In summer of 2014, I had the opportunity to visit Iceland for three weeks and to study all seven native orchids on this remote island (c.f. Bateman et al. 2015; Kristinsson 2010; Kropf 2015; Lemoine 1998). One of these orchids, *Platanthera hyperborea* (L.) Lindley (Figure 1a), is both widespread and the most common orchid species in Iceland (Kristinsson 2010; pers. obs. 2014). The species can be found in xeric to mesic heaths, stony pastures, and rocky habitats, but also occurs in hydric sites (e.g., along ditches). As Iceland was extensively glaciated during the Pleistocene (Ingolfsson et al. 2010), major elements of Iceland’s flora are recent colonists of postglacial origin. Most native plant taxa in the Icelandic flora are of European origin, despite Iceland’s close proximity to arctic North America (Wasowicz et al. 2014). Thus, the biogeography of *P. hyperborea* is very interesting because it is known in Europe only from Iceland, but its closest relatives are distributed in North America.

The reproductive biology of *Platanthera hyperborea* has been of interest since the 19th century: Darwin (1890), referring to Asa Gray (1862a, b), noted that *P. hyperborea* is capable of self-pollination, because “the pollen-masses commonly fall out of the anther-cells whilst the flower is very young or in bud, and thus the stigma is self-fertilised.” Subsequently, this capability of self-pollination in *P. hyperborea* has been reported by Bateman et al. (2015); Claessens and Kleynen (2011); Lojtnant and Jacobsen (1977); Reinhard (1977); and von Kirchner (1922). Selfing has been a prominent diagnostic trait when the respective group of closely related “greenish”-flowering *Platanthera* species have been studied systematically in recent years (see Catling and Catling 1997; Sears 2008; Sheviak 1999a, b; 2000a, b; 2002; 2011; Sheviak and Bracht 1998; Wallace 2003).