

Alchemilla ovitensis (Rosaceae), a new species from the east Black Sea region, Turkey

Yusuf Menemen & Ergin Hamzaoğlu

Kırıkkale University, Faculty of Science and Literature, Department of Biology, Kırıkkale-Turkey

Received 28 September 2001, accepted 1 March 2002

Menemen, Y. & Hamzaoğlu, E. 2002: *Alchemilla ovitensis* (Rosaceae), a new species from the east Black Sea region, Turkey. — *Ann. Bot. Fennici* 39: 231–234.

Alchemilla ovitensis Y.Menemen & E.Hamzaoğlu (Rosaceae) from the east Black Sea region (Turkey) is described as a species new to science and illustrated. Its geographic distribution is presented on a map and it is compared with five morphologically similar species.

Key words: *Alchemilla*, new species, Rosaceae, taxonomy

Introduction

The authors have collected specimens of *Alchemilla* from the east Black Sea region of Turkey in the course of the project *Molecular phylogeny and a taxonomic revision of the Turkish Alchemilla L. species*. On the Ovit mountain (Rize) an interesting *Alchemilla* population was seen together with *A. sericea* B.Pawl. and *A. rizensis* B.Pawl. Many specimens of the population were collected and taken into Anadolu Herbarium (ADO), Kırıkkale, for closer examination. Studies in ADO, ANK and GAZI, and comparisons with the publications of Juzepczuk (1941), Townsend (1966), Walters (1968), Pawlowski and Walters (1972), Pignatti (1982) and Hayırlıoğlu-Ayaz (2000) showed that those specimens represent a species new to science.

Alchemilla ovitensis Y.Menemen & E.Hamzaoğlu, *sp. nova* (Figs. 1 and 2)

(sect. *Alchemilla*, subsect. *Chirophyllum* Rothm., ser. *Sericeae* Buser)

Perennis, foliis glabris et non nisi in plicis sparsim pilis in ventralibus paginus, segmentis $\frac{1}{3}$ – $\frac{1}{4}$ connatis raro mediis segmento libero, dentibus 1.5–3.5 mm longis, oblongis vel triangularibus.

TYPE: Turkey. A8 Rize, İkizdere-İspir arası, Ovit Dağı, 2700–3300 m, 20.VIII.2001 Y.Menemen & E.Hamzaoglu, Y.Menemen 752 (holotype ADO, isotypes GAZI and ANK).

Perennial; stems 1–3, slender, 10–25 cm, sparsely to densely hairy, sericeous. Leaves reniform, (17–)21–31(–36) × (24–)32–48(–58) mm,

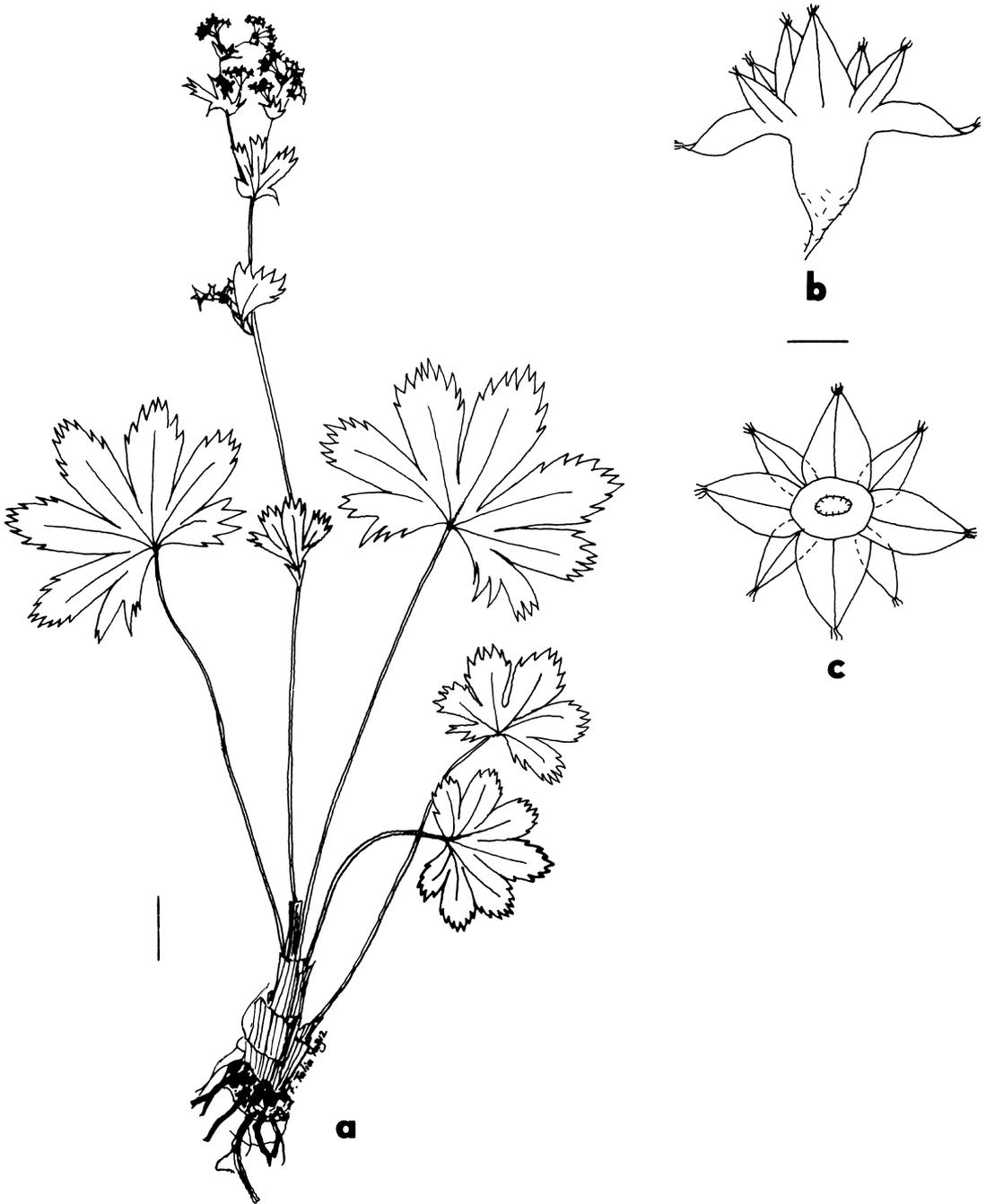


Fig. 1. *Alchemilla ovitensis* (from the holotype). — **a:** Habit. — **b:** Top view of flower. — **c:** Front view of flower. — Scale bars: a = 1 cm, b and c = 1 mm.

discoloured, deep green, glabrous, very sparsely hairy on folds only on upper surface and grey or greyish green, subglabrous to sparsely hairy especially on veins beneath. Leaf segments 5–7, connate up to $\frac{1}{3}$ – $\frac{1}{4}$ (very rarely middle segment

free), obovate, 1.5–2 × longer than wide (including teeth); teeth on lobes 3–7, unequal, oblong or triangular, 1.5–3.5 mm, apical tooth shorter than lateral ones or equal. Flowers 3.5–5 mm wide, pedicels (1)–2–3.5(–5) mm, glabrous or

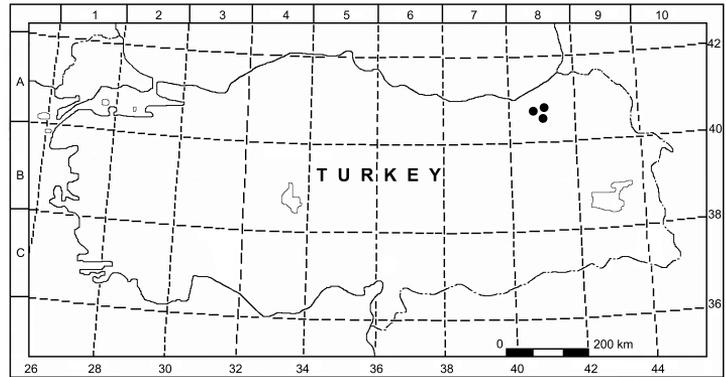


Fig. 2. Distribution map of *Alchemilla ovitensis* (□).

hairy at proximal part only. Hypanthia (1–)1.2–1.7(–1.9) × (1.1–)1.2–1.4(–1.6) mm, hemispherical to oblong-cylindrical, glabrous or hairy at proximal part only. Sepals (1.1–)1.2–1.6(–1.8) × (1–)1.2–1.3(–1.4) mm, broadly triangular-oblong, glabrous or sparsely hairy. Epicalyx (0.6–)0.7–0.9(–1.1) × (0.3–)0.4–0.5(–0.6) mm, linear-lanceolate, glabrous or sparsely hairy.

HABITAT, PHENOLOGY AND LIFE FORM: Rock crevices at 2700–3300 m; flowering and fruiting in July and August; hemicryptophyte.

DISTRIBUTION: Endemic, Euro-Siberian element.

Alchemilla ovitensis closely resembles *A. chlorosericea* Buser, *A. hypochlora* Juz. (both known only from Caucasia) and the Turkish endemic *A. rizensis* B.Pawl. The new species is clearly distinct from the three latter in leaf and floral features (see Table 1). Two Caucasian species, *A. raddeana* Buser and *A. heteroschista* Juz. are also allied to *A. ovitensis*, but they differ in hairiness of the leaves and floral parts, and dissection of the leaf (Juzepczuk 1941). *Alchemilla raddeana* is a small, densely hairy plant with very small leaves (1.5 × 2 cm). *Alchemilla heteroschista* is very similar to *A. rizensis* in its hairiness and leaf features: the median seg-

Table 1. Diagnostic characters of *Alchemilla ovitensis* and three morphologically similar species.

Characters	<i>A. ovitensis</i>	<i>A. chlorosericea</i>	<i>A. hypochlora</i>	<i>A. rizensis</i>
Ventral side of leaves	glabrous	glabrous	sparsely hairy	densely hairy
Leaf folds on ventral side	very sparsely hairy	glabrous	sparsely hairy	densely hairy
Dorsal side of leaves	subglabrous to sparsely hairy on the veins	densely hairy	glabrous or glabrescent	densely hairy
Radical leaf segments	all connate, very rarely middle segment free	all free	all free	lateral connate, the middle (1–3) always free
Cauline leaf segments	all connate	all free	all free	at least the middle free
Teeth	1.5–3.5 mm	2–5 mm	2–5 mm	4–7 mm
Pedicels	glabrous or sparsely hairy	sparsely hairy	glabrous	densely hairy
Hypanthia	glabrous or sparsely hairy at proximal part only	hairy at proximal part only	glabrous	densely hairy
Epicalyx	glabrous or sparsely hairy	hairy in upper part only	hairy in upper part only	densely hairy
Sepals	glabrous or sparsely hairy	hairy in upper part only	hairy in upper part only	densely hairy

ments of the radical and cauline leaves are separate from the lateral ones (Juzepczuk 1941).

ADDITIONAL SPECIMENS EXAMINED (PARATYPES). — **Turkey.** A8 Rize, İkizdere-İspir arası, Ovit Dağı, 2700–3300 m, 20.VIII.2001 *Y.Menemen* & *E.Hamzaoglu*, *Y.Menemen* 753, 754, 755, 756, 757, 758, 759, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780 (ADO).

REPRESENTATIVE SPECIMENS EXAMINED: — *Alchemilla rizensis*: **Turkey.** A8 Rize, İkizdere-İspir arası, Ovit Dağı, 2700–3300 m, 2001 *Y.Menemen* & *E.Hamzaoglu*, *Y.Menemen* 747, 748, 749, 750, 751 (ADO).

Acknowledgements

We thank the Curators of the Ankara University (ANK) and Gazi University (GAZI) herbaria for the opportunity to examine their *Alchemilla* specimens and F.T. Yağız for the drawing of *A. ovitensis*. We are indebted to DPT (Devlet Planlama Teşkilatı, Project number 2001 K 120 850) for financial support.

References

- Fröhner, S. 1969: *Alchemilla* L. — In: Rechinger, K. H. (ed.), *Flora Iranica*. 4: 124–147. Akad. Druck- u. Verlagsanst., Graz.
- Hayırlıoğlu-Ayaz, S. 2000: *Alchemilla* L. — In: Güner, A., Özhatay, N., Ekim, T. & Başer, K. H. C. (eds.), *Flora of Turkey and the East Aegean Islands*, Suppl. 2, 11: 103–113. Edinburgh Univ. Press, Edinburgh.
- Juzepczuk, S. V. 1941: *Alchemilla* L. — In: Shishkin, B. K. & Juzepczuk, S. V. (eds.), *Flora of the USSR* 10: 216–307. Izdatel'stvo Akademii Nauk SSSR, Moskva–Leningrad. [Translated from Russian].
- Pawlowski, B. & Walters, S. M. 1972: *Alchemilla* L. — In: Davis, P. H. (ed.), *Flora of Turkey and the East Aegean Islands* 4: 80–105. Edinburgh Univ. Press, Edinburgh.
- Pignatti, S. 1982: *Alchemilla* L. — In: Pignatti, S. (ed.), *Flora d'Italia*. 1: 588–601. Edagricola, Bologna.
- Townsend, C. C. & Guest, E. 1966: *Alchemilla* L. — In: Townsend, C. C. & Guest, E. (eds.), *Flora of Iraq* 2: 132–135. Min. Agric. Rep. Iraq, Baghdad.