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New combinations for the Phillip Island wheat grass, *Anthosachne kingiana* subsp. *kingiana* (Poaceae)

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Abstract

Phillip Island wheat grass has been known under many different scientific names. The taxon is now mostly placed in the genus *Anthosachne* Steud., following recent molecular phylogenetic data. Unfortunately no correct name is currently available under that genus which is rectified here. The new combinations *Anthosachne kingiana* (Endl.) Govaerts and *Anthosachne kingiana* subsp. *multiflora* (Banks & Sol. ex Hook.f.) Govaerts are made.

Key words: nomenclature, new name, grass, Poaceae, *Anothosachne*, Phillip Island, Norfolk Island, Lord Howe Island, Australia.

Introduction

Since the early 1990's I have maintained a database on plants recorded as being extinct. The entire database is not currently online, though the data feed into the *World checklist of selected plant families* (WCSP 2014). Species recorded as being extinct are indicated with a dagger (†) after the relevant geographical code. When transferring the Phillip Island wheat grass from the genus *Elymus* L. to *Anthosachne* Steud., I noticed a nomenclatural problem, which I resolve in this paper.

The Phillip Island wheat grass is a rare species listed as critically endangered in the Australian legislation protecting rare and endangered plants and animals under the name *Elymus multiflorus* subsp. *kingianus* (Endl.) de Lange & R.O.Gardner (Department of the Environment 2014). Until recently, it was considered to be endemic to Phillip Island, off Norfolk Island, and was thought to be extinct together with the two other endemics, *Hibiscus insularis* Endl. and *Streblorrhiza speciosa* Endl., as nearly all the vegetation on the islet had been eaten by goats, pigs and rabbits. When these feral animals were removed, Phillip Island wheat grass was able to recolonize the area, and was rediscovered on Phillip Island in 1987 (Sykes & Atkinson 1988). The species has now also been found on Norfolk Island and Lord Howe Island (Green 1994: 469) and therefore can no longer be considered as being endemic to Phillip Island.

After the removal of feral animals, the near-endemic *Abutilon julianae* Endl. also reappeared (Green 1994). This species was first described from Norfolk Island, but seems to have become extinct there a long time ago and can now only be found on Phillip Island. Another, previously unknown species, *Achyranthes margaretarum* de Lange (2001), was discovered recently, adding a third endemic species to the island.

At the species level *Elymus multiflorus* (Banks & Sol. ex Hook.f.) Á.Löve & Connor is found in coastal eastern Australia (Connor 1990; de Lange et al. 2005). So it seems that the only true endemics to Phillip Island are *Achyranthes margaretarum*, *Hibiscus insularis* and *Streblorrhiza speciosa*, of which the last two are still considered to be extinct (Green 1994).

Discussion

The Phillip Island wheat grass was previously classified within the genus *Elymus*. Recent morphological and molecular studies (Barkworth & Jacobs 2011), however, have shown this taxon to be part of an Australasian group, distinct from *Elymus*, and the name *Anthosachne* has been resurrected to accommodate this group (Barkworth & Jacobs 2011).

When updating my personal database on plants recorded as being extinct, I noticed a problem with the newly published combination, *Anthosachne multiflora* (Banks & Sol. ex Hook.f.) C.Yen & J.L.Yang subsp. *kingiana* (Endl.) Barkworth & S.W.L.Jacobs. It seems that the basionym of the species name, dating from 1853, is later than the basionym of the infraspecific name, which has priority from 1833, thus making the subspecies superfluous and illegitimate (ICN Art. 52.1; McNeill et al. 2012). This error seems to have started when Connor published the name *Elymus multiflorus* (Banks & Sol. ex Hook.f.) Á.Löve & Connor var. *kingianus* (Endl.) Connor (Connor 1990), rather than making the combination under *Elymus kingianus*, and was perpetuated thereafter. This is hereby corrected.

Nomenclature

Anthosachne kingiana (Endl.) Govaerts, *comb. nov.*

Triticum kingianum Endl., Prodr. Fl. Norfolk. 21 (1833).
— *Festuca kingiana* (Endl.) Steud., Syn. Pl. Glumac. 1:

316 (1854). — *Agropyron kingianum* (Endl.) Petrie ex Laing, Trans. & Proc. New Zealand Inst. 47: 18 (1915). — *Elymus kingianus* (Endl.) Á.Löve, Feddes Repert. 95: 469 (1984). — *Elymus multiflorus* var. *kingianus* (Endl.) Connor, Kew Bull. 45: 680 (1990), nom. superfl. — *Elymus multiflorus* subsp. *kingianus* (Endl.) de Lange & R.O.Gardner, New Zealand J. Bot. 43: 571 (2005), nom. superfl. — *Anthosachne multiflora* subsp. *kingiana* (Endl.) Barkworth & S.W.L.Jacobs, Telopea 13: 50 (2011), nom. superfl.

Anthosachne kingiana* (Endl.) Govaerts subsp. *kingiana

This is the correct name for the subspecies from Norfolk, Phillip and Lord Howe Islands, commonly known as the **Phillip Island wheat grass**.

Anthosachne kingiana* subsp. *multiflora* (Banks & Sol. ex Hook.f.) Govaerts, *comb. nov.

Triticum multiflorum Banks & Sol. ex Hook.f., Bot. Antarct. Voy. II (Fl. Nov.-Zel.) 1: 311 (1853). — *Agropyron multiflorum* (Banks & Sol. ex Hook.f.) Kirk ex Hack. in Cheeseman, Man. New Zealand Fl.: 921 (1906). — *Agropyron kirkii* Zotov, Trans. & Proc. Roy. Soc. New Zealand 73: 233 (1943), nom. superfl. — *Elymus multiflorus* (Banks & Sol. ex Hook.f.) Á.Löve & Connor, New Zealand J. Bot. 20: 183 (1982). — *Anthosachne multiflora* (Banks & Sol. ex Hook.f.) C.Yen & J.L.Yang, Xiao mai zu sheng wu xi tong xue 3: 232 (2006).

This is the correct name for the subspecies from south-eastern Australia and New Zealand, commonly known as the **short-awned wheat grass**.

References

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