

Erica multiflora (Ericaceae), *Onosma pygmaeum* (Boraginaceae) and *Typha minima* (Typhaceae) in Albania

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Abstract. *Erica multiflora* (Ericaceae) in Albania is confirmed to occur in the Karaburun Peninsula as well as other regions in Albania. This links the distribution of the species in Croatia to that of western Greece. *Onosma pygmaeum* (Boraginaceae) and *Typha minima* (Typhaceae) are reported as new for the Albanian flora. The former was previously considered endemic to the serpentine areas of N Pindos in NW Greece.

Key words: Albania, distribution, *Erica*, Greece, new records, *Onosma*, serpentine endemic, *Typha*

Ericaceae

Erica multiflora L. is a common component of macchie in the western Mediterranean, reaching its easternmost limits on western mainland Greece. It is an erect evergreen shrub usually less than 1.5 m tall although it can reach a height of up to 3 m. However, in the Mediterranean coastal macchie where it is a dominant species, shallow soils and low rainfall limit growth. It flowers once a year, in the autumn, and is observed capable of re-sprouting after fire. It has some medicinal uses – extracts of leaves have been used to treat inflammation and reduce hypertension in N Africa but it is not listed as a medicinal plant in Albania.

Erica multiflora is not recorded in *Flora Europaea* (Tutin & al. 1972: 7) as occurring in Greece and its presence in Albania was queried as doubtful (indicated by ?Al). It is also not mentioned in the relevant volume of the Albanian Flora (Qosja & Papparisto 1996). Occurrence in Croatia is however, documented. Its presence on western mainland Greece and on the Ionian island of Levkas has recently been confirmed (see Tan, Kit & al. 2010). Charles Nelson (Heather Society, U.K.) who is preparing a monograph on *Erica* to be

published at Kew in 2010 informed one of us (KT) he has no knowledge of the species' existence in Albania and if such information could be provided, it would link the Croatian and Greek distribution. Thus we decided to make a search in literature and in the herbarium at Tirana (TIR) to see if *E. multiflora* has been documented in any way.

Ilia Mitrushi (1904–1986) an Albanian botanist previously based at Tirana University had made two publications 44 and 55 years ago. In *Trees and shrubs of Albania* (Mitrushi 1955) and *Dendroflora of Albania* (Mitrushi 1966), the author provides the distribution of *E. multiflora* in the Karaburun Peninsula, Vlo- ra Bay in S Albania. This is a dry, calcareous, rocky area dominated by low macchie comprising *Quercus ilex*, *Q. coccifera*, *Arbutus unedo* and *Laurus nobilis*, phrygana and small patches of *Quercus ithaburensis*. Other species widely distributed in the area are *Erica manipuliflora*, *Prasium majus* and *Galactites tomentosa* (for complete list see following paragraphs).

The Karaburun Peninsula is a typically Mediterranean coastal area with a mild climate of dry summers, cool winters, rainy springs and autumns. The annual rainfall is 1200–1300 mm and the average annual temperature

varies between 15–16°C. In April 2010 we considered a visit to the peninsula but were discouraged by the necessity of obtaining a permit six months in advance as it is still a protected military zone. However, one of us (AM) had visited it at least three times in previous years.

The most widespread vegetation on the peninsula is *Phlomis fruticosa* phrygana at 0–900 m. The dry shallow soil overlying limestone rock is poor and stony. *Anthyllis hermanniae*, *Asparagus acutifolius*, *Asphodelus microcarpus*, *Calicotome villosa*, *Chrysopogon gryllus*, *Erica manipuliflora*, *Galactites tomentosa*, *Paliurus spina-christi*, *Pistacia lentiscus*, *Pyrus amygdaliformis*, *Quercus coccifera*, *Rhamnus alaternus*, *Rubia peregrina*, *Smilax aspera*, *Thymus capitatus*, *Urginea maritima* are amongst the species noted.

Extensive areas on the peninsula are covered with macchie and Mediterranean evergreen forest at 0–800 m. The larger valleys (stream courses) from the foothills to summits are bordered by *Acer campestre*, *Fraxinus ornus*, *Olea europaea* subsp. *sylvestris*, *Phillyrea angustifolia*, *Pistacia lentiscus*, *Quercus coccifera* and *Q. ilex*. These forests are very rare in Albania but they are well preserved in the Karaburun Peninsula because the region has for a long time been a military zone. The main plant communities of macchie are those dominated by *Quercus coccifera* and those dominated by *Arbutus unedo* and *Erica arborea*. The shrub and herb layer of these plant communities include *Carpinus orientalis*, *Cotinus coggygia*, *Laurus nobilis*, *Myrtus communis*, *Prasium majus* and *Rhamnus alaternus*.

The dominant oak within the evergreen forest below 800 m is *Quercus ithaburensis* subsp. *macrolepis* (the Valona oak). It occurs in small patches without forming a distinct forest belt. Mediterranean species in the undergrowth include *Acanthus spinosus*, *Cercis siliquastrum*, *Cistus salvifolius*, *Galium aparine*, *Hypericum empetrifolium*, *Satureja montana*, *Securigera securidaca* and *Trifolium stellatum*.

Since January 2010 the herbarium at the Department of Biology, Tirana University is slowly shifting over to the Museum of Natural Sciences (TIR) so the latter is still not completely accessible for consultation. According to AM, the *Erica* material collected by Mitrushi from 1956 to 1961 is deposited in TIR. There is also material collected after 1961 which has been erroneously identified as *E. manipuliflora* Salisb. Both species are autumn-flowering but *E. multiflora* can be readily distinguished by its larger flowers (co-

rolla 4–7.5 mm not 3–3.5 mm) and longer anthers (ca. 1.5 mm not 0.7–1 mm).

The following specimens (flowering material) have been examined by AM in the herbarium of the Museum of Natural Sciences (TIR). They verify the statements of Mitrushi (1955, 1966) and confirm the presence of the species in Albania.

Tirana district: Mt Brari, 350 m, calcareous ground, 15 October 1956, Qosja, Balza & Mitrushi.

Lushnja district: Divjaka forest, 5 m, sand dunes, 07 October 1960, Demiri, Palikuqi & Mitrushi.

Vlora district: Llogora gorge, 450 m, calcareous ground, 07 September 1961, Mitrushi; Dhermi village, 250 m, calcareous ground, 26 August 1958, Mitrushi & Duka; loc. *ibid.*, 250 m, calcareous ground, 28 August 1959, Lako & Mitrushi.

Given this wealth of herbarium evidence it would seem that when the account of Ericaceae was prepared for the *Flora of Albania*, the editors may not have consulted the herbarium but had followed *Flora Europaea*. They had extracted and compiled accounts only for those taxa listed in the *Flora Europaea* volumes as present for Albania.

Boraginaceae

Onosma pygmaeum Riedl (Figs. 1 & 2).

S Albania. Gramshi district: Dushku lake, serpentine rocks, 1200–1300 m, 20 May 2010, Mullaj & Shehu (TIR, herb. Kit).

Korca district: near Boboshtica village, serpentine rock, 30 June 2010, Shuka (photo!).

This species is a low cushion-like perennial first described from the Katara Pass in N Pindos and was pre-



Fig. 1. *Onosma pygmaeum* at Dushku lake (photo L. Shuka).



Fig. 2. *Onosma pygmaeum* from Korca district (photo L. Shuka).

viously considered a serpentine endemic restricted to N Pindos in NW Greece. Its presence on serpentine in S Albania is not surprising. As our investigations on the border area between Greece and Albania continue we have lost quite a few “Greek endemics” with the noted extension of their distribution ranges in Albania. *Onosma pygmaeum* is now recorded as a Balkan endemic new for the Albanian flora. Other Greek endemics which have changed their status recently include *Cerastium smolikatum* Hartvig (previously considered endemic to Mt Smolikas) and *Centaurea vlachorum* Hartvig (considered endemic to Mt Milea and Mt Aftia). Both of these are from N Pindos, NW Greece and restricted to serpentine.

Typhaceae

Typha minima Funck ex Hoppe

S Albania. Gramshi district: marsh at Devolli river, near Bersnik village along road from Gramsh to Korce, 350 m, 21 May 2010, *Mullaj & Shehu* (TIR).

The species grows to a height of less than 70 cm which is a low stature compared to other species of *Typha* such as *T. latifolia* and *T. angustifolia*. The edge of the marsh at the Devolli river is rapidly colonized by dense stands of the plant to the near exclusion of other species (Fig. 3). It is reported as new for the Albanian flora.



Fig. 3. *Typha minima* in marsh at Devolli river (photo A. Mullaj).

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