

Pyrus taxa in Hungary, and their practical importance

András Terpó

Tompa u. 2 (Remete), Budapest II, H-1029 Hungary

TERPÓ A. (1992): *Pyrus* taxa in Hungary, and their practical importance. - Thaiszia, Košice, 2:41-57. - ISSN 1210-0420.

ABSTRACT: Wild and cultivated Hungarian *Pyrus* taxa have been grouped with respect to their origin. The species can be classified to three sections: *Pyrus*, *Pontica* and *Pashia*. *Pyrus pyraeaster*, *P. caucasica*, *P. mecsekensis*, *P. slavonica*, *P. nivalis*, *P. austriaca*, *P. x pannonica*, *P. magyarica* and *P. x karpatiana* were found to occur in Hungary. Only few additional species are planted in Botanical Gardens, e. g., *P. salicifolia*.

KEYWORDS: *Pyrus*, origin, classification, practical importance

Introduction

The occurrence of the genus *Pyrus* in the Carpathian Basin dates back to the Tertiary. *Pyrus* cf. *pyraeaster* grew together with species of the genera *Fraxinus*, *Prunus*, *Fagus*, *Quercus*, *Carpinus*, *Salix*, *Alnus* cf. *incana*, *Berberis*, *Staphylea*, *Carpinus betulus*, *Fagus orientalis*, *Quercus* cf. *castaneaefolia* etc. were identified paleobotanically (ANDREÁNSZKY 1954).

The above taxa formed deciduous forests whose herb and shrub layers included some subtropical and tropical plants as well. The climate of this territory was similar to the recent one with the exception of slightly higher temperature and more precipitation.

The above arguments prove that the wild *Pyrus* species came into being earlier than the cultivated ones. (Some authors still believe that the wild plants are derived from the taxa that escaped from cultivation.)

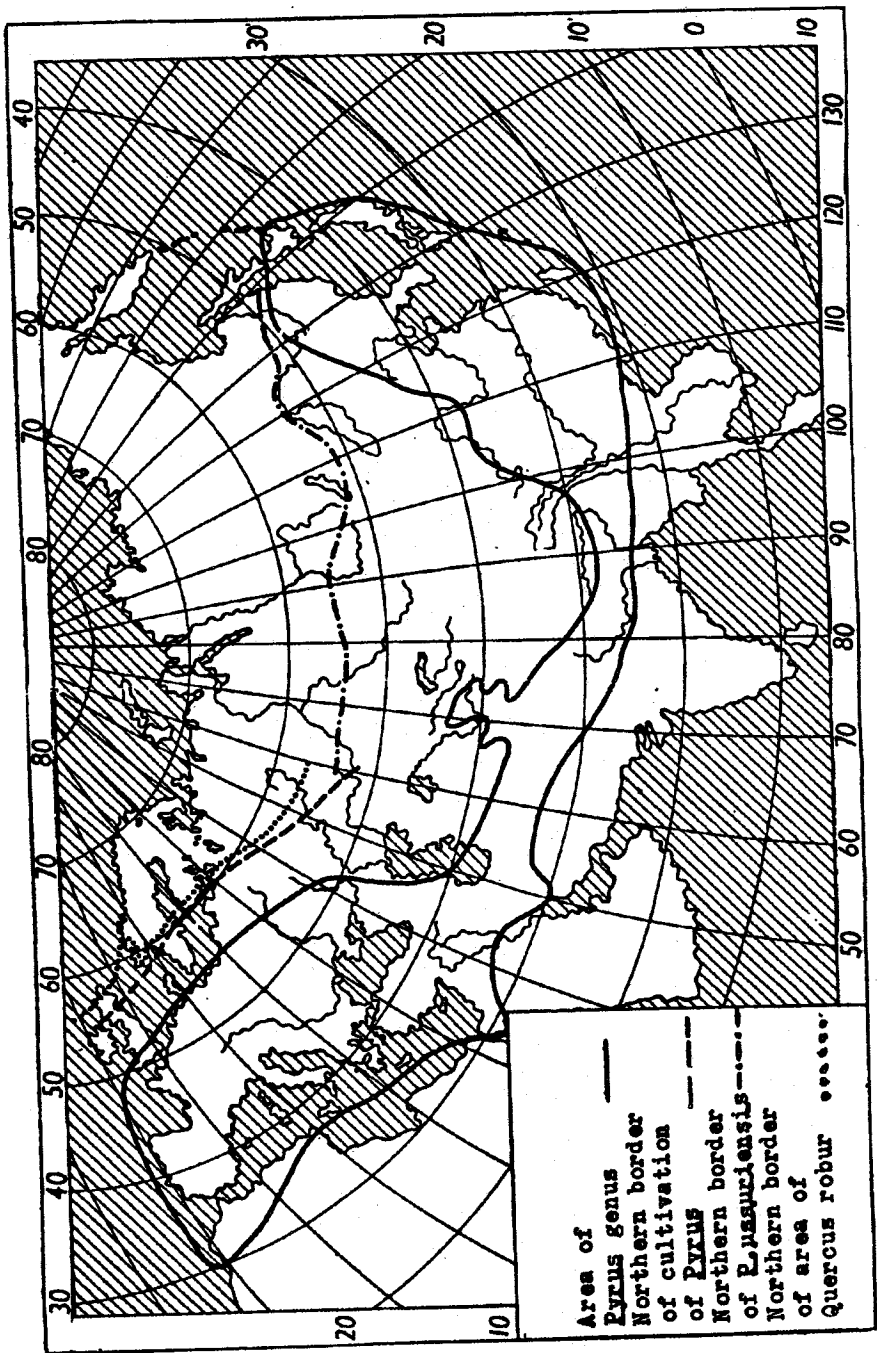


Fig. 1. Geographical distribution of the genus *Pyrus* (on the data of FEDOROV and VASSILCZENKO).

Grouping of *Pyrus* taxa concerning the in origin

I have been dealing with this topic about 30 years. Concerning my results I propose the grouping of wild and cultivated *Pyrus* taxa as follows:

1. Autochthonous species: *P. pyraster*, *P. caucasica* (Mecsek Mt.), *P. cordata*, *P. magyarica*, *P. rossica*, *P. slavonica*, *P. spinosa* (amygdaliformis), *P. bourgaeana*, *P. salviifolia*, *P. austriaca*, *P. x pannonica*, *P. x karpatiana* etc.
2. Escaped pear (taxa)
 - 2.1. Escaped species; *P. syriaca* in Hungary
 - 2.2. Escaped cultivars, for example Bartlett de Boston(Williams Christbirne), Bosc
3. Wild hybrids of *P. communis* and *P. pyraster*, i.e. *P. x amphigenea* DOMIN ex DOSTÁLEK (escaped plants)
4. Cultivated pear
 - 4.1. Cultivated cultivars of *P. communis*
 - 4.2. Local cultivars of wild species (domesticated): *P. spinosa*, *P. nivalis* etc.
 - 4.3. Populations of pear species cultivated for stock, namely plantations of wild pears cultivated for getting propagating material.
 - 4.4. Cultivated species for ornamental purpose, e.g. *P. salicifolia*.

Classification of *Pyrus* species

Sectio 1.: *Pyrus* (Syn.: *Achras* KOEHNE)

P. pyraster BURGSD., *P. caucasica* FED., *P. bourgaeana* DECNE., *P. grossheimi* FED., *P. hyrcana* FED., *P. tadshikistanica* ZAPR., *P. turcomanica* MALEEVEV, *P. balansae* DECNE., *P. mecsekensis* TERPÓ.

Sectio 2.: *Pontica* DECAISNE 1858.

subsectio 2.1.: *Pontica* DECAISNE emend. TERPÓ (Syn.: *Argyromalon* FED.).

P. spinosa FORKS., (*P. amygdaliformis* VILL.), *P. elaeagrifolia* PALL., *P. nivalis* JACQ., *P. slavonica* KIT., (syn.: *P. bulgarica*), *P. austriaca* KERN., *P. salicifolia* PALL., *P. armud* HAUSSKN., *P. anatolica* BROWICZ, *P. complexa* RUBTZ., *P. raddeana* WORON., *P. taochia* WORON., *P. x pannonica* TERPÓ etc.

subsectio 2.2.: *Xeropyrenia* FED.

P. syriaca BOISS., *P. regelii* REHD., *P. korshinskyi* LITW., *P. zangezura* MALEEVEV., *P. voronowii* RUBTZ., *P. nutans* RUBTZ., *P. oxyprion* WORON., *P. federovii* KUTH., *P. ketzkhovellii* KUTH., *P. hakkiarica* BROWICZ, *P. yaltiriki* BROWICZ, etc.

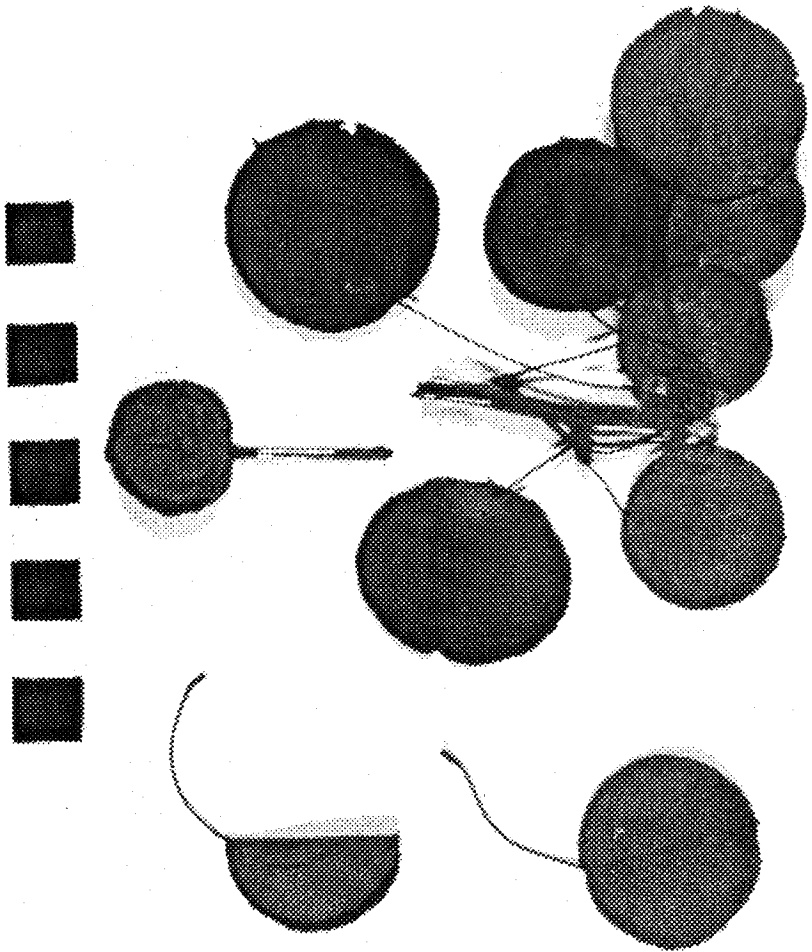


Fig. 2. *Pyrus pyraster* f. *cyclophylla* (MURR.) TERPÓ, Hungary, Transdanubia

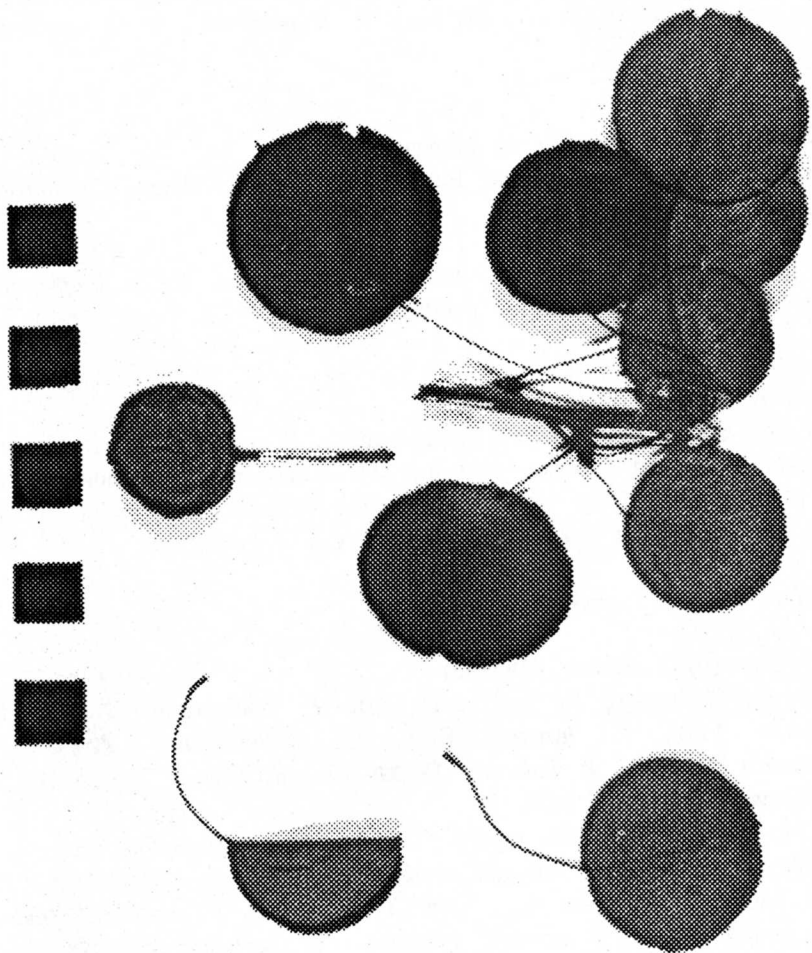


Fig. 2. *Pyrus pyraeaster* f. *cyclophylla* (MURR.) TERPÓ, Hungary, Transdanubia

subsection 2.3.: *Mongolica* (DECNE.) TERPÓ

(Syn.: *Sinensis* MALEEV.)

P. aromatica KIKUCHI et NAKAI, *P. lindleyi* REHD., *P. hondonensis* KIKUCHI et NAKAI, *P. ovoidea* REHD., (*P. ussuriensis* var. *ovoidea* REHD.), *P. ussuriensis* MAXIM., (*P. asiae-mediae* (M. POP.)MALEEV.).

Sectio 3.: *Pashia* KOEHNE

subsection 3.1.: *Armoricana* (DECNE.) TERPÓ

P. boissieriana BUHSE, *P. cordata* DESV., *P. cossonii* REHD., *P. x kárpátiana* TERPÓ, *P. magyarica* TERPÓ, *P. rossica* DANILOV.

subsection 3.2.: *Pashia*

P. calleryana DECNE., *P. betulifolia* BGE., *P. faurieri* SCHNEID., *P. pashia* HAM., *P. phaeocarpa* REHD., *P. pseudopashia* JÜ.

subsection 3.3.: *Pyrifolia* TUZ.

P. bretschneideri REHD., *P. pyrifolia* (BURM. f.) NAKAI, *P. uyematsuana* MAK., *P. serrulata* REHD.

Survey of *Pyrus* Taxa in Hungary

1. *Pyrus pyraester* BURGDS.

Leaves: rounded, ovate, elliptic-ovate

Fruits: globose, depressed-subglobose, globose-ovoid, turbinate, pyriform.

subsp. *pyraester*

leaves: glabrous, rounded, subrounded, cordate, elliptic-ovate

fruits: globose, depressed-subglobose, turbinate,

f. *pyraester*, f. *cordifolia*, f. *spathulata*, f. *populifolia*, f. *applanata*

var. *javorkae* PÉNZES

var. *elongata*(NYÁR.) TERPÓ

var. *penzesiana* TERPÓ

var. *brachypoda* (KERN.) TERPÓ

subsp. *achras* (WALLR.) TERPÓ (p.p. var. *tomentosa* KOCH)

leaves: pubescent beneath, usually ovate, orbicularovate to elliptic

fruits: pyriform or turbinate. West Europe.

var. *achras*

f. *achras*, f. *ovalis*

var. *platycarpa* GILLOT,

f. *platycarpa*, f. *microphylla*

2. *Pyrus caucasica* FED.

Leaves orbicular-ovate, ovate, acuminate, entire, ciliate and slightly pubescent.

Fruit turbinate or subglobose (Mecsek Mt.), calyx persistent.

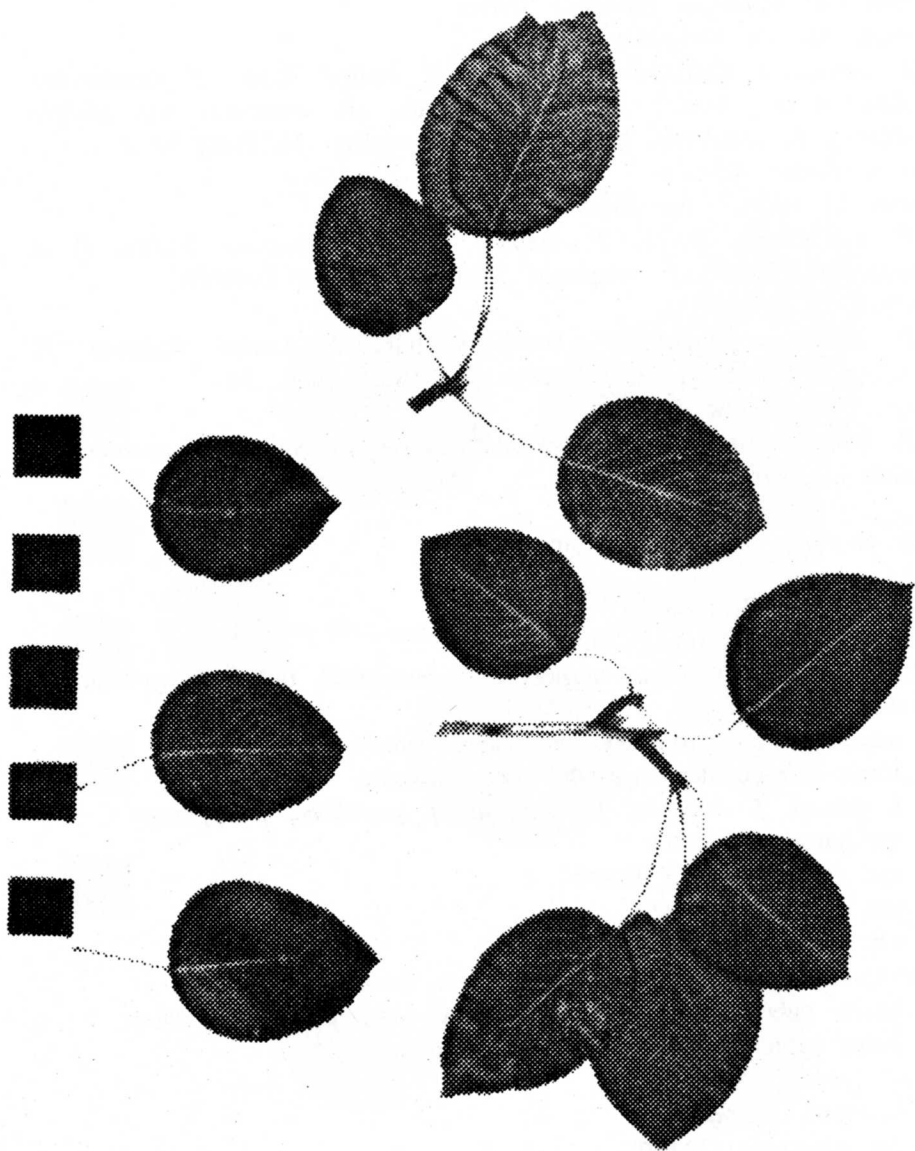


Fig. 3. *Pyrus magyarica* TERPÓ, Central Hungarian Mountain range (Pilis Mts.)

3. *Pyrus mecsekensis* TERPÓ.
Leaves ovate-lanceolate, lanceolate, crenulate, glabrous.
Fruit subglobose or turbinate, calyx persistent.
4. *Pyrus slavonica* KIT.
Tree with spiny branches.
Leaves ovate, lanceolata, elliptical or obovate, tomentose when young.
Fruit subglobose, turbinate or ovoid. From the Central Hungarian Mts. to Balkan Peninsula.
5. *Pyrus nivalis* JACQU. subsp. *orientalis* (TERPÓ) TERPÓ
(Syn.: *P. nivalis* var. *orientalis* TERPÓ 1960).
Shrub or small tree with stout erect, spiny branches. Twigs stout white tomentose when young. Leaves obovate and lanceolate, cuneate at base, slightly crenulate at apex, tomentose on both sides, often glabrescent above. Petiole 20-55 mm. Fruit slightly depressed globose, turbinate or ovoid. The Central Hungarian Mts. Several varieties are known: *schilberszkyana*, *bereczkiana*, *canaliculata*, *pallidifolia*. Dry places (*Stipetum tirsae*).
6. *Pyrus austriaca* A. KERNER.
Large tree with black branches, greyish tomentose when young. Leaves obovate, lanceolate, glabrescens above. Fruit turbinate or pyriform. W. Hungary (C. and S. Europe).
7. *Pyrus x pannonica* TERPÓ (*P. nivalis* subsp. *orientalis* x *pyraster*) (p. p. var. *tomentosa* KOCH).
Tree or shrub with spiny branches. Twigs tomentose while young. Leaves obovate, lanceolate, elliptical or orbicular. Fruit subglobose to turbinate. The Central Hungarian Mts.
8. *P. magyarica* TERPÓ, Small tree, with spiny branches. Leaves ovate, subcordate, aristate-dentate. Fruit not densely covered with lenticels, calyx deciduous. Woods and hedged in the Central Hungarian Mts.

The *Pyrus* taxa are able to hybridize spontaneously. Thus the crossing between the planted and wild trees is permanent. The change in the genetic material is one cause of the wide variability among the wild populations.

P. x karpatiana TERPÓ (syn. *P. pyraster*, var. *relicta* DOSTALEK 1991). Rare plant of the Pannonian region. This hybrid lives south of the Moesz line. In the territory of Slovakia it can be found in Kováčovské kopce and Hajnáčka (according to DOSTÁLEK 1979).

