The morphologically deviating genera *Omphalodiella* and *Placoparmelia* belong to *Xanthoparmelia* (Parmeliaceae)

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**Abstract.** The monotypic genera *Omphalodiella* and *Placoparmelia* were described from Patagonia (Argentina). The latter is characterized by placodioid species, morphologically similar to some subcrustose, brown *Xanthoparmelia* species, whereas *Omphalodiella* is a peltate lichen. Analyses of ribosomal DNA sequences supported their placement in the Parmeliaceae. Both genera are nested within *Xanthoparmelia*. Affinites to the latter genus are congruent with the presence of *Xanthoparmelia*-type lichenan in the hyphal cell walls and an arachiform vacuolar body in the ascospores, two key characters typical of *Xanthoparmelia*. Consequently we propose to place the generic names in synonymy with *Xanthoparmelia* and transfer the two species to the latter genus as *X. patagonica* and *X. peltata* comb. nov.

**Keywords.** Molecular phylogeny, Parmelioid genera, taxonomy, lichenan.

Generic circumscriptions in lichen-forming fungi have changed dramatically since the late 1960s (Nimis 1998) with new genera erected for morphologically deviating groups of species in different families such as Physciaceae (Esslinger 1978, 1986; Lohtander et al. 2000; Poelt 1966) and Parmeliaceae (DePriest 1999; Elix 1993; Hale 1984; Rambold & Triebel 1999). The latter represents one of the largest families of lichenized fungi and the largest clade within this family, the Parmelioid lichens, includes approximately 1500 known taxa (Crespo et al. 2007; Hale & DePriest 1999). Within the Parmelioid lichens, morphological and chemical characters have generally been used to segregate genera and as a consequence, the acceptance of the genera segregated without using ascomatal characters has not been uniform (Clauzade & Roux 1985, Eriksson & Hawksworth 1986, Llimona & Hladun 2001; Poelt & Vézda 1981). Recent molecular studies have helped to identify monophyletic clades in the Parmelioid lichens and prompted the re-evaluation of phenotypic characters previously used to circumscribe the genera (Blanco et al. 2004a, 2004b, 2005, 2006; Crespo & Cubero 1998; Crespo et al. 2007, 2010; Del Prado et al. 2007; Divakar et al. 2006, 2010; Thell et al. 2004; Thell et al. 2006). One of the

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DOI: 10.1639/0007-2745-113.2.376

The Bryologist 113(2), pp. 376–386