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Orobanche hedypnoidis comb. nov. in Cyprus, new but not unexpected

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Abstract. – The recently described *Phelipanche hedypnoidis* from the *Orobanche* (*Phelipanche*) *ramosa* group has been found in Cyprus for the first time. So far, it is known only from one site at the south coast. *Hedypnois rhagadioloides* as host plant is confirmed. To meet the demands of a more traditional generic treatment the new combination *Orobanche hedypnoidis* is proposed.

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Introduction

Orobanche is one of the most promising genera of flowering plants for new discoveries in Cyprus. Many taxa have a complicated ecology resulting in very irregular appearance. The taxonomy of some groups is not fully understood, since many of them prove to be difficult to determine without additional photo documentation. Two taxa have been added to the flora of Cyprus in recent decades: *O. zosimi* (Foley 2003) and *O. olbiensis* (Rätzel & al. 2016). The *O. ramosa* group is one that needs further study. *O. ramosa* was treated by Meikle (1985) in a wide sense comprising two varieties which are currently accepted at species level, *O. ramosa* s. str. and *O. mutelii* respectively. Records for the former in the E Mediterranean need a critical re-examination (Rätzel & al. 2017). In the same publication typical characters have been compared. Moreover, it presents a species from the *ramosa* group which is new to science. *Phelipanche hedypnoidis* is known to occur from the Canary Islands in the west to Lebanon in the east. There are many records from the E Aegean islands and S Turkey. Consequently, its discovery in Cyprus came as no surprise.

The new record

This recently described species was not actively searched for in Cyprus but found by coincidence in spring 2019:

Division 3 (sensu Meikle 1985), Mazotos, rocky plateau at coast c. 300 m W of Akro Petounta, coastal phrygana, but restricted to sandy strip along track, alt. 13 m, 34°46'39.9"N 33°29'25.9"E, 29.3.2019, *R. Hand 9238* (B, CYP); ibid., 30.3.2019, *R. Hand 9242* (B, CYP).

Additional photos from the same population can be found in the dynamic checklist for Cyprus (Hand & al. 2011–).

It does not make much sense to present a new morphological description based on one rather uniform population. The detailed description (in German as well as in English) published by Rätzel & al. (2017) fits perfectly. All plants found near Mazotos belonged to the colour morph with light blue violet corollas (see Fig. 1). The most important diagnostic character compared to *O. ramosa* s. str. and *O. mutelii* is a calyx with five or more, often irregularly developed, teeth (four in the other taxa). Corolla colouration (yellowish, dorsally and terminally tinged blue violet) and the presence of the host plant *Hedypnois rhagadioloides* are useful indicators in the field. All three *Orobanche* taxa can be determined by a combination of further characters (see Rätzel & al. 2017: tab. 2). However, most of them are not individually diagnostic.

The habitat of the only known population corresponds very well with the description by Rätzel & al. (2017). The plants of the species as well as its host *Hedypnois rhagadioloides* can be found in the marginal strip of a rocky coastal plateau with very sparse phrygana but only where sands from the nearby fields cover the calceareous bedrocks (see Fig. 2). There is a slight ruderalisation in places caused by traffic and the fertilisation of cereal fields in the immediate neighbourhood. No other taxon than *Hedypnois rhagadioloides* could be verified as host plant. The following taxa were found in the same habitat: *Anagallis arvensis*, *Anthemis tricolor*, various *Bromus* species, *Centaurea aegialophila*, *Echium angustifolium*, *Euphorbia cassia* subsp. *cassia*, *Glebionis coronaria*, *Lagurus ovatus*, *Lotus edulis*, *Paronychia argentea*, *Plantago cretica*, *Rostraria cristata*, *Sarcopoterium spinosum*, *Trifolium scabrum* and *T. tomentosum*. As mentioned by Rätzel & al. (2017) the closely related *O. mutelii* prefers more anthropogenous habitats where its favourite hosts such as *Oxalis pes-caprae* can be found.

In spring 2019, the population comprised about 300 flowering shoots in a strip of c. 200 m length. There is no real negative impact on the habitat currently. Cars leaving the track cause some disturbance but to a certain degree this may prevent a too dense vegetation cover. Further studies in Cyprus are needed before a detailed assessment about the conservation status can be made. For the time being the category "Data Deficient" is appropriate.

The new taxon was searched for in various places along the south coast of Cyprus, e. g. at Perivolia, Alaminos, Mandria and Timi, but without success. However, this search was not exhaustive and the plant should be looked for in coastal areas with colonies of *Hedypnois*.

Nomenclature

The new taxon has been described as a member of the segregate genus *Phelipanche*. Splitting *Orobanche* in the traditional sense into *Orobanche* s. str. and *Phelipanche* has become a widespread practice recently (see, e. g., Rätzel & al. 2017). But the growing number of followers does not reflect increasing knowledge. Phylogenetic results are far from being unequivocal. McNeal & al. (2013) argue against splitting *Orobanche*. A valid combination under *Orobanche* is proposed here:

***Orobanche hedypnoidis* (Rätzel & al.) Hand, comb. nov.**
≡ *Phelipanche hedypnoidis* Rätzel & al. in Carinthia II 207/127: 651. 2017

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Fig. 1: *Orobanche hedypnoidis*, Cyprus, Mazotos, flowering and young, typically yellowish shoots, 30.3.2019. – Ralf Hand.

Fig. 2: *Orobanche hedypnoidis*, Cyprus, Mazotos, typical habitat with rich population of *Hedypnois rhagadioloides*, 30.3.2019. – Ralf Hand.