Preslia, Praha, 46 : 264—265, 1974

Two New Species for the Carpathians: *Polygala alpina* (Poiret) Steudel *and Sedum kostovii* Stefanov

Dva nové druhy pro Karpaty: *Polygala alpina* (Poiret) Steudel *a Sedum kostovii* Stefanov

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Král M. (1974): Two new species for the Carpathians: *Polygala alpina* (Poiret) Steudel and *Sedum kostovii* Stefanov. — Preslia, Praha, 46 : 264—265.

Polygala alpina (Poiret) Steudel and *Sedum kostovii* Stefanov were found in the Bucegi Mountains in Romania. The localities constitute remarkable area extensions for both species.

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1. A species of *Polygala* was found in the following locality:

Romania, distr. Prahova, Munţii Bucegi; prope rupes in pascuis graminosis in declivi orientali montis Furnica; alt. ca. 1900 m s. m., solo lapidose-terreno, parumper calcareo, expos. orient.; 26. 7. 1969; M. Král [2795a]; in PR.

The plants were tentatively identified as belonging to the *P. amara* group. During a trip to the eastern slopes of the Mt. Furnica on 10 August, 1972, this plant was found again and the leaves proved to be not at all bitter. On a closer examination, the material proved to be referable to *Polygala alpina* (Poiret) Steudel. The plants from the Bucegi agree with the Bonnier's illustration (including the colour of the flowers) (Bonnier 1911), they are, however, somewhat higher (3—9 cm) than is usually reported for *P. alpina* (1—5 cm).

Holub (in litt.) revised this collection using the account of *Polygala* in Flora Europaea (McNeill 1968) and arrived at the same conclusion. In his opinion, however, the identity of this material with the Western European *P. alpina* is not quite certain. He noticed that the shape of the leaves was not always exactly the same as given in McNeill's description. The present author therefore compared the Bucegi plants with herbarium specimens of *P. alpina* from the Alps and the Pyrenees. Although in the Bucegi plants broader rosette leaves with a distinctly rounded apex seem to prevail, the variation in the leaf shape both in the Bucegi plants and in the western ones is continuous and no substantial differences in the leaf shape can be found. The Bucegi plants are usually higher than the western ones but there is certain amount of intergradation (some Bucegi individuals are as dwarf as are the majority of the western ones and a plant from Piemont [leg. Bicknell] nearly equals the highest Bucegi individual) and a clear-cut separation appears impossible. The majority of the Bucegi plants have only one raceme per rosette but this character can be found in the western populations, too. Thus, despite the geographical isolation — *P. alpina* has hitherto been known to occur in the Pyrenees and western Alps only and its discovery in the Carpathians is most surprising — no taxonomic difference between the western and Carpathian populations seems to exist.

P. alpina specimens examined (all in PR): 1. Zentralalp.: St. Moritz, an zahlreichen Stellen, 1800—1900 m, auf Magerwiesen und Weiden; VI. 1918; leg. B. Branger (Braun-Blanquet, Flora Raetica exsiccata 264). — 2. Piemont; leg. Bicknell. — 3. Helvetia; Bourg St. Pierre, audessus du chalet d'Azerin; VII. 1923; herb. A. Zlatník. — 4. Pyrénées Orientales; éboulis de la rive droite dans la vallée d'Eyne; VI. 1924; herb. A. Zlatník.

2. A species of *Sedum* was found in the following locality:

Romania, distr. Prahova, Munţii Bucegi; iuxta viam sub arboribus (Picea) in saxo inter valles Valea Zgarburei et Valea cu Brazi loco dicto La Lac; alt. ca. 1515 m s. m., solo lapidoso, calcareo, expos. orient.; 2. 8. 1972; M. Král [3607]; in PR. Living plants have also been collected and sent to the Botanical Garden of the Botanical Institute of the Czechoslovak Academy of Sciences at Průhonice.

The plants were found growing together with *Sedum annuum* L. but differred at first sight in having smaller flowers. The most striking character is the hyaline tubercles at the apex of the leaves. This feature is known to occur in *S. flexuosum* Wettst. and *S. kostovii* Stefanov (Webb 1964). By the size of the flowers the Bucegi plants differ markedly from *S. flexuosum* and agree with *S. kostovii*. The Bucegi plants agree almost entirely with the original description of *S. kostovii* (Stefanov 1950), except for the shape of the petals (Holub in litt.). The petals are described as "broadly elliptical", whereas the petals of the Bucegi plants are approximately linear (i. e. parallel-sided) in the lower two thirds, narrowed to the acute apex in the upper third, and about $2^1/_2$ times as long as broad (observed in living plants). The present author had, unfortunately, no opportunity to study plants from Bulgarian localities. The plants from Bucegi are therefore referred to *S. kostovii* Stefanov. They are perhaps best treated as an infraspecific taxon. Holub (in litt.) does not exclude the possibility that a new species might be involved. A further study is required.

S. kostovii has hitherto been known from the mountains of SW Bulgaria (Rila and western Rhodopes) only.

Acknowledgements

The authors is greatly indebted to Dr. J. Soják, CSc., for enabling him to study the herbarium material, to Dr. J. Holub, CSc., for helpful suggestions, to Dr. M. Kovanda, CSc., for careful revision of the text and to Mr. A. Roubal for the copy of literature.

Souhrn

V pohoří Bucegi v Rumunsku byly nalezeny *Polygala alpina* (Poiret) Steudel a *Sedum kostovii* Stefanov. U obou druhů se jedná o lokality značně vzdálené od dosud známého areálu.

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Received June 4, 1973
Recenzent: J. Holub