

=== SHORT COMMUNICATION ===

COMMENT ON MACALIK *ET AL.* (2013) AND AN UPDATE ON  
THE STATUS OF *SYRINGA JOSIKAEA* (OLEACEAE) IN THE  
APUSENI MOUNTAINS, ROMANIA

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**SUMMARY.** *Syringa josikaea* is a rare and endangered shrub of the Carpathian Mountains. Its distribution was not studied for a century and data on its populations needed re-assessment. Macalik *et al.* (2013) presented data on the distribution of *S. josikaea* in the Apuseni Mountains, which is, however, incomplete. Here we complement the distribution data presented by Macalik *et al.* (2013) from the literature and field survey we performed recently. Populations not mentioned by Macalik *et al.* (2013) exist in the Someșul Cald Valley, the Galbenei Valley and probably also in the Drăgan Valley. We did not find populations reported by earlier literature in the Aleu and Obârșia Valleys and in the main valley and side valleys of Crișul Repede near Ciucea, Negreni and Lorâu. The population in the Someșul Cald Valley, the largest of all, needs special attention for conserving *S. josikaea* in the Apuseni Mountains.

**Keywords:** Apuseni Mountains - Romania, distribution, *Syringa josikaea*.

*Syringa josikaea* Jacq. fil. ex Rchb. is a species of the Carpathians that has attracted the attention of botanists for over a century as it has been considered a Tertiary relict. However, until recently the last comprehensive summary of its distribution was published by Fekete and Blattny (1913), and there was a clear need for the evaluation of its accurate distribution. We have performed a detailed literature and field survey starting in 2009 (Lendvay *et al.*, 2012).

In the previous issue of this journal Macalik *et al.* (2013) reported the results of their survey on the actual distribution of *S. josikaea* in the Apuseni Mountains, Romania combined with an environmental niche modeling. Macalik *et al.* (2013) gave detailed data on the size and location of the populations they had found,

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however the data they presented is not complete with respect to the actual distribution of *S. josikaea* in the Apuseni Mountains. As the accurate knowledge of the distribution of a species as rare as *S. josikaea* is essential for the establishment of its effective conservation strategy, we would like to complement the data presented by Macalik *et al.* (2013) with information on additional populations from our recent survey on the distribution of *S. josikaea* (Lendvay *et al.* 2012).

Macalik *et al.* (2013) claim that *S. josikaea* has gone extinct in the Someșul Cald Valley. However, we found that *S. josikaea* does still exist in the Someșul Cald Valley, moreover this population proved to be the largest of the species in the Apuseni Mountains (Lendvay *et al.*, 2012). The exact population size is difficult to estimate due to the dense and extensive clonal growth, but we assess the population to consist of 100 to 200 individual specimens. The location of the population is the extremely remote and hardly accessible bottom of the Someșul Cald Valley between the dam of the Beliș reservoir and the village of Rusești. The population in the Someșul Cald Valley is one of the earliest known *S. josikaea* populations (Landoz, 1844), however the most recent herbarium specimens were collected by Aladár Richter in 1908 (deposited in BP herbarium, Budapest) and the last authentic description before our report originated from László Katona, 1912 (Fekete and Blattny, 1913). At Katona's time this population was much larger; he observed it to extend to the present location of the reservoirs constructed along the Someșul Cald Valley in the 1960s and 1970s.

There is another *S. josikaea* population not mentioned by Macalik *et al.* (2013), that in the Galbenei Valley, even though the existence of this population has been known since Michalus discovered it (1887). The population was small and declining already at that time. The one and only herbarium specimen from this population was collected by Emil Pop in 1948 (deposited in CL herbarium, Cluj Napoca), and the most recent personal confirmation of *S. josikaea* at this site before our 2009 visit there originated from 1968 (Stefan, 1971). We found an extremely small population consisting of two individuals in the lower part of the valley (Lendvay *et al.*, 2012).

Macalik *et al.* (2013) did not find *S. josikaea* in the Drăgan Valley. Literature reports regarding this population are imprecise (Fekete and Blattny, 1913; Dihoru and Negrean, 2009). Careful analysis of the literature (Lendvay *et al.*, 2012) reveals that a report on a population probably referring to the Sebeșului Valley was misunderstood by later botanists as pertaining to the Drăgan Valley. However, when visiting the area, we did find some planted individuals in the village of Tranișu that, according to local people, originate from forests of the Drăgan Valley. Surveying the valley, we have not found any individuals in the wild. As *S. josikaea* exists both in the valleys north (Iad Valley) and south (Sebeșului Valley) of the Drăgan Valley, it would not be surprising to discover *S. josikaea* specimens here as well.

There are some additional sites with *S. josikaea* populations listed in the older literature that Macalik *et al.* (2013) do not mention. We have visited all such sites and have not found live populations. These include a population in the Aleu Valley (on the periphery of Pietroasa village), which was last confirmed by Stefan (1971) and an other one in the Obîrșia Valley (Obîrșia village), which was last seen by Blattny (1913), who claimed it to be extremely small and endangered by logging. Given the fact that currently no *S. josikaea* specimens live at these locations we consider these populations extinct.

The remaining earlier reports on populations are either indirect or obviously originate from misunderstanding or mistranslation of geographical names (reviewed in Lendvay *et al.*, 2012). At such locations, namely, Ciucea, Negreni and Lorâu we have not found *S. josikaea* along the river Crișul Repede and its side valleys.

*Syringa josikaea* is a threatened species of the Apuseni Mountains mostly growing as extremely small populations at distant sites. Special attention is needed to preserve the species in its native environments with increasing human impact. The most well known *S. josikaea* population in the Iad Valley is protected by a designated nature protection area and currently seems not to be endangered. However, attention is required for the maintenance of the large *S. josikaea* population in the Someșul Cald Valley. Forest management or road construction could cause severe damage to this population. It would be desirable to establish a protected area between the dam of the Beliș reservoir and the village of Rusești. All other populations may currently be considered as too small to be viable on their own. In these populations care should be taken for the *S. josikaea* specimens individually. For the survival of these populations, it would be desirable to introduce specimens to these sites from nurseries to strengthen these small populations.

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