

A Contribution to the Flora of Turkey: *Padus avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub.

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Received: 25.11.2004

Accepted: 21.02.2005

Abstract: *Padus avium* Mill. specimens collected from NE Anatolia, A8 Trabzon, Demirkapı and Arpaözü villages, are described as *P. avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub. A line drawing and amended description for the flora of Turkey are given.

Key Words: Bird cherry, *Padus avium*, *Rosaceae*, Turkey.

Türkiye Florasına Katkı: *Padus avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub.

Özet: Bu çalışmada, A8 Trabzon: Demirkapı ve Arpaözü Köylerinden toplanan *Padus avium* Mill. örnekleri *P. avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub. olarak tanımlanmış, bu alttürün çizimi ve Türkiye florası için yeni betimi verilmiştir.

Anahtar Sözcükler: Kuş Kirazı, *Padus avium*, *Rosaceae*, Türkiye.

Introduction

The genus *Padus* Mill. is one of the 5 native genera belonging to Tribus *Pruneae*, is closely related to *Laurocerasus* Duhamel and is represented by *Padus avium* Mill. in the Flora of Turkey. This species, with 2 subspecies, is mainly distributed in Europe, Caucasia and W. Siberia and at high altitudes, 1800-2300 m above sea level, in Turkey (Browicz, 1972).

Padus consists of unarmed trees or shrubs; the leaves are deciduous and conduplicate in bud. Racemes have leaves at their bases, by which means this genus can be distinguished from *Laurocerasus* (Browicz, 1972).

Padus avium was recorded at species level in the Flora of Turkey by examining inadequate materials and without observing any specimens in the field (Browicz, 1972). The author stressed both that adequate materials need to be studied for precise determination and that the Turkish taxa may be *P. avium* subsp. *petraea*. The taxonomic situation of the taxon was evaluated using materials from 2 localities and an amended description for the Flora of

Turkey was prepared together with a line drawing and distribution map.

Padus avium Mill. Gard. Dict. Ed. 8: no.1 (1768). subsp. *petraea* (Tausch) Pawlowski ex Holub. in Preslia (Praha) 36: 251-255 (1964) (Figures 1, 2).

Synonym: *Prunus petraea* Tausch in Flora (Regensburg) 21: 719 (1838).

Shrub; young shoots pubescent, bark dull with distinct lenticels; leaves elliptic to oblong-ovate, up to 12(-15) x 6 cm, sharply serrate, pubescent beneath; petioles 1-2 cm, red. Racemes 12- or more-flowered, horizontal or ascending. Flowers scarcely scented; pedicels 10-12 mm; petals obovate, white, 5-8 mm; hypanthium shortly campanulate, pubescent inside, glabrous outside. Drupe globose, c. 8 mm diam., black, sour; stone rugose.

Examined specimens: A8 Trabzon, Uzungöl, Demirkapı Köyü, 2175 m, Terzioğlu, 24 vii 2004, KATO 13368, Arpaözü Köyü, 2250 m, Terzioğlu, 30 viii 1995, KATO 12064! & KTUB 506.



Figure 1. *Padus avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub.: Scale bar: 1 cm.

The cited specimens were stored in KATO (Herbarium of the Karadeniz Technical University, Faculty of Forestry, Department of Forest Botany) and KTUB

(Herbarium of the Karadeniz Technical University, Faculty of Sciences and Arts, Department of Biology).

Discussion

Because of inadequate material, the specimens of *Padus* were recorded at species level by Browicz (1972) in the Flora of Turkey. The author recorded the taxon by examining the specimens collected by someone else, which means that he did not see any specimens in the field. He also mentioned in his treatment that the Turkish specimens of the taxon may be *P. avium* subsp. *petraea*.

By evaluating the adequate specimens collected from A8 Trabzon, Demirkapı and Arpaözü villages, it became clear that the Turkish specimens of *Padus* are *P. avium* subsp. *petraea*.

Based on McNeill (1968), the key of *P. avium* at subspecies level known worldwide is given below:

1. Tree up to 17 m; young shoots glabrescent; leaves glabrous beneath or with hairs only in axils of veins; racemes more or less pendent; flowers with heavy scent,subsp. *avium*
1. Shrub, seldom more than 3 m; young shoots pubescent; leaves pubescent beneath, with prominent veins; racemes horizontal or ascending; flowers scarcely scented,subsp. *petraea*

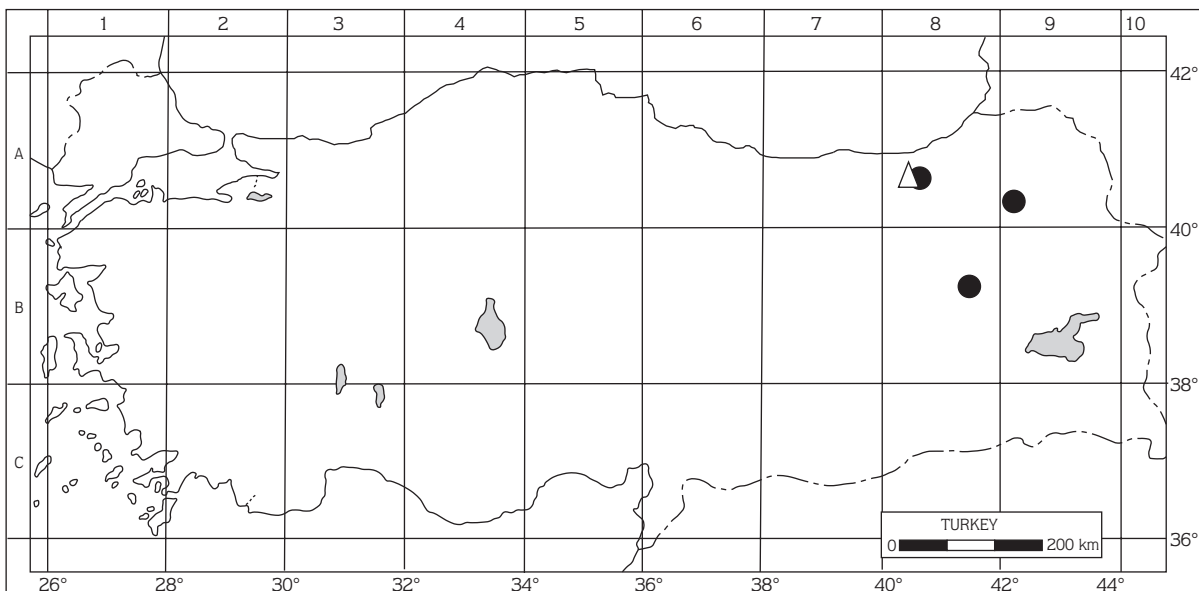


Figure 2. General distribution of *Padus avium* Mill. subsp. *petraea* (Tausch) Pawlowski ex Holub. in Turkey (●) with the cited specimens (Δ).

As can be seen, the plant form, i.e. shrub and tree, is the most important trait with which to distinguish *P. avium* at subspecies level. By measuring individuals from 2 different populations, it was determined that the tallest individual was 2.5 m in height. This shows that our examined individuals are shrubs. On the other side, prominent veined leaves are pubescent all over beneath, or at least along, the midrib. Racemes are generally ascendent and sometimes horizontal (Figure 1), which is another precise trait with which to distinguish these 2 subspecies. All these observed traits refer to *P. avium* subsp. *petraea* as given in the key above. Browicz (1972), who prepared the accounts of *P. avium* for the Flora of Turkey, did not describe the specimens at subspecies level. This may be partly due to loss of certain characteristics in the herbarium specimens.

The cited specimens are distributed in subalpine, igneous screes, by streams, and in *Anemoneo narcissiflori-Betuletum litwinowie* plant association together with the conspicuous species below. Some of the listed taxa with asterisks are the character taxa of the alliance *Lilio pontici – Anemonion narcissiflorae* Vural et al. which characterizes the subalpine vegetation of the region (Vural, 1996).

References

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The following woody and herbaceous taxa were growing in association with *Padus avium* subsp. *petraea* at its sites in Demirkapı Köyü and Arpaözü Köyü:

Acer trautvetteri Medw., *Aconitum nasutum* Fisch., **Anemone narcissiflora* L. subsp. *narcissiflora*, **Astrantia maxima* Pall. subsp. *maxima*, *Betula litwinowii* Doluch, *Delphinium formosum* Boiss. & Huet, *Euphorbia squamosa* Willd., *Festuca gigantea* (L.) Vill., *Heracleum apiifolium* Boiss., *Juniperus communis* L. var. *saxatilis* Pall., *Juniperus sabina* L., *Mentha longifolia* (L.) Hudson subsp. *longifolia*, *Phleum alpinum* L., *Polygonum bistorta* L. subsp. *carneum* (K. Koch) Coode & Cullen, *Populus tremula* L., *Rhododendron caucasicum* Pall., *Rosa canina* L., *Rubus idaeus* L., *Salix caprea* L., *Salix rizeensis* Güner & Ziel., *Sorbus aucuparia* L., **Thymus pseudopulegioides* Klokov & Des.-Shost., *Vaccinium myrtillus* L., *Valeriana alliarifolia* Adams, **Valeriana phu* L., **Veratrum album* L. and *Viburnum lantana* L.

Acknowledgement

The authors express their special thanks to Dr. J. Zielinski (Polish Academy of Sciences, Institute of Dendrology, PL 62 035, Kórnik, Poland) for providing literature.

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