

***Pyrus vallis-demonis* (Rosaceae), a new species from the Nebrodi Mountains (NE-Sicily)**

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Abstract

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The genus *Pyrus* in Sicily is represented by *P. amygdaliformis* Vill., *P. communis* L., *P. pyraster* Burgsd. and, in addition, by several other taxa such as *P. pyrainus* Raf., *P. cuneifolia* Guss., *P. parviflora* Desf., *P. sicula* Tin., *P. tinei* Tod. ex Decne, etc.. These taxa, presently considered at lower rank or quite insignificant from the taxonomical point of view, show on the whole a remarkable morphological diversity. Therefore, new field surveys and collections in the whole Sicilian area as well as the revision of the herbarium material were started up some years ago. As a first result of these surveys, a new species occurring in the Nebrodi Regional Park (NE Sicily) has been found and is here described and named *Pyrus vallis-demonis*.

Introduction

The genus *Pyrus* in Sicily is represented by three species and several other taxa of a lower rank or quite taxonomically insignificant. According to Pignatti (1982) *Pyrus amygdaliformis* Vill., *P. communis* L. and *P. pyraster* Burgsd. occur in Sicily. Previously, among the Sicilian botanists, Lojacono (1891) also reported *P. pyrainus* Raf. including there *P. cuneifolia* Guss. and *P. parviflora* Desf., *P. sicula* Tod. and *P. tinei* Tod., this latter at variety rank.

Terpó & Amaral Franco (1968) included *P. parviflora* Desf. within *P. amygdaliformis* Vill. and considered *P. pyrainus* as a doubtful taxon related to *P. amygdaliformis*.

There are essentially several features concerning *Pyrus* in Sicily to be critically analyzed, therefore surveys and collections in the field, in addition to the revision of the relevant herbarium material, started several years ago. In this context, some records taken in the course of the third O.P.T.I.M.A. Iter Mediterraneum held in Sicily provided a further spur to carry out a revision of *Pyrus* in the region.

As a first result of these surveys, a new species occurring in the Nebrodi Regional Park (Messina Administrative Province, NE Sicily) has been found which is here described and named *Pyrus vallis-demonis*.

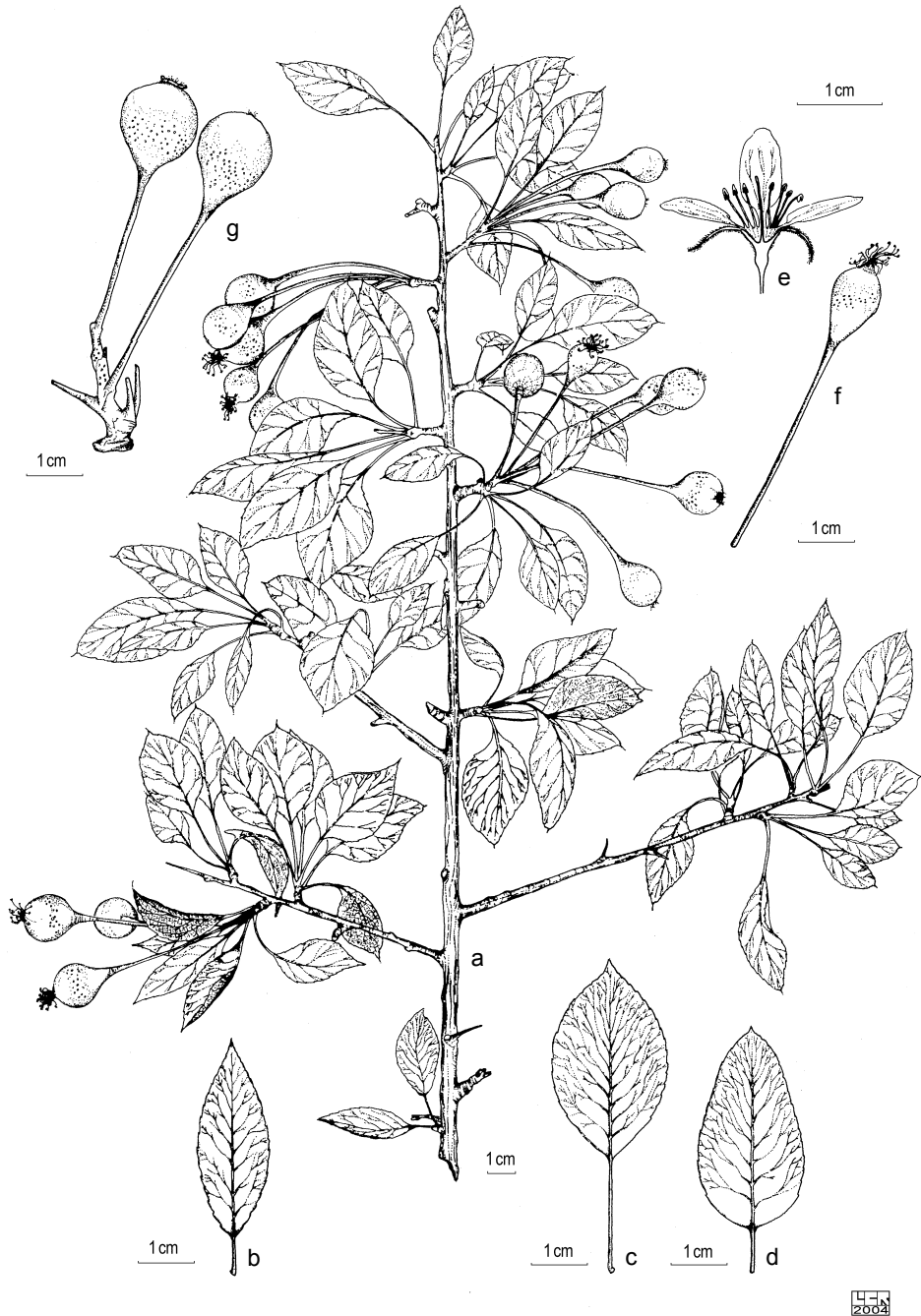


Fig. 1. *Pyrus vallis-demonis*: a) branchlet with fruits (from *holotypus*); b-d) leaves; e) longitudinal section of flower; f) immature fruit; g) ripe fruits.

***Pyrus vallis-demonis* Raimondo & Schicchi sp. nova**

TYPUS – *Holotypus*: Sicilia, Monti Nebrodi, contrada Moglia, tra Portella dell'Obolo e Bosco della Tassita (Caronia, Messina) nelle radure del cerreto, su suolo siliceo, 1440 m s.l.m., 37°53'49,8" N – 14°29'03,07" E, 30 agosto 1999, *Raimondo & Schicchi* (PAL). – *Isotypi* in PAL, G, .SEV, B, RNG, CAT.

ICONOGRAPHY – Fig. 1.

DIAGNOSIS – *Arbor mediocris, spinosus, ad 8 m attingens. Corona plus minusve conica. Caulis erectus, cortice griseo praeditus. Rami erecto-patentes, spinosi, multis lenticellis sparsi; rami 2-3 annis glabrescentes, griseo-rubescens; ramuli 1-anno praecipue brunnei et sulcati. Folia glabra vel parce pilosa ad basin nervi centralis, 5-9 per blachyblastum 0.5-1 cm longum, vel solitaria, alterna, ad ramunculos; lamina ovata vel elliptica, 2,5-4,5 × 1,3-2,8 cm (latitudo/longitudo ratio = 0,34-0,65) obtusa vel cuneata ad basim, acuminata vel apiculata ad apicem; superne lucida, subtus opacus; margo serratus vel serrulatus; terminales nervuli denticulos penetrantes. Petiolus 1,8-4,7 cm, glabrous vel simplicibus pilis sparsus, initio rutilans ad basim.*

Corymbus 12-18 floribus. receptaculum 0,3-0,6 cm diametro, sparsum simplicibus pilis candidis; sepala lanosa, 0,4-0,5 × 0,1 cm, trigona vel lesiniformia; petala candida, glabra, obovata vel elliptica, 1,2 × 0,7 cm; unguis angustatus, laevigatus et apice plus minusve acuto. Stamina 20-28; pedicelli 0,4-0,6 cm; antherae 0,1 cm, initio roseae vel purpureae demum purpureae. Styli 3-5, 0,6-0,9 cm. Pomus 0,8-1,3 × 0,5-1,0 cm, pyriformis vel globosus, ferrugineus, multis lenticellis sparsus. Calyx plerumque deciduus. Pedunculus subtilis, 1,8-4,5 cm longus. Semina nigricantia 3-5 × 1,5-2 cm.

Anthesis : Aprili-Junio.

ETYMOLOGY – The epithet refers to "Val Demona", the North-Eastern of the three ancient administrative subdivisions of Sicily, so called from its extensive woods.

DESCRIPTION – Tree up to 8 m high. Crown more or less conic. Stem erect; bark greyish. Branches erecto-patent, spiny; 2-3 years old branches grey to reddish and covered with numerous lenticels; 1 year old branches predominantly brownish and longitudinally furrowed. Leaves (Fig. 2) glabrous or sparsely hairy at the base of the midrib, grouped (5-9) at the top of short-shoots 0.5-1 cm, or single and alternate on the twigs; lamina ovate to elliptical 2,5-4,5 × 1,3-2,8 cm (breadth/length ratio = 0,34-0,65), obtuse to cuneate at the base and acuminate to apiculate at the apex; upper surface shining green, lower surface darker; margin serrate to serrulate; terminal veining branches off to the margin reaching the teeth. Petiole 1,8-4,7 cm, glabrous or covered with sparse simple hairs, at first reddish at the base.

Corymb 12-18 flowered. Flower receptacle 0,3-0,6 cm in diameter, covered with white, simple hairs; sepals woolly, 0,4-0,5 × 0,1 cm, triangular to lesiniform; petals white, glabrous, obovate to elliptical, 1,2 × 0,7 cm; nail narrowed and prominent, smooth and more or less acute at the apex. Stamens 20-28; pedicels 0,4-0,6 cm; anthers 0,1 cm, pale



Fig. 2. *Pyrus vallis-demonis*: in evidence the leaves lamina with margin serrate to serrulate.



Fig. 3. *Pyrus vallis-demonis*: inflorescence at the end of anthesis.

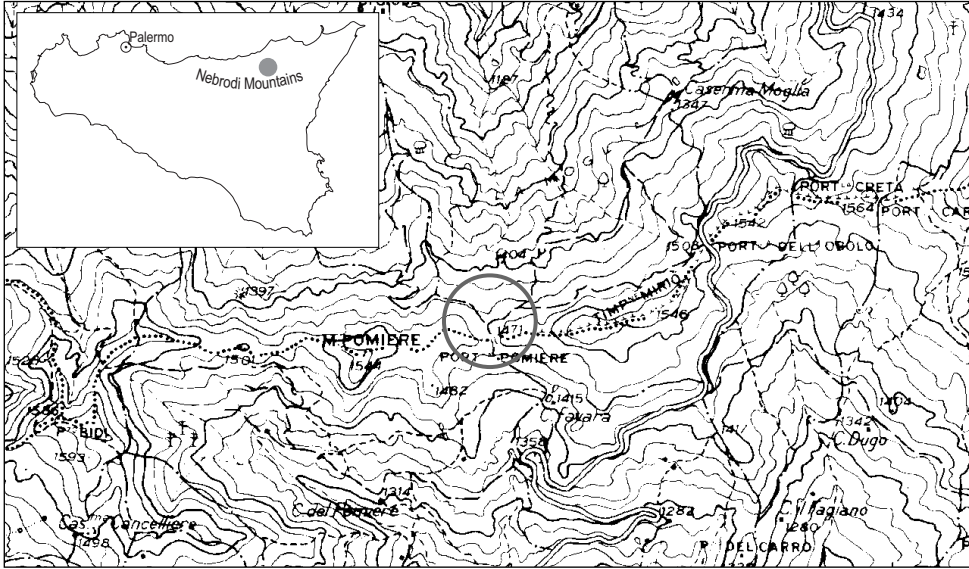


Fig. 4. The *locus classicus* location of *Pyrus vallis-demonis* within the Nebrodi area (o).

pink or rose up to dark red at the end of anthesis. Styli 3-5, 0,6-0,9 cm. Flowering period from late April to early June (Fig. 3).

Pome 0,8-1,3 × 0,5-1,0 cm, pyriform or globose, rust coloured, covered with numerous lenticels; calyx frequently deciduous. Peduncle thin, 1,8-4,5 cm long. Seeds blackish 3-5 × 1,5-2 cm.

DISTRIBUTION AND ECOLOGY – *Pyrus vallis-demonis* is confined to a very restricted area between 1.300 and 1.480 m altitude, in the locality “Moglia” (Fig. 4), between “Portella dell’Obolo” and “Bosco della Tassita” (Caronia, Messina). It occurs along the border and in the clearings of a wood where *Quercus cerris* L. is dominant, on quartzarenite edaphic ground, associated with *Rosa canina* L., *Rubus ulmifolius* Schott, *Prunus spinosa* L., *Ruscus aculeatus* L., *Daphne laureola* L., *Malus sylvestris* Mill., *Acer campestre* L. and *Fraxinus excelsior* L.

STATUS – According to IUCN (2001), *Pyrus vallis-demonis* should be classified as endangered (EN).

TAXONOMIC RELATIONSHIPS – According to the taxonomical treatment of *Pyrus* L. by Terpó & Amaral Franco in *Flora Europaea* (1968), *Pyrus vallis-demonis* is to be included within the group characterized by deciduous calyx including *P. magyarica* Terpó, *P. rossica* Danilov and *P. cordata* Desv. In particular, *P. vallis-demonis* is morphologically close to *P. cordata* Desv. which occurs in the western margin of Europe, from C. Portugal to S.W

England (Terpó & Amaral Franco 1968) and, besides, in Anatolia, northern Iran and northern Africa (Aedo & Aldasoro 1998).

As to glabrescent leaves, similar in shape and margins, and small pomes with deciduous calyx, *P. vallis-demonis* approaches *P. cordata* Desv. But it differs from this by glabrous twigs, 0.34-0.65 breadth/length ratio with respect to 0.46-0.97 in *P. cordata* (Aedo & Aldasoro 1998), apparently narrowed petal claw, longer petiole and peduncle of pomes, which are rather pyriform in shape, and finally by exclusive mesophilous habitat.

P. vallis-demonis is therefore quite distinct from *P. amygdaliformis* Vill. and *P. pyraster* Burgsd. and even from other critical related taxa.

Specimina visa

Nebrodi Mountains: Locality Moglia, near the Tassita area, 9 June 1990, *Raimondo & al.* 1786 (PAL, SEV, G, B, RNG, CAT).

Acknowledgments

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References

- Aedo, C. & Aldasoro, J.J. 1998: *Pyrus* L. — Pp. 433-438 in Castroviejo, C., Flora Iberica, **6**. — Madrid.
- I.U.C.N., 2001: Red List Categories, Version 3.1 — Gland and Cambridge, I.U.C.N. Species Survival Commission.
- Lojacono Pojero, M. 1891: Flora Sicula **1** (2): 195-197. — Palermo.
- Pignatti, S. 1982: Flora d'Italia, **1**: 603-604. — Bologna.
- Terpó, A. & Amaral Franco, J. 1968: *Pyrus* L. — Pp. 65-66 in: Tutin, T. G., Heywood, V. M., Borges, N. A., Valentine, D. M., Walters, S. M. & Webb, D. A. (eds), Flora Europaea, **2**. — Cambridge.

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