

## NEW COMBINATIONS IN BALEARIC PLANTS

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**RESUMEN:** Se proponen tres nuevas combinaciones nomenclaturales de plantas endémicas de las Islas Baleares: *Ranunculus paludosus* Poiret subsp. *barceloi* (Grau) Rosselló, L. Sáez & N. Torres, *Ononis crispa* L. subsp. *zschackei* (F. Herm.) Rosselló & L. Sáez y *Ophrys bertolonii* Morettii subsp. *balearica* (Delforge) Rosselló & L. Sáez.

**SUMMARY:** Three new nomenclatural changes of vascular plants endemic of the Balearic archipelago are proposed: *Ranunculus paludosus* Poiret subsp. *barceloi* (Grau) Rosselló, L. Sáez & N. Torres, *Ononis crispa* L. subsp. *zschackei* (F. Herm.) Rosselló & L. Sáez and *Ophrys bertolonii* Morettii subsp. *balearica* (Delforge) Rosselló & L. Sáez.

### INTRODUCTION

More than five hundreds of names concerning balearic vascular plants have been published and a great deal of them applies to plants endemic to the Balearic islands. Several years ago we started the taxonomic revision of the balearic endemic flora (MOLERO & al., 1993; MUS & ROSSELLÓ, 1987; MUS & al., 1990, 1991; PERICÁS & ROSSELLÓ, 1983; PUJADAS & al., 1991; PERICÁS & al., 1987; ROSSELLÓ & MUS, 1988; ROSSELLÓ & al., 1991, 1992, 1993) which prompted a comprehensive treatment of some insular groups. However, new morphological observations have pointed out that several taxa need to be revalued. Here we present the results obtained on *Ranunculus barceloi* Grau, *Ononis zschackei* F. Herm. and *Ophrys balearica* Delforge.

### NEW NOMENCLATURAL COMBINATIONS

1. *Ranunculus barceloi* Grau, Mitt. Bot. Staatssamml. München 20: 54 (1984)

Some balearic populations previously attributed to the widespread *R. paludosus* Poiret and differing in some vegetative and fruiting characters were erected at the specific level by GRAU (1984) as *R. barceloi*. The plant was earlier known from Mallorca and Formentera islands (BARCELÓ, 1879-1881) under the name *R. chaerophyllus* var. *balearicus*. However, GRAU (1984, 1986) restricted the taxonomic concept of *R. barceloi* to plants coming from Mallorca and excluded the pytiscic plants from the distribution area. In addition, the related *R. paludosus* was reported to be present in the archipelago (GRAU, 1986). The observation of many populations belonging to *R. paludosus* s.l. from Mallorca, Ibiza and Formentera islands convinced us that only a single entity is present in the Balearics. Morphological within-population variability concerning carpological features could be responsible of the co-occurrence of *R. paludosus* and *R. barceloi* in the archipelago.

Both species are very closely related and only the shape of leaves and the (somewhat variable) curved akene apex are reliable characters to support taxa distinction. Karyological data (GRAU, 1984) also point to the relatedness of both entities. We think that the balearic populations of the *R. paludosus* group should be taxonomically distinguished but, on the basis of the few morphological discriminant features and the phenotypic plasticity of some of them, an infraspecific rank better reflects their relationships. The subspecific rank for *R. barceloi* was invalidly (Art. 33.2, ICBN) proposed by BOLÒS & VI-GO (1990). The following nomenclatural change is hereby proposed:

*Ranunculus paludosus* subsp. *barceloi* (Grau) Sáez, Rosselló & N. Torres, stat. nov. = *R. barceloi* Grau, Mitt. Bot. Staatssamml. München 20: 54 (1984) [basion.] = *R. chaerophyllus* var. *balearicus* Barc., Fl. Baleares: 12 (1879).

2. *Ononis zschackei* F. Herm., Ver. Bot. Ver. Prov. Brander. 54: 250 (1913)

HERMANN (1913) described a new yellow flowered *Ononis* species as *O. zschackei* from Sa Calobra (Mallorca). He related the plant to *O. crispa* L., a balearic endemism belonging to the *O. natrix* complex. The status of *O. zschackei* has never been reappraised since its description and the populations coming from the neighbourings of the type locality have been included under *O. crispa* (BARCELÓ, 1879-1881; BONAFÉ, 1979). The type of *O. zschackei* has not been located since our requests to GAT where it is believed to be held the Hermann's types, were not answered. Fortunately, we have refound *O. zschackei* plants at the type locality, where there are still few individuals alive. They were identical to those plants labelled *O. crispa* from the northern mountains of Majorca. However, plants of *O. crispa* from Minorca and Cabrera islands conspicuously differ from

the majorcan ones by their different habit, the contour of folioles, the shape of the calyx teeth and their number of denticulations. In several features (calyx teeth and length of the pedicel arista) *O. zschackei* links *O. crispa* and the balearic populations collectively named *O. natrix* s.l.; however, overall morphology suggests that *O. zschackei* is closer related to *O. crispa* than *O. natrix*. Typical *O. crispa* populations are absent from Majorca whereas they are present in Minorca and Cabrera islands. In these islands *O. crispa* grows on sandy or rocky soils not far from the sea. On the contrary, *O. zschackei* is found at higher elevations, usually between 500 and 900 m, the only exception being the type locality which is located at sea level. We think that the morphological features of *O. zschackei* strongly suggest a close relationship with *O. crispa* and, although they are enough for a taxonomic recognition, they do not point out to the specific status for the former. A new nomenclatural transfer is made:

*Ononis crispa* subsp. *zschackei* (F. Herm.) L. Sáez & Rosselló, comb. nov. = *O. zschackei* F. Herm., Ver. Bot. Ver. Prov. Brander. 54: 250 (1913) [basion.].

3. *Ophrys balearica* Delforge, Mem. Soc. Roy. Bot. Belgique 11: 15 (1989)

The balearic populations belonging to the *O. bertolonii* Moretti group have been described as *O. balearica* (DELFORGE, 1989) and it is believed that they could have evolved through hybridization with *O. sphegodes* Miller s.l. *O. balearica*, *O. catalaunica* O. Danesch & E. Danesch and *O. bertoloniiformis* O. Danesch & E. Danesch are closely related on morphological grounds to *O. bertolonii* and they have an allopatric distribution centered in the eastern and central Mediterranean region. The morphological attributes underlying the separation of such taxa are very few and this has sometimes favoured confusion regarding plant identification.

In the absence of sound evidence supporting an introgressive scenario for the evolution of the *O. bertolonii* complex, as has been suggested by DELFORGE (1989), the geographic speciation model should not be neglected. In this case and having into account the slight morphological differentiation between *O. balearica* and *O. bertolonii* we favoured the maintenance of a single species with several geographic races. This nomenclatural change is here proposed:

*Ophrys bertolonii* subsp. *balearica* (Delforge) L. Sáez & Rosselló, stat. nov. = *O. balearica* Delforge, Mem. Soc. Roy. Bot. Belgique 11: 15 (1989) [basion.].

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