LATHYRUS BINATUS PANČ. IN SERBIA
A species of global importance in biodiversity conservation

B. BUTORAC 1, P. BOŽA 2, R. IGIĆ 2, I. PANČIĆ 1 AND D. SAVIĆ 3
1 Institute on Protection of Nature of Serbia, 21000 Novi Sad, Radnička 20
2 Institute of Biology, PMF, 21000 Novi Sad, Trg Dositeja Obradovića 2
3 National Park “Fruška Gora”, Zrnjev trg 1, 21208 Sremska Kamenica

1. Abstract

A West Serbian mountain Mokra Gora is a "locus classicus" of the eastern Illyrian endemic species Lathyrs binatus. This mountain was the only known locality of this species until 1992 when it was found in the National Park "Tara" (Čemerište)[8]. In 1994 we found this species at three new localities (Zvijezda, Crvene Stene, and Crveni Potok). Its survival points out its importance and also global interest in both regional and species protection to preserve ecosystem, specific, and genetic diversity.

2. Introduction

The species Lathyrs binatus was found in the National Park "Tara". We recorded this east-Illyrian endemic plant, described for the first time by Pančić[9], from a number of localities and reservations (Zvijezda, Karaula, Štula, Crvene Stene and Crveni Potok) of the investigated area. The presented data on the distribution of this Pančić's species and its global importance for the plant genetic resource conservation provide the basis for future action.

3. Results and discussion

Mokra Gora (western Serbia) is "locus classicus" of the Pančić's endemic species Lathyrs binatus. The first finding of this plant supplemented with certain species characteristics was published by Pančić in 1874[9]. Hayek [6] described it as a form of the species Lathyrs pratensis L. Beck-Mannagetta [2] quoted Lathyrs pratensis L. v. binatus (Pančić. J., Fl.knez.Serb.:256 (1874) pro.spec) for a number of localities in Bosnia and the Prenj mountain in Hercegovina. In the same source also Maly.K. was mentioned who, in 1908, cited this taxon as Orobvs pratensis v. binatus Asch.Kanitz. Ball [1] in Flora Europaea, in his study of the genus Lathyrs also mentioned Lathyrs binatus Pančić as an intermediary
taxon between *Lathyrus pratensis* L. and *L. halersteinii* Baumg. for the region of central Yugoslavia. Diklić [4] described it as a valid species. Pančić's data on the occurrence of *Lathyrus binatus* at Mokra Gora is cited as an unique record of this species for the Serbian flora. In volumes IX [7] and X [10] no additional data on the range of this rare and endemic plant in the Serbian flora were presented. According to Gajić [5], *L. binatus* belongs to the group of east-Illirian endemic species. This statement is in agreement with the *Lathyrus binatus* distribution data in certain regions of Bosnia and certain microhabitats of westernmost Serbia. These localities refer to Mokra Gora and Zvijezda and Tara mountains. They are in most part within the boundaries of the National Park "Tara" representing a center of floristic-vegetation diversity not only in Serbia, but also, of the whole Balkan peninsula. Šilić [11] in his survey into the endemic species also mentioned the species *Lathyrus binatus* with its ranges in Serbia and Bosnia and Herzegovina, but without details on its localities. On the basis of these range data he classified it into the group of the endemic plants of Yugoslavia. Taking into consideration the fact that the endemic character is primarily related to the phytogeographical aspects of a region, and that *Lathyrus binatus* belongs to the eastern parts of the Illirian floristic province (certain localities of Bosnia and western Serbia), we agree with the Gajić's data [5] on its nature. Obratov et al. [8] in their supplement to flora of the National Park "Tara" quoted for the first time the species *Lathyrus binatus* emphasizing the locality Čemeriste.

Butorac et al. [3] in their survey into plant cover of this Park, recorded this endemic species from certain new localities referring to the refuge habitats of officially recognized reservations of Zvijezda, Crvene Stene, Crveni Potok, and Karaula Štula. These new data are a valuable contribution to the knowledge of the distribution of this Pančić's species within the boundaries of its endemic range. Knowledge of vegetation and habitats types throws more light upon the synecological characteristics of the analyzed species enabling adequate conservation steps in our attempts to reduce the risk of its extinction.

According to Pańčić [9] and Flora of Serbia [4], *Lathyrus binatus* occurs in stony habitats. Obratov et al. quoted it for limestone substratum. Our investigation results referring to the reservation Zvijezda (Topli Do locality) are in agreement with the above data. In addition to the species *Lathyrus binatus*, permanent members of the rocky vegetation are *Globularia cordifolia*, *Genista lydia*, *Athamanta haynaldii*, *Helianthemum nummularium*, *Pyrus nivalis*, *Dianthus petraeus*, *Sempervivum tectorum*, and *Rosa spinosissima* f. *spraelta*. According to Šilić [11], this endemic species occurs also in open habitats at forest margins and forest clearings. Our finding at Crvene Stene locality refers to the transition area between the forest stands of beech, fir, and spruce community and mesophilous meadows of the alliance *Arrhenatherion elatioris*. These stands are dominated by *Rhinanthus rumelicus*, *Danthonia calycina*, *Sanguisorba officinalis* and *Filipendula hexapetala*. The habitat in the reservation Crveni Potok is a refuge in character due to an unique forest peat bog in this country. *Lathyrus binatus* also endures at the margin of stands of the association *Alno-Piceetum omorikae* Ćolić et Gigov. It is cold, marshy relict habitat where soil and air temperatures are lowered due to permanent water impact therefore imposing central European character upon the recorded phytocenosis. The occurrence of this species also under such conditions point out its broad ecological range and its adaptability. Also worthy of note is the most recent record of the species *Lathyrus binatus* from the National Park "Tara" referring to the locality Zaovine (according to V. Stevanović report in 1997).