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

# Agim Haziri\*

State University of Tetova, Faculty of Science, Department of Biology, Rr. Ilindenit, 1200 Tetovo, Macedonia Corresponding author Email: <a href="mailto:agim.haziri@unite.edu.mk">agim.haziri@unite.edu.mk</a>

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, Slovenia, France, Croatia, 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 velley: 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 velley: 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<sup>-1</sup> evapotranspiration, is high in

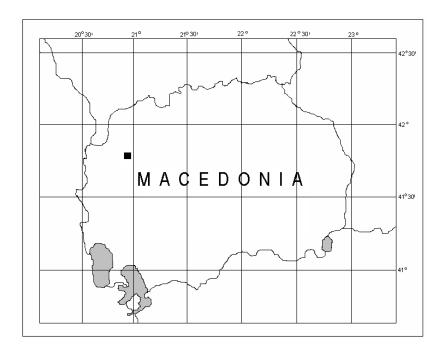
spring, equalling that of alfalfa, but is lower than that of alfalfa later in the season. Irrigation in dry periods aids yield and plant persistence. Nitrogen fixing efficiency is less than that of alfalfa or red or white clovers, since *Onobrychis viciifolia* Scop., requires about 20 mol CO<sub>2</sub> to fix 1 mol of N<sub>2</sub> compared with about 10 mol CO<sub>2</sub> 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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