m high on exposed rocky basalt spur on edge of scrub. On edges of 700 m cliff in low appressed scrub. Leaves nibbled by feral goats. 31°35'S 159°04'E Grid ref 790 000' (NSW). ISOTYPES: BRI, CHR, K, US.

Coarse, erect, caespitose perennial to c. 1 metre tall. Culms erect, compressible; nodes 4-5, not exserted. Leaf sheaths keeled at first, finally becoming flat, glabrous except for a few hairs 1-2 mm long on the margin just below the collar, 10-15 mm wide, persistent, outer surface strongly ribbed, initially green, then becoming straw-coloured and finally grey-brown. Ligule a row of hairs 0.5-1 mm long, with a few scattered hairs 1-2 mm long continuing for a short distance along the margin of the blade. Leaf blade to c. 60 cm long on specimens, possibly considerably longer, flat when fresh to c. 12 mm wide, becoming involute when dry, tardily deciduous; upper surface strongly ribbed, scabrous; lower surface slightly ribbed, smooth, glabrous. Panicle 15-25 cm long, 6-8 cm wide, dense, most of the inflorescence exserted; axis terete to angled, pubescent with hairs 0.25-0.5 mm long; branches 2-5 per node, to c. 10 cm long, angled, pubescent with hairs 0.25-0.5 mm long; pedicels 1-3 mm long, pubescent with hairs c. 0.25 mm long. Spikelets 6-8 mm long (excluding awns); florets mostly 3-5 with the lower 2-3 fertile, the remainder male or sterile. Glumes 2, lanceolate, membranous, 1-nerved, tips acute; lower glume 4-5.5 mm long; upper glume 5-6 mm long. Lowest lemma 4.5-5.5 mm long, terminally awned from an entire apex or from the sinus of a bilobed tip, chartaceous, 5-7-nerved, glabrous on the back with a tuft of hairs at the callus and ciliate on the lower margins with hairs c. 0.5 mm long; callus blunt, almost perpendicular to rhachilla, c. 0.25 mm long, with spreading hairs to 1 mm long; apex 2-lobed with lobes 0.25-0.5 mm long or the lobes fused to the base of the awn, especially in young material; awn straight, 8-10 mm long, flattened, loosely once or twice spirally twisted or not twisted. Upper lemmas becoming progressively smaller but differing from the lowest lemma chiefly in the longer callus, to 0.75 mm long, due to the attached rhachilla segment, occasionally the lobes with bristles to 1 mm long. Palea subequal or equal to the lemma, 2-nerved, bilobed, the margins ciliate with stiff hairs \leq 0.1 mm long. Lodicules 2, cuneate, glabrous, c. 0.25 mm long; stamens 2; stigmas 2. Mature caryopsis not seen.

DISTRIBUTION: Only known on or near cliffs on Lord Howe Island.

OTHER SPECIMEN EXAMINED: NEW SOUTH WALES: **Lord Howe Island:** NW. shoulder of Mt. Lidgbird, J. Pickard NSW 178643, 21.9.1970 (NSW, K, CHR).

The specific epithet is derived from the name of the island on which the species occurs.

This species is listed as *Chionochloa* sp. A (aff. *conspicua*) in Jacobs & Pickard (1981: 39); in correspondence and manuscripts concerning the flora of Lord Howe Island it has frequently been listed as *C. conspicua* subsp. nov., despite its lack of close taxonomic affinity with that species.

The association with *C. conspicua* (Forst. f.) Zotov has resulted from use of the key to species of *Chionochloa* in Zotov (1963). *C. howensis* does key out to *C. conspicua* on lemma hair pattern, leaf sheaths and awn characters, but differs from that species in inflorescence size and compactness, floret size, glume length, lemma size and shape, stamen number and the callus of the lowest lemma.

The affinities of *C. howensis* lie with the New Zealand species *C. flavicans* Zotov, not with the two Australian species (*C. frigida* and *C. pallida*) from which it differs in lemma size, shape and hair pattern, relative glume length, inflorescence size and shape, and several vegetative characters. *C. howensis* and *C. flavicans* are similar in lemma size and shape, absolute glume length and glume length relative to spikelet length, spikelet size, inflorescence size and compactness, and habitat. *C. howensis* differs from *C. flavicans* in being glabrous over the back of the lemma (but there are hairs on the callus and the margins), the lack of a rhachilla segment attached to the base of the lowest lemma, the broader leaves, the tendency for the blades to be tardily deciduous, and in being generally a smaller plant. Vickery (1956) and Jacobs (1982) have previously indicated similar lemma hair pattern differences within species in the closely related genus *Danthonia*.

References

- Jacobs, S.W.L. (1982) A comment on proposal (520) for conserving *Notodanthonia* Zotov (1963). *Taxon* 31(4): 737-743.
Jacobs, S.W.L., & J. Pickard (1981) 'Plants of New South Wales' (Govt Printer: Sydney).
Vickery, J.W. (1956) A revision of the Australian species of *Danthonia* DC. *Contr. New South Wales Natl Herb.* 2(3): 249-325.
Zotov, V.D. (1963) Synopsis of the grass subfamily Arundinoideae in New Zealand. *New Zealand J. Bot.* 1: 78-136.

Manuscript received 18 April 1985

Manuscript accepted 26 September 1985

S.W.L. Jacobs
National Herbarium of New South Wales
Royal Botanic Gardens
Sydney, Australia, 2000



Jacobs, Surrey W L. 1988. "Chionochloa howensis (Poaceae), a new species from Lord Howe Island." *Telopea: Journal of plant systematics* 3(2), 281–282.
<https://doi.org/10.7751/telopea19884814>.

View This Item Online: <https://www.biodiversitylibrary.org/item/264398>

DOI: <https://doi.org/10.7751/telopea19884814>

Permalink: <https://www.biodiversitylibrary.org/partpdf/281781>

Holding Institution

The Royal Botanic Gardens and Domain Trust, New South Wales, Australia

Sponsored by

Atlas of Living Australia

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: The Royal Botanic Gardens and Domain Trust, New South Wales, Australia

License: <http://creativecommons.org/licenses/by-nc-sa/4.0/>

Rights: <http://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.