

PYRUS PASHIA (ROSACEAE), A NEW RECORD FOR THE FLORA OF IRAN

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Pyrus pashia is reported as a new record from NE Iran. This species is distinguished from its closest relative, *P. boissieriana*, by having more or less ovate, acuminate leaves and fruit size. An illustration of this species in fruit and flower and a geographical distribution map and also photographs of the two species are given.

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گزارش گونه *Pyrus pashia* از خانواده گل سرخ به عنوان گونه جدیدی برای فلور ایران

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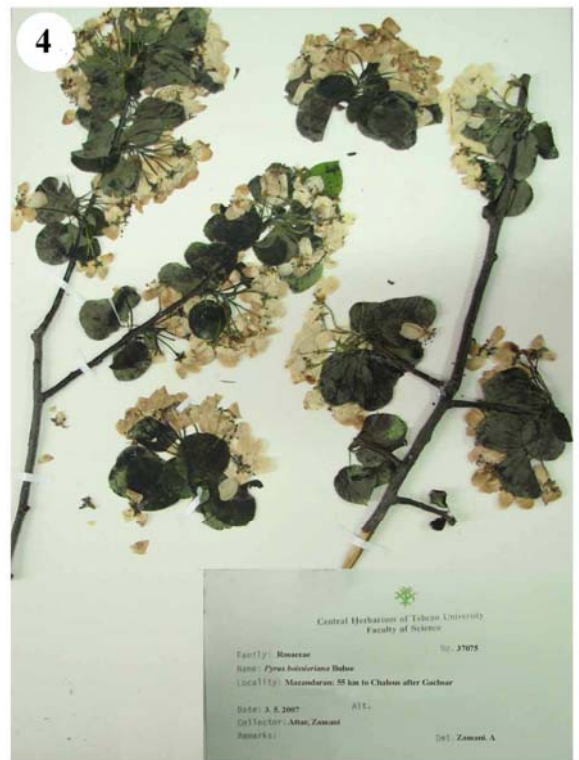
گونه *Pyrus pashia* به عنوان گزارشی جدید از شمال شرق ایران گزارش می‌شود. این گونه با دارا بودن برگ‌های کم و بیش تخم مرغی شکل و نوک تیز و همچنین اندازه میوه از گونه مجاور خود یعنی *P. boissieriana* قابل تفکیک می‌باشد. طرحی از این گیاه در مرحله میوه و گل به همراه نقشه پراکنش و تصاویری از مراحل گلدهی و میوه دهی دو گونه ذکر شده ارائه می‌گردد.

Introduction

The genus *Pyrus* L. is a tree member of subfamily *Maloideae*, family *Rosaceae*. The genus comprises approximately 38 species in temperate regions of the Northern hemisphere (except North America) and exceptionally enters the Northwestern tip of Africa (Browicz 1993). *Pyrus* consists of 10 (Schönbeck-Temesy 1969) to 12 (Khatamsaz 1992) species in throughout Alborz and Zagros Mts. Also, some species are distributed in elevations of east and south of Iran. The species belong to four sections including *Pashia* Koehne, *Pyrus*, *Xeropyrenia* Fedor. and *Argyromalon* Fedor. (Schönbeck-Temesy 1969; Khatamsaz 1992). *P. pashia* Hamilton ex D. Don, *P. boissieriana* Buhse and *P. kandevanica* Ghahreman & Khatamsaz belong to the sect. *Pashia*. The most diagnostic feature of sect. *Pashia* is the presence of pale or white dots on fruit (punctuate fruit). In the framework of collecting of *Pyrus* species as the M.Sc. thesis, we collected *P. pashia* Hamilton ex D. Don (sect. *Pashia*) from NE of Iran. This species has not been previously reported from Iran. Description of the species was compared with *Flora Iranica* (Schönbeck-Temesy 1969) and *Flora of China* (Cuizhi & Spongberg 2003).

Pyrus pashia Hamilton ex D. Don (sect. *Pashia*). - Figs. 1, 3 & 5; map 1.

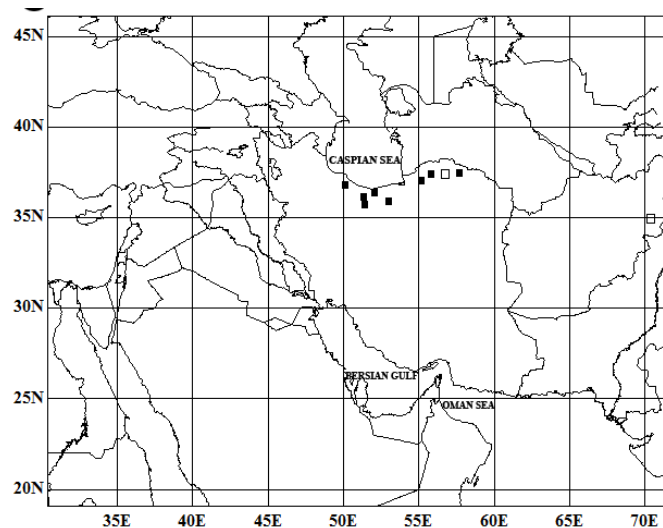
Tree up to 12 m tall. Branches often spiny, tomentose when young, glabrous in age. Buds ovoid, obtuse at the apex. Stipules deciduous, linear-lanceolate, 4- 8 mm long, membranous, adaxially pubescent, at the margin entire, at the apex acuminate. Petiole 1.5- 3 cm long, initially pilose, soon glabrescent. Leaves tomentose when young, glabrescent later, ovate or broadly ovate or lanceolate-ovate, 4-12 × 2.5-5 cm, acute to acuminate, rounded or subcordate at the base, acutely serrate. Inflorescence 7-13-flowered, corymbose; peduncle initially tomentose, glabrescent later. Bracts deciduous, linear, 8-10 mm long, membranous, on both surfaces tomentose, at the margin entire, at the apex acuminate. Pedicel 2-3 cm long, initially tomentose, glabrescent later. Flowers 2-5 cm in diam.; hypanthium cupular, abaxially tomentose. Sepals triangular, 3-6 mm long, both surfaces tomentose, at the margin entire, at the apex acute, acuminate or cirrhous. Petals white, obovate, 8-10 × 4-6 mm, at the base shortly clawed, at the apex rounded. Stamens 15-20, slightly shorter than petals. Ovary 3-5 loculed, with 2 ovules in each locule; Styles 3-5, nearly as long as stamens, glabrous. Fruit



Figs. 1- 4: 1, 3 *Pyrus pashia*; 2, 4: *P. boissieriana*.

Table 1. Diagnostic characters useful in separating *Pyrus pashia* from *P. boissieriana*.

Characters	<i>P. pashia</i>	<i>P. boissieriana</i>
Leaf shape	± Ovate	Suborbicular- broadly ovate
Leaf apex	Acuminate	Obtuse
Leaf in flower	Tomentose	± Glabrous
Fruit diameter	Up to 2 cm	Up to 1.5 cm
Fruit color	Yellowish- Brown	Yellowish- Black



Map 1. Distribution map of *Pyrus boissieriana* ■ and *P. pashia* □.

yellowish-brown, with pale or white dots, subglobose, up to 2 cm in diam.; sepals deciduous in fruit; fruiting pedicel 2-3 cm long, subglabrous.

Seen specimens. IRAN: Prov. Northern Khorassan, ca. 20 km to Ashkhaneh from Golestan National Park, Deviation road of Darkesh village, 20.4.2007, Zamani, Raei Niaki & Maleki, 38279-TUH; same place, 1.8.2007, Attar & Zamani, 37382 (TUH).

Affinities and variation

Pyrus pashia is morphologically the closest relative of *P. boissieriana* so that both species have punctate fruit and deciduous sepals (Figs. 1-4), however presence of some important differences such as ovate-lanceolate leaves with more or less long acuminate apex in *P. pashia* separates it from *P. boissieriana* with orbicular-broadly ovate leaves with mainly rounded apex (Table 1). This species is reported for the first time from Iran, though presence of some important characters such as 15-20 stamens (not 25-30), styles tomentose at base (not glabrous) and cirrhous to acuminate sepals tip (versus acute or acuminate) differing it from *P. pashia*,

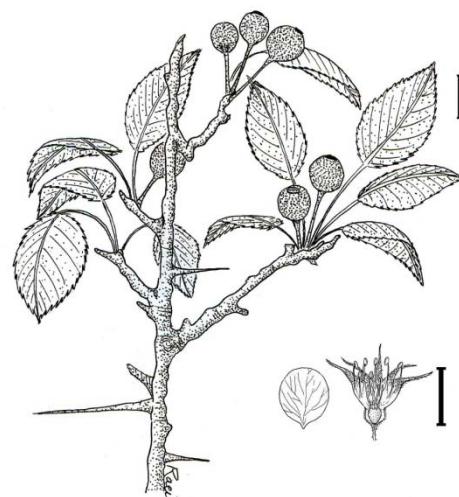


Fig. 5. *Pyrus pashia* (scale bars: fruit= 2 cm, flower, 1 cm).

therefore further studies based on the comparison of Iranian materials with those from other distribution of the species might reveal that it may be a distinct subspecific taxa. This species is distributed in China, Bhutan, India, Kashmir, Laos, Myanmar, Nepal, W

Pakistan, Sikkim, Thailand, Vietnam, Afghanistan (Cuizhi & Spongberg 2003). According to the previous references (Schönbeck-Temesy 1969), the most western range of *P. pashia* stands in E Afghanistan (province Nuristan) while regarding *P. boissieriana* this range reaches Kopet- Dagh in Turkmenistan and the distance between these species is about 1000 km (Browicz 1973). *P. pashia* in NE Iran occurs with numerous individuals of *P. boissieriana*.

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