

Ann. Naturhist. Mus. Wien	106 B	255–293	Wien, Juli 2005
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## New plant records for Khorassan province, Iran

F. Ghahremaninejad\*, M. Joharchi\*\* & E. Vitek\*\*\*

### Abstract

240 vascular plant taxa of 183 genera in 50 families are recorded for the first time from Khorassan province, Iran. The staffs of the Ferdowsi University herbarium, Mashhad [FUMH] have collected these specimens over the past 20 years. All specimens recorded here are deposited in FUMH or in the Natural History Museum Vienna [W], some duplicates also in the Farabi Herbarium, University of Tarbiat-Moaallem [FAR]. 39 species are endemic to the Flora Iranica area and 20 are endemic to Iran.

**Key Words:** Flora, Iran, Khorassan province, new records.

### Zusammenfassung

240 Taxa der Gefäßpflanzen aus 183 Gattungen und 50 Familien werden das erste Mal aus der Khorassan Provinz, Iran, gemeldet. Die Mitarbeiter des Herbariums der Ferdowsi Universität, Mashhad (FUMH) haben die Belege in den letzten 20 Jahren gesammelt. Die zitierten Belege sind in FUMH oder im Naturhistorischen Museum in Wien [W] deponiert, einige Dubletten auch im Farabi Herbarium, University of Tarbiat-Moaallem [FAR]. 39 Arten sind endemisch im Flora Iranica-Gebiet, 20 sind endemisch im Iran.

### Introduction

In this paper 240 taxa are recorded for the first time from Khorassan province, Iran. In this province more than 1800 species of flowering plants from 103 families are growing (based on Flora Iranica treatments).

Khorassan (Khorasan) province is located in NE Iran and covers an area of 313.335 km<sup>2</sup>. It is the largest province of the country, includes one fifth of the country's area and extends from 30°21' to 38°17' N and from 55°28' to 61°20' E. Former geographers have divided Greater Iran (Iranshahr) into eight territories of which Khorassan was the largest and the most flourishing territory.

From the point of view of its natural features, Khorassan province can be divided into a northern and a southern section. The northern part is mountainous, with fertile plains in its lower areas, with suitable conditions for agricultural and animal husbandry. The southern part consists of two vast arid plains with low hills and poor vegetation cover.

Khorassan province is located in the north temperate zone and exhibits a climatic gradient. The temperature increases from north to south and annual precipitation decreases.

\* Farrokh Ghahremaninejad, Dept. of Biology, Teacher Training Univ. of Tehran (Univ. of Tarbiat-Moaallem), 49 Dr. Mofatteh Ave., 15614 Tehran, Iran. – [ghahremaninejad@saba.tmu.ac.ir](mailto:ghahremaninejad@saba.tmu.ac.ir)

\*\* Mohammadreza Joharchi, Herbarium FUMH, Research Center for Plant Sciences, University of Ferdowsi Mashhad, no. 90, Park-e Mellat Sq., Mashhad, Iran. – [joharchi@um.ac.ir](mailto:joharchi@um.ac.ir)

\*\*\* Ernst Vitek, Naturhistorisches Museum Wien, Botanische Abteilung, Burgring 7, A-1010 Wien, Austria. – [ernst.vitek@nhm-wien.ac.at](mailto:ernst.vitek@nhm-wien.ac.at)

The high regions of the province, the Aladagh and Binalud massifs, have cold mountainous climate. Bojnord, Ghuchan and Shirvan regions and the southern part of Binalud, the Kopet Dagh heights, Hezarmasjed and some parts of Mashhad (the capital city) have temperate mountainous climate; Ghaenat and the mountain slopes of the province enjoy a mild semiarid climate; and southern areas have a warm, dry and arid climate. The highest peak of the province, Mt. Binalud, attains an altitude of 3211 m, and the lowest place is an area in N Sarakhs near to the Afghanistan boundary with an altitude of 300 m (ZENDEHDEL 1998).

Average annual precipitation is 180 mm. The maximum annual precipitation is 400 mm in the northwestern mountains, and the minimum annual precipitation is 80 mm in the southern deserts (PAPOLI-YAZDI 1992).

The population of the province was 6.047.661 in 1994, of which c. 57% resided in urban areas and 43% in rural areas (ZENDEHDEL 1998).

### **Material and Methodes**

The study has been carried out using materials from the herbarium of Ferdowsi University, Mashhad [FUMH<sup>1</sup>]. There are actually c. 50.000 specimens in this herbarium, nearly all from Khorassan province. The collectors of the herbarium gathered these specimens over a period of almost 20 years from many localities in Khorassan province. It is, therefore, a very valuable and unique collection of the province, because the collectors had a good knowledge of the geography and of locally important ecological niches.

For this paper all plant specimens of FUMH have been studied. The new records are based on 777 specimens. In order to ensure the completeness of the paper, and because the herbarium W (Natural History Museum Vienna) is the center of Flora Iranica treatments, the first author checked all specimens of the treated taxa in W too - thus some supplementary localities could be added to our list. All specimens recorded here are deposited in FUMH or W, some duplicate specimens are in FAR (Farabi Herbarium, University of Tarbiat-Moallem).

In Flora Iranica some taxa have been recorded erroneously from Khorassan, in fact they are from some localities of Golestan (Mazandaran or Gorgan) and Semnan provinces. These neighbouring provinces are situated to the north-west and west of Khorassan. Thus we record these taxa here again with localities inside Khorassan province.

In the following list the order of entries is alphabetical. For each taxon the locality, the altitude, the date and the collector's name are presented. The localities within Khorassan are sequenced from NW to SE, according to Fig. 1. Additionally the distribution in Iran is given (based on information from Flora Iranica).

The following list contains 240 specific, subspecific and varietal taxa, belonging to 183 genera and 50 families. 237 taxa are angiosperms (219 dicots and 18 monocots), and only three species are pteridophytes. 39 species are endemic to the Flora Iranica area, and 20 are endemic to Iran.

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<sup>1</sup> All herbaria are named with their acronyms – see Index Herbariorum <http://207.156.243.8/emu/ih/index.php>.

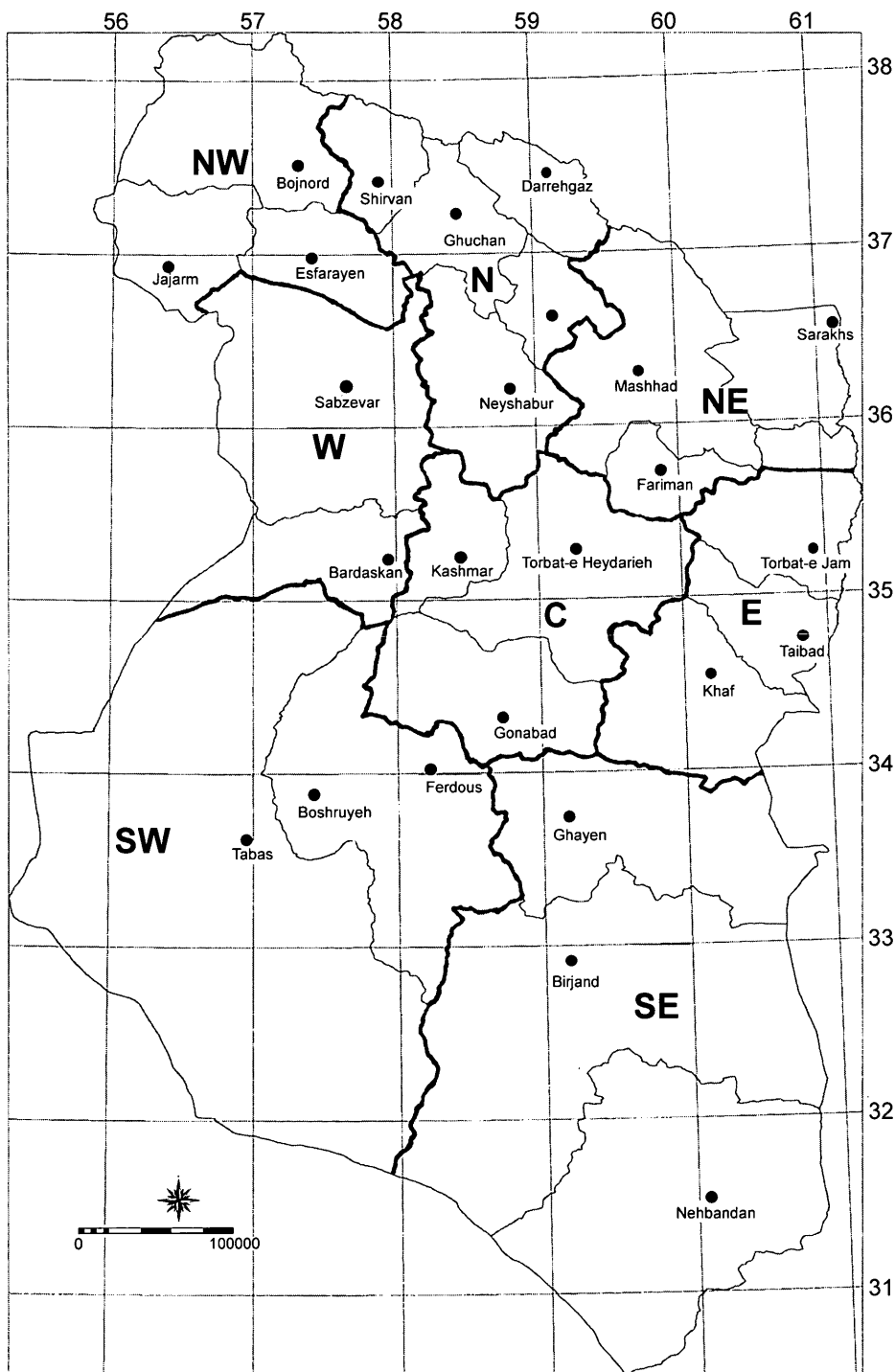


Fig. 1: Province of Khorassan. Localities given in the floristic catalogue are sequenced from NW to SE.

The families with the largest recorded numbers of taxa new for Khorassan are Asteraceae (43), Brassicaceae (30), Apiaceae (22), Fabaceae (17), Boraginaceae (14), Lamiaceae (10), Rosaceae (10), Orchidaceae (6) and Poaceae (6).

## PTERIDOPHYTES

### Aspidiaceae

Ref.: PARSA 1978

*Dryopteris filix-mas* (L.) SCHOTT, Gen. Fil., t. 9 (1834).

Khorassan: NE: Neyshabur, Dizbad-e-olia, 2000 m, 3.8.1983, REZAEI 10583 [FUMH]. – Hezarmasjed Mt., Sistan forest, 2100 m, 10.6.1990, JOHARCHI 18755-b [FUMH].

Distribution in Iran: N, W, E.

### Gymnogrammaceae

Ref.: PARSA 1978

*Anogramma leptophylla* (L.) LINK, Fil. Sp. (1841).

Khorassan: NW: Bojnord, between Ghorrymeydan and Dashtak, 650 m, 28.4.2001, JOHARCHI 33402 [FUMH].

Distribution in Iran: N, E.

### Sinopteridaceae

Ref.: PARSA 1978

*Cheilanthes fragrans* (L.f.) Sw., Syn. Fil. 127 (1806).

Khorassan: E: Khaf to Torbat-e Heydarieh, km 7, 1500 m, 9.5.1983, REZAEI 10159 [FUMH]. – SW: Tabas, Kharv, 1950 m, 14.3.1995, RAAFEI 24647 [FUMH].

Distribution in Iran: W, S, E.

## ANGIOSPERMS

### MONOCOTYLEDONS

#### Alismataceae

Ref.: DANDY 1971

*Alisma lanceolatum* WITH., Arr. Br. Pl. ed. 3, 2: 362 (1796).

Khorassan: NE: NW of Kalat, Sultanabad, 650 m, 26.7.1987, JOHARCHI 15672 [FUMH]. – SW: Boshruyeh, Sadd-e Fathabad, 1300 m, 7.7.1989, FAGHIHNIA 17975 [FUMH].

Distribution in Iran: N, W, S, E.

#### Alliaceae (Liliaceae s.l. in Flora Iranica)

Ref.: WENDELBO 1971

*Allium paradoxum* (M.B.) G.DON, Monograph Allium: 72 (1827).

Khorassan: NW: W Bojnord, between Jozak and Chamanbid, 18.4.2000, JOHARCHI 32643 [FUMH].

Distribution in Iran: N, E, C.

**Araceae**

Ref.: RIEDL 1963

***Eminium lehmanii* (BUNGE) KUNTZE**, Rev. Gen. 741 (1891).

Khorassan: E: Khaf, Alinaghi to Dochahi, 5.5.1986, AYATOLLAHI 14121 [FUMH]. – Taybad to Torbat-e Jam, km 5, 650 m, 14.4.1990, FAGHIHNIA 18268 [FUMH]. – Taybad to Torbat-e Jam, km 5, 750 m, 3.4.1991, JOHARCHI 19230 [FUMH].

Distribution in Iran: E, C.

**Cyperaceae**

Ref.: KUKKONEN 1998

***Carex physodes* M.B.**, Mém. Soc. Nat. Mosc. 2: 104 (1809)**subsp. *physodes***

Khorassan: C: Between Gonabad and Torbat-e Heydarieh, Taghestan-e Emrani, 900 m, 9.4.1988, JOHARCHI 15951 [FUMH]. – Neyshabur, Taghestan, Eshghabad, 1250 m, 11.5.1991, JOHARCHI 20032 [FUMH]. – Gonabad to Torbat-e Heydarieh, km 35, 850 m, 27.4.1995, RAAFEE 25139 [FUMH]. – SW: Tabas, Deihuk, Arababad to Khur, km 25, 900 m, 6.4.1993, FAGHIHNIA 22635 [FUMH]. – Tabas, Deihuk to Boshruyeh, km 35, 1250 m, 14.4.1996, RAAFEE 26209 [FUMH]. – Tabas, between Robat-e Khan and Robat-e Kalmard, 1000 m, 16.4.1996, RAAFEE 26380 [FUMH]. – SE: Birjand, 1450 m, 10.4.1991, FAGHIHNIA 19354 [FUMH]. – Birjand, Sarbisheh to Nehbandan, km 20, 1650 m, 29.4.1996, RAAFEE 26454 [FUMH].

Distribution in Iran: W, S, E, C.

***Cladium mariscus* (L.) POHL**, Tent. Fl. Bohem. 32 (1809)**subsp. *mariscus***

Khorassan: C: Between Kashmar and Khalilabad, Garmab Mt., 1100 m, 24.5.1999, HOJJAT 32534 [FUMH].

Distribution in Iran: N, W, S, E.

**Orchidaceae**

Ref.: RENZ 1978

***Dactylorhiza umbrosa* (KAR. & KIR.) NEVSKI**, Acta. Inst. Bot. Acad. Sci. USSR., ser. 1, 4: 332 (1937).

Khorassan: NE: Mashhad, Zoshk, 1900 m, 5.5.1985, JOHARCHI &amp; SAFAVI 12560 [FUMH]. – Mashhad, Binalud, Farasgeh Mt., 2100 m, 3.6.1990, FAGHIHNIA 18735 [FUMH]. – Mashhad, Zoshk, 1950 m, 2.6.1991, JOHARCHI 20587 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Epipactis persica* (Soo) NANNF.**, Bot. Not. 1946: 11 (1946).

Khorassan: N: SW Shirvan, Zu-e Eram Mt., 1500 m, 7.9.1998, FAGHIHNIA 31342 [FUMH]. – NE Neyshabur, Bozhan Mt., 1750 m, 22.6.1994, ZANGOEE 24255 [FUMH].

Distribution in Iran: N, W, E, C.

***Epipactis veratrifolia* BOISS. & HOHEN. in BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 13: 11 (1854).

Khorassan: SE: Birjand, Beidokht, Abshar-e Chardeh, 1700 m, 8.5.1981, PUYAN 46 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Listera ovata* (L.) R.BR. in AITON**, Hort. Kew, ed. 2, 5: 201 (1813).

Khorassan: N: SW Shirvan, Zu-e Eram Mt., 1500 m, 7.9.1998, Faghihnia 31328 [FUMH].

Distribution in Iran: N, W, E.

***Ophrys scolopax* CAV.**, Icon. Descr. 2: 46 tab: 161 (1793).

Khorassan: NW: W Bojnord, between Darkesh and Havar, 1300 m, 30.4.2001, JOHARCHI 33508 [FUMH].

Distribution in Iran: N, S, E, C.

***Orchis simia* LAM.**, Fl. Fr. 3: 507 (1778).

Khorassan: NW: NE Jajarm, Mohammadabad-e Tabar, 1450 m, 16.4.2001, JOHARCHI 33215 [FUMH].

Distribution in Iran: N, S, E, C.

## Poaceae

Ref.: BOR 1970

***Bromus briziformis* FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop. 3: 30 (1837).

Khorassan: N: Darrehgaz, Chehelmir, 1000 m, 4.6.1981, GHORASHI-AL-HOSEINI 640G [FUMH]. – W Darrehgaz, Gadkanlu, 1200 m, 1.5.1988, JOHARCHI 16346 [FUMH].

Distribution in Iran: N, E, C.

***Crypsis schoenoides* (L.) LAM.**, Illustr. Gen. 1: 166 (1791).

Khorassan: N: N Shirvan, Yengeh-ghaleh, 1200-1500 m, 22.8.1984, AYATOLLAHI 11727 [FUMH]. – Band-e Fariman, S Mashhad, 1973, MARCUZZI s. n. [W]. – C: Between Mashhad and Torbat-e Heydarieh, Robat-e Sefid, 1700 m, 27.11.1985, AYATOLLAHI & JOHARCHI 13667 [FUMH]. – SW: Boshruyeh, Sadd-e Fathabad, 1300, 7.7.1989, FAGHIHNIA 17979 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Cutandia memphitica* (SPRENG.) BENTH.**, Journ. Linn. Soc. Bot. 19: 118 (1881).

Khorassan: C: N Gonabad, Lut-e Emrani, 950 m, 23.4.1990, FAGHIHNIA 18300 [FUMH]. – SE: SE Ghayen, Mohammadabad, 1050 m, 15.5.1989, JOHARCHI 17388 [FUMH].

Distribution in Iran: N, W, E, S.

***Echinaria capitata* (L.) DESF.**, Fl. Atlant. 2: 385 (1799).

Khorassan: NW: W Bojnord, Naderabad, 1000 m, 14.8.1984, AYATOLLAHI 11568 [FUMH].

Distribution in Iran: W, E.

This species is recorded from Khorassan in Flora Iranica. But the locality (MERTON 3926) belongs to Golestan (Gorgan) province, not Khorassan.

***Glyceria plicata* FRIES**, Novit. Fl. Suec. Mant. 2: 6 (1839).

Khorassan: N: Chenaran, Cheshmehsabz, 1560 m, 31.10.1985, AYATOLLAHI & JOHARCHI 13628 [FUMH]. – C: W Torbat-e Heydarieh, Sorkhabad, 1400 m, 8.6.1987, JOHARCHI 15349 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Lamarckia aurea* (L.) MOENCH**, Meth. 201 (1794).

Khorassan: SW: Tabas to Boshruyeh, km 45, 22.4.1986, AYATOLLAHI 13845 [FUMH]. – Tabas, Chiruk Mt., 1400 m, 19.4.1987, AYATOLLAHI 15271 [FUMH].

Distribution in Iran: S, E.

## Potamogetonaceae

Ref.: DANDY 1971

***Potamogeton crispus* L.**, Sp. Pl. 126 (1753).

Khorassan: N: Chenaran, Cheshmehsabz, 1560 m, 26.6.1985, AYATOLLAHI 13280 [FUMH]. – Chenaran, Cheshmehsabz, 1560 m, 16.7.1985, RASHED & AYATOLLAHI 13393 [FUMH]. – Chenaran, Cheshmehsabz, 1560 m, 13.8.1985, AYATOLLAHI & JOHARCHI 13572 [FUMH].

Distribution in Iran: N, E.

## DICOTYLEDONS

### Amarantaceae

Ref.: ALLEN 1972

*Amaranthus albus* L., Syst. Pl. Ed. 10, 2: 1263 (1759).

Khorassan: NW: W Bojnurd, Ashkhaneh to Shahrabad, km 20, 700 m, 6.8.1987, ZANGOEE 15755 [FUMH]. – Bojnurd to Ashkhaneh, km 30, 900 m, 7.10.1991, FAGHIHNIA 21070 [FUMH]. – N: Chenaran, between Golmakan and Cheshmeh Sabz, 1450 m, 31.10.1985, AYATOLLAHI & JOHARCHI 13622 [FUMH].

Distribution in Iran: N, W, E.

### Apiaceae

Ref.: ALAVA et al. 1987; det.: M.G. PIMENOV

*Ammi majus* L., Sp. Pl. 243 (1753).

Khorassan: NE: Sarakhs to Gonbadli, km 25, 500 m, 24.4.1976, ZARGARI s. n. [FUMH].

Distribution in Iran: N, W, S, E.

*Anthriscus cerefolium* (L.) HOFFM., Gen. Pl. Umbell. Ed. 1241 (1814).

Khorassan: NW: W Bojnurd, Cheshmeh-e Jozak, 1000 m, 10.5.2000, JOHARCHI 32747 [FUMH].

Distribution in Iran: N, W, E.

*Anthriscus nemorosus* (M.B.) SPRENG., Pl. Umb. Prodr. 27 (1813).

Khorassan: N: Chenaran, Akhlamad, 1500 m, 16.5.1980, GHORASHI-AL-HOSEINI 262G [FUMH]. – Chenaran, Akhlamad, 1500 m, 5.6.1988, JOHARCHI 16779 [FUMH]. – NE: N Mashhad, Aal Mt., 1400 m, 23.6.1996, FAGHIHNIA 27545 [FUMH].

Distribution in Iran: N, W, C, E.

*Astrodaucus orientalis* (L.) DRUDE in ENGL. & PRANTL, Natürl. Pflanzenfam. III, 8: 271 (1898).

Khorassan: N: Chenaran, Freyzi Mt., 1800 m, 11.8.1992, FAGHIHNIA 22434 [FUMH]. – Chenaran, between Abghad and Freyzi, 1200 m, 15.6.1993, FAGHIHNIA 23337 [FUMH]. – NE Neyshabur, Mirabad, 1750 m, 10.7.1995, FAGHIHNIA 26070 [FUMH]. – NE: Mashhad, Pivehjen, 1700 m, 10.6.1981, ZOKAEE 1076 [FUMH]. – Mashhad, Pivehjen, 1800 m, 8.8.1983, REZAEE 10398 [FUMH]. – Mashhad, Kalateh-e Zabetian, 1500 m, 25.6.1985, REZAEE 10489 [FUMH]. – Neyshabur, Dizbad-e-olia, 1900 m, 3.8.1983, REZAEE 10591 [FUMH]. – Mashhad, Kalateh-e Zabetian, 1500 m, 25.6.1985, AKBARZADEH & KHARAGHANI 13256 [FUMH]. – Mashhad, Moghan, 1550 m, 19.8.1986, AYATOLLAHI 13951 [FUMH], 13958 [FUMH]. – Neyshabur, Dizbad-e-olia, 1800 m, 20.6. 1988, JOHARCHI 16966 [FUMH]. – Mashhad, Kang, 1900 m, 2.7.1989, FAGHIHNIA 17874 [FUMH]. – Mashhad, between Kalateh-e Ahan and Dehbar, 1500 m, 6.8.1991, FAGHIHNIA 21017 [FUMH]. – SW Mashhad, Maj, 2000 m, 14.7.1993, FAGHIHNIA 23640 [FUMH]. – E Neyshabur, Dizabad-e-olia, 1800 m, 4.7.1996, FAGHIHNIA 27784 [FAR, FUMH]. – SW Mashhad, Azghad, 1600 m, 23.6.1994, ZANGOEE 24258 [FUMH], 24271 [FUMH].

Distribution in Iran: N, W, E, C.

*Berula angustifolia* (L.) MERTENS & W.D.J.KOCH, in RÖHLING, Deutschl. Fl. 2, ed. 3: 25, 433 (1826).

Khorassan: NE: W Kalat-e Nadery, between Khakestar and Charrah, 1350 m, 8.7.1986 JOHARCHI 14783 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Bifora testiculata* (L.) SPRENG. in ROEMER & SCHULT.**, Syst. Veg. 6: XXXVIII et 448 (1820).  
Khorassan: NW: W Bojnurd, Cheshmeh-Jozak, 1000 m, 10.5.2000 JOHARCHI 32762 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Bupleurum gerardii* ALL.**, Auct. Syn. Meth. Strip. Hort. Taurin. 81 (1774).  
Khorassan: N: Darrehgaz, Chehelmir, 800 m, 26.5.1982, ZOKAEE 1374 [FUMH]. – NE: Mashhad to Kalat, km 65, 1550 m, 16.6.1991, FAGHIANIA 20882 [FUMH]. – Between Kalat-e Nadery and Khesht, 1200 m, 24.5.1994, FAGHIANIA 24004 [FUMH]. – Between Mashhad and Sarakhs, Ghorghoreh Mt., 1000 m, 30.5.1992, JOHARCHI 21933 [FUMH]. – 21943 [FUMH].  
Distribution in Iran: W, S, E, C.

***Carum carvi* L.**, Sp. Pl. 263 (1753).  
Khorassan: NE: Mashhad, Zoshk, 1950 m, 2.6.1991, JOHARCHI 20588 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Caucalis platycarpus* L.**, Sp. Pl. 241 (1753).  
Khorassan: NW: Bojnurd, Gifan, 1400 m, 16.6.1991, JOHARCHI 20767 [FUMH]. – Bojnord, S Badranlu, 1900 m, 10.7.1994, ZANGOEE 24462 [FUMH]. – N Bojnord, between Naveh and Ghatlish, 1350 m, 10.6.1996, RAAFEE 27160 [FUMH]. – N: E Ghuchan, Yadak, 1700 m, 15.5.1985, JOHARCHI 12893 [FUMH]. – E Ghuchan, between Gukan and Kachalanlu, Sembel- tapa, JOHARCHI 14397 [FUMH]. – Sarvelayat, East of Chakaneh-e-olia altitudes, 1750 m, 13.5.1990, JOHARCHI 18521 [FAR, FUMH]. – S Darrehgaz, Kalateh-e Gorny, 1800 m, 28.5.1990, JOHARCHI 18665 [FUMH]. – NE: Mashhad, between Zoshk and Abardeh, 2000 m, 21.6.1980, GHORASHI-AL-HOSEINI 323G [FUMH]. – NE Kalat-e Nadery, 1000 m, 20.2.1985, JOHARCHI 13095 [FUMH]. – Mashhad, N Sarborj, 1450 m, 21.6.1992, JOHARCHI 21974 [FUMH]. – Kalat-e Nadery, Hamam-Ghaleh Mt., 1300 m, 1.7.1992, FAGHIANIA 22122 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Chaerophyllum bulbosum* L.**, Sp. Pl. 258 (1753).  
Khorassan: N: SW Shirvan, Zu-e Eram Mt., 1500 m, 7.6.1998, FAGHIANIA 31324 [FUMH]. – NE: S Kalat-e Nadery, Ortokand, Khan-zo, 1550 m, 9.6.1994, FAGHIANIA 24166 [FUMH].  
Distribution in Iran: N, W, E, C.

***Chaerophyllum macrospermum* (SPRENG.) FISCH. & C.A.MEY.**, Bull. Soc. Imp. Nat. Mosc. 9: 327 (1838).  
Khorassan: NW: Bojnord, Gifan, Misinu Mt., 2000 m, 24.7.1995, RAAFEE 26148 [FUMH], 26165 [FUMH].  
Distribution in Iran: N, W, E, C.

***Coriandrum sativum* L.**, Sp. Pl. 256 (1753).  
Khorassan: C: Bejestan to Ghasemabad, km 16, 1300 m, 14.5.1997, HOJJAT 28494 [FUMH].  
Distribution in Iran: W, S, E, C.

***Demavendia pastinacifolia* (BOISS. & HAUSSKN.) PIMENOV**, Fl. Iranica, no. 162: 161 (1987).  
Khorassan: NE: N Mashhad, Kardeh, 1300 m, 16.5.1985, JOHARCHI 12938 [FUMH]. – Between Mazdavand and Sarakhs, Ghorghoreh, 1000 m, 8.6.1991, JOHARCHI 20648 [FUMH].  
Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran & Turkmenistan.

***Ferula oopoda* (BOISS. & BUHSE) BOISS.**, Fl. Or. 2: 984 (1872).  
Khorassan: NE: Fariman, Band, 1500 m, 31.5.1992, JOHARCHI 21969 [FUMH].  
Distribution in Iran: W, S, E, C.

***Ferulago subvelutina* RECH.f.**, Feddes Repert. 48: 129 (1940).  
Khorassan: NW: S. Bojnord, between Hesar and Firuzeh, 1800 m, 4.7.1993, FAGHIANIA 23528 [FUMH]. – Esfarayen, Touy, Saluk Mt., 1550 m, 18.7.1984, AYATOLLAHI 11477



[FUMH]. – Esfarayen, Sarmaran, Darreh-e Jouz, 1500 m, 17.6.1998, RAAFEE 31710 [FUMH]. – NE Esfarayen, between Ordoghan and Noshiravan, 1600 m, 13.9.1988, AYATOLLAHI 16997 [FUMH]. – Esfarayen, Roucin, 1650 m, 17.7.1984, AYATOLLAHI 11447 [FUMH]. – Esfarayen, Tangeh-e Ordoghan, 1700 m, 22.8.1985, JOHARCHI 13592 [FUMH].

Distribution in Iran: N, E. Endemic to the Flora Iranica area: Iran & Turkmenistan.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 1919, type) belongs to Golestan (Gorgan) province, not Khorassan.

***Grammosciadium platycarpum* BOISS. & HAUSK. in BOISS.**, Fl. Or. 2: 901 (1872).

Khorassan: NE: NE Mashhad, Pistacia woodland, 21.5.1999, ERTHER 32504-b [FUMH].

Distribution in Iran: N, W, S, E, C.

***Johreniopsis seseloides* (C.A.MEY.) PIMENOV**, Fl. Iranica, no. 162: 455 (1987).

Khorassan: N: Neyshabur, Emamzadeh Asghar, 1950 m, 11.7.1989, FAGHIHNIA 17945 [FUMH].

– E Neyshabur, Garineh Mt., 1900 m, 3.7.1996, FAGHIHNIA 27767 [FUMH]. – Ghuchan, N Emarat, 2000 m, 15.7.1997, HOJJAT 29700 [FUMH]. – NE: Mashhad, Kang, 1900 m, 2.7.1989, FAGHIHNIA 17878 [FUMH].

Distribution in Iran: N, W, E, C.

***Leutea petiolaris* (DC.) PIMENOV**, Fl. Iranica, no. 162: 449 (1987).

Khorassan: NW: SW Bojnord, Saluk Mt., 2400 m, 11.7.1994, ZANGOOEE 24494 [FUMH].

– NE: N Mashhad, Karimabad, 1900 m, 15.7.1986, JOHARCHI 13852 [FUMH].

Distribution in Iran: N, W, E, C.

***Libanotis transcaucasica* SCHISCHK. in GROSSH.**, Opred. Rast. Kavk. 231 (1949).

Khorassan: N: SW Darrehgaz, Sanghez, Darreh-e Gharaghat, 1800 m, 1.7.1996, RAAFEE 27633 [FUMH].

Distribution in Iran: N, W, E.

***Physocaulis nodosus* (L.) W.D.J.KOCH**, Syn. Fl. Germ. Ed. 2: 348 (1843).

Khorassan: NW: W Bojnord, Cheshmeh-e Jouzak, 1000 m, 9.5.2000, JOHARCHI 32764 [FUMH].

Distribution in Iran: N, W, E.

***Torilis arvensis* LINK**, Eum. Hort. Berol. Alt. 1: 265 (1821).

Khorassan: NW: E Bojnord, Baba-aman, 1100 m, 2.7.1981, GHORASHI-AL-HOSEINI 1264G [FUMH]. – Bojnord, Ashkhaneh, 600 m, 21.6.1982, GHORASHI-AL-HOSEINI 1797G [FUMH].

– E Bojnord, Gharlogh, 1000 m, 17.7.1984, AYATOLLAHI 11431 [FUMH]. – W Bojnord, Ashkhaneh to Mehmanak, km 10, 900 m, 7.7.1997, RAAFEE 29476 [FAR, FUMH].

– N: E Chenaran, Mianmargh, 1450 m, 11.6.1995, RAAFEE 25758 [FUMH]. – S Darrehgaz, Gherkhghez hills, 450 m, 7.7.1985, JOHARCHI 13324 [FUMH]. – NE: Mashhad, 950 m, 8.6.1974, ZARGARI s.n. [FUMH].

Distribution in Iran: N, W, E, C.

***Torilis leptophylla* RCHB.f.**, Icon. Fl. Germ. 21: 169 (1866).

Khorassan: NW: N Bojnurd, Gifan, Mt. Misinu, 1800-2000 m, 17.6.1991, JOHARCHI 20786 [FUMH]. – N: SE Darrehgaz, Hatamghaleh, 300 m, 16.5.1993, JOHARCHI 23126 [FUMH].

– NE: Mashhad to Kalat, km 65, 1550 m, 19.6.1991, FAGHIHNIA 20884 [FUMH]. – Between Mashhad and Sarakhs, Ghorghoreh Mt., 1200 m, 30.5.1992, JOHARCHI 21956 [FUMH]. – N Mashhad, Andad to Abghad, km 6, 1400 m, 11.6.1995, RAAFEE 25745 [FUMH].

Distribution in Iran: W, S, E, C.

## Asteraceae

Ref.: RECHINGER 1971, RECHINGER et al. 1977, DITTRICH et al. 1979, 1980, 1989, GEORGIADOU et al. 1979, GRIERSON & RECHINGER 1981, PODLECH 1986

***Achillea tenuifolia* LAM.**, Encycl. Meth. Bot. 1: 26 (1783).

Khorassan: NW: NW Bojnurd, Shahrabad, 500 m, 8.10.1991, FAGHIANIA 21087 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 5352 [W]) belongs to Golestan (Gorgan) province, not Khorassan.

***Artemisia absinthium* L.**, Sp. Pl. 848 (1753).

Khorassan: NW: W Bojnurd, Ashkhaneh to Shahrabad, km 55, 600 m, 6.8.87, ZANGOOEE 15780 [FUMH]. – W Bojnurd, Dasht, 8.9.1987, ZANGOOEE 14857 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (KOELTZ 16683) belongs to Golestan (Gorgan) province, not Khorassan.

***Artemisia annua* L.**, Sp. Pl. 847 (1753).

Khorassan: NW: Between Bojnurd and Shahrabad, Garmab, 550 m, 9.10.1991, FAGHIANIA 21102 [FUMH]. – NE: Mashhad, 1000 m, 16.8.1989, JOHARCHI 18041-b [FUMH].

Distribution in Iran: N, W, E, C.

***Artemisia deserti* KRASCH.**, Sched. Herb. Fl. URSS, 10: 106 (1936).

Khorassan: NW: Esfarayen, Sarigol, 1500 m, 22.8.85, JOHARCHI 13585 [FUMH]. – N: Chenaran, Mt. Akhlamad (Akhlamad's fall), 1550 m, 6.8.1984 AYATOLLAHI 11535 [FUMH]. – Chenaran, Mt. Akhlamad (Akhlamad's fall), 1600 m, 15.11.1989 FAGHIANIA 18035 [FUMH].

Distribution in Iran: E, C.

***Artemisia diffusa* KRASCH. ex POLJAK.**, Not. Syst. Leningrad 16: 399 (1954).

Khorassan: NE: Mashhad, Ferdousi, Kalateh-e Ali-Damghani, 1200 m, 8.10.1981, ZOKAEE 1176 [FUMH]. – Between Mashhad and Sarakhs, Gardaneh Mazdavand, 1000 m, 26.11.85, AYATOLLAHI & JOHARCHI 13660 [FUMH]. – Mashhad to Sarakhs, Ghichdar hills, 750 m, 19.10.1991, JOHARCHI 21195 [FUMH]. – 21196 [FUMH]. – Mashhad to Salehabad, between Gush-laghar and Mushghal, JOHARCHI 21208 [FUMH]. – Torbat-e Jam, between Salehabad and Janatabad, fork Golar-e Shahveh, 550 m, 19.10.1991, JOHARCHI 21213 [FUMH]. – 21214 [FUMH]. – Mazdavand to Mashhad, km 10, 700 m, 27.10.1991, FAGHIANIA 21251 [FUMH]. – Sarakhs to Mashhad, km 70, 500 m, 27.10.1991, FAGHIANIA 21262 [FUMH]. – 21263 [FUMH]. – 21265 [FUMH]. – Sarakhs, W Aghdarband, 250 m, 28.10.1991, FAGHIANIA 21275 [FUMH]. – Kalat, between Jalilabad and Darband, 1000 m, 12.11.1991, FAGHIANIA 21311 [FUMH]. – Kalat, between Hesar and Archangan, 1050 m, 13.11.1991, FAGHIANIA 21313 [FUMH]. – Mashhad, Azhdar-Kuh, Amarghan, 1100 m, 19.11.1991, FAGHIANIA 21356 [FUMH]. – Mashhad to Sanganeh, Ziladeh, 1050 m, 20.11.1991, FAGHIANIA 21361 [FUMH]. – E: E Torbat-e Jam, between Pasgah-e Zakani and Mallu, 700 m, 22.10.1991, FAGHIANIA 21226 [FUMH]. – SE: Ghayen to Gonabad, km 10, 1450 m, 5.10.1991, JOHARCHI 21066 [FUMH].

Distribution in Iran: E, C.

***Artemisia persica* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 6: 91 (1846).

Khorassan: NE: Mashhad, Kang Mt., 2100 m, 5.8.1991, FAGHIANIA 21004 [FUMH].

Distribution in Iran: W, S, E, C.

***Artemisia vulgaris* L.**, Sp. Pl. 848 (1753).

Khorassan: NE: Mashhad, 950 m, 21.8.1989, JOHARCHI 18041 [FUMH].

Distribution in Iran: N, W, E, C.

***Bidens tripartita* L.**, Sp. Pl. 811 (1753).

Khorassan: NE: Mashhad, 1000 m, 5.9.1983, REZAEE 10689 [FUMH]. – Mashhad, 1000 m, 12.10.1982, REZAEE s. n. [FUMH]. – N Mashhad, Kardeh, 1300 m, 9.10.1984, JOHARCHI & REZAEE 11802 [FUMH]. – Between Kalat and Darrehgaz, Shamsi-khan, 450 m, 27.7.1987, JOHARCHI 15677 [FUMH]. – Mashhad to Kalat, 10 km after the fork to Kalat, 1000 m, 15.7.1990, FAGHIANIA 18920 [FUMH].

Distribution in Iran: N, W, E, C.

***Calendula alata* RECH.f.**, Fl. Iranica, no. 164: 104 (1989).

Khorassan: N: SE Darrehgaz, Hatamghaleh, 300 m, 16.5.1993, JOHARCHI 23118 [FUMH].

Distribution in Iran: N, W, S, E.

***Calendula persica* C.A.MEY.**, Verz. Pfl. Cauc. 72 (1831).

Khorassan: SW: NW Tabas, Pir-Haajat, 1100 m, 9.4.1984, JOHARCHI 10721 [FUMH].

Distribution in Iran: N, W, S, E.

***Callicephalus nitens* (M.B. ex WILLD.) C.A.MEY.**, l. c.: 66 (1831).

Khorassan: NW: Bojnurd, 5 km N of Ghezelghan, 1000 m, 2.7.1981, GHORASHI-AL-HOSEINI 1251G [FUMH].

Distribution in Iran: N, E, C.

***Cephalorrhynchus takhtadzhianii* (SOSN.) KIRP.**, Fl. URSS, 29: 349 (1964).

Khorassan: N: Neyshabur, Dizbad-e-olia, 1800 m, 20.6.1988, JOHARCHI 16976 [FUMH]. – C:

Kashmar to Neyshabur, km 55, 1800 m, 20.5.1978, ZARGARI s. n. [FUMH]. – – W: Bardaskan to Kasf, km 27, 1600 m, 21.5.1978, ZARGARI s. n. [FUMH].

Distribution in Iran: W, E.

***Chamaegeron asterellus* (BORNM.) BOTSCH.**, Not. Syst. Leningrad 16: 383 (1954).

Khorassan: NW: Esfarayen, Ghar-e Noshirvan, 1350 m, 29.8.1990, FAGHIHNIA 19105 [FUMH].

– N: Chenaran, Boghmech, 1650 m, 18.8.1986, AYATOLLAHI 13922 [FUMH]. –C: Torbat-e Heydariéh, Mt. Kadkan, 2000 m, 12.8.1990, FAGHIHNIA 19020 [FUMH].

Distribution in Iran: S, E. Endemic to the Flora Iranica area: Iran.

***Chamaegeron oligocephalus* SCHRENK**, Bull. Phys.-Math. Acad. Scienc. Petersbg. 3: 107 (1845).

Khorassan: N: N Shirvan, Yengeghaleh, 1500 m, 22.8.1989, AYATOLLAHI 11720 [FUMH].

– NE: Between Mashhad and Torbat-e Heydariéh, Robot-e Sefid, 1700 m, 27.11.1985, AYATOLLAHI &amp; JOHARCHI 13668 [FUMH].

Distribution in Iran: E, C.

***Cirsium rhizocephalum* C.A.MEY.**, Verz. Pfl. Cauc. 70 (1831).

Khorassan: N: Mt. Binalud, between Cheshmehsabz and Buzhan, 2400 m, 10.7.1985, RASHED &amp; AYATOLLAHI 13418 [FUMH]. – Chenaran, Chalkani, Kouh-e Hezar-Masjed, 2400-2550 m, 20 Aug. 1979, TERMEH, MOUSSAVI &amp; TEHRANI 36673-E [W].

Distribution in Iran: W, S, E, C.

***Cirsium turkestanicum* (REGEL) PETR.**, Österr. Bot. Zeitschr. 60: 4 (1910)**var. *pseudolappaceum* (kharadze) Petr.**, Fl. Iranica, no. 139a: 258 (1979).

Khorassan: N: N Shirvan, Taftazan, 1200 m, 21.8.1984, AYATOLLAHI 11681 [FUMH]. – N

Ghuchan, between Bardar and Ghar-Jegheh, 6.8.1986, JOHARCHI 13886 [FUMH]. – Mt. Binalud, between Cheshmehsabz and Buzhan, 2400 m, 10.7.1985, RASHED &amp; AYATOLLAHI 13398 [FUMH]. – Ghuchan, Emarat, 1800 m, 18.8.1992, FAGHIHNIA 22465 [FUMH]. – NE:

NW Mashhad, Kharkat, 1850 m, 3.8.1987, JOHARCHI 15742 [FUMH]. – SW Mashhad, Kordineh, 2000 m, 19.8.1992, FAGHIHNIA 22490 [FUMH].

Distribution in Iran: N, E. Endemic to the Flora Iranica area: Iran.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 32599 [W]) belongs to Golestan (Gorgan) province, not Khorassan.

***Cousinia gedrosiaca* BORNM. & GAUBA**, Mitt. Thur. Bot. Ver. N. F. 47: 121 (1941).

Khorassan: C: Gonabad, between Zibad and Serahi Darsufeh, 1500 m, 13.5.1985, JOHARCHI 12819 [FUMH]. – SE: Birjand to Sarbisheh, km 20, 4.6.1981, PUYAN 61p [FUMH]. – Birjand,

Band-e Omar-Shah, 1650 m, 18.5.1986, AYATOLLAHI 14288 [FUMH]. – Between Ghayen and Birjand, Gardaneh Khunik, 1850 m, 11.6.1989, JOHARCHI 17652 [FUMH].

Distribution in Iran: S, E. Endemic to the Flora Iranica area: Iran.

***Cousinia trachylepis* BUNGE**, Mém. Acad. Sci. Petersbg., ser. 7, 9,2: 22 (1865).

Khorassan: NE: W Kalat-e Nadery, between Khakestar and Layen-e Kohneh, Charrah Mt., 1450 m, 9.7.1986, JOHARCHI 13815 [FUMH]. – SW Kalat-e Nadery, between Sarrud and Bardar, 1600 m, 20.7.1993, FAGHIHNIA 23662 [FUMH].

Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran.

***Crepis willemetoides* BOISS.**, Fl. Or. 3: 845 (1875).

Khorassan: NW: W Bojnord, Havar, 1000 m, 10.5.2000, JOHARCHI 32786 [FUMH].

Distribution in Iran: N, E.

***Galinsoga parviflora* CAV.**, Icon. Descr. 3: 41 (1795).

Khorassan: NE: Mashhad, 950 m, 26.10.1986, POORKAZEM 14019 [FUMH], 14020 [FUMH].

Distribution in Iran: N, W, E, C.

***Grantia aucheri* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 6: 79 (1846).

Khorassan: SE: N Birjand, ZARGARI s. n. [FUMH].

Distribution in Iran: S, E. Endemic to the Flora Iranica area: Iran & Pakistan.

***Heteracia szovitsii* FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop. 1: 29 (1835).

Khorassan: NE: Kalat, Khalaj-e-olia, 800 m, 20.5.1981, GHORASHI-AL-HOSEINI 376G [FUMH]. – Between Mashhad and Sarakhs, Shurlegh, 350 m, 17.4.1985, AYATOLLAHI & REZAAE 12026 [FUMH]. – Mazdavand to Sarakhs, km 14, 800 m, 21.5.1986, JOHARCHI 14545 [FUMH]. – W: Bardaskan, between Kavir-e Namak and Jafarabad, 700 m, 21.4.1993, FAGHIHNIA 22861 [FUMH].

Distribution in Iran: W, E, C.

***Inula salicina* L.**, Sp. Pl. 882 (1753)

**subsp. *aspera* (Poir.) Hayek**, Prodr. Fl. Penins. Balcan. 2: 602 (1931).

Khorassan: NW: Bojnurd, Gardaneh-e Badranlu, 1350 m, 25.6.1989, FAGHIHNIA 17803 [FUMH]. – Bojnurd, south of Badranlu, 1900 m, 10.7.1994, ZANGOEE 24457 [FUMH]. – Bojnurd, Gifan, Misino Mt., 2200 m, 24.7.1995, RAAFEE 26118 [FUMH].

Distribution in Iran: N, W, E, C.

This subspecies is recorded from Khorassan in Flora Iranica. But the localities (RECHINGER 1882; SERAJ s. n.; KOELTZ 16716; GAUBA 1300) belong to Golestan (Gorgan) province, not Khorassan.

***Inula thapsoides* (M.B. ex WILLD.) SPRENG.**, Pl. Min. Cog. Pug. 58 (1813).

Khorassan: NW: Bojnurd, south of Badranlu, 1900 m, 10.7.1994, ZANGOEE 24439 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 1929) belongs to Golestan (Gorgan) province, not Khorassan.

***Iranecio othonnae* (M.B.) B.NORD.**, Fl. Iranica, no. 164: 58 (1989).

Khorassan: NW: W Bojnurd, Havar, 1600 m, ZANGOEE 33001 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 1879) belongs to Golestan (Gorgan) province, not Khorassan.

***Iranecio paucilobus* (DC.) B.NORD.**, Fl. Iranica, no. 164: 56 (1989).

Khorassan: NW: SW Bojnurd, Saluk Mt., 2400 m, 11.7.1994, ZANGOEE 24469 [FUMH].

Distribution in Iran: W, S, E, C.

***Lapsana communis* L.**, Sp. Pl. 811 (1753).

Khorassan: NE: Between Mashhad and Dehbar, Kalateh-e Ahan, 1500 m, 6.8.1991, FAGHIHNIA 21010 [FUMH].

Distribution in Iran: N, W, E, C.

***Lasiopogon muscoides* (DESF.) DC.**, Prodr. 6: 246 (1838).

Khorassan: SW: Tabas, S Deihuk, Esfandiar Mt., 1500 m, 14.4.1985, JOHARCHI 11941 [FUMH].  
– SE: Birjand to Hamand, km 60, 1900 m, 23.4.1983, RASHED & REZAEI 10667 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Launaea procumbens* (ROXB.) RAMAYYA & RAJAGOPAL**, Kew Bull. 23: 465 (1969).

Khorassan: E: NE Torbat-e Jam, between Maadan-e Golbanu and Pasgah-e Shar-Shari, JOHARCHI 15412 [FUMH].  
Distribution in Iran: W, S, E.  
This species is recorded from Khorassan in Flora Iranica. But the locality (Herb. EDINBURGH 1965) belongs to Golestan (Gorgan) province, not Khorassan.

***Leontodon kotschyi* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 11: 40 (1899).

Khorassan: NW: W Bojnord, Cheshmeh-e Jouzak, 1000 m, 9.5.2000, JOHARCHI 32753 [FUMH].  
Distribution in Iran: N, E, C. Endemic to the Flora Iranica area: Iran.

***Myriactis wallichii* DC.**, Prodr. 5: 309 (1836).

Khorassan: NE: Mashhad, Moghan, 1500 m, 19.8.1988, AYATOLLAHI 13961 [FUMH].  
Distribution in Iran: N, S, E.

***Onopordon acanthium* L.**, Sp. Pl. 827 (1753).

Khorassan: NE: NW Mashhad, Kharkat, 1850 m, 3.8.1987, JOHARCHI 15743 [FUMH].  
Distribution in Iran: N, W, E, C.

***Pterachaenia stewartii* (HOOK.f.) R.R.STEWART**, Catal. Pl. Rawalp. Distr. 50 (1952).

Khorassan: SW: SE Tabas, between Naiband and Aliabad, 900 m, 17.4.1995, RAAFEE 24864 [FUMH].  
Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran, Afghanistan & Pakistan.

***Scariola viminea* (L.) F.W.SCHMIDT**, Samml. Phys.-Okonom. Auf. I: (1795).

Khorassan: NW: N Bojnord, Gifan, Misino Mt., 2200 m, 24.7.1995, RAAFEE 26127 [FUMH].  
Distribution in Iran: N, W, E.

***Scorzonera parviflora* JACQ.**, Fl. Austr. 4: 3 (1776).

Khorassan: NE: Fariman, Kategush, 1650 m, 22.5.1991, FAGHIH Nia 20427 [FUMH]. – Between Mashhad and Torbat-e Heydarieh, Robat-e Sefid, 1900 m, 9.6.1991, JOHARCHI 20651 [FUMH].  
Distribution in Iran: W, S, E, C.

***Scorzonera radicata* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 11: 43 (1849).

Khorassan: NW: SW Bojnord, Saluk Mt., 2400 m, 11.7.1994, ZANGOOEE 24493 [FUMH].  
Distribution in Iran: N, W, E, C.

***Senecio vulgaris* L.**, Sp. Pl. 867 (1753).

Khorassan: NE: Mashhad, Ghar-e Moghan Mt., 1900 m, 21.5.1991, FAGHIH Nia 20380 [FUMH].  
– Between Mashhad and Dehbar, Kalateh-e Ahan, 6.8.1991, FAGHIH Nia 21019 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Siebera nana* (DC.) BORN.**, Beih. Bot. Centrbl. 60 B: 201 (1939).

Khorassan: N: N Ghuchan, Zobaran Mt., 1600 m, 17.6.1981, GHORASHI-AL-HOSEINI 909G [FUMH]. – S Shirvan, the beginning of Starkhi road, 1400 m, 9.6.1983, JOHARCHI 10416 [FAR, FUMH]. – NE: E Mashhad, Radar-e Maiami Mt., 850 m, 13.5.1982, GHORASHI-AL-HOSEINI 1631G [FUMH]. – Mashhad to Kalat, the mountains of Rahdarkhaneh-e Taherabad, 20.5.1985, AYATOLLAHI & JOHARCHI 13137 [FUMH]. – Mazdavad to Sarakhs, km 12, 750 m, 21.5.1985, AYATOLLAHI & JOHARCHI 13172 [FUMH]. – Mashhad to Sarakhs, before Ghorghoreh fork, 900 m, 30.5.1992, JOHARCHI 21918 [FUMH].  
Distribution in Iran: W, S, E, C.

***Tragopogon longirostris* BISCHOFF ex SCH.BIP.**, in WEBB & BERTH., Phyt. Canar. 2: 469 (1850). Khorassan: N: Darrehgaz, between Dodanlu and Chehelmir, 650 m, 26.5.1982, ZOKAEE 1360 [FUMH]. – Chenaran, Radkan, Baru Mt., 1500 m, 12.5.1985, AYATOLLAHI 12763 [FUMH]. – NE: Kalat, Khalaj-e-olia, 800 m, 20.5.1981, GHORASHI-AL-HOSEINI 358G [FUMH]. – N Mashhad, Kardeh, 1300 m, 16.8.1985, JOHARCHI 12967 [FUMH]. – C: Kashmar, N Sarhokaz, Kalateh-e Rohany, 1100 m, 2.5.1984, AYATOLLAHI & JOHARCHI 10983 [FUMH]. Distribution in Iran: N, W, S, E, C.

***Tussilago farfara* L.**, Sp. Pl. 865 (1753).

Khorassan: N: N Ghuchan, Gardaneh-e Alamli, 1800 m, 2.5.1988, JOHARCHI 16523 [FUMH]. Distribution in Iran: N, W, S, E, C.

***Xanthium brasilicum* VELL.**, Florae Flumin. Icon.: tab. 23 (1827).

Khorassan: NW: Bojnord, Ashkhaneh to Shahrabad, km 20, 700 m, 6.8.1981, ZANGOEE 15760 [FUMH]. Distribution in Iran: N, W, E.

***Xeranthemum squarrosus* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 6: 101 (1845).

Khorassan: N: Darrehgaz, Sang-Surakh, 800 m, 21.6.1995, RAAFEE 25923 [FUMH]. Distribution in Iran: N, W, E, C.

## Berberidaceae

Ref.: BROWICZ & ZIELINSKI 1975

***Berberis orthobotrys* BIEN. & C.K.SCHNEID.**, p.p., I 11. Handb. Laubholzk. 1.310 (1905).

Khorassan: N: Shirvan, Oughaz, Ghorrizap Mt., 1900 m, 14.7.1997, HOJJAT 29648 [FUMH]. – Distribution in Iran: N, E. Endemic to the Flora Iranica area: Iran & Turkmenistan.

## Boraginaceae

Ref.: RIEDL 1967

***Arnebia grandiflora* (TRAUTV.) POPOV in LAPIN**, Opred. Rast. Taschkentsk. Oasisa 342, no. 319 (1938).

Khorassan: C: Torbat-e Heydarieh to Gonabad, km 24, 900 m, 20.4.1986, AYATOLLAHI 13702 [FUMH]. – Torbat-e Heydarieh, Bandozbak, 860 m, 5.5.1986, AYATOLLAHI 14085 [FUMH]. – N Gonabad, Deh-e Emrani, 900 m, 8.4.1987, RASHED 15087 [FUMH]. – Gonabad to Torbat-e Heydarieh, km 50, 1050 m, 10.4.1990, FAGHIHNIA 18051 [FUMH]. – E: Khaf, between Nashtifan and Biasabad, 950 m, 30.4.1989, JOHARCHI 17167 [FUMH]. – SE: E Ghayen, Petergan, 450 m, 10.4.1988, JOHARCHI 16031 [FUMH]. – Birjand to Khusf, km 18, Mohammadieh, 1400 m, 14.4.1981, ZOKAEE 443 [FUMH]. – Nehbandan, Shusf, Zahab Mt., 1650 m, 12.4.1990, FAGHIHNIA 18175 [FAR, FUMH]. Distribution in Iran: N, E.

***Arnebia hispidissima* (LEHM.) DC.**, Prodr. 10: 94 (1846).

Khorassan: W: W Bardaskan, Dahanghaleh, 1050 m, 2.5.1981, AYATOLLAHI & JOHARCHI 10989b [FUMH]. – SE: N Nehbandan, Kalateh-e SeyyedAli, JOHARCHI 10798 [FUMH]. Distribution in Iran: S, E.

***Echium italicum* L.**, Sp. Pl. 139 (1753)

**ssp. *biebersteinii* (LACAITA) GREUTER & BURDET**, Willdenowia 11: 37 (1981):.

Khorassan: NW: Bojnord, Gardaneh-e Badranlu, 1450 m, 27.7.1983, JOHARCHI 10618 [FUMH]. – W Bojnord, Naderabad, 1000 m, 14.4.1984, AYATOLLAHI 11563 [FUMH]. – N: Chenaran, Frizy, Abghad, 950 m, 7.8.1984, AYATOLLAHI 11555 [FUMH]. – NE: Mashhad, Ferdousi, Kalateh-e Ali Damghany, 1100 m, 8.10.81, ZOKAEE 1173 [FUMH]. Distribution in Iran: N, W, E.

***Lappula myosotis* MOENCH, Meth. 417 (1794).**

Khorassan: N: Chenaran, Golmakan, Ghaleh Payeh, 1400 m, 3.6.1983, REZAAE 10681- NE: Mashhad to Kalat, Ab-e Garm fork, 1000 m, 20.5.1989, JOHARCHI 17405 [FUMH]. – C: Revash, N Kashmar, 1600 m, 4.5.1975, M. IRANSHAHR 33102-E [W]. – E: NW Torbat-e Jam, Tangal-e Bardu, 1600 m, 28.6.1987, JOHARCHI 15405 [FUMH].

Distribution in Iran: W, E, C.

***Lappula patula* (LEHM.) ASCH. ex GÜRKE in ENGL. & PRANTL, Natürl. Pflanzenfam. 4, 3a: 107 (1897).**

Khorassan: NE: On clay slopes NE of Mozduran, between Mashhad & Sarakhs, 900-1000 m, 25.5.1977, RECHINGER 55667 [W]. – C: 40 km N Gonabad, Emrani, 880 m, 13.5.1989, JOHARCHI 17236 [FUMH]. – SE: Ghayen, Zirkuh, Mohammadabad, 1050 m, 15.5.1989, JOHARCHI 17382 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Mattiastrum pygmaeum* RECH.f., Ann. Nat. Mus. Wien 58: 52 (1951).**

Khorassan: E: Bakharz, Arzaneh Mt., 1700 m, 3.6.1989, JOHARCHI 17623 [FUMH].

Distribution in Iran: N, C, E. Endemic to the Flora Iranica area: Iran.

***Myosotis stricta* LINK in ROEMER & SCHULT., Syst. Veg. 4: 104 (1819).**

Khorassan: N: Chenaran, Boghmej, 1850 m, 20.5.1982, GHORASHI-AL-HOSEINI 1692G [FUMH]. – W Darrehgaz, Gadvanlu, 1200 m, 1.5.1988, JOHARCHI 16369 [FUMH]. – Chenaran, Golmakan, the mountains between Talkhabad and Cheshmeh-sabz, 1800 m, 14.5.1990, JOHARCHI & FAGHIHNIA 18549- E: E Khaf, Dardevy, 1350 m, 1.5.1985, AYATOLLAHI 12449 [FUMH]. – C: Gonabad to Ferdous, Gardaneh-e Kalat, 1900 m, 16.4.1983, FARAZMAND 10002 [FUMH]. – SE: E Birjand, Gezik Mt., 1500 m, 14.5.1989, JOHARCHI 17336 [FUMH].

Distribution in Iran: W, E.

***Nonea lutea* (DESV.) A. DC., Prodr. 10: 28 (1846).**

Khorassan: NW: Between Bojnord and Shirvan, 1450 m, 16.5.1988, JOHARCHI 16643 [FUMH]. – 62 km E Loveh, towards Dasht, 1200 m, 19.4.1967, RECHINGER 33151 [W].

Distribution in Iran: N, E, C.

***Nonea turcomanica* POPOV, Spiske Rast. Herb. Fl. URSS. 12, no 3575 (1953).**

Khorassan: N: W Darrehgaz, Zinehdanlu, 1000 m, 1.5.1988, JOHARCHI 16391 [FUMH].

Distribution in Iran: N, S, E. Endemic to the Flora Iranica area: Iran, Turkmenistan, Afghanistan & Pakistan.

***Onosma microcarpum* POPOV, Prodr. 10: 62 (1846).**

Khorassan: N: Neyshabur, Sughand, 1300 m, 7.6.1982, GHORASHI-AL-HOSEINI 1755G [FUMH]. – C: Kashmar, Ghaleh Jugh, 1300 m, 27.5.1981, ZOKAEE 967 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Onosma stenosphon* BOISS., Diagn. Pl. Or. Nov. ser. 1, 7: 35 (1846).**

Khorassan: C: S Gonabad, between Disfan and Khanik, 1550 m, 13.5.1985, JOHARCHI 12802 [FUMH]. – Kashmar to Neyshabur, km 15, 7.5.1990, FAGHIHNIA 18442 [FUMH]. – SE: Birjand, Shekarab Mt., 18.5.1986, AYATOLLAHI 14233 [FUMH]. – E Birjand, Gezik Mt., 1500 m, 14.5.1989, JOHARCHI 17326 [FUMH]. – E Birjand, Moud, Ghala Mt., 2000 m, 12.6.1990, JOHARCHI 17682 [FUMH].

Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran.

***Paracaryum cyclhymenium* (BOISS.) RIEDL, Fl. Iranica, No. 48: 102 (1967).**

Khorassan: SE: 30 km N of Birjand, 1900 m, 23.4.1985, AYATOLLAHI 12203 [FUMH]. – E Birjand, Gezik Mt., 1400 m, 14.5.1989, JOHARCHI 17330 [FUMH]. – SW: Tabas to Dastgardan, km 39, 950 m, 2.5.1976, ZARGARI 13z [FUMH].

Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran.

***Rindera lanata* (LAM.) BUNGE**, Mém. Sav. Etrang. Acad. Petersbg. 7: 415 (1845).

Khorassan: NW: Between Bojnord and Shirvan, 1450 m, 16.5.1988, JOHARCHI 16706 [FUMH]. – Between Bojnord and Shirvan, 1450 m, 13.5.1990, RASHED 18495 [FUMH]. – Bojnord to Esfarayen, 1300-1400 m, 16.6.75, TERMEH 33018-E [W].

Distribution in Iran: N, W, S, E, C.

***Rochelia disperma* (L.f.) C.KOCH**, Linnaea 22: 649 (1849).

Khorassan: NW: Between Bojnord and Shirvan, 1450 m, 16.5.1988, JOHARCHI 16655 [FUMH]. – N: E Ghuchan, between Gukan and Kachalanlu, Sembel-Tappeh, 1600 m, 20.5.1986, JOHARCHI 14427 [FUMH]. – Between Ghuchan and Darrehgaz, Kapkan, 1550 m, 25.4.1988, JOHARCHI 16262 [FUMH]. – -NE: Kalat-e Nadery, Archangan, 830 m, 23.4.1989, JOHARCHI 17074 [FUMH]. – C: Kashmar, Ghaleh Jugh, 1450 m, 5.5.1982, ZOKAEE 1304 [FUMH]. – Prope Rivash, on igneous rocks, 1650 m, 4.5.1975, RECHINGER 51253 [W].

Distribution in Iran: N, W, S, E, C.

## Brassicaceae

Ref.: HEDGE & RECHINGER 1968

***Alyssopsis mollis* (JACQ.) O.E.SCHULZ in ENGL.**, Pflanzenreich, Cruciferae, Sisymbrieae 86 (IV. 105): 186 (1924).

Khorassan: NW: W Bojnord, between Darkesh and Havar, 1600 m, 28.4.2000, ZANGOEE 32960 [FUMH].

Distribution in Iran: N, E, C. Endemic to the Flora Iranica area: Iran & Talish.

***Alyssum bracteatum* BOISS. & BUHSE**, Nouv. Mém. Soc. Nat. Mosc. 12 (1860).

Khorassan: N: Darrehgaz, Gardaneh-e AllahaAkbar, 1750 m, 4.6.1981, GHORASHI-AL-HOSEINI 709G [FUMH]. – Neyshabur, Sarvelayat, the mountain of N Kaleidar, 1500 m, 25.5.1983, JOHARCHI 10310 [FUMH].

Distribution in Iran: W, E, C. Endemic to the Flora Iranica area: Iran & Nakhjavan.

***Brassica napus* L.**, Sp. Pl. 666 (1753).

Khorassan: N: Neyshabur, Khor-e-olia, 1700 m, 8.5.1976, ZARGARI 45z [FUMH]. – -C: Gonabad, Seno, Darreh Nakhu, 1600 m, 25.4.1991, FAGHIHNIA 19589 [FUMH]. – SW: Tabas, Jafarabad, 760 m, 13.3.1988, ZANGOEE 15909 [FUMH]. – SE: Birjand to Khosf, Rakat-e-sofla, 1500 m, 14.4.1981, ZOKAEE & GHORASHI-AL-HOSEINI 424 [FUMH]. – Birjand, Shamsabad, 1900 m, 23.4.1988, RASHED & REZAEE 10104 [FUMH]. – S Birjand, Deh-e Molla to Kalateh-e Khan, 1900 m, 14.6.1994, ZANGOEE 24173 [FUMH].

Distribution in Iran: N, S, E.

***Camelina rumelica* VELEN.**, Sitz. Ber. Bohm. Ges. Wiss. 1887: 448 (1887)

**subsp. *transcaspica* (K.Fritsch) Hedge**, Fl. Iranica, No. 57: 339 (1968)

Khorassan: C: NW Kashmar, the mountain of Kalateh-e Teimur, 1800 m, 12.4.1995, FAGHIHNIA 24728 [FUMH]. – SE: NE Birjand, km 29, Mansurabad to Sedeh, 1830 m, 1.5.1996, RAAFEE 26540 [FUMH].

Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran & Turkmenistan.

***Chalcanthus renifolius* (BOISS. & HOHEN.) BOISS.**, Fl. Or. 1: 212 (1867).

Khorassan: NW: NE Bojnord, the mountains of S Ghaleh Mohammady, 1900 m, 16.4.1989, JOHARCHI 17039 [FUMH]. – NE Bojnord, Gifan, Misino Mt., 2000 m, 17.6.1991, JOHARCHI 20794 [FUMH]. – N: Mashhad, Moghan Mt., 1550 m, 7.4.1988, RASHED 15945 [FUMH]. – E: SW Torbat-e Jam, Bezd Mt., 1600 m, 9.5.1996, FAGHIHNIA 26760 [FUMH]. – C: N Kashmar, between Targh and Kalateh-e Teimur, 1800 m, 4.5.1994, FAGHIHNIA 23864 [FUMH].

Distribution in Iran: N, W, E, C. Endemic to the Flora Iranica area: Iran, Afghanistan & Turkmenistan.



***Chorispora iberica* (M.B.) DC.**, Reg. Veg. Syst. Nat. 2: 437 (1821).

Khorassan: NW: Between Esfarayen and Bojnord, Garivan, 1800 m, 13.5.1991, FAGHIHNIA 20138 [FUMH].

Distribution in Iran: W, E.

***Cithareloma lehmannii* BUNGE**, Del. Sem. Hort. Dorpat. 6: 2 (1843).

Khorassan: SE: E Ghayen, between Ahangaran-e-bala and Ahangaran-e-paeen, 1050 m, 7.6.1993, JOHARCHI 23290 [FUMH]. – E Ghayen, between Hajiabad and Mohammadabad, 1100 m, 29.5.1995, RAAFEE 25613 [FUMH]. – E Ghayen, Hemmatabad, 980 m, 29.5.1995, RAAFEE 25654 [FUMH].

Distribution in Iran: E, C.

***Clypeola dichotoma* BOISS.**, Ann. Sci. Nat. ser. 2, 17: 175 (1842).

Khorassan: NW: Jajarm, 12 km N Garmeh, 1050 m, 15.5.1988, JOHARCHI 16609 [FUMH]. – W: S Sabzevar, Darghadam, 1200 m, 23.4.1988, JOHARCHI 16206 [FUMH]. – C: S Torbat-e Heydarieh, Emrani to Band-e Ozabak, km 7, 1100 m, 23.4.1988, FAGHIHNIA 22915 [FUMH]. – Helali, between Gonabad and Bejestan, 1250 m, 10.5.1975, RECHINGER 57501 [W]. – SW: Ferdous to Boshruyeh, km 30, 16, 4, 1995, AYATOLLAHI 13743 [FUMH]. – Ferdous to Boshruyeh, km 14, Amirabad, 1400 m, RAAFEE 24793 [FUMH]. – SE: Birjand to Tabas, km 87, 1150 m, 1.5.1976, ZARGARI s. n. [FUMH]. – Birjand to Khosf, Fatemeh, 1340 m, 14.4.1981, ZOKAEE & GHORASHI-AL-HOSEINI 472 [FUMH]. – Birjand, Sarchah road, 1400 m, 23.4.1983, RASHED & REZAAE 10076 [FAR, FUMH]. – Birjand, Hamand to Ghalehzary, km 8, 1350 m, 9.4.1987, REZAAE 15109 [FUMH]. – Birjand, the mountains of Gezik, 1500 m, 14.5.1989, JOHARCHI 17287 [FUMH]. – 40 km N Birjand, 1900 m, 17.5.1992, FAGHIHNIA 21760 [FUMH]. – Birjand, Hamand to Giv, Kakhak, 1400 m, 18.5.1992, FAGHIHNIA 21809 [FUMH]. – Birjand, Sarbisheh to Nehbandan, km 20, 1650 m, 22.4.1996, RAAFEE 26438 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Conringia orientalis* (L.) ANDRZ. in DC.**, Reg. Veg. Syst. Nat. 2: 508 (1821).

Khorassan: NW: N Bojnord, between Ghatlish and Ghazi, 1500 m, 2.7.1981, GHORASHI-AL-HOSEINI 1242G [FUMH]. – Bojnord to Esfarayen, Gardaneh-e Kalat, 1800 m, 13.5.1991, AYATOLLAHI 11433 [FAR, FUMH]. – S Bojnord, Takht-e Mirza, 2000 m, 2.7.1986, JOHARCHI 13719 [FUMH]. – Between Bojnord and Shirvan, 1450 m, 16.5.1988, JOHARCHI 16685 [FUMH]. – Between Bojnord and Shirvan, Sisab, 1450 m, 19.4.1988, RASHED 16071 [FUMH]. – Between Bojnord and Shirvan, Sisab, 1450 m, 13.5.1990, RASHED 18463 [FUMH]. – Bojnord to Esfarayen, km 10, 1450 m, 13.5.1991, FAGHIHNIA 20125 [FUMH]. – Between Esfarayen and Bojnord, Garivan, 1800 m, 13.5.1991, FAGHIHNIA 20149 [FUMH]. – S Bojnord, Raktian to Hessar, 1600 m, 4.7.1993, FAGHIHNIA 23552 [FUMH]. – N Bojnord, Naveh to Ghatlish, km 6, 1350 m, 16.6.1996, RAAFEE 27171 [FUMH]. – Bojnord, Gardaneh-e Badranlu, 1920 m, 12.6.1996, RAAFEE 27257 [FUMH]. – N: N Shirvan, Pasgah-e Golul, 2200 m, 20.6.1989, FAGHIHNIA 17779 [FUMH]. – N Shirvan, Pasgah-e Golul, 2100 m, 18.6.1995, FAGHIHNIA 25832 [FUMH]. – N Shirvan, Sevaldy to Lujally, 1400 m, 19.6.1995, FAGHIHNIA 25884 [FUMH]. – N Ghuchan, between Bajgiran and Bardar, 1550 m, 24.6.1990, FAGHIHNIA 18795 [FUMH]. – E Ghuchan, the mountains of Emarat, 1800 m, 19.6.1996, FAGHIHNIA 27471 [FUMH]. – S Darrehgaz, between Rishkhar and Darbandy, Kalateh-e Gurny, 1800 m, 28.5.1990, JOHARCHI 18677 [FUMH], 18658 [FUMH]. – Darrehgaz, between Ghazan-Beik and Chapeshlu, 700 m, 16, 5, 1993, JOHARCHI 23143 [FUMH]. – S Shirvan, Varak road, 1850 m, 25.6.1994, ZANGOEE 24295 [FUMH]. – Serpentine rocks at Robot-e Safid 82-90 km S Mashhad = 70 km N Torbat-e Heydarieyeh, 1520 m, RECHINGER 57330 [W]. – NE: N Mashhad, between Mareshk and Kharkat, 1900 m, 3.8.1987, JOHARCHI 15747 [FUMH]. – Mashhad to Kalat, km 50, 1250 m, 24.5.1994, FAGHIHNIA 23978 [FUMH]. – NE Kalat, Kalat to khesht, 1200 m, 24.5.1994, FAGHIHNIA 24012 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Conringia persica* BOISS.**, Diag. Pl. Or. Nov. ser. 1, 6: 12 (1845).

Khorassan: NW: Esfarayen, Safiabad, Ghanbarbaghy, 1700 m, 14.5.1991, FAGHIANIA 20163 [FAR, FUMH]. – E: Torbat-e Jam, Cheshmeh Gol to Banitak, km 25, 1450 m, 14.4.1993, FAGHIANIA 22742 [FUMH]. – C: Ferdous to Gonabad, km 35, 1750 m, 14.4.1982, GHORASHI-AL-HOSEINI 1325G [FUMH]. – Gonabad, Kakhk, the mountain between Kalateh-e Nou and Pagodar, 2000 m, 24.4.1990, FAGHIANIA 18371 [FUMH]. – Ferdous to Gonabad, km 25, 1900 m, 5.5.1992, FAGHIANIA 21642 [FUMH]. – Khezry, the mountains of Boskabad dam, 1900 m, 2.5.1995, FAGHIANIA 25258 [FUMH]. – Kashmar to Neyshabur, km 55, 1850 m, 11.5.1991, JOHARCHI 20070 [FUMH]. – On montane rocks 13 km N Kashmar towards Rivash, 1300-1400 m, 4. 5.1975, RECHINGER 57130 [W]. – SE: Birjand, Darmian, 2200 m, 15.4.1981, ZOKAEE 492 [FUMH]. – E Birjand, between Esfazar and Darmian, Banedar Mt., 2500 m, 21.4.1985, AYATOLLAHI 12100 [FUMH]. – Birjand, Khorashad, 1900 m, 22.4.1985, AYATOLLAHI 12150 [FUMH]. – NE Birjand, Takhtejan, 1800 m, 15.5.1989, JOHARCHI 17344 [FUMH]. – Nehbandan, Shusf, Zahab Mt., 1650 m, 12.4.1990, FAGHIANIA 18191 [FUMH]. – Birjand to Ghayen, km 40, 1900 m, 17.5.1992, FAGHIANIA 21766 [FUMH]. – S Birjand, Band-e Darreh, 2000 m, 1.5.1995, FAGHIANIA 25162 [FUMH]. – Birjand, Mansurabad to Sedeh, km 30, 2000 m, 1.5.1996, RAAFEE 26538 [FUMH]. – 26576 [FUMH].

Distr. in Iran: N, W, S, E, C.

***Conringia planisiliqua* FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop. 3: 32, Nr. 564 (1837).

Khorassan: NW: N Bojnord, Joudar Mt., 1600 m, 11.6.1996, RAAFEE 27187 [FAR, FUMH]. – (Gulul Sarani Prot. Reg.) Kopet Dagh, limestone substrate, 12.-13. 6.1975, RECHINGER 53454 [W]. – N: Darrehgaz, Tandureh, between Shekarab and Chehelmir, 2300 m, 27.5.1991, JOHARCHI 20474 [FUMH]. – Ghuchan, Bajgiran, Aselmeh, 2200 m, 30.6.1994, FAGHIANIA 24363 [FUMH]. – E Neyshabur, km 12 Dizbad-e-olia road, 1750 m, 19.5.1996, RAAFEE 26976 [FUMH]. – C: Kashmar to Neyshabur, km 62, 1700 m, 19.5.1978, ZARGARI 182z [FUMH]. – SW Torbat-e Heydarieh, Eskandarabad, 1050 m, 4.5.1991, JOHARCHI 19965 [FUMH]. – SE: E Birjand, Tangeh-e Behdan, Khunik village, 1450 m, 19.5.1984, PUYAN 394p [FUMH]. – SE Ghayen, between Dezg and Ahangaran, Ahangaran Mt., 1500 m, 15.5.1989, JOHARCHI 17355 [FUMH]. – Birjand, between Gaz and Chenesht, Ostad, 1850 m, 19.5.1992, FAGHIANIA 21828 [FUMH]. – S Birjand, Band-e Darreh, 2000 m, 1.5.1995, FAGHIANIA 25197 [FUMH].

Distribution in Iran: N, E, C.

***Cymatocarpus pilosissimus* (TRAUTV.) O.E.SCHULZ in ENGL.**, Pflanzenr. 86 (IV. 105): 300 (1924).

Khorassan: NE: Mazdavand to Sarakhs, km 14, 850 m, 21.5.1986, JOHARCHI 14543 [FUMH]. – Mashhad to Sarakhs, between Mazdavand and Shurlegh, 600 m, 8.6.1991, JOHARCHI 20623 [FUMH]. – Darrehgaz, the hills of S Hesar, 250 m, 16.5.1993, JOHARCHI 23093 [FUMH]. – Sarakhs, Serahi-e Bazangan, 650 m, 22.4.1991, FAGHIANIA 19409 [FUMH]. – E: E Torbat-e Jam, Mallu Mt., 950 m, 28.4.1991, JOHARCHI 19707 [FUMH]. – C: N Torbat-e Heydarieh, Esfeukh Mt., 1500 m, 5.5.1991, JOHARCHI 20002 [FUMH].

Distribution in Iran: N, E.

***Didymophysa aucheri* BOISS.**, Ann. Sci. Nat. ser. 2, 16: 379 (1841).

Khorassan: NW: Esfarayen, Shahjahan Mt., around of Yakhchal, 2750 m, 26.6.1994, ZANGOOEE 24322 [FUMH].

Distribution in Iran: N, W, E, C.

***Draba huetii* BOISS.**, Diagn. Pl. Or. Nov., ser. 2, 5: 31 (1856).

Khorassan: N: Darrehgaz, Tandureh, between Shekarab and Chehelmir, 2300 m, 27.5.1991, JOHARCHI 20471 [FUMH].

Distribution in Iran: N, C.

***Erophila minima* C.A.MEY.**, Verz. Pfl. Cauc. 184 (1831).

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 15.4.1989, JOHARCHI 17012 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Erysimum crassipes* FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop. 1: 27 (1835).

Khorassan: N: S Darrehgaz, between Rishkhar and Darbandy, Kalateh-e Gurny, 1800 m, 28.5.1990, JOHARCHI 18655 [FUMH].

Distribution in Iran: N, W, E, C.

***Erysimum griffithianum* BOISS.**, Diagn. Pl. Or. Nov. ser. 2, 1: 28 (1854).

Khorassan: SE: Nehbandan, Shusf, 1300 m, 25.4.1984, JOHARCHI 10851 [FUMH]. – Birjand, Mud, Sehatabad, 1700 m, 10.4.1987, RASHED 15169 [FUMH]. – Nehbandan, Shusf, Zahab Mt., 1650 m, 12.4.1990, FAGHIHNIA 18186 [FUMH]. – Birjand, between Giv and Rakat, Salmabad, 1600 m, 9.4.1991, FAGHIHNIA 19309 [FUMH]. C: 22 km S of Bejestan, 1700-1750 m, 10.5.75, IRANSHAHR 31856-E [W]. – SE: Birjand, Sarbisheh, 1800 m, 14.5.1989, JOHARCHI 17250 [FUMH]. – Birjand, Sarbisheh, Gurid, 1750 m, 9.4.1991, FAGHIHNIA 19280 [FUMH]. – Birjand, Mud to Sarbisheh, km 22, 1130 m, 29.4.1996, RAAFEE 26416 [FUMH].

Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran & Afghanistan.

***Erysimum sisymbrioides* C.A.MEY. in LEDEB.**, Fl. Alt. 3: 150 (1831).

Khorassan: SE: Birjand, between Sarbisheh and Mokhtaran, Fal, 1700 m, 9.4.1991, FAGHIHNIA 19299 [FUMH].

Distribution in Iran: W, S, E, C.

***Graellsia saxifragifolia* (DC.) BOISS.**, Ann. Sci. Nat. ser. 2, 16: 379 (1842)**subsp. *saxifragifolia*.**

Khorassan: NE: Mashhad, N Kardeh dam, Aall, 1700 m, 23.4.1995, FAGHIHNIA 24985 [FUMH].

Distribution in Iran: W, S, E. Endemic to the Flora Iranica area: Iran, Afghanistan & Turkmenistan.

***Hymenobolus procumbens* (L.) HEDGE & LAMOND**, Fl. N. Amer. 1: 117 (1838).

Khorassan: E: Khaf, Band-e Salmay, 1250 m, 29.4.1989, JOHARCHI 17114 [FUMH]. – C: Torbat-e Heydarieh, Mansurieh, 1300 m, 19.4.1990, JOHARCHI 18 [FUMH]. – Torbat-e Heydarieh, Jangal, Kal-e Salar, 850 m, 4.5.1986, AYATOLLAHI 14067 [FUMH]. – SE: Birjand, Mud, Sehatabad, 1700 m, 10.4.1987, RASHED 15166 [FUMH]. – Nehbandan, Taghestan, 1200 m, 13.4.1992, FAGHIHNIA 21442 [FUMH]. – Nehbandan, Shusf, 1450 m, 14.4.1992, FAGHIHNIA 21510 [FUMH].

Distribution in Iran: W, S, E, C.

***Lepidium aucheri* BOISS.**, Ann. Scienc. Nat. ser. 2, 17: 195 (1842).

Khorassan: C: Torbat-e Heydarieh, Band-e Uzbek, 900 m, 19.5.1997, RAFFEE 28524 [FUMH].

Distribution in Iran: W, S, E.

***Lepidium perfoliatum* L.**, Sp. Pl. 643 (1753).

Khorassan: NW: Bojnord, Joshaghan, Robot-e Eshgh, 1350 m, 11.5.1992, FAGHIHNIA 21707 [FUMH]. – NE: Mashhad, Kuy-e Ab-o-Bargh, 1050 m, 26.4.1986, JOHARCHI 13962 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Malcolmia karelinii* LIPSKY**, Acta. Hort. Petrop. 23: 31 (1904).

Khorassan: W: Haresabad, km 10 S Sabzevar, 940 m, 1 May 1976, BAZ-RAJAMAND 31767 [W]. – C: 45 km of N Gonabad, Lut-e Emrani, 850 m, 8.4.1991, FAGHIHNIA 19265 [FUMH]. – 70 km SW Torbat-e Heydarieh, inter Jannatabad et Alui, 850 m, 8.5.1975, K.H. RECHINGER 57361 [W]. – SW: Khor & Robot Poshtbadam road of Tabas, 1000 m, 17 May 1977, DINI & BAZARGAN 33082 [W]. – 22-30 km SW Ferdous towards Deyhuk, “dasht”, 1200 m, 10.5.1975, RECHINGER 57573 [W]. – SE: Birjand, between Giv and Rakat, Salmabad, 1600 m, 9.4.1991, FAGHIHNIA 19310 [FUMH].

Distribution in Iran: C, S, E.

***Moricandia sinaica* (BOISS.) BOISS.**, Fl. Or. 1: 386 (1867).

Khorassan: SW: Tabas, Chiruk Mt., 1400 m, 19.4.1987, AYATOLLAHI 15314 [FUMH]. – Tabas to Kharv, Mehrabany village, 1400 m, 14.3.1987, ZANGOOEE 15918 [FUMH].

Distribution in Iran: S, E.

***Nasturtium officinale* R.BR. in AITON**, Hort. Kew. Ed. 2, 4: 110 (1812).

Khorassan: N: Chenaran, Radkan, Guroh, 1700 m, 12.7.1993, FAGHIHNIA 23595 [FUMH]. – NE: Kalat, Jalilabad, 1070 m, 22.4.1989, JOHARCHI 17057 [FUMH]. – Kalat, Ortokand to Sarrud, 1400 m, 19.5.1994, FAGHIHNIA 23967 [FUMH]. – Kalat, Khanzu, Ortokand, 1550 m, 9.6.1994, FAGHIHNIA 24171 [FUMH]. – Mashhad to Kalat, km 70, 1600 m, 10.4.1994, FAGHIHNIA 24688 [FUMH]. – Kalat, Khanzu river to Cheshmeh, 1450 m, 16.6.1996, RAAFEE 27320 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Octoceras lehmannianum* BUNGE**, Arb. Naturf. Ver. Riga 1: 172 (1847).

Khorassan: NW: Esfarayen, between Safyabad and Dolchah, 1100 m, 15.5.1991, FAGHIHNIA 20247 [FUMH]. – NE: Between Mashhad and Sarakhs, Chahak hills, 900 m, 21.5.1986, JOHARCHI 14527 [FUMH]. – Between Mashhad and Sarakhs, Pistacia Forest, 800 m, 28.4.1994, FAGHIHNIA 23850 [FUMH]. – E: Khaf, between Nashtyfan and Biasabad, 950 m, 30.4.1989, JOHARCHI 17166 [FUMH]. – SE Torbat-e Jam, Ghaleh-e Hammam, 800 m, 27.4.1991, JOHARCHI 19670 [FUMH]. – Taibad to Dogharun, km 5, 700 m, 18.4.1990, FAGHIHNIA 18249 [FUMH]. – Taibad to Torbat-e Jam, km 5, 750 m, 19.4.1990, FAGHIHNIA 18269 [FUMH]. – Torbat-e Jam, between Jannatabad and Mirjaveh, 14.4.1993, FAGHIHNIA 22756 [FUMH]. – Between Taibad to Karat, km 25, 900 m, 1.5.1993, FAGHIHNIA 23048 [FUMH]. – Torbat-e Jam to Bakharz, km 10, Chah-e Shur steppe, 850 m, 12.5.1994, FAGHIHNIA 23899 [FUMH]. – C: Torbat-e Heydarieh, Robat-e Sang, between Abdolabad and Serahi-e Rudkhaneh, 1400 m, 8.5.1985, AYATOLLAHI & JOHARCHI 12586 [FUMH]. – S Torbat-e Heydarieh, Dasht-e Kheirabad, 900 m, 4.5.1991, JOHARCHI 19892 [FUMH]. – 50 km N of Gonabad, Lut-e Emrani, 1050 m, 10.4.1990, FAGHIHNIA 18047 [FUMH]. – 30 km N of Gonabad, Lut-e Emrani, 800 m, 8.4.1991, FAGHIHNIA 19243 [FUMH]. – 45 km N of Gonabad, Lut-e Emrani, 850 m, 8.4.1991, FAGHIHNIA 19259 [FUMH]. – 60 km N of Gonabad, Lut-e Emrani, 1050 m, 3.5.1992, FAGHIHNIA 21574 [FUMH]. – Torbat-e Heydarieh, between Feizabad and Hemmatabad, 900 m, 20.4.1993, FAGHIHNIA 22776 [FUMH]. – E Gonabad, Bejestan to Ghasemabad, km 10, 1200 m, 21.4.1993, FAGHIHNIA 22854 [FUMH]. – Helali, between Gonabad & Bejestan, 1250 m, 10.5.1975, RECHINGER 51483 [W]. – SW: Bushrueh to Tabas, km 5, 1200 m, 4.5.1992, FAGHIHNIA 21588 [FAR, FUMH]. – Bushrueh to Tabas, km 20, 1100 m, 4.5.1992, FAGHIHNIA 21622 [FUMH]. – Fedows to Bushrueh, km 14 (Amirabad), 1400 m, 16.4.1995, RAAFEE 24812 [FUMH]. – Tabas to Dastgardan, between Gharcheh and Allahabad-e Rahmany, 18.4.1995, RAAFEE 24926 [FUMH]. – SE: E Birjand, Beshgaz, 1900 m, 21.4.1985, AYATOLLAHI 12092 [FUMH]. – Birjand, Hamand to Ghaleh-Zary, km 8, 1300 m, 9.4.1987, RASHED 15113 [FUMH]. – E Ghayen, W of Dagh-e Petergan, 450 m, 10.4.1988, JOHARCHI 16030 [FUMH]. – Nehbandan, Hosseinabad, Arviz hills, 1550 m, 11.4.1990, FAGHIHNIA 18076 [FUMH]. – Nehbandan, Shusf, Zahab Mt., 1650 m, 12.4.1990, FAGHIHNIA 18174 [FUMH]. – Birjand, the beginning of the airport road, 1450 m, 10.4.1991, FAGHIHNIA 19337 [FUMH]. – Nehbandan, between Khan-Sharaf and Maadan, 1300 m, 30.4.1991, FAGHIHNIA 19782 [FUMH]. – Nehbandan, Taghestan, 1200 m, 13.4.1992, FAGHIHNIA 21438 [FUMH]. – Ghayen to Zirkuh, km 9 of the road to Gartigh, 1300 m, 28.5.1995, RAAFEE 25594 [FUMH]. – Birjand, Sarbisheh to Nehbandan, km 20, 1300 m, 29. 4.1996, RAAFEE 26434 [FUMH].

Distribution in Iran: S, E, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 5330-d [W]) belongs to Semnan province, not Khorassan.

***Sisymbrium irio* L., Sp. Pl. 659 (1753).**

Khorassan: N: Chenaran, Akhلامad, 1500 m, 6.8.1984, AYATOLLAHI 11528 [FUMH]. – N Ghuchan, Zu-e Shamkhal, 1550 m, 5.8.1986, JOHARCHI 13865 [FUMH]. – Between Ghuchan and Bajgiran, Emambad, 1600 m, 19.6.1989, FAGHIHNIA 17736 [FUMH]. – Bajgiran to Ghuchan, km 25, 1750 m, 25.6.1990, FAGHIHNIA 18812 [FUMH]. – Between Ghuchan and Bajgiran, Zu-e Dorbadam, 1600 m, 29.6.1994, FAGHIHNIA 24343 [FUMH]. – NE: Mashhad, Moghan, 1900 m, 2.6.1990, FAGHIHNIA 18699 [FAR, FUMH]. – Kalat, Khanzu, Ortokand, 1550 m, 9.6.1994, FAGHIHNIA 24155 [FUMH]. – Mashhad, Ajdar-kuh, Joghry, 1300 m, 30.5.1993, JOHARCHI 23233 [FUMH]. – Mashhad, Azghad, 1600 m, 23.6.1994, ZANGOEE 24265 [FUMH]. – SE of Kalat, Khanzu river to Cheshmeh, 1450 m, 16.6.1996, RAAFEE 27331 [FUMH]. – E: Tayyebat, Garden and yard of Hotel Inn in Centrum of the village, 840 m, 4.May 1972, UOTILA 16265 [W]. – C: Between Torbat-e Heydarieh and Khaf, Piryahu, 1500 m, 7.7.1992, FAGHIHNIA 22146 [FUMH]. – SW: Tabas, Bagh-e Golshan, 600 m, 16.4.1982, GHORASHI-AL-HOSEINI 1409G [FUMH]. – W Tabas, Jafarabad, 760 m, 13.3.1988, ZANGOEE 15907 [FUMH]. – SE Tabas, S Deyhuk, Peikuh, 750 m, 11.3.1996, RAAFEE 26181 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Sterigmostemum longistylum* (BOISS.) BORNM., Beih. Bot. Centrbl. 28, 2: 110 (1911).**

Khorassan: SW: Tabas, Deyhuk, Arababad to khour, km 50, 8.4.1993, FAGHIHNIA 22644 [FUMH].

Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran.

***Sterigmostemum ramosissimum* (O.E.SCHULZ) RECH.f., Fl. Iranica, No. 57: 280 (1968).**

Khorassan: NW: W Bojnord, between Chamanbid and Robat-e Gharabil, 11.5.1992, FAGHIHNIA 21710 [FUMH]. – NW Bojnord, N Kheshtly, 12.6.2001, JOHARCHI 33756 [FUMH].

Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran & Turkmenistan.

***Thlaspi arvense* L., Sp. Pl. 646 (1753).**

Khorassan: NW: W Bojnord, Bidak, 1300 m, 22.5.1996, FAGHIHNIA & RAAFEE 25494 [FUMH]. – N: Ghuchan, Khosravieh, 1550 m, 18.6.1981, GHORASHI-AL-HOSEINI 998G [FUMH]. – Neyshabur, Bar, 1650 m, 19.6.1988, JOHARCHI 16959 [FUMH]. – C: Torbat-e Heydarieh, Between Kadkan and Bors, 2000 m, 12.6.1991, FAGHIHNIA 20682 [FUMH].

Distribution in Iran: N, W, E, C.

***Thlaspi perfoliatum* L., Sp. Pl. 646 (1753).**

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 19.4.1988, RASHED 16062 [FUMH]. – W Bojnord, between Chamanbid and Jozak, 1300 m, 15.5.1988, JOHARCHI 16623 [FUMH]. – Bojnord, Ghaleh-e Sheikh to Sorkhzo, 1300 m, 10.5.1992, FAGHIHNIA 21671 [FUMH]. – N: Darrehgaz, Gardaneh-e AllahaAkbar, 1650 m, 30.4.1988, JOHARCHI 16316 [FUMH]. – W Darrehgaz, Gadkanlu, 1200 m, 1.5.1988, JOHARCHI 16358 [FUMH]. – Chenaran, Dahaneh-e Akhلامad, 1200 m, 20.4.1991, JOHARCHI 19379 [FUMH]. – Neyshabur, Khor-olia, 1650 m, 19.5.1996, RAAFEE 27007 [FAR, FUMH]. – NE: Mashhad, Dehbar, 1700 m, 28.4.1985, SAFAVI & JOHARCHI 12304 [FUMH]. – Mashhad, Moghan, 1600 m, 7.4.1988, RASHED 15940 [FUMH], 15943 [FUMH]. – Kalat, Gharasu, 1150 m, 22.4.1989, JOHARCHI 17058 [FUMH]. – Kalat, Darband, 950 m, 24.4.1989, JOHARCHI 17100 [FUMH]. – Mashhad, Tabadkuh, 1000 m, 7.4.1992, FAGHIHNIA 21385 [FUMH]. – Mashhad, Ajdarkuh, 1100 m, 7.4.1992, FAGHIHNIA 21393 [FUMH]. – Kalat, between Ortokand and Baghkand, 1600 m, 18.5.1994, FAGHIHNIA 23926 [FUMH]. – Mashhad to Kalat, km 70, 1600 m, 10.4.1995, FAGHIHNIA 24693 [FUMH]. – Mashhad, N Kardeh, Aal, 1700 m, 23.4.1992, FAGHIHNIA 24999 [FUMH]. – Mashhad, Ghar-e Moghan, 1900 m, 21.5.1991, FAGHIHNIA 29371 [FUMH]. – Sarakhs, Ghorghoreh Mt., 900 m, 8.4.1992, FAGHIHNIA 21413 [FUMH]. – E: Torbat-e Jam, Cheshmeh-Gol, 1450 m, 14.4.1993, FAGHIHNIA 22743 [FUMH].

Distribution in Iran: N, W, S, E, C.

**Campanulaceae**

Ref.: RECHINGER &amp; SCHIMAN-CZEIKA 1965

*Asyneuma amplexicaule* (WILLD.) HAND.-MAZZ., Ann. Nat. Mus. Wien, 27: 431 (1913)

Khorassan: NW: W Bojnord, between Darkesh and Havar, 2.7.2000, FAGHIHNIA 33031 [FUMH]. – W Bojnord, Zu-e Havar, 1600 m, 27.6.2000, ZANGOEE 32989 [FUMH]. – SW Bojnord, Saluk Mt., 2000 m, 27.6.1995, RAAFEE 26019 [FUMH].

Distribution in Iran: N, W, E, C.

*Campanula glomerata* L., Sp. Pl. 166 (1753).

Khorassan: NW: W Bojnord, between Darkesh and Havar, 2.7.2000, FAGHIHNIA 33032 [FUMH]. – W Bojnord, Zu-e Havar, 1600 m, 27.6.2000, ZANGOEE 32990 [FUMH]. – W Bojnord, between Darkesh and Havar, near the river, 1300 m, 9.7.2001, JOHARCHI 33885 [FUMH].

Distribution in Iran: N, W, E, C.

*Campanula lourica* BOISS., Diagn. Pl. Or. Nov., ser. 1, 11: 70 (1849).

Khorassan: NW: W Bojnord, Cheshmeh-e Jouzak, 1000 m, 2.5.2000, JOHARCHI 32763 [FUMH].

Distribution in Iran: N, E, C. Endemic to the Flora Iranica area: Iran.

**Capparidaceae**

Ref.: HEDGE &amp; LAMOND 1970

*Cleome iberica* DC., Prodr. 1: 240 (1824).

Khorassan: NW: Bojnord, Gifan, 1300 m, 16.6.1991, JOHARCHI 20763 [FUMH].

Distribution in Iran: N, W, S, E, C.

**Caprifoliaceae**

Ref.: WENDELBO 1965

*Lonicera floribunda* BOISS. & BUNSE, Mém. Soc. Nat. Mosc. 2, 12: 107, tab. 8 (1860).

Khorassan: NW: W Bojnord, Dasht, 1000 m, 8.9.1987, ZANGOEE 15870 [FUMH]. – W Bojnord, between Ashkhaneh and Chamanbid, Kalateh-e Zamansufy, 900 m, 19.9.1993, ZANGOEE 23750 [FUMH].

Distribution in Iran: N, E.

*Lonicera iberica* M.B., Fl. Taur.-Cauc. 1: 158 (1808).

Khorassan: NW: W Bojnord, the mountain S of Badranlu, 1920 m, 12.6.1996, RAAFEE 27261 [FUMH].

Distribution in Iran: N, W, E, C.

*Sambucus ebulus* L., Sp. Pl. 269 (1753).

Khorassan: N: Darrehgaz, Dodanlu, 800 m, 5.8.1982, ZOKAEE 1496 [FUMH]. – Darrehgaz, Tandureh, 850 m, 25.7.1990, FAGHIHNIA 18996 [FUMH]. – SW Darrehgaz, Chehelmir, 1100 m, 7.7.1994, FAGHIHNIA 24418 [FUMH]. – NE: Mashhad, Dehbar, 1600 m, 15.9.1983, JOHARCHI 10656 [FUMH]. – Mashhad, Kang Mt., 2100 m, 5.8.1991, FAGHIHNIA 20998 [FUMH]. – Mashhad, Kordineh, 2000 m, 19.8.1992, FAGHIHNIA 22466 [FUMH]. – Mashhad, Azghad, 1600 m, 23.6.1994, ZANGOEE 24269 [FUMH].

Distribution in Iran: N, E.

**Caryophyllaceae**

Ref.: RECHINGER et al. 1988

*Cerastium perfoliatum* L., Sp. Pl. 437 (1753).

Khorassan: NE: Mashhad, Moghan, 1550 m, 4.5.1982, GHORASHI-AL-HOSEINI 1559G [FUMH].

Distribution in Iran: N, W, E, C.

***Petrorhagia cretica* (L.) P.W.BALL & HEYWOOD**, Bull. Brit. Mus. (Nat. Hist.) Bot. 3, 4: 142 (1964).

Khorassan: NW: NW Bojnord, Ghoridarreh, 900 m, 17.6.2003, JOHARCHI & GHAHREMANINEJAD 34772 [FUMH].

Distribution in Iran: N, W, E, C.

***Silene cyri* SCHISCHK.**, Fl. Tiflisensis 1: 202 (1925).

Khorassan: NE: NE Mashhad, Chahchaheh (Pistacia forest) 21.5.1999, ERTHER 32500 [FUMH].

Distribution in Iran: N, W, E, C.

***Velezia rigida* L.**, Sp. Pl. 332 (1753).

Khorassan: NE: Mashhad, Azhdarkuh, Borzeshabad, 850 m, 10.5.1982, GHORASHI-AL-HOSEINI 1592G [FUMH]. – S Darrehgaz, Gherkhghez hills, 450 m, 2.5.1988, JOHARCHI 16467 [FUMH].

Distribution in Iran: N, W, S, E, C.

## Chenopodiaceae

Ref.: HEDGE et al. 1997

***Corispermum lehmannianum* BUNGE**, Beitr. Fl. Russl. 282 (1852).

Khorassan: SE: E Ghayen, between Ahangaran-e-bala and Ahangaran-e-paeen, 1050 m, 7.6.1993, JOHARCHI 23291 [FUMH]. – SE Ghayen, Hemmatabad, 980 m, 23.5.1993, RAAFEE 25656 [FUMH]. – E Nehbandan, Maadan-e Hajat to Marz, km 14, 1000 m, 30.4.1996, RAAFEE 26496 [FUMH].

Distribution in Iran: S, E, C.

***Petrosimonia brachiata* (PALL.) BUNGE**, Mém. Acad. Imp. Sci. Petersb. 7 ser. 4, 11: 59 (1862).

Khorassan: C: N Kashmar, Chalpu, 1750 m, 16.10.1991, FAGHIHNIA 21177 [FUMH].

Distribution in Iran: N, W, E.

***Seidlitzia florida* (M.B.) BUNGE ex BOISS.**, Fl. Or. 4: 950 (1879).

Khorassan: NW: W Bojnord, between Dasht and Bidak, 950 m, 8.9.1987, ZANGOOEE 15874 [FUMH].

Distribution in Iran: N, W, S, E, C.

## Cistaceae

Ref.: RECHINGER 1967

***Fumana procumbens* GREN. & GODR.**, Fl. France 1:173 (1848).

Khorassan: NW: W Bojnord, between Chamanbid and Jozak, 1300 m, 15.5.1988, JOHARCHI 16615 [FUMH]. – NE Bojnord, Gharahlor, 1000 m, 24.5.1995, FAGHIHNIA & RAAFEE 25545 [FUMH]. – N Bojnord, Joudar, 1600 m, 11.6.1996, RAAFEE 27202 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 1908 [W]) belongs to Golestan (Gorgan) province, not Khorassan.

***Helianthemum ledifolium* (L.) MILL.**, Gard. Dict. no. 20 (1768)

**var. *ledifolium***

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 16.5.1988, JOHARCHI 16707 [FUMH]. – N: S Darrehgaz, Abegarm, 1000 m, 2.6.1981, GHORASHI-AL-HOSEINI 510G [FUMH]. – 520G [FUMH]. – Darrehgaz, Chehelmir, 1000 m, 4.6.1981, GHORASHI-AL-HOSEINI 616G [FUMH]. – S Darrehgaz, Gherkhghez hills, 450 m, 2.5.1988, JOHARCHI 16496 [FAR, FUMH]. – Darrehgaz, Tandureh, between Shekarab and Chehelmir, 1000 m, 27.5.1991, JOHARCHI 20472 [FUMH]. – SE Darrehgaz, Hatamghaleh, 300 m, 16.5.1993, JOHARCHI

23138 [FUMH]. – NE: S Fariman, Kalleh-menar, 2300 m, 13.5.1982, ZOKAEE & JOHARCHI 906 [FUMH]. – Kalat, Ghaleh-e Hammam, 1300 m, 1.7.1992, FAGHIHNIA 22117 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Helianthemum salicifolium* (L.) MILL.**, Gard. Dict. no. 21 (1768).

Khorassan: N: W Darrehgaz, Zeinedanlu, 1000 m, 1.5.1988, JOHARCHI 16397 [FUMH].  
Distribution in Iran: N, W, S, E, C.

## Convolvulaceae

Ref.: RECHINGER 1963

***Calystegia sepium* (L.) R.BR.**, Prodr. Fl. Nov. Holl. 483 (1810).

Khorassan: NW: E Bojnord, Gharleggh, 950 m, 17.7.1984, AYATOLLAHI & REZAAE 11427 [FUMH]. – W Bojnord, Naderabad, 1000 m, 14.8.1985, AYATOLLAHI 11576 [FUMH]. – N Bojnord, Sangsaar, 1000 m, 2.7.1985, JOHARCHI 13289 [FUMH]. – W Bojnord, Kalateh-e Zamansufy, 850 m, 12.8.1987, REZAAE 15530 [FUMH]. – W Bojnord, Kalateh-e Zamansufy, 900 m, 19.10.1993, ZANGOEE 23752 [FUMH].  
Distribution in Iran: N, W, S, E.

***Convolvulus fruticosus* PALL.**, Reise, II, Anhang 734 (1773).

Khorassan: NW: Between Jajarm and Garmeh, 1000 m, 30.5.1984, JOHARCHI 11356 [FAR, FUMH]. – 11383 [FUMH]. – W Jajarm, Daragh, 900 m, 30.5.1984, JOHARCHI 11390 [FUMH]. – Jajarm, between Sankhast and Khorashah, 850 m, 15.5.1988, JOHARCHI 16578 [FUMH]. – N: E Ghuchan, Yadak, 1700 m, 15.5.1985, JOHARCHI 12881 [FUMH]. – NE: Kalat, khalaj-e-olia, 20.5.1981, GHORASHI-AL-HOSEINI 378G [FUMH]. – N Mashhad, Khor Mt., 1350 m, 6.6.1988, JOHARCHI 16827 [FUMH]. – E: Khaf, between Nashtifan and Biasabad, 950 m, 30.4.1989, JOHARCHI 17162 [FUMH].  
Distribution in Iran: S, E, C.

***Convolvulus pseudocantabrica* SCHRENK in FISCH. & C.A.MEY.**, Enum. Pl. No.1: 21 (1841)

Khorassan: NW: Jowzak, 74 km W Bojnord versus Gorgan, in declivibus saxosis aridi inter paliurus, substr. calc., 1100 m, 18.6.1975, RECHINGER 53746 [W]. – In jugo 24 km S Bojnourd versus Esfarayen, substr. calc., 1700-1800 m, 13.6.1975, RECHINGER 53550 [W]. – Shirvan to Bojnord, km 20, 1000 m, 30.6.1981, GHORASHI-AL-HOSEINI 1127G [FUMH]. – W Bojnord, Dasht, 1000 m, 8.9.1987, ZANGOEE 15871 [FUMH].  
Distribution in Iran: N, E.

## Cornaceae

Ref.: POLATSCHKEK & RECHINGER 1968

***Cornus australis* C.A.MEY.**, Bull. Phys.-Math. Acad. Petersb.3: 372 (1845).

Khorassan: NW: W Bojnord, Cheshmeh-e Jozak, 1000 m, 9.5.2000, JOHARCHI 32760 [FUMH]. – W Bojnord, Kurkhod Mt., 1600 m, 31.5.1998, HOJJAT 31191 [FUMH]. – W Bojnord, Zu-e Havar, 1600 m, 27.6.2000, ZANGOEE 32998 [FUMH]. – W Bojnord, between Ashkhaneh and Chakhmaghlu, 1600 m, 28.6.2000, ZANGOEE 33006 [FUMH]. – N: Mashhad, Jaghargh, 1300 m, 29.5.1983, REZAAE 10339 [FAR, FUMH].  
Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (KOELTZ 16728) belong to Golestan (Gorgan) province, not Khorassan.



**Crassulaceae**

Ref.: JANSSON &amp; RECHINGER 1970

*Sedum tetramerum* TRAUTV., Acta Horti petrop. 7: 454 (1881).Khorassan: N: S Darrehgaz, Gherkhghez hills, 450 m, 2.5.1988, JOHARCHI 16466 [FUMH].  
– NE: Kalat, Band-e Nadery, 950 m, 23.4.1989, JOHARCHI 17064 [FUMH].

Distribution in Iran: S, E.

**Cucurbitaceae**

Ref.: ANDERSEN 1977

*Bryonia aspera* STEV. ex LEDEB., Fl. Ross. 2: 140 (1843).Khorassan: NW: Esfarrayen, Shahjahan Mt. 2750 m, 26.6.1994, ZANGOEE 24305 [FUMH].  
– Bojnord, Saluk Mt., 2400 m, 11.7.1994, ZANGOEE 24484 [FUMH]. – Bojnord, Saluk Mt., 2250 m, 27.6.1995, RAAFEE 26041 [FUMH]. – N: N Ghuchan, Zu-e shamkhal, 1600 m, 5.8.1986, JOHARCHI 13862 [FUMH]. – N Ghuchan, Zu-e shamkhal, 1600 m, 23.6.1993, FAGHIH NIA 23450 [FUMH]. – Darrehgaz, Chehelmir, 1100 m, 7.7.1994, FAGHIH NIA 24422 [FUMH]. – NE: N Mashhad, Kardeh, 1500 m, 14.6.1983, IRANSHAHR & MOBAYEN 10467 [FUMH]. – Fariman, Chartakab, 2000 m, 28.5.1984, AYATOLLAHI 11308 [FAR, FUMH]. – SE: SE Ghayen, between Dezg and Ahangaran, JOHARCHI 17360 [FUMH].

Distribution in Iran: N, W, S, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (KOELTZ 16726) belong to Golestan (Gorgan) province, not Khorassan.

**Cuscutaceae**

Ref.: YUNCKER &amp; RECHINGER 1964

*Cuscuta babylonica* AUCHER ex CHOISY, Mém. Soc. Phys. Geneve 9: 270 (1841)var. *babylonica*

Khorassan: NE: Kalat to Darrehgaz, km 88, Ghazanbeig, 450 m, 27.7.1982, ZOKAEE 1493 [FUMH].

Distribution in Iran: W, S, E.

**Dipsacaceae**

Ref.: RECHINGER &amp; LACK 1991

*Ptercephalus canus* COULT. ex DC., Prodr. 4: 653 (1830).

Khorassan: NE: NE Mashhad, 21.5.1999, ERTHER 32503 [FUMH].

Distribution in Iran: N, W, S, E, C.

*Ptercephalus plumosus* (L.) COULT., Mem. Dipsac. 31 (1823).

Khorassan: N: Chenaran, Radkan, the northern altitudes of Sohan, 1500 m, 30.5.1980, GHORASHI-AL-HOSEINI 290G [FUMH]. – Darrehgaz, Chehelmir, 1000 m, 4.6.1981, GHORASHI-AL-HOSEINI 609G [FUMH]. – NE: N Mashhad, between Andad and Abghad, 1400 m, 11.6.1995, RAAFEE 25727 [FUMH]. – SW: Tabas, Bagh-e Golshan, 700 m, 29.4.1981, ZOKAEE 687 [FUMH].

Distribution in Iran: N, W, S, E, C.

*Scabiosa micrantha* DESF., Ann. Mus. Hist. Nat. (Paris) 11: 168 (1808).

Khorassan: NE: Kalat, Gharasu, 1100 m, 1.7.1992, FAGHIH NIA 22111 [FUMH].

Distribution in Iran: N, W, E.

*Scabiosa persica* BOISS., Diagn. Pl. Or. Nov. ser. 1, 10: 81 (1849).

Khorassan: NW: W Bojnord, Taimurtash, 1000 m, 4.6.1983, REZAEE 10359 [FUMH].

Distribution in Iran: W, S, E, C.

**Euphorbiaceae**

Ref.: RECHINGER & SCHIMAN-CZEIKA 1964; RECHINGER 1977

***Chrozophora gracilis* FISCH. & C.A.MEY. in LEDEB.**, Fl. Ross. 3: 581 (1850).

Khorassan: NE: S Sarakhs, Dolatabad, 300 m, 17.6.1990, JOHARCHI 19194 [FUMH]. – C: In arenosis 56-60 km N Gonabad inter Mahneh et Emrani, 900 m, 9.5.1975, RECHINGER 51449 [W].

Distribution in Iran: E, C.

***Euphorbia cheirolepis* FISCH. & C.A.MEY. in LEDEB.**, Fl. Ross. 3: 558 (1850).

Khorassan: NE: S Sarakhs, Dolatabad, 300 m, 17.6.1990, JOHARCHI 19193 [FUMH].

Distribution in Iran: S, E.

***Euphorbia helioscopia* L.**, Sp. Plant. 459 (1753).

Khorassan: N: N Neyshabur, Someeh, 1350 m, 26.6.1991, FAGHIHNIA 20912 [FUMH]. – SW: Tabas, Chiruk, 1250 m, 30.4.1981, ZOKAEE 734 [FUMH]. – Tabas, NE Naiband, Zardgah, 1100 m, 14.4.1985, JOHARCHI 11934 [FUMH]. – SE: Ghayen, Shahik, 1450 m, 13.4.1981, ZOKAEE 375 [FUMH]. – W Birjand, Rakat-e-sofla, 1560 m, 14.4.1981, ZOKAEE & GHORASHI-ALHOSEINI 419 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Euphorbia oсыridea* BOISS.**, Diagn. Pl. Or. Nov., ser. 1, 7: 87 (1846).

Khorassan: SE: Ghayen, Zirkuh, N of Hajiabad, Dehno, 1000 m, 10.4.1988, JOHARCHI 15959 [FUMH]. – E Birjand, Gezik Mt., 1500 m, 14.5.1989, JOHARCHI 17270 [FUMH]. – SE Ghayen, between Dezg and Ahangaran, 1500 m, 15.5.1989, JOHARCHI 17366 [FUMH].

Distribution in Iran: S, E.

***Euphorbia turczaninowii* KAR. & KIR.**, Bull. Soc. Nat. Mosc. 15: 447 (1842).

Khorassan: C: Gonabad to Torbat-e Heydarieh, km 35, 850 m, 27.4.1995, RAFFEE 25133 [FUMH]. – NE Gonabad, Noudesh Pashang, 900 m, 19.5.1997, RAFFEE 28537 [FUMH]. – SE: E Ghayen, between Mohammadabad and Ahangaran, 1000 m, 5.5.2002, JOHARCHI 34114 [FUMH]. – Ghayen, between Ahangaran-e-bala and Ahangaran-e-paeen, 1050 m, 7.6.1993, JOHARCHI 23282 [FUMH].

Distribution in Iran: E, C.

**Fabaceae**

Ref.: CHRŤKOVÁ-ZERTOVÁ et al. 1979, ALI et al. 1984, PODLECH 1999

***Argyrolobium roseum* (CAMBESS.) JAUB. & SPACH**, Ann. Scienc. Nat. ser. 2, 19: 51 (1843)

**subsp. *ornithopodioides* (JAUB. & SPACH) JAFRI & ALI**, S. U. Science Research Journal 2: 4 (1966).

Khorassan: SW: Tabas, Chiruk Mt., 1400 m, 19.4.1987, AYATOLLAHI 15278 [FUMH].

Distribution in Iran: W, S, E.

***Astragalus bazmanicus* PODLECH**, Mitt. Bot. Staatss. Munchen 27: 63 (1988).

Khorassan: SE: Birjand, between Hamand and Giv, Kakhak, 1400 m, 18.5.1992, FAGHIHNIA 21806 [FUMH].

Distribution in Iran: S, E. Endemic to the Flora Iranica area: Iran.

***Astragalus hermannii* FREITAG & PODLECH**, Mitt. Bot. Staatss. Munchen, Beih. 16: 7 (1980).

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 16.5.1988, JOHARCHI 16661 [FUMH].

Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran.

***Astragalus jesdianus* BOISS. & BUHSE**, *Nouv. Mém. Soc. Imp. Nat. Mosc.* 12: 61 (1860).

Khorassan: SW: Tabas, Kharv-e-olia, 1450 m, 15.4.1996, RAAFEE 26235 [FUMH]. – SE: Birjand to Khosf, km 18, Mohammadih, 1400 m, 14.4.1981, ZOKAEE 438 [FUMH]. – Birjand, Hamand, 1900 m, 23.4.1983, RASHED 10072 [FUMH]. – Birjand, between Sefarsakh and Asghul, 22.4.1985, AYATOLLAHI 12167 [FUMH]. – Nehbandan to Charfarsakh, km 15, 29.4.1997, RAAFEE 28358 [FUMH].

Distribution in Iran: S, E, C. Endemic to the Flora Iranica area: Iran.

***Astragalus touranicus* FREITAG & PODLECH**, *Mitt. Bot. Staatss. München, Beih.* 16.: 9 (1980).

Khorassan: NW: Esfarayen, Shahjahan's peak, around of the Yakhchal, 2750 m, 26.6.1994, ZANGOOEE 24331 [FUMH]. – SW Bojnord, Saluk Mt., 2400 m, 11.7.1994, ZANGOOEE 24488 [FUMH]. – N: Chenaran, Sjl Mt., 1550 m, 4.5.1985, JOHARCHI 12550 [FUMH]. – Chenaran, Cheshmeh-Sabz, 1550 m, 26.6.1985, AYATOLLAHI 13273 [FUMH]. – NE: Mashhad, Zoshk Mt., 2500 m, 2.6.1991, JOHARCHI 20605 [FUMH]. – SW Mashhad, Maj, Martalkh Mt., 2300 m, 21.6.1992, FAGHIHNIA 22028 [FUMH]. – E Neyshabur, Khor-e-olia, 1750 m, 19.5.1996, RAAFEE 26994 [FUMH]. – C: NW Kashmar, Kalateh-e Teymur Mt., 1800 m, 12.4.1995, FAGHIHNIA 24732 [FUMH].

Distribution in Iran: S, E, C. Endemic to the Flora Iranica area: Iran.

***Cicer spiroceras* JAUB. & SPACH**, *Ann. Science Nat.*, ser. 2, 18: 233 (1842).

Khorassan: SE: E Birjand, between Esfezar and Darmian, Banedar Mt., 2500 m, 21.4.1985, AYATOLLAHI 12101 [FUMH].

Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran & Turkmenistan.

***Colutea gracilis* FREYN & SINT.**, *Bull. Herb. Boissier*, ser. 2, 4: 46 (1904).

Khorassan: NE: Binalud, Farasgeh Mt., 2100 m, 3.6.1990, FAGHIHNIA 18724 [FUMH].

Distribution in Iran: N, E, C. Endemic to the Flora Iranica area: Iran & Turkmenistan.

***Lathyrus sativus* L.**, *Sp. Pl.* 730 (1753).

Khorassan: NE: Mashhad, Ghushkan-e-olia, 1350 m, 7.7.1981, GHORASHI-AL-HOSEINI 1265G [FUMH]. – C: Torbat-e Heydarieh, Rudmaajan, 1750 m, 23.7.1987, AYATOLLAHI 15589 [FUMH]. – SE: Birjand, Band-e Darreh, 1650 m, 17.5.1975, ZARGARI s. n. [FUMH].

Distribution in Iran: W, S, E.

***Lens culinaris* MEDIK.**, *Vorles. Churpf. Phy.-Oekon. Ges.* 2: 361 (1787).

Khorassan: NW: Bojnord, Gardaneh-e Badranlu, 1350 m, 25.6.1989, FAGHIHNIA 17814 [FUMH]. – NE: Between Mashhad and Kalat, 10 km N of Gujky, 1700 m, 19.6.1991, FAGHIHNIA 20854 [FUMH]. – SW: Boshruyeh to Tabas, km 5 Eshghabad road, 1200 m, 4.5.1992, FAGHIHNIA 21601 [FUMH].

Distribution in Iran: W, S, E.

***Medicago polymorpha* L.**, *Sp. Pl.* 779 (1753) emend. *Shinners in Rhodora* 58: 5 (1956).

Khorassan: SW: Tabas to Kharv, km 20, 1300 m, 29.4.1981, ZOKAEE 680 [FUMH]. – Tabas, Chiruk, 1000 m, 30.4.1981, ZOKAEE 728 [FUMH].

Distribution in Iran: N, W, S, E.

***Ononis afghanica* ŠIRJ. & RECH.f.**, *Dan. Biol. skr.* 9, 3: 10 (1957).

Khorassan: NW: Bojnord, between Ayoob and Gifan, 2.7.1985, JOHARCHI 13307 [FUMH]. – N: N Shirvan, between Milanlu-e-sofla and Jirestan, 6.8.1986, JOHARCHI 13895 [FUMH]. – N Shirvan, Yengeh-Ghaleh, 1500 m, 22.8.1984, AYATOLLAHI 11718 [FUMH]. – N Shirvan, Zo, 1500 m, 20.8.1984, AYATOLLAHI 11660 [FUMH]. – Darrehgaz, the southern valley of the Gardaneh-e AllahaAkbar, 1400 m, 24.7.1990, FAGHIHNIA 18963 [FUMH]. – NE: Chenaran, Boghmej, 1700 m, 18.8.1986, AYATOLLAHI 13949 [FUMH]. – N W Kalat, Archangan, 650 m, 26.7.1987, JOHARCHI 15656 [FUMH].

Distribution in Iran: N, E.

***Trigonella astroites* FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop.: 40 (1835).

Khorassan: N: S. Darrehgaz, Gherkhghez hills, 450 m, 2.5.1988, JOHARCHI 16463 [FUMH].

Distribution in Iran: W, E, C.

***Trigonella monantha* C.A.MEY.**, Verz. Pfl. Cauc. 137 (1831)

**subsp. *monantha***

Khorassan: C: NW Kashmar, Kalateh-Teimur Mt., 1800 m, 124.1995, FAGHIHNIA 24736 [FUMH].

Distribution in Iran: W, E, C.

***Vicia cappadocica* BOISS.**, Diagn. Pl. Or. Nov., ser. 2, 6: 68 (1859).

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 16.5.1988, JOHARCHI 16691 [FUMH]. – N: W Darrehgaz, Zeinehdanlu, 1000 m, 1.5.1988, JOHARCHI 16402 [FUMH]. – NE:

Kalat, between Zavin and Chenar, 20.5.1985, AYATOLLAHI & JOHARCHI 13127 [FUMH]. – C: Torbat-e Heydarieh, Bayg to Rudmaajan, km 3, 1500 m, 14.5.1996, RAAFEE 26829 [FUMH].

Distribution in Iran: W, E, C.

***Vicia iranica* BOISS.**, Fl. Or. 2: 281 (1872).

Khorassan: NE: N Mashhad, Talghor, 1550 m, 18.5.1985, AYATOLLAHI & JOHARCHI 12992 [FUMH].

Distribution in Iran: W, E, C. Endemic to the Flora Iranica area: Iran & Afghanistan.

***Vicia narbonensis* L.**, Sp. Plant. 737 (1753)

**var. *narbonensis***

Khorassan: NE: S. Mashhad, between Aghanj and Sharifabad, Bozmish, 1500 m, 2.6.1994, FAGHIHNIA 24134 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Vicia sativa* L.**, Sp. Pl. 1: 736 (1753)

**var. *sativa***

Khorassan: NE: Fariman to Shahangarmab, km 7, 1500 m, 24.5.1975, ZARGARI 26z [FUMH].

– Kalat, between Khanzo and Ortokand, 1550 m, 9.6.1994, FAGHIHNIA 24164 [FUMH].

Distribution in Iran: N, W, S, E, C.

## Fagaceae

Ref.: BROWICZ & MENITSKY 1971

***Quercus castaneifolia* C.A.MEY.**, Verz. Pfl. Cauc. 44 (1831)

**subsp. *castaneifolia***

Khorassan: NW: W Bojnord, Havar, 1000 m, 24.4.2000, JOHARCHI 32793 [FUMH].

Distribution in Iran: N, E. Endemic to the Flora Iranica area: Iran & Talish.

This species is recorded from Khorassan in Flora Iranica. But the localities (GAUBA & SABETI 1868; KOELTZ 16712) belong to Golestan (Gorgan) province, not Khorassan.

## Fumariaceae

Ref.: WENDELBO 1974

***Corydalis chionophila* CZERNIAK.**, Bull. Jard. Bot. Princ. URSS. 29: 138 (1930).

Khorassan: NW: Between Bojnord and Shirvan, Sisab, 1450 m, 15.4.1989, JOHARCHI 17011 [FUMH]. – NE Bojnord, the southern altitudes of Ghaleh-Mohammadi, 1900 m, 16.4.1989, JOHARCHI 17037 [FUMH]. – N: Chenaran, Frizy, 1550 m, 20.4.1982, GHORASHI-AL-

HOSEINI 1454G [FUMH]. – Neyshabur, Bar, Cheshmeh-e Bidgoud, 2250 m, 24.5.1992, JOHARCHI 21856 [FUMH].

Distribution in Iran: N, E. Endemic to the Flora Iranica area: Iran & Turkmenistan.

**Geraniaceae**

Ref.: SCHÖNBECK-TEMESY 1970

***Erodium ciconium* (JUSL.) L'HÉR. ex AITON**, Hort. kew .2: 415 (1789).

Khorassan: NE: Sarakhs to Mazdavand, km 14, 850 m, 7.4.1987, AYATOLLAHI 15035 [FUMH].

– S Sarakhs, between Dolatabad and Nouruzabad, 300 m, 14.4.1988, JOHARCHI 16119 [FUMH].

– Sarakhs, Pol-e Khatun, 250 m, 13.4.1993, FAGHIHNIA 22676 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Geranium dissectum* L.**, Gen. Plant. 1: 21 (1755).

Khorassan: N: W Darrehgaz, Gadkanlu, 1200 m, 1.5.1988, JOHARCHI 16323 [FUMH].

Distribution in Iran: N, W, S, E.

***Geranium molle* L.**, Sp. Pl. 682 (1753).

Khorassan: NE: Mashhad, Azghad, 1600 m, 23.6.1994, ZANGOOEE 24264 [FUMH].

Distribution in Iran: N, W, S, E.

***Geranium stepporum* P.H.DAVIS**, Notes Roy. Bot. Gard. Edinb. 28, 1: 35-38. (1967).

Khorassan: C: SE Sabzevar, Dahaneh-e Hassanabad, 1500 m, 24.4.1988, JOHARCHI 16210 [FUMH].

Distribution in Iran: W, S, E, C.

**Lamiaceae**

Ref.: HEDGE et al. 1982

***Clinopodium vulgare* L.**, Sp. Pl. 587 (1753)**subsp. vulgare**

Khorassan: NE: Mashhad, Dehbar, 1500 m, 18.6.1990, FAGHIHNIA 18772 [FUMH]. – Mashhad,

Azghad, 1600 m, 23.6.1994, ZANGOOEE 24272 [FUMH].

Distribution in Iran: N, W, E, C.

***Dracocephalum kotschyi* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 7: 53 (1846).

Khorassan: NW: W Bojnord, S Badranlu, 1900 m, 10.7.1994, ZANGOOEE 24446 [FUMH].

– W Bojnord, S Badranlu, 1900 m, 12.6.1996, RAAFEE 27262 [FUMH]. – W Bojnord, between

Darkesh and Havar, 1200 m, 10.5.2000, JOHARCHI 32765 [FUMH]. – W Bojnord, Chakhmaghlu

Mt., 1800 m, 5.6.2000, FAGHIHNIA 33096 [FUMH].

Distribution in Iran: N, W, S, E, C. Endemic to the Flora Iranica area: Iran.

***Lallemantia iberica* (STEV.) FISCH. & C.A.MEY.**, Ind. Sem. Hort. Petrop. 6: 53 (1839).

Khorassan: NW: Bojnord, Beshghardash, 1050 m, 14.5.1988, JOHARCHI 16525 [FUMH]. –

NE: Between Mashhad and Moghan, fork of Sarborj, 1150 m, 21.5.1991, FAGHIHNIA 20362

[FUMH].

Distribution in Iran: N, W, S, E, C.

***Lamium album* L.**, Sp. Pl. 579 (1753)**subsp. crinitum (Mont bret & Auch. ex Bent h.) Mennema**, Fl. Iranica, no. 150: 323 (1982).

Khorassan: NW: Bojnord, Gifan, Misino Mt., 1800 m, 17.6.1991, JOHARCHI 20781 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Melissa officinalis* L.**, Sp. Pl. 592 (1753).

Khorassan: NE: Mashhad, Kalateh-e Ahan, 1500 m, 26.8.1992, FAGHIHNIA 22531 [FUMH]. –

Distribution in Iran: N, W, E, C.

***Nepeta meyeri* BENTH.**, Lab. Gen. Sp. 478 (1834).

Khorassan: W: E Sabzevar, Aliak Mt., 1400 m, 27.5.1984, JOHARCHI 11209 [FUMH].

Distribution in Iran: W, S, E, C.

***Origanum vulgare* L.**, Sp. Pl. 590 (1753)**subsp. *gracile* (K. KOCH) IETSWAART**, Taxon. Revis. Orig. 111 (1980).

Khorassan: NE: SE Kalat-e Nadery, Khan-zo, 1450 m-1700 m, 16.6.1996, RAAFEE 27343 [FUMH]. – S Kalat-e Nadery, between Sarrud and Bardar, 1600 m, 20.7.1993, FAGHIHNIA 23664 [FUMH].

Distribution in Iran: N, W, E.

***Salvia aethiopsis* L.**, Sp. Pl. 27 (1753).

Khorassan: NW: Bojnord, the southern altitudes of Badranlu, Hammam-e Chileh, 1900 m, 10.7.1994, ZANGOEE 24442 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 1901 [W]) belongs to Golestan (Gorgan) province, not Khorassan.

***Stachys pubescens* TEN.**, Fl. Nap. 34 (1811).

Khorassan: NW: Bojnord, Badranlu, 1800 m, 22.6.1982, GHORASHI-AL-HOSEINI 1820G [FUMH]. – Shirvan to Bojnord, Gharlegh tunnel, 18.5.1977, ZARGARI s. n. [FUMH].

Distribution in Iran: N, W, E, C.

***Ziziphora persica* BUNGE**, Mém. Acad. Sci. Petersb., ser. 7, 21, 1: 39 (1873).

Khorassan: NW: Bojnord to Esfarayen, km 49, Mahnan, 1500 m, 23.5.1983, JOHARCHI 10282 [FUMH]. – Bojnord, Gifan, 1300-1400 m, 16.6.1991, JOHARCHI 20775 [FUMH]. – Bojnord, Sheikh Teimury, 1000 m, 4.6.1983, REZAE 10374 [FUMH]. – N: Darrehgaz, Chehelmir, 1000 m, 4.6.1981, GHORASHI-AL-HOSEINI 612G [FUMH]. – Darrehgaz, Chapeshlu, 700 m, 26.5.1982, ZOKAE 1390 [FUMH]. – NE: Kalat, the northern altitudes, 1000 m, 20.5.1985, JOHARCHI 13109 [FUMH]. – Fariman, between Chenar and Somaeh, 1600 m, 22.5.1991, FAGHIHNIA 20408 [FUMH].

Distribution in Iran: W, S, E, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (TERMEH &amp; MATINE 34804-E) belongs to Golestan (Gorgan) province, not Khorassan.

**Lentibulariaceae**

Ref.: CASPER 1969

***Utricularia neglecta* LEHM.**, Index Schol. Hambg. Gymn. Acad. 38. (1828).

Khorassan: N: Chenaran, Golmakan, Cheshmeh-Sabz, 1560 m, 26.6.1985, AYATOLLAHI 13278 [FUMH]. – Chenaran, Golmakan, Cheshmeh-Sabz, 1560 m, 16.7.1985, RASHED &amp; AYATOLLAHI 13392 [FUMH]. – Chenaran, Golmakan, Cheshmeh-Sabz, 1560 m, 13.8.1985, AYATOLLAHI &amp; JOHARCHI 13571 [FUMH]. – Chenaran, Golmakan, Cheshmeh-Sabz, 1560 m, 31.10.1985, AYATOLLAHI &amp; JOHARCHI 13629 [FUMH].

Distribution in Iran: N, W, E.

**Loranthaceae**

Ref.: RECHINGER 1976

***Loranthus grewinkii* BOISS. & BUHSE**, Nouv. Mém. Soc. Nat. Mosc. 12: 106 (1860).Khorassan: SE: E Birjand, Behelgerd, 1500 m, 10.6.1983, (on *Amygdalus communis* L.) BEHDANI 10429 [FUMH].

Distribution in Iran: W, S, E, C. Endemic to the Flora Iranica area: Iran &amp; Afghanistan.

**Malvaceae**

Ref.: RIEDL 1976

*Abutilon theophrasti* MEDIK., Kunstl. Geschl. Malv.-Fam.28 (1787).

Khorassan: NW: NW Bojnord, Garmab, 550 m, 9.10.1991, FAGHIHNIA 21105 [FUMH]. – NE: Mashhad, 950 m, 28.8.1982, REZAEI 1501 [FUMH].

Distribution in Iran: N, E, C.

*Althaea hirsuta* L., Sp. Pl. 687 (1753).

Khorassan: N: Darrehgaz, Chehelmir, 1000 m, 4.6.1981, GHORASHI-AL-HOSEINI 634G [FUMH].

Distribution in Iran: W, N, E, C.

**Oleaceae**

Ref.: MURRAY 1968

*Jasminum fruticans* L., Sp. Pl. 7 (1753).

Khorassan: NW: W Bojnord, Dasht, 1000 m, 8.9.1987, ZANGOOEE 15864 [FUMH]. – W Bojnord, between Chamanbid and Jozak, 1300 m, 15.5.1988, JOHARCHI 16635 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (KOELTZ 16685) belongs to Golestan (Gorgan) province, not Khorassan.

*Jasminum humile* L., Sp. Pl. 7 (1753).

Khorassan: SE: Birjand, Harivand, 1700 m, 12.6.1989, JOHARCHI 17710 [FUMH].

Distribution in Iran: S, E, C.

**Plantaginaceae**

Ref.: PATZAK &amp; RECHINGER 1965

*Plantago stocksii* BOISS. & DECNE. in DC., Prodr.13, 1: 720 (1852).

Khorassan: SW: Tabas, Chiruk Mt., 1400 m, 19.4.1987, AYATOLLAHI 15282 [FUMH].

Distribution in Iran: S, E, C. Endemic to the Flora Iranica area: Iran &amp; Pakistan.

**Plumbaginaceae**

Ref.: RECHINGER &amp; SCHIMAN-CZEIKA 1974

*Limonium gmelinii* (WILLD.) KUNTZE, Revis. Gen.2: 395 (1891).

Khorassan: NW: Bojnord, Shahrabad, 800 m, 28.8.1983, JOHARCHI 10637 [FUMH].

Distribution in Iran: N, W, E, C.

This species is recorded from Khorassan in Flora Iranica. But the locality (RECHINGER 37610, W) belongs to Golestan (Gorgan) province, not Khorassan.

*Psylliostachys leptostachya* (BOISS.) ROSHKOVA, Fl.URSS.18: 468 (1952).

Khorassan: N: S Neyshabur, Taghestan, Eshghabad, 1250 m, 11.5.1991, JOHARCHI 20042 [FUMH]. – NE: Sarakhs, Chahak hills, 900 m, 21.5.1986, JOHARCHI 14525 [FUMH]. – Sarakhs,

Darband Mt., 500 m, 20.5.1990, JOHARCHI 18587 [FUMH]. – Mazdavad to Mashhad, km 10, 700 m, 27.11.1991, FAGHIHNIA 21254 [FAR, FUMH]. – E: E Torbat-e Jam, Rahmatabad, 1000

m, 27.4.1991, JOHARCHI 19654 [FUMH]. – C: Torbat-e Heydarieh, Jangal to Mohammadabad, km 14, 900 m, 4.5.1986, AYATOLLAHI 14043 [FUMH]. – Torbat-e Heydarieh, Jangal to Kal-e

Salar, 900 m, 4.5.1986, AYATOLLAHI 14071 [FUMH]. – Torbat-e Heydarieh, Eskandarabad, 1050 m, 4.5.1991, JOHARCHI 19926 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Psylliostachys spicata* (WILLD.) NEVSKI**, Act. Inst. Bot. Acad. Sci. URSS. ser. 1, 4: 314 (1937).  
Khorassan: NE: Mashhad to Kalat, Taherabad, 20.5.1981, GHORASHI-AL-HOSEINI 448G [FUMH]. – Sarakhs to Mashhad, km 60, 11.5.1984, BAKHSHUDEH 10997 [FUMH]. – NE Mashhad, Sanganeh road, Ziladeh, 740 m, 20.5.1989, JOHARCHI 17416 [FUMH]. – E Mashhad, between Chahchaheh and Neyshaburak, 450 m, 21.5.1989, JOHARCHI 17439 [FUMH]. – Mashhad to Salehabad, between Baghbaghu and Naatu, 550 m, 18.5.1991, JOHARCHI 20260 [FUMH]. – Sarakhs to Mashhad, km 9, 300 m, 28.4.1986, AYATOLLAHI 13965 [FUMH]. – Sarakhs, Yaztappeh, 300 m, 22.4.1991, FAGHIHNIA 19437 [FUMH]. – Torbat-e Jam, between Salehabad and Polekhatun, 650 m, 7.5.1983, REZAEI 10144 [FUMH]. – E: Khaf, Mahabad, 1050 m, 5.5.1986, AYATOLLAHI 14139 [FUMH]. – 14184 [FUMH]. – E Torbat-e Jam, Mellu hills, 950 m, 28.4.1991, JOHARCHI 19699 [FUMH]. – C: Torbat-e Heydarieh, Jangal, Kal-e Salar, 900 m, 4.5.1986, AYATOLLAHI 14072 [FUMH].

Distribution in Iran: N, W, S, E.

## Polygonaceae

Ref.: RECHINGER & SCHIMAN-CZEIKA 1968

***Polygonum amphibium* L.**, Sp. Pl. 362 (1753).

Khorassan: N: Chenaran, Cheshmehsabz, 1560 m, 26.6.1985, AYATOLLAHI 13271 [FUMH].

Distribution in Iran: W, S, E.

***Polygonum convolvulus* L.**, Sp. Pl. 364 (1753).

Khorassan: NE: Mashhad, Shandiz, 1050 m, 27.5.1983, REZAEI 10320 [FUMH]. – Mashhad, Dehbar, 1800 m, 26.6.1983, REZAEI 10507 [FUMH]. – Mashhad, Mayan-e-sofla, 1400 m, 3.7.1989, FAGHIHNIA 17908 [FUMH]. – Mashhad, Dehbar, 1500 m, 18.6.1990, FAGHIHNIA 18774 [FUMH].

Distribution in Iran: N, W, E, C.

***Polygonum hydropiper* L.**, Sp. Pl. 361 (1753)

### subsp. *hydropiper*

Khorassan: NW: Bojnord, S Ghezelghan, 1150 m, 1.7.1986, JOHARCHI 13690 [FUMH]. – Esfarayen, Ghar-e Nushiravan, 1350 m, 29.8.1990, FAGHIHNIA 19117 [FUMH].

Distribution in Iran: N, W, E.

***Polygonum mite* SCHRENK**, Baier. Fl. 1: 668 (1789).

Khorassan: N: Chenaran, between Abghad and Frizy, 1150 m, 12.8.1985, AYATOLLAHI & JOHARCHI 13534 [FUMH].

Distribution in Iran: N, E, C.

***Polygonum molliaeforme* BOISS.**, Diagn. Pl. Or. Nov. ser. 1, 7: 84 (1846).

Khorassan: NW: (Gulul Sarani Prot. Region) Kopet Dagh on the high plain (Dasht), limestone substrate, 2100-2300 m, 12.-13.6.1975, RECHINGER 53331 [W] – NE: NW Mashhad, between Karimabad and Hezarmasjed Mt., 2450 m, 2.8.1987, JOHARCHI 15697 [FUMH]. – W: NW Sabzevar, Joghatai hills, 1400 m, 29.5.1989, JOHARCHI 11342 [FUMH]. – C: W Torbat-e Heydarieh, Hesar hills, 1750 m, 22.6.1986, AYATOLLAHI 13616 [FUMH].

Distribution in Iran: S, E, C.

## Primulaceae

Ref.: WENDELBO 1965

***Anagallis arvensis* L.** Sp. Pl. 1:148 (1753).

**var. *caerulea* (L.) Gouan**, Fl. Monsp. 30 (1765).

Khorassan: N: SE Darrehgaz, Hatamghaleh, 300 m, 16, 5, 1993, JOHARCHI 23123 [FUMH]. – NE: Mashhad to Kalat, Gardaneh-e Sandughshekan, 1550 m, 6.6.1988, JOHARCHI 16843



[FUMH]. – E Mashhad, Maadan-e Agh-Darband, 650 m, 29.5.1993, JOHARCHI 23184 [FUMH]. – Kalat, Ghaleh-Hammam Mt., 1300 m, 1.7.1992, FAGHIHNIA 22119 [FUMH].

Distribution in Iran: N, W, S, E, C.

## Ranunculaceae

Ref.: IRANSHAHR et al. 1992

*Nigella nigellastrum* (L.) WILLK. in WILLK. & LANGE, Prodr. Fl. Hisp. 3: 963 (1880).

Khorassan: NW: W Bojnord, between Darkesh and Havar river, 1400 m, 27.6.2000, ZANGOEE 32966 [FUMH]. – W Bojnord, between Darkesh and Havar, 1400 m, 13.6.2001, JOHARCHI 33798 [FUMH].

Distribution in Iran: N, W, E.

*Ranunculus elbursensis* BOISS., Fl. Or. 1: 34 (1867).

Khorassan: N: NW Neyshabur, Bar, Cheshmeh-e Bidgoud, 2250 m, 24.5.1992, JOHARCHI 21853 [FUMH]. – NE: Mashhad, Zoshk Mt., 2500 m, 2.6.1991, JOHARCHI 20590 [FUMH].

Distribution in Iran: W, E, C. Endemic to the Flora Iranica area: Iran.

*Ranunculus muricatus* L., Sp. Pl. 555 (1753).

Khorassan: E: Khaf, Band-e Salamy, 1200 m, 29.4.1989, JOHARCHI 17119 [FUMH]. – W: Kashmar, N Sarhouzak, 1100 m, 2.5.1984, AYATOLLAHI & JOHARCHI 10974 [FUMH]. – SW: Tabas, Kharv, 1250 m, 15.4.1982, GHORASHI-AL-HOSEINI 1381G [FUMH]. – SE: Birjand, Band-e Omarshahy, 1650 m, 6.5.1975, ZARGARI s. n. [FUMH]. – Ghayen, Shahik, 1450 m, 13.4.1981, ZOKAEE 378 [FUMH]. – S Birjand, Mazhan, 26.4.1984, PUYAN 301P [FUMH].

Distribution in Iran: N, W, S, E, C

*Ranunculus sojakii* IRANSHAHR & RECH.f., Fl. Iranica, no. 171: 184 (1992).

Khorassan: NW: NE Bojnord, Gifan, Misino Mt., 2000 m, 17.6.1991, JOHARCHI 20805 [FUMH].

Distribution in Iran: N, E, C. Endemic to the Flora Iranica area: Iran.

## Rosaceae

Ref.: BROWICZ et al. 1969, ZIELINSKI 1982

*Crataegus azarolus* L. var. *pontica* (KOCH) K.I. CHRISTENSEN, Syst. Bot. Monog. 35: 38 (1992).

Khorassan: NW: 20-30 km W Bojnord, 37 28 N, 57 20 E, on clay soil, 1500 m, 25.7.1965, RECHINGER 32525 [W]- N: S Darrehgaz, Ab-e Garm, 1100 m, 25.7.1990, FAGHIHNIA 19005 [FUMH]. – NE: Mashhad, Mayan-e-vosta, 1500 m, 7.10.1984, JOHARCHI 11766 [FUMH]. – Mashhad, Kalateh-e Zabetian, 1500 m, 25.6.1985, AKBARZADEH & KHARAGHANI 13231 [FUMH]. – Mashhad, Kalateh-e Ahan, 1500 m, 26.8.1992, FAGHIHNIA 22516 [FUMH].

Distribution in Iran: N, W, S, E.

*Geum urbanum* L., Sp. Pl. 501 (1753).

Khorassan: N: Chenaran, Frizy, Dahaneh-e Jajy, 1100 m, 12.8.1985, AYATOLLAHI & JOHARCHI 13553 [FUMH]. – NE: Mashhad, Jaghargh, 1300 m, 29.5.1983, REZAEE 10335 [FUMH]. – N Mashhad, Kardeh dam, 1500 m, 14.6.1983, IRANSHAHR & MOBAYEN 10446 [FUMH]. – Mashhad, Mayan-e-sofla, 1400 m, 3.7.1989, FAGHIHNIA 17912 [FUMH]. – Mashhad, Kang, 1800 m, 22.5.1990, FAGHIHNIA 18626 [FUMH]. – Mashhad, Dehbar, 1500 m, 18.6.1990, FAGHIHNIA 18758 [FUMH].

Distribution in Iran: N, W, E, C.

*Malus orientalis* UGLITZK., Flora URSS. 8: 492 (1939).

Khorassan: NW: W Bojnord, Chakhmaghlu, 1600 m, 29.6.2000, ZANGOEE 33007 [FUMH].

Distribution in Iran: N, W, S, E, C.

***Mespilus germanica* L.**, Sp. Pl. 478 (1753).

Khorassan: NW: W Bojnord, Chakmaghlu, 1600 m, 29.6.2000, ZANGOOEE 32972 [FUMH].  
Distribution in Iran: N, W, E, C.

***Potentilla anserina* L.**, Sp. Pl. 495 (1753).

Khorassan: NE: Sarakhs, Mazdavand, 950 m, 22.4.1975, ZARGARI s. n. [FUMH].  
Distribution in Iran: N, W, S, E.

***Potentilla hololeuca* Boiss.**, Fl. Or. 2: 710 (1872).

Khorassan: NE: 110 km NW Mashhad, Hezarmasjed Mt., 2700 m, 2.8.1987, JOHARCHI 15715 [FUMH].  
Distribution in Iran: N, E.

***Potentilla inclinata* VILL.**, Hist.Pl. Dauph. 3:567 (1788).

Khorassan: NW: Bojnord, Gifan, 1000 m, 2.7.1981, GHORASHI-AL-HOSEINI 1216G [FUMH].  
– Bojnord, S Badranlu, 1350 m, 25.6.1989, FAGHIHNIA 17800 [FUMH].  
Distribution in Iran: N, W, E, C

***Potentilla reptans* L.**, Sp. Pl. 499 (1753).

Khorassan: NW: Bojnord to Esfarayen, km 12, 1400 m, 28.6.1981, ZOKAEE 1157 [FUMH].  
– N: NE Neyshabur, Kharv-e-olia, 1200 m, 28.5.1981, ZOKAEE 1039 [FUMH]. – Chenaran, Akhlamad, 1700 m, 6.7.1982, ZOKAEE 1452 [FUMH]. – NE Neyshabur, Kharv-e-olia, 1300 m, 7.6.1982, GHORASHI-AL-HOSEINI 1744G [FUMH]. – Chenaran, Frizy, Dehaneh-e Jajy, 1100 m, 12.8.1985, AYATOLLAHI & JOHARCHI 13550 [FUMH]. – Chenaran, Frizy, Kalateh-e Asheghan, 15.7.1985, RASHED & AYATOLLAHI 13389 [FUMH]. – NW Neyshabur, Bar, 1650 m, 19.6.1988, JOHARCHI 16941 [FUMH]. – NE: Mashhad, Zoshk, 2000 m, 21.6.1980, GHORASHI-AL-HOSEINI 332G [FUMH]. – Mashhad, Moghan, 1500 m, 19.8.1986, AYATOLLAHI 13964 [FAR, FUMH]. – NE Kalat, Soltanabad, 650 m, 26.7.1981, JOHARCHI 15668 [FUMH]. – Mashhad, Mayan-e-sofla, 1400 m, 3.7.1989, FAGHIHNIA 17911 [FUMH]. – Mashhad, Dehbar, 1500 m, 18.6.1990, FAGHIHNIA 18770 [FUMH].  
Distribution in Iran: N, W, S, E, C.

***Rosa foetida* HERRM.**, Diss. de Rosa 18 (1762).

Khorassan: SE: Birjand, Harivand, 1700 m, 12.6.1989, JOHARCHI 17706 [FUMH].  
Distribution in Iran: W, S, E, C.

***Rubus hirtus* WALDST. & KIT.**, Pl. Rar. Hung. 2, 150 (1805).

Khorassan: NE: Kalat-e Nadery, Ortokand, Khanzo, 1360 m, 23.7.2002, JOHARCHI 34323 [FUMH].  
Distribution in Iran: N, W, E.

**Rutaceae**

Ref.: TOWNSEND 1966

***Haplophyllum glaberrimum* BUNGE ex BOISS.**, Fl. Or. 1: 930 (1867).

Khorassan: SE: Ghayen to Hajiabad, km 40, 1200 m, 6.6.1993, JOHARCHI 23272 [FUMH].  
– Nehbandan, between Maadan-e Hajat and Bazarch-e Marzy, 1000 m, 30.4.1996, RAAFEE 26489 [FUMH].  
Distribution in Iran: E, C. Endemic to the Flora Iranica area: Iran.

***Haplophyllum versicolor* FISCH. & C.A.MEY.**, Bull. Phys.-Math. Akad. Petersb. 3: 308 (1845).

Khorassan: N: N Darrehgaz, Safarghaleh, 300 m, 1.5.1988, JOHARCHI 16426 [FUMH]. – Neyshabur, S Ghadamgah, 1250 m, 28.5.1989, FAGHIHNIA 17493 [FUMH]. – NE: Mazdavand to sarakhs, km 14, 900 m, 21.5.1985, AYATOLLAHI & JOHARCHI 13203 [FUMH]. – Sarakhs,

Chahak hills, 900 m, 21.5.1986, JOHARCHI 14481 [FUMH]. – E: Torbat-e Jam, Ostai, 1000 m, 22.4.1975, ZARGARI s. n. [FUMH].

Distribution in Iran: E, C.

## Scrophulariaceae

Ref.: FISCHER et al. 1981

*Digitalis nervosa* STEUD. & HOCHST. ex BENTH., in DC., Prodr. 10: 450 (1846).

Khorassan: NW: W Bojnord, Chakhmaghlu, 1600 m, 28.6.2000, ZANGOOEE 33010 [FUMH].

– W Bojnord, Zu-e Havar, 1600 m, 27.6.2000, ZANGOOEE 32996 [FUMH].

Distribution in Iran: N, W, E, C.

*Euphrasia pectinata* TEN., Prodr. Fl. Nap. 36 (1811).

Khorassan: N: S Darrehgaz, Gherkhghez hills, 450 m, 2.5.1988, JOHARCHI 16491 [FUMH].

– S Darrehgaz, between Gardaneh-e AllahaAkbar and Abegarm, 1400 m, 15.5.1993, JOHARCHI 23087 [FUMH]. – SE Darrehgaz, Hatamghaleh, 300 m, 16.5.1993, JOHARCHI 23139 [FUMH].

– NE: Sarakhs to Mashhad, km 60, 600 m, 23.4.1991, FAGHIHNIA 19484 [FUMH]. – S Sarakhs, Pol-e Khatun, 250 m, 13.4.1993, FAGHIHNIA 22667 [FUMH]. – Between Mashhad and Sarakhs, Ghorghoreh Mt., 30.5.1992, JOHARCHI 21957 [FUMH]. – E: SW Torbat-e Jam, Kordian, 1500 m, 1.5.1985, AYATOLLAHI 12490 [FUMH].

Distribution in Iran: N, W, S, E, C.

*Odontites aucheri* BOISS., Diagn. Pl. Or. Nov. ser. 1, 4: 74 (1844).

Khorassan: NW: Bojnord, Gifan, Misino Mt., 2000 m, 24.7.1994, RAAFEE 26156 [FUMH]. – N:

N Shirvan, Zeidar, 1900 m, 6.7.1975, ZARGARI s. n. [FUMH].

Distribution in Iran: W, E, C.

*Veronica orientalis* MILL., Gard. Dict. ed. 8, nr. 10 (1768).

Khorassan: NE: NE Mashhad, 21.5.1999, ERTHER 32501 [FUMH].

Distribution in Iran: N, W, S, E, C.

## Solanaceae

Ref.: SCHÖNBECK-TEMESY 1972

*Datura innoxia* MILL., Gard. Dict. ed. 8 (1768).

Khorassan: N: Darrehgaz, 800 m, 4.8.1982, ZOKAEE 1492 [FUMH]. – W: Sabzevar, 950 m, 27.5.1984, JOHARCHI 11257 [FUMH].

Distribution in Iran: S, E, C.

*Hyoscyamus insanus* STOCKS, Hook. Journ. Bot. & Kew. Misc. 4: 178 (1852).

Khorassan: SW: SE Tabas, Parvadeh, 1200 m, 17.4.1995, RAAFEE 24835 [FUMH].

Distribution in Iran: S, E.

## Urticaceae

Ref.: CHRTEK 1974

*Parietaria lusitanica* L., Sp. Pl. 1052 (1753)

subsp. *chersonensis* (LANG) CCHTEK, Fl. Iranica, no.105: 10 (1974).

Khorassan: N: N Ghuchan, Bajgiran to Dorbadam, km 30, 1800 m, 15.7.1992, FAGHIHNIA 22220 [FUMH]. – NE: Kalat, between Khakestar and Layn-e Kohneh, Chahrrah Mt., 1350 m, 9.7.1986, JOHARCHI 13825 [FUMH].

Distribution in Iran: W, E.

*Urtica urens* L., Sp. Pl. 984 (1753).

Khorassan: NE: Kalat, Gharah-Su, 1150 m, 25.7.1987, JOHARCHI 15645 [FUMH].

Distribution in Iran: N, W, S, E.

### Valerianaceae

Ref.: RECHINGER 1969

*Valerianella vesicaria* (L.) MOENCH, Meth. 493 (1794).

Khorassan: NE: NE Mashhad, Chahchaheh Pistacia woodland, 21.5.1999, ERTHER 32502 [FUMH].

Distribution in Iran: N, W, S, E, C.

### Zygophyllaceae

Ref.: EL HADIDI 1972

*Malacocarpus crithmifolius* (RETZ.) C.A.MEY., Ind. Sem. Hort. Petrop. 9: 78 (1843).

Khorassan: N: Darrehgaz to Nokhandan, km 6, 1100 m, 1.7.1987, AYATOLLAHI 15483 [FUMH].

Distribution in Iran: C, E.

This species is recorded from Khorassan in Flora Iranica. But the locality (KOELTZ 16738) belongs to Golestan (Gorgan) province, not Khorassan.

### Acknowledgements

We wish to thank the director and curators of the FUMH Herbarium (Mashhad, Iran). Thanks are also to the curators of the Herbaria FAR and W for having the opportunity to study their material.

We thank Dr. M. Pimenov (Moscow, Russia) for the determination of the Apiaceae specimens. Thanks are also due to Dr. John Edmondson (Liverpool, UK) for commenting on the manuscript. The travel of the first author to Vienna was supported by the IAPT Research Grant (2002) which is gratefully acknowledged.

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Jahr/Year: 2005

Band/Volume: [106B](#)

Autor(en)/Author(s): Vitek Ernst, Joharchi Mohammadreza, Ghahremaninejad Farrokh

Artikel/Article: [New plant records for Khorassan province, Iran. 255-293](#)