*Ann. Bot. Fennici* 45: 386–388 ISSN 0003-3847 (print) ISSN 1797-2442 (online)
Helsinki 30 October 2008 

# *Salix anatolica* (Salicaceae), a new species from Turkey

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*Received 9 Aug. 2007, revised version received 25 Sep. 2007, accepted 11 Oct. 2007*

Zieliński, J. & Tomaszewski, D. 2008: *Salix anatolica* (Salicaceae), a new species from Turkey. — *Ann. Bot. Fennici* 45: 386–388.

*Salix anatolica* J. Zieliński & D. Tomaszewski *sp. nova* (Salicaceae) from central Turkey is described and illustrated. It is compared with the two morphologically closest species, *S. pedicellata* and *S. pseudomedemii*.

Key words: Salicaceae, *Salix*, new species, taxonomy

## ***Salix anatolica*** J. Zieliński & D. Tomaszewski, *sp. nova* (Figs. 1–4)

*Frutex circa 3 m altus. Ramuli hornotini et annotini dense brevissime pubescentes, glaucopruinosi. Lignum sub cortice cristis linearibus longioribus. Gemmae dense pubescentes. Folia 4.5–10 × 1.5–2.4 cm, latitudine ± 3–4-plo longiora (infima excepto), anguste oblonga vel raro oblanceolata, basi anguste cuneata vel attenuata, apice acuta, marginem inaequaliter denata, serrata vel subintegra (infima), angustissime revoluta, utrinque persistente breve pubescentia, supra astomatifera, atroviridia, subtus distincte glauca, nervatione prominenti. Petioli 4–10 mm longi, breve pubescentes. Stipulae semicordatae grosse dentatae, diu persistentes. Amenta (feminea) praecocia, breve pedunculata. Amenti axis dense pubescens. Bracteae fuscae utrinque longe pilosae. Capsulae appresse pilosae; pedicelli 3–4 mm longi, quam bracteae longiores; styli 0.6–0.7 mm longi; stigmata biloba. Amenta mascula nondum cogita.*

TYPE: Turkey. C5 Adana: Cetinik, above Pozanti, stream valley, 21.VI.1988 *Boratyński, Tomlik & Zieliński 6531* (holotype KOR; isotype E).

Shrub ca. 3 m tall. Current year's and annual twigs distinctly pruinose, remaining densely pubescent. Decorticated wood with narrow, longitudinal ridges. Buds ca. 4 mm long, densely pubescent, dorsally convex, not flattened. Leaves alternate, 4.5–10 × 1.5–2.4 cm, 3–4 times as long as broad, narrowly oblong or lowermost sometimes oblanceolate, acute, narrowly cuneate or attenuate at base, dark green and without stomata above, distinctly pruinose and with prominent veins beneath, margin narrowly revolute, irregularly dentate, serrate or lowermost subentire. Petioles 4–10 mm long, densely pubescent. Stipules large, semi-cordate, grossly dentate, pubescent, more or less persistent. Female catkins appearing before leaves, shortly pedunculate, axis densely pubescent. Bracts dark brown, long pilose on both surfaces. Capsule conical, ca. 5 mm long, densely appressed-pilose. Styles 0.6–0.7 mm long; stigma bilobed. Fruiting pedicels 3–3.5 mm long, appressed-hairy, longer than bracts. Male catkins unknown.

DISTRIBUTION. Known from two disjunct localities in central Anatolia.

*Salix anatolica* is easily distinguished by its pruinose twigs, narrowly oblong discolorous

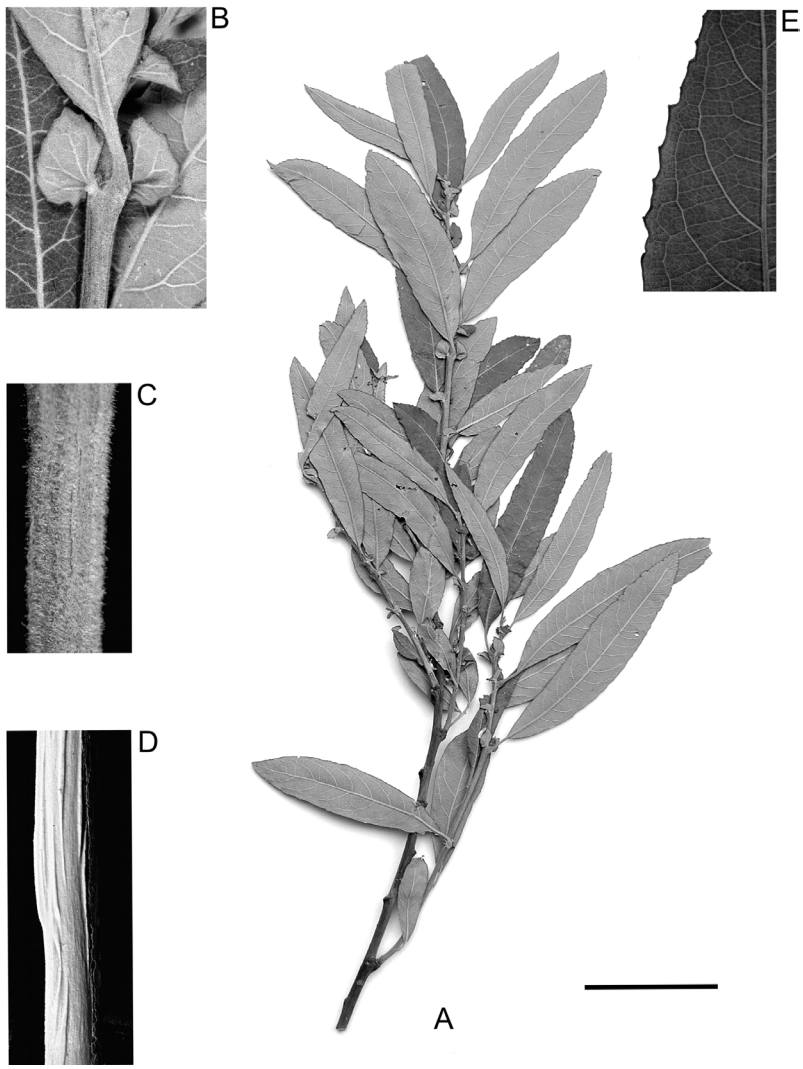


**Fig. 1**. *Salix anatolica* (from the holotype). — **A**: Vegetative twig. — **B**: Stipules. — **C**: Fragment of current year's twig. — **D**: Decorticated wood with longitudinal ridges. — **E**: Leaf margin. Scale bar = 5 cm. Photographed by M. Dziurla.

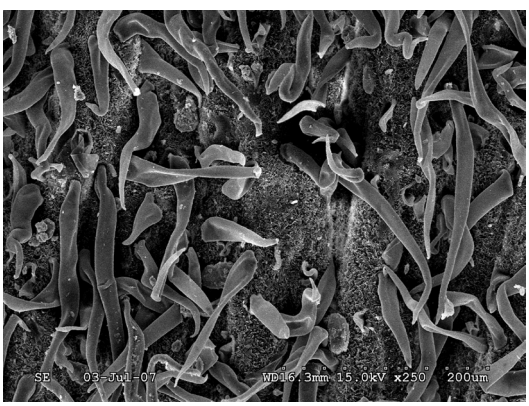


**Fig. 2**. *Salix anatolica* (from the holotype). Surface of current year's twig (SEM micrograph).

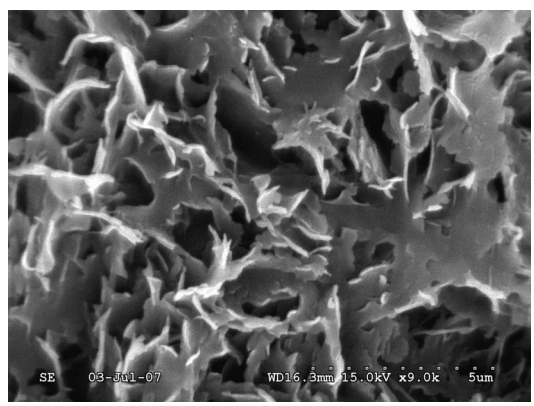


**Fig. 3**. *Salix anatolica* (from the holotype). Spongy wax layer on current year's twig (SEM micrograph).

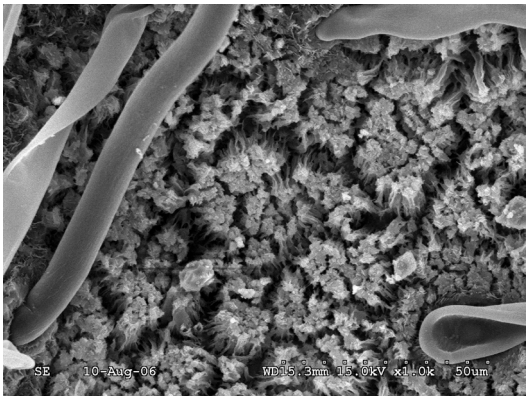


**Fig. 4**. *Salix anatolica* (from the holotype). Abaxial leaf surface (SEM micrograph).

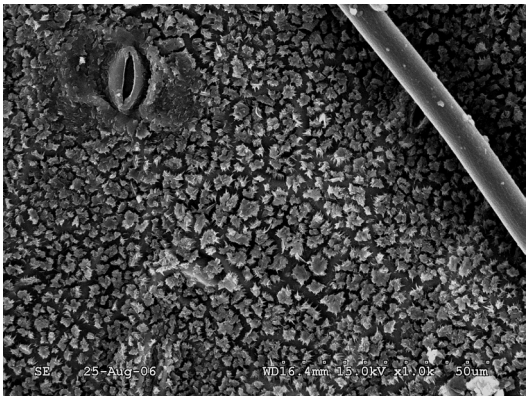


**Fig. 5**. *Salix pedicellata* (from KOR 31198). Abaxial leaf surface (SEM micrograph).

leaves and long-pedicellate capsules. It is morphologically rather similar to the Mediterranean *S. pedicellata* and the Caucasian and East Anatolian *S. pseudomedemii*. From the former it differs by the persistent indumentum of stem and leaves (Fig. 2), from the latter by the much shorter indumentum, and from both taxa it differs by its narrowly oblong leaves and distinctly pruinose twigs. No male catkins have been seen, however, the other characters indicate a position in sect. *Cinerella* (syn. sect. *Vetrix*).

The glaucous waxy bloom on twigs of *Salix anatolica* distinguishes it from all Turkish willows (Skvortsov & Edmondson 1982). The wax is spongy (Fig. 3). On older stems it becomes more amorphous and with time, almost entirely disappears. The bluish colour of the abaxial leaf surface is caused by the epidermal wax. The wax layer is rather thick and formed mainly of papilloid projections termed conicoids (Tomaszewski 2004). The conicoids are relatively large and dense, hence stomata are usually concealed by the wax layer (Fig. 4). In *S. pedicellata* the wax layer on the leaves is thinner, with the conicoids smaller and all stomata clearly visible (Fig. 5).

Additional specimens examined (paratypes). — **Turkey**. C5 Adana: Cetinik, above Pozanti, stream valley, 21.VI.1988 *Boratyński, Tomlik & Zieliński 6528* (E, KOR); B7 Erzincan: Kemaliye, Başpınar, Buğdaypınar Köy, along stream, 1000–1200 m, 20.XI.1980 *Yıldırımlı 4229* (G, HUB, KOR).

## Acknowledgements

We are much indebted to Dr. Kit Tan, Copenhagen, for linguistic improvement and correction of this article, to Mr. Mirosław Dziurla for the photographs in Fig. 1 and to an anonymous reviewer for constructive comments.

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