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SHORT COMMUNICATION

Confirmed population of European bladdernut (*Staphylea pinnata*) on Radych Mt. (Outer Eastern Carpathians, Ukraine)

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Abstract

In May 2025, after 145 years, we successfully confirmed a population of rare and relic species, European bladdernut (*Staphylea pinnata*), on the Mt. Radych (Outer Eastern Carpathians) near the village Rozheve, Sambir district, Lviv Region (Ukraine). The collected materials are deposited at the LWS herbarium.

Keywords: *Staphylea pinnata*, distribution, Ukraine, Radych Mt.

Authors' contributions: AN – validation, investigation, resources, writing – original draft. LP – supervision, conceptualization, methodology, validation, investigation, resources, writing – original draft. MSP – resources, visualization, writing – original draft.

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European bladdernut, *Staphylea pinnata* L., (Staphyleaceae Martinov) is a relic deciduous shrub naturally distributed from southern, south-eastern and central Europe, Caucasus and Anatolian Peninsula including Türkiye, Georgia, Armenia, and Azerbaijan (Piechnik et al., 2024; POWO, 2025). There is also an uncertain report of *S. pinnata* for North Iran and Syria (Melnyk, 1995; Melnyk et al., 2009).

In Ukraine, *S. pinnata* is a rare plant occurring on the northeastern limit of its distribution range (Melnyk et al., 2009). It is listed in the last edition of the Red Book of Ukraine (Melnyk et al., 2009) and, besides some concerns, including the stability of its population and lack of threatment in most

of the distribution range (Didukh, 2016), it has been approved for a new edition in 2021 (MEPNRU, 2021). Here it sporadically appears in the western and central parts of the country, where it participates in the broadleaved forests and subforestal communities (Melnyk, 1995; Derevenko, 2004; Shynder, 2018).

The report of *S. pinnata* from steppe zone of Ukraine, i.e., Donetsk Region (Kotov, 1955; Meusel et al., 1978), appeared to be related to cultivated plants (Shynder, 2018). Recently, *S. pinnata* was reported for Hurivka Zakaznyk in Kirovohrad Region (Trotner, 2024a, 2024b), but this is an artificial forest in the steppe zone and the European bladdernut was most probably introduced there.

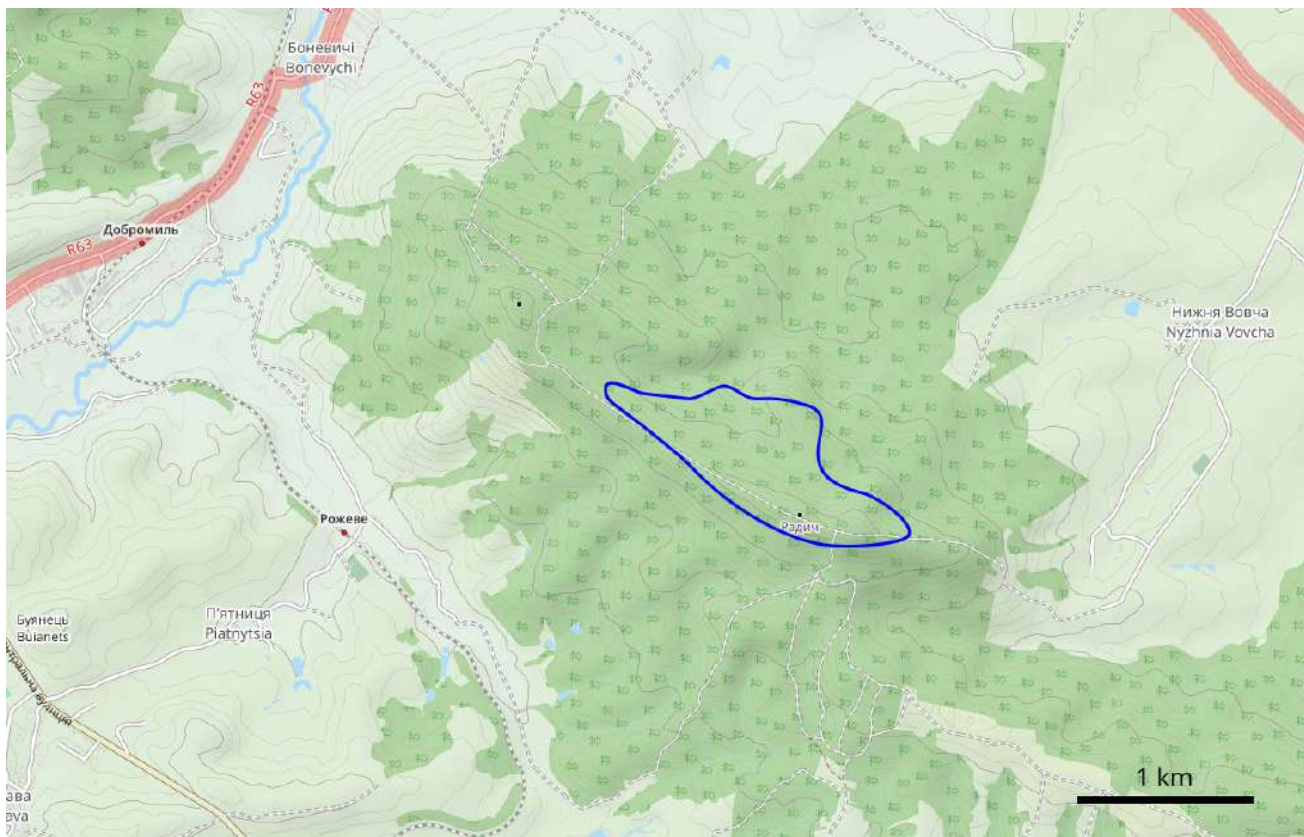


Figure 1. The rough outlines of the *Staphylea pinnata* population on Mt. Radych.

Melnyk et al. (2009) mapped *S. pinnata* for the Zakarpattia Region (e.g., Yulivska Hora Mt. near the village Diula, Kholmovets zakaznyk near the village Kholmovets, and the outskirts of Mukachevo). However, only locality from Yulivska Hora Mt. has been recently confirmed (iNaturalist, 2023). Specimens collected from Yulivska Hora Mt. are also deposited in the Herbarium of the State Museum of Natural History of the NAS of Ukraine (LWS 063174 and LWS 063175 collected by I.V. Vaynagiy in 1957). Unfortunately, we could not survey other mapped localities of *S. pinnata* in the Zakarpattia Region due to war-related travel restrictions.

Hence, one of the westernmost confirmed natural localities of *S. pinnata* from Ukraine was Mt. Khomets in Lviv (Znesinnya Regional Landscape Park). *Staphylea pinnata* has been collected on the northern slopes of Mt. Khomets in 2024 by us. Respective specimens were deposited at the LWS herbarium (vouchers 119101, 119103, and 119106). There is a herbarium of *S. pinnata* collected toward the west from Lviv, from Dobromyl outskirts (LWS 063171, LWS 063172, and LWS 063173, all collected by M.F. Boyko in

1967). However, we were not able to localize the Dobromyl locality as it was referenced to Medytska Mt., which is not mapped and is not associated with any currently known toponym. Instead, in May 2025, we successfully confirmed and collected material from the old locality in Radych Mt., reported briefly over a century ago by Kotula (1880). This habitat remained little known and is usually not cited in works on the distribution of *S. pinnata* in Ukraine. Collected specimens are currently deposited at the LWS herbarium (vouchers 119107, 119113, and 119115).

The Mt. Radych (519 m a.s.l.) is located near the Ukrainian-Polish border (close to Dobromyl) to the north-east from the village Rozheve, Sambir district, Lviv Region (Fig. 1). It belongs to one of the last isolated short island mountainous ridges of the Outer Eastern Carpathians (two summits only) in the Stryvior-Dniester interfluvial area (Łanczont et al., 2019). Considering phytogeographical regionalization, Mt. Radych belongs to the Peremyshele-Dobromyl region, the Cis-Carpathia district of the Eastern Carpathians sector (Tasenkovich, 2004). Considering the physico-geographical mesoregional division, this



Figure 2. *Staphylea pinnata* on Mt. Radych. **A** – General view of the habitat; **B** – young plants are seen growing directly on the path; **C** – inflorescence. Photo credists: A. Novikov.

mountain belongs to the Przemyśl Foothills (Solon et al., 2018) or the Peremyshele-Dobromyl Highland (Novikov, 2021).

The top of the mountain ridge is covered with dense beech-hornbeam-oak forest with a strong presence of hazelnut. *Staphylea pinnata* occurs there in undergrowth at the top of Mt. Radych and also goes down to northeastern slopes at least to 400 m elevation, covering ca. 68 ha of area (49.57307, 22.85092 – 49.56583, 22.87663; Fig. 1). On the southwestern slopes of the ridge, the species was not observed. It is the most densely represented along the old pathway at the ridge's top and under open gaps in the forest canopy. The nature of the habitat is typical for *S. pinnata*, which in Ukraine demonstrate the highest population density on forest edges and along forest roads (Melnyk, 1995; Shynder, 2018). All ontogenetic stages, including seedlings, are present. Most of the plants do not exceed 2–2.5 m in height; however, some plants reaching 3–4 m were observed (Fig. 2).

Hence, a little-known habitat of *S. pinnata*, which is one of the westernmost in Ukraine was confirmed. This discovery significantly supplements the knowledge about the range of the species and encourages us to continue searching for *S. pinnata* in the area of Western Ukraine.

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Підтверджена популяція клокички перистої (*Staphylea pinnata*) на горі Радич (Зовнішні Східні Карпати, Україна)

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У травні 2025 року, через 145 років, нам вдалося успішно підтвердити присутність популяції рідкісного та реліктового виду рослин – клокички перистої (*Staphylea pinnata*) на горі Радич (Зовнішні Східні Карпати) поблизу села Рожеве Самбірського району Львівської області (Україна). Зібрані матеріали зберігаються в гербарії LWS.

Ключові слова: *Staphylea pinnata*, поширення, Україна, гора Радич