

Short communication
**The genus *Onobrychis* Miller (*Fabaceae*)
 in the flora of Macedonia**

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The genus *Onobrychis* Miller in the Macedonian territory, according to current data, is represented with the 10 species. While researching the genus *Onobrychis* in Macedonia, a new species of this genus, *Onobrychis viciifolia* Scop., was discovered which represents a new record for Macedonian flora. Total species of *Onobrychis* Miller in Macedonia reaches 11 with the addition of *O. viciifolia* Scop.

Key Words: *Onobrychis*, new record, Macedonia, *Fabaceae*.

The genus *Onobrychis* Miller, in the flora of Europe is represented by 23 species (Tutin et al., 1976). In Europe is distributed in the Albania, Austria, Germany, Hungary, Romania, Italy, France, Croatia, Slovenia, Serbia, Macedonia and Bulgaria (Martinčič et al. 1999; Paparisto et al. 1992; Stace, 1997; Stojanov, 1967). The flora of Macedonia (Micevski, 2001) includes 10 species: *O. hypargyrea* Boiss., *O. gracilis* Besser, *O. pindicola* Hausskn., *O. alba* (Waldst. & Kit.) Desv., *O. degenii* Dörfler, *O. montana* DC. in Lam. et DC., *O. arenaria* (Kit.) DC., *O. lasiostachya* Boiss., *O. caput - galli* (L.) Lam., *O. aequidentata* (Sibth. & Sm.). While researching the genus *Onobrychis* Miller in Macedonia, a new species of this genus *Onobrychis viciifolia* Scop., was discovered, which represents a new species of Macedonian flora. Examined specimens: Macedonia: Upper part of the Polog valley: 546 m, 41° 48' N, 20° 55' E, 26 June 2006, A. Haziri and F. Millaku (Fig. 4). Total species of *Onobrychis* Miller in

Macedonia reaches 11 with the addition of *O. viciifolia* Scop.

Onobrychis viciifolia Scop., Fl. Carn. Ed. 2, 2 : 76 (1772). Synonym: *O. sativa* Lam., (Fig. 1, 2, 3). Examined specimens: Macedonia: Upper part of the Polog valley: 546 m, 41° 48' N, 20° 55' E, 26 June 2006, A. Haziri and F. Millaku (Fig. 3). Subglabrous to pubescent perennial 60-80 cm. Leaflets 6-14 pairs, 10-35 x 4-7 mm, ovate to oblong, rarely linear. Racemes up to 9 cm in flower. Calyx 5-8 mm, pubescent, the teeth 2-3 times as long as tube; corolla (8-) 10-14 mm, pink with purple veins (Fig. 1). Legume 5-8 mm, pubescent; sides toothed; margin usually with 6-8 teeth up to 1 mm (Fig. 2). Performs best on deep, well-drained calcareous soils at pH levels of 6.0 and above. It has vigorous seedling growth. Thin dry soils require irrigation to improve forage yield. Adapted to warm temperate climes. *Onobrychis viciifolia* Scop., has a wider optimum temperature

range for germination and early seedling growth than most other forage legumes. Periods of high temperature adversely affect subsequent yields, especially following defoliation, since the plant's ability to support high metabolic rates is reduced. In the absence of irrigation, annual rainfall of at least 330 mm required. Water use efficiency, at 15–18 kg DM mm⁻¹ evapotranspiration, is high in

spring, equalling that of alfalfa, but is lower than that of alfalfa later in the season. Irrigation in dry periods aids yield and plant persistence. Nitrogen fixing efficiency is less than that of alfalfa or red or white clovers, since *Onobrychis viciifolia* Scop., requires about 20 mol CO₂ to fix 1 mol of N₂ compared with about 10 mol CO₂ for the other legumes.



Figure 1. *Onobrychis viciifolia* Scop., corolla, pink with purple veins, June 2006



Figure 2. *Onobrychis viciifolia* Scop., legume 5-8 mm, pubescent; sides toothed; margin usually with 6-8 teeth up to 1 mm. June 2006 (photo by Haziri).



Figure 3. Distribution of *Onobrychis viciifolia* Scop. in Macedonia (■).

Conclusion

Based on what was said above, we can conclude that:

1. From the current knowledge of flora in Macedonia, the genus *Onobrychis* Miller, is represented with the 10 species (Micevski, 2001).
2. While researching the genus *Onobrychis* Miller in Macedonia, a new species of this genus *Onobrychis viciifolia* Scop., was discovered, which represents a new species of Macedonian flora.
3. Total species of *Onobrychis* Miller in Macedonia reaches 11 with the addition of *O. viciifolia* Scop.

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