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Pyrus sicanorum (*Rosaceae*) a new species from Sicily

Abstract

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A new species of *Pyrus* L., known only from Sicily, is here described and named *Pyrus sicanorum*. This new taxon differt from the close *P. pyraster* by length/width ratio of the leaves, and by the shape and the size of the fruit.

Introduction

In the past the considerable variability of the genus *Pyrus* L. in Sicily led to the identification of several taxa by Italian authors (Gussone 1826; Todaro in PAL 1871, and Lojacono 1891). Subsequently these taxa were judged not really distinct from *P. amygdaliformis* (= P. *spinosa* Forssk.) and *P. pyraster* Burgsd. which, together with *P. communis* L., belong to the Sicilian flora (Pignatti 1982; Terpó & Amaral Franco 1968; Aldasoro & al. 1996).

Apart from these cases, the remarkable diversity we ourselves observed for a long time in the Sicilian populations of this genus, not always referable to any of the known taxa, drove us to carry out an exhaustive research based on recurrent field surveys documented by the collection of specimens, kept both dry and wet. In addition to the discovery of *Pyrus vallis-demonis*, already described from the Nebrodi Mountains (Raimondo & Schicchi 2004), this research led to identify some more new taxa, one of which is here described and named *Pyrus sicanorum.*

Pyrus sicanorum Raimondo, Schicchi & Marino **sp. nova** (Figs. 1, 2)

Typi – *Holotypus*: Sicilia, Monti Sicani, along the S.S. 118 between Filaga and Prizzi (Palermo), shrubland, on carbonate soil, 838 m a.s.l., 37°42’32,26” N – 13°27’35,28” E, 5.11.2006, *Raimondo, Schicchi & Marino* “fr. bottled” (PAL). – *Isotypi* (PAL). – *Paratypi: ibdem*, 12.04.2006, *Raimondo, Schicchi* & *Marino* (PAL).

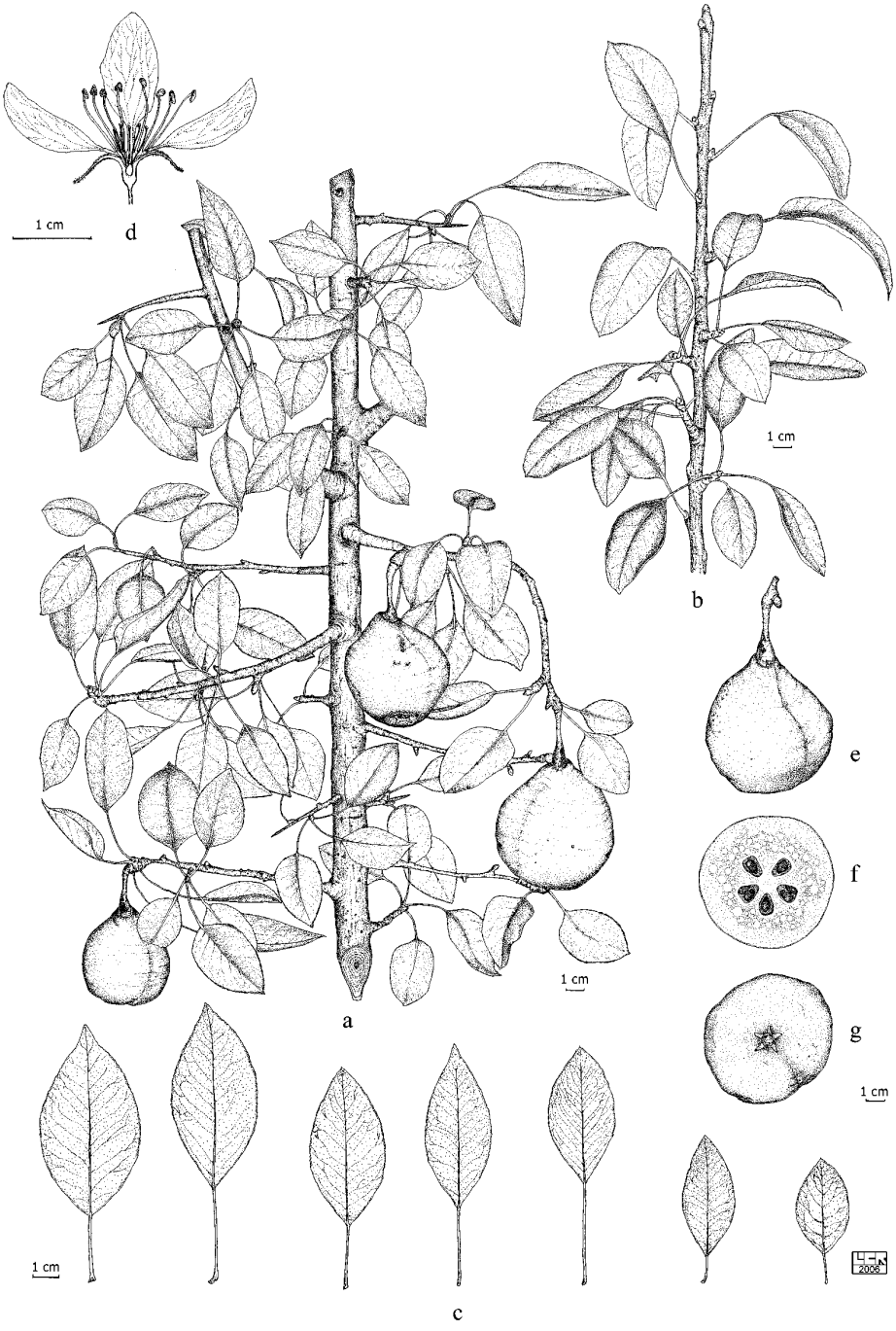

Fig. 1. *Pyrus sicanorum*: **a)** fruiting branch; **b)** apical twig; **c)** leaves; **d)** section of flower; **e)** mature pome; **f)** section of pome; **g)** pome from below, (original drawing by L. Raimondo).

ICONOGRAPHY – Fig. 1.

DIAGNOSIS – *Arbor spinescens, erectus, ramis assurgentibus, coma sub-cylindrata, cortice cynereo vel rubro-brunneo. Folia lanceolata vel elliptica, margine integro, sinuoso vel leviter crenulato, basi acuta, apice acuta vel acuminata, leviter mucronata; petiolus glaber vel sparse pilosus; stipulae lineares caducae. Corymbus 5-7 florus. Sepala linearia-triangularia, lanata. Petala obovata vel oblonga, leviter inequilatera, ungue prominente. Stamina 20, 10 longiora et 10 breviora. Styli 5, varie longi, inferne pilosi.*
Pomum magnum, turbinato-cydoniforme, planum parte cavi calycis et sulco laterale praeditum. Pedunculus basi et apice propemodo inflatus, dimidio angustus. Calyx ad maturitatem fructus persistens vel semi-persistens. Semina lenticularia, castanea, fusca in sicco.

EPONYMY – Epithet referred to the Sicani Mountains, orographic system in CW-Sicily where the *locus classicus* lies.

DESCRIPTION – Tree taller than 6 m, erect, with a basically cylindrical crown; bark grey to brownish. Branches rising. Twigs spiny, glabrous, grey-brownish (two or more years old ones), reddish and spineless (up to one old ones); bark smooth with noticeable lenticels. Leaves lanceolate or elliptical, 1.8-6.7 × 0.8-4.4 cm, glossy green in the upper page, brighter in the lower one. Leaf margin entire, sinuate o slightly crenulate, reddish in young leaves but also often in the fully-grown ones; base acute and apex acute to acuminate, lightly mucronate. Leaves of previous years twigs on short-shoots (0.5-1 cm), grouped in 3-7. Leaves in the shoots of the year single, alternate and spiralate, glabrous or sparsely hairy in the lower leaf page, hairs more abundant in young leaves along the main vein; petiole 0.7-4.5 cm, glabrous or with few simple hairs, completely reddish in young leaves and near the base in the fully grown ones; tertiary veins branched. Linear stipules 0.5-0.7 cm, dropping off early.
Corymb 5-7 flowered with 2-3.2 cm pedicels; flower receptacle cup-shaped 0.3-0.4×0.2 cm, covered by white simple hairs. Calyx with 0.6-1 × 0.15 cm sepals, linear-triangular, woolly.
Corolla with 5 (7) pure white petals, greenish and with apex pink in unopened flowers, glabrous, obovate to oblong, slightly asymmetrical, 1.5-1.9 × 0.7-1 cm long, with prominent claw 0.3 cm long, margin entire or slightly sinuate and rounded apex. Stamens 20, 10 shorter and turned inwards and 10 longer and turned outwards; filaments 0.5-0.8 cm long and anthers old pink to purple, about 0.1-0.15 cm. Styli 5, of unequal length (0.6-0.9 cm), rising the level with the stamens, hairy in the lower part.
Flowering period from end of March to mid April.
Pome 30-70 g, green-yellowish, sometimes reddish on one side, rusty on the 10-30 % of its surface particularly near the calyx, turbinate to quince-shaped, 3.5-6 × 4-5.6 cm, flattened near the calyx. Peduncle 1.3-3.7 cm long, green-yellowish, rusty on one side, almost always inflated near the insertion (6-7 mm max), narrow in the middle part (2-3 mm thick) and widening near the twig (4-5 mm). Calix persistent to semi-persistent. Seeds 10, lenticular on one side and curved on the opposite one, 7.5-8.2 mm long and 4.5-5.5 mm wide, light brown, blackish when dry.

DISTRIBUTION AND ECOLOGY – *Pyrus sicanorum* occurs only in CW-Sicily (Fig.3). It was found along the S. S. 118 between Filaga and Prizzi (Palermo province) in the shrubland;

Fig. 2. *Pyrus sicanorum*: **a)** whole plant; **b)** corymb; **c)** pomes; **d)** leaves.

near Monte Rose (Bivona, Agrigento province) and in the Rifesi Wood (Palazzo Adriano - Palermo province; Burgio - Agrigento) at the border of the *Quercus pubescens* s.l. mesophilous woodland, on carbonate soil, between 750 and 1300 m a.s.l., where occurs together with the elements belonging to the *Quercion ilicis*, the *Pruno-Rubion ulmifolii* and to their higher units such as *Asparagus acutifolius* L., *Crataegus monogyna* Jacq., *Euphorbia characias* L., *Lonicera etrusca* Santi, *Paeonia mascula* subsp. *russii* (Biv.) Cullen & Heywood, *Prunus spinosa* L., *Rosa canina* L., *R. sempervirens* L., *Rubia peregrina* L., *Rubus ulmifolius* Schott, *Ruscus aculeatus* L., *Smilax aspera* L., besides *Polygala preslii* Sprengel, *Bellevalia dubia* (Guss.) Kunth subsp. *dubia*, etc.

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

TAXONOMIC RELATIONSHIPS – On the basis of the taxonomic arrangement of the genus *Pyrus* by Terpò & Amaral Franco (1968), *Pyrus sicanorum* is to be included within the group characterized by pomes with persistent calyx that includes also *P. communis* and *P. pyraster*. *Pyrus sicanorum* exhibits some morphological affinities with *Pyrus pyraster*, common taxon occurring in South, West and Central Europe and in the South-central part of ex U.S.S.R. In particular *P. sicanorum* has the shape of the leavin common with *P. pyraster* the shape leaf margin partially in common with *P. pyraster*, but differs from it by a different length/width ratio of the leaf. In fact *P. pyraster*, as *P. caucasica* Fedorov and *P. bourgaeana* Decne, has leaves with a length/width ratio ≤ to 1,5 (Terpó & Amaral Franco 1968); in *Pyrus sicanorum* this ratio is comprised between 1.5 and 2.8. Another difference lies in the

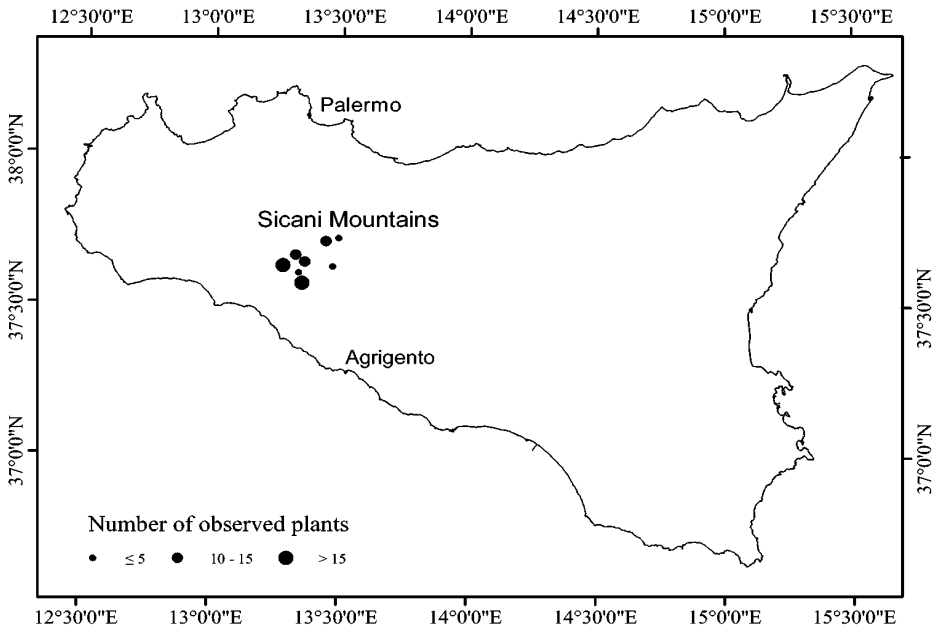

Fig. 3. Distribution of *Pyrus sicanorum* in Sicily.

size of the pomes that in *P. pyraster* fluctuates between 1.3-3.5 × 1.8-3.5 cm while in *P. sicanorum* is included between 3.5-6 × 4-5.6 cm. The pome is provided with a peduncle almost swollen near the insertion and a distinctive furrow between the peduncle insertion and the calyx cavity. The petals exhibit typically narrow and prominent claws.

The new species, however, proves to be fairly morphologically distinct from all the other taxa, included the critical ones, occurring in Sicily now referred to *P. spinosa* and *P. pyraster*.

P. sicanorum belongs to *Pyrus* sect. *Pyrus* distinguished by Terpò (1985) and recognized by Browicz (1993).

OTHER SPECIMENS – Sicani Mountains, Eremo di Rifesi, 30.10.2006, *Raimondo, Schicchi & Marino* (PAL); Sicani Mountains, Rose Mountain, 01.09.2006, *Marino & Ilardi* (PAL); Sicani Mountains, Carcaci Mountain, 04.11.2006, *Marino & Castellano* (PAL); Sicani Mountains, S. Adriano Rifesi, 09.11.2006, *Raimondo, Schicchi & Marino* (PAL); Sicani Mountains, S. Adriano Rifesi (‘Nzitati), 09.11.2006, *Raimondo, Schicchi & Marino* (PAL); Sicani Mountains, S. Adriano Rifesi Forest, 09.11.2006, *Raimondo, Schicchi & Marino* (PAL); Sicani Mountains, Eremo della Quisquina, 03.08.2006, *Marino & Castellano* (PAL).

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References

Aldasoro, J. J., Aedo, C. & Muñoz Garmendia, F. 1996: The genus *Pyrus* L. (*Rosaceae*) in south-west Europe and North Africa. – Bot. J. Linnean Soc., London **30:** 143-155.

Browicz, K. 1993: Conspect and chorology of the genus *Pyrus* L. – Arboretum Kórnickie **38:** 17-33.

Gussone, G. 1826: Plantae rariores, 202-203, tab. 39. – Neapoli.

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: *Pyrus*. – Pp. 195-197 in Flora Sicula, **1(2).** – Palermo.

Pignatti, S. 1982: *Pyrus* . – Pp. 603-604 in Flora d’Italia, **1.** – Bologna.

Raimondo, F. M. & Schicchi, R. 2004: *Pyrus vallis-demonis* (*Rosaceae*), a new species from the Nebrodi Mountains (NE- Sicily). – Bocconea **17:** 325-330.

Terpò, A. 1985: Studies on taxonomy and grouping of *Pyrus* Species. – Feddes Repert. **96(1-2):** 73-87.

— & 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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