

References

- Bartholomew-Began SE 1991. A morphogenetic re-evaluation of *Haplomitrium* Nees (Hepatophyta). *Bryophytorum Bibliotheca* 41: 1–297.
- Brown RC, Lemmon BE, Shimamura M, Villarreal JC, Renzaglia KS. 2015. Spores of relictual bryophytes: diverse adaptations to life on land. *Review of Palaeobotany and Palynology* 216: 1–17.
- Campbell EO. 1987. *Steereomitrium minutum* gen. et sp. nov. (Calobryales). *Memoirs of the New York Botanical Garden* 45: 569–574.
- Chang Y, Graham SW. 2011. Inferring the higher-order phylogeny of mosses (Bryophyta) and relatives using a large, multigene plastid data set. *American Journal of Botany* 98: 839–849.
- Engel JJ, Schuster RM. 1994. Studies of New Zealand Hepaticae 7. The status of *Steereomitrium*. *The Bryologist* 97: 63–66.
- Furuki T. 1986. Gemmae of *Haplomitrium hookeri* (Smith) Nees. *Hikobia* 9: 495–496.
- Masuzaki H, Hasegawa H, Masuzawa T, Deguchi H. 2010. *Haplomitrium minutum* (E.O.Campb.) J.J.Engel & R.M.Schust. (Calobryales, Hepaticophyta), reported from the South Japanese Alps, central Japan. *Bryological Research* 10: 45–49.
- Sato T, Katagiri T. 2016. On the presence of *Haplomitrium minutum* (Haplomitriaceae, Marchantiophyta) in Japan. *Bryologist* 119(4): 332–340.

Two new aquatic moss records for Christchurch from Travis Wetland

Eleanor Bissell and Bryony Macmillan

A preliminary survey of the mosses of Christchurch City was completed in 2004 (Macmillan 2004). Although the sanctuaries Otukaikino and Travis Wetlands were visited, there remained much to be learnt in these aquatic habitats.

Mosses were collected by the first author in 16 numbered plots, which are related to soil type (Orwin 2005), from June 2014 to September 2015.

Aulacomnion palustre (Plot 3). This is the first collection of wild origin from a lowland site.

Distichophyllum pulchellum (Plot 1). Rare on the Plains and Banks Peninsula

Acknowledgements

We thank Allan Fife for examination of *Aulacomnion* and Sue Gibb for accessioning specimens to the Allan Herbarium, Manaaki Whenua – Landcare Research, Lincoln.

References

- Macmillan B. 2004. Native invasion – among the mosses of Christchurch. *Canterbury Botanical Society Journal* 38: 25–37.
- Orwin J. 2005. Travis Wetland walk – a field guide. Christchurch City Council. pp 50.