



## Article

### Unravelling a century of misuse: typification of the name *Himantoglossum caprinum* (Orchidaceae: Orchideae)

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There are two morphologically similar and closely related eastern species of lizard orchids of the Eurasian *Himantoglossum* Sprengel (1826: 694) that, according to current literature (Sundermann 1980, Buttler 1996, Kreutz 1998, Baumann *et al.* 2006, Delforge 2006), can easily be distinguished by anthocyanin markings on the labella ('lips') of their flowers, *H. caprinum* (Marschall von Bieberstein 1819: 602) Sprengel (1826: 694) is said to have papillate red spots on the lip, whereas *H. affine* (Boissier 1882: 56) Schlechter (1918: 287) lacks such marks. We consider the length of labellar papillae as another character separating them; the former has up to 0.5 mm long papillae, whereas in the latter they rarely reach 0.1 mm. Furthermore, two quantitative morphological characters consistently mentioned in the literature are said to show little if any overlap between—and therefore be diagnostic of—the two species: (i) the length of the lateral lobe of the labellum, and (ii) the length of the labellar spur.

The description of *H. caprinum* dates back to the 19th century, when Bieberstein discovered the species in the Crimea. In the second volume of his *Flora Taurico-Caucasica* (Marschall von Bieberstein 1808) he believed it was "*Orchis hircina*" [= *H. hircinum* (Linnaeus 1753: 944) Sprengel 1826: 694], first described from the Paris region. However, in the third volume of his *Flora* he described this plant as a new species under the name *Orchis caprina* Marschall von Bieberstein (1819: 602) (= *H. caprinum*), distinguishing the Crimean plant from Linnaeus' taxon by its less pubescent basal region of the labellum, wider lateral lobes, a shorter notch at the apex of the elongate central lobe of the lip, and a generally larger flower. The marking on the lip of *Orchis caprina* was not mentioned by its author or by any other botanists of the 19th century, until Schmalhausen (1897) mentioned "red spots" on the base of the lip of Russian (including Crimean) lizard orchids. After the influential *Flora of the USSR* (Nevski 1935), all relevant works (see above), including regional literature (Vakhrameeva & Tatarenko 2008), characterized *H. caprinum* as bearing large purplish flowers with red-purple spots on their lips.

*Aceras affinis* Boissier (1882: 56) (= *H. affine*) was described from Asia Minor without comparison of the new taxon with Bieberstein's (1819) species. *Himantoglossum affine* is uniformly characterized in the literature as having an unspotted lip, the feature treated as being the most distinctive of this species in current descriptions and keys (Kreutz 1998, Baumann *et al.* 2006, Delforge 2006). The lectotype was designated by Nelson (1968: 59).

While collecting material for our ongoing phylogenetic study of the genus *Himantoglossum s.l.* (Sramkó *et al.* 2011), we undertook fieldwork in the Crimea in 2007 and sampled only *H. affine* in many localities (Yena *et*