

KAZIMIERZ BROWICZ

Distribution of woody *Rosaceae* in W. Asia XV

Cerasus prostrata (Lab.) Ser.

C. prostrata had been first described in 1791 by Labillardière from the mountains of Lebanon, that is from a stand that is at the southeastern limit of the species distribution (Fig. 1). For the next few years this species has been treated very widely and in it were included various forms occurring also on the Caucasus, in Iran, Iraq, in Middle Asia (Turkmen S.S.R., Uzbek S.S.R., Tadzhik S.S.R., Kingiz S.S.R.), in Afghanistan and in the Himalayas (Boissier, 1872; Lipsky, 1904; Brandis, 1921). A detailed and critical analysis of the species in this sense has been undertaken by Pojarkova (1939). As a result of a detailed analysis of rich herbarium materials she came to the conclusion, that in the region referred to above there grows not *C. prostrata* but some closely related species, some of which she has described herself. They form a specific group of taxa characterized by xerophilisation of features and growing on dry, open, stony, gravelly or rocky mountain slopes, from the pre-alps to the subalpine and even the alpine stratum.

Pojarkova has grouped the species in a separate cycle (*Cyclus Prostratae* Pojark.) which she split into two series: *Incanae* Pojark. and *Amygdaliflorae* Pojark. As a basis for the division she took the pubescence of the leaves and the width and length of the sepals. Since in conformity with the International Code of Botanical Nomenclature the term „cyclus” is considered as invalid there exists a need to substitute it appropriately in this case. The systematics of the genus *Cerasus* (*Prunus* L. s. l.) is very complicated, and in spite of the deep studies of the subject made by Koehne (1912), it still requires a critical analysis. Frequently there are still considerable difficulties in classifying individual species to various sections, subsections or series (eg. *Cerasus mahaleb*).

C. prostrata belongs within the genus *Cerasus* to section *Microcerasus* Spach. and to subsection *Prostrata* (Pojark.) Browicz*. In this subsec-

* Subsect. *Prostrata* (Pojarkova) Browicz, comb. et stat. nov. (= *Cyclus Prostrate* Pojark., Botan. Žur. SSSR 24,3 : 232., 1939).

tion there are presently 18 species. They have been partially described by Pojarkova (1939) and Browicz (1969, 1972). Its overall range extends from eastern Spain and northwestern Africa, throughout almost the whole of southwestern Asia up to northern India (Fig. 2). Below is

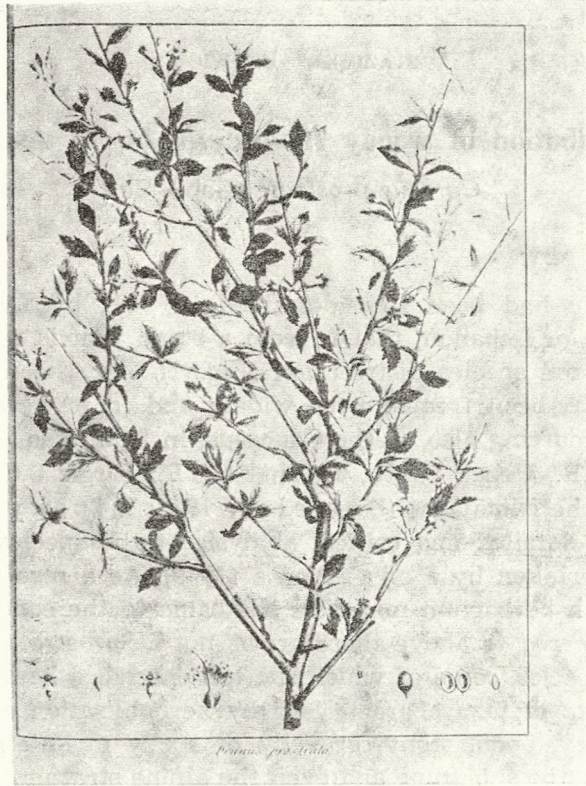


Fig. 1. The oldest drawing of *Cerasus prostrata* made in 1791 (Labillardière — *Icones Plantarum Syriae rariorum*, 1.)

the list of these species in the chronological order in which they were described and with information on the place of their occurrence.

1. *C. incana* (Pall.) Spach — (1784) 1843, Caucasus, northwestern Iran, northern and partially central Anatolia.
2. *C. prostrata* (Lab.) Ser. — (1791) 1825, southern Europe, northwestern Africa, Asia Minor.
3. *C. angustifolia* (Spach) Browicz — (1843) 1972, Caucasus, north-eastern Anatolia, north-western Iran.
4. *C. brachypetala* Boiss. — 1845, western Iran, northern Iraq, south-eastern Anatolia.
5. *C. jacquemontii* (Hook. f.) Buser — (1846) 1888, Afghanistan, Pakistan, northwestern India.
6. *C. griffithii* Boiss. — 1872, eastern Afghanistan, northern Pakistan.

7. *C. verrucosa* (Franch.) Nevski — (1883) 1937, Afghanistan, Pamir-Alaj, western Tian-Shan.
8. *C. bifrons* (Fritsch) Pojark. — (1892) 1939, Afghanistan, Pakistan, Kashmir, Middle Asia.
9. *C. hippophaeoides* (Bornm.) Bornm. — (1894) 1899 — Central Anatolia.
10. *C. pseudoprostrata* Pojark. — 1939, northeastern Iran, Turkmenia, western Afghanistan.
11. *C. chorossanica* Pojark. — 1939, eastern Iran.
12. *C. turcomanica* Pojark. — 1939, Turkmenia, northern Iran.
13. *C. alaica* Pojark. — 1939, Alaj Mts.
14. *C. tianschanica* Pojark. — 1939, Tian-Shan Mts.
15. *C. chodshaatensis* Pjat. et Lincz. — 1951, southern Kirgiz S.S.R.
16. *C. tadshikistanica* Vass. — 1954, southeastern Tadzhik S.S.R.
17. *C. kulabensis* Sosk. et Junussov — 1964, Tadzhik S.S.R.
18. *C. hargraonensis* Vass. — 1968, western Himalayas.

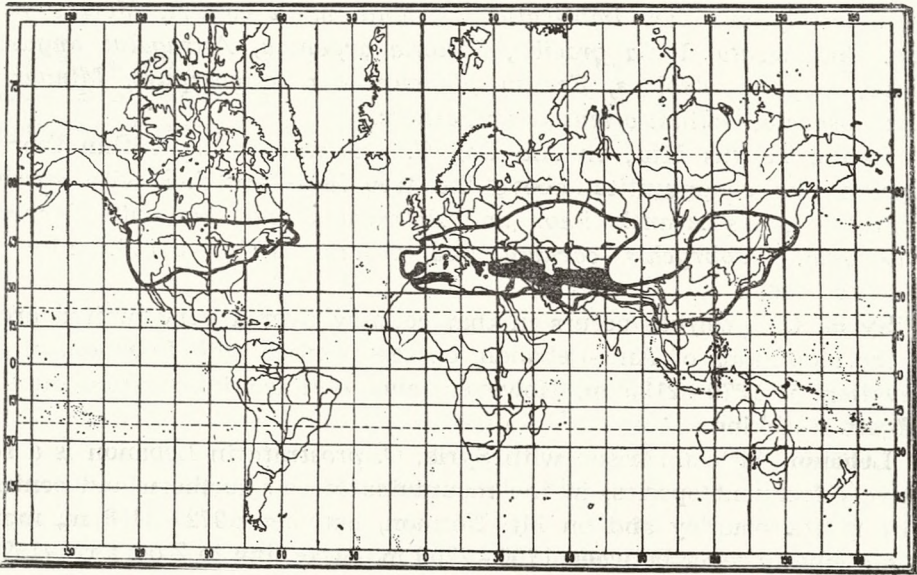


Fig. 2. The range of the genus *Cerasus* (acc. to Kovalev and Kostina, 1935) and the range of the subsection *Prostrata* (black blot)

Within the subsection, *C. prostrata* has a very special place. It is characterized by having the largest range from all the species mentioned above, divided into several parts, and it is the only species in the group which is Mediterranean in nature since it occurs both in Europe and in northwestern Africa. The range of *C. prostrata* can be divided into eastern and western Mediterranean, the dividing line being the Appenine peninsula and Sicily in which regions *C. prostrata* is unknown (Fig. 3).

1. S. W. ASIA

In southwestern Asia *C. prostrata* has been reported from four countries: Turkey, Syria, Lebanon and Jordan.

Turkey. *C. prostrata*, as a procumbent and gnarled shrub overgrows sometimes wide areas in southern and particularly southwestern Anatolia. Its stands are scattered at elevations of 1050 to 2750 m, usually above 1500 m. It grows on rocky, primarily limestone substrata in the upper parts of the mountains, in rock fissures, in completely open places or in sparse shrub communities of oaks, or else in Cedar communities, frequently in the subapline association — *Berberidetosum*.

In western Anatolia, at the northern limit of the range, on the peak of Kazdagi, at 1500 - 1750 m elevation *C. prostrata* is the characteristic component of the limestone sward from the association *Asperula sintenisii* and *Sideritis trojana* (Quezel, Pamukçuoğlu, 1970). Besides the species mentioned above it is accompanied also by *Acantholimon echinus*, *Dianthus erinaceus* var. *alpinus*, *Poa alpina*, *Draba olympica*, *Thymus sypileus* var. *imbricatus*, *Helianthemum canum*, *Morina persica*, *Rosa sicula*, *Viola gracilis*, *Sesleria argentea*, *Astragalus angustifolius*, *Daphne oleoides*, *Sedum glaucum* var. *eriacarpum*, *Minuartia erythrosepala*, *Galium orientale* and others.

In the Taurus Mts., on Ala Dag *C. prostrata* occurs within thorny cushion like communities, above the tree limit together with species from the genus *Acantholimon* and *Astragalus* and also with *Berberis crataegina*, *Onobrychis cornuta* and others (Schiechtl, Stern, Weiss, 1965).

Syria. *C. prostrata* occurs in that country over a very limited area, in the mountains of Anti-Lebanon, on the frontier with Lebanon, at an elevation of 1370 - 2135 m. However more detailed information on the subject is lacking.

Lebanon. In comparison with Syria, *C. prostrata* in Lebanon is a relatively frequent species, in the mountains of the northern and central part of the country and on Mt. Hermon, between 1372 - 2438 m, more commonly however between 1700 - 2200 m. According to Zohary (1973) on Ras Qarnita, at an elevation of 1820 m, above the forests of *Cedrus libani* it grows in the association *Astragaletum gummiferi* together with *Berberis cretica*, *Astragalus gummifer*, *Acantholimon libanoticum*, *Onobrychis cornuta*, *Suphorbia macroclada*, *Cousinia libanotica*, *Saponaria pulvinaris* and others, while on Mt. Hermon it can be found together with *Acer monspessulanum* subsp. *microphyllum*, *Rhamnus libanoticus* and *Crataegus monogyna*.

Jordan. *C. prostrata* is known from this country only from one isolated stand, positioned far to the south, about 350 km from the nearest known stands, on Mt. Hermon. It is in the region of Edom, east of

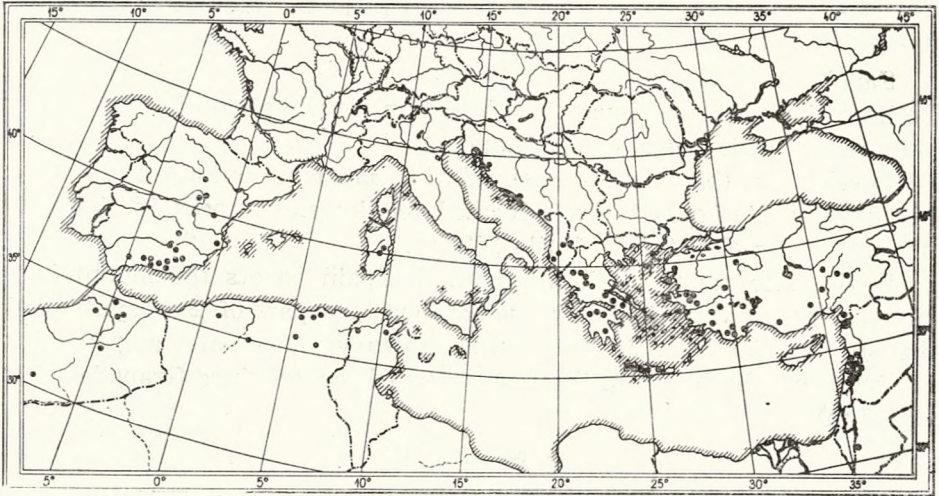


Fig. 3. The distribution of *Cerasus prostrata*

Wadi Musa, more or less half way between the Dead Sea and the Gulf of Akaba, at an elevation of about 1500 m. *C. prostrata* grows here in the association *Artemisietum herbae-albae* (Zohary, 1951).

2. EUROPE

In southern Europe *C. prostrata* occurs in Greece, Albania, Jugoslavia, Spain and on Corsica and Sardinia.

Greece. *C. prostrata* is known in that country both on the continent itself (southern and middle Greece) and on Crete and some other Aegean islands, particularly those close to Turkey. It is however absent on Rodhos, in Thrace and in Macedonia (with the exception of Athos). It is particularly common in the mountains of Crete, between 1400 and 2000 m elevation. In the Aegean islands it has been found on Samothraca, Khios, Samos and Lesvos. On the latter island one can find the lowest stand of *C. prostrata*, at an elevation of only 940 m (Rechinger, *in sched.*). On the continent the stands are scattered and reported from higher reaches of the mountains, usually above the tree limit. *C. prostrata* grows there on dry, limestone rocks, at elevation of 1000 - 2000 m.

Albania. From that country detailed information is lacking, and only three stands have been mentioned by Mitrusi (1955).

Jugoslavia. *C. prostrata* is a very rare species here, known only from four stands very isolated from each other, on lake Ohrid in Macedonia, on mount Lovcen in Montenegro and in Dalmatia in Biokovo (1500 -

- 1600 m) and in Velebit. This latter stand is the most northerly stand for the whole range of *C. prostrata* distribution*.

Sardinia. According to MORIS (1840 - 1843) *C. prostrata* occurs here both on limestone and granitic substratum, at elevation of 1335 - 1800 m, only in the central part of the island.

Corsica. On this island one stand of *C. prostrata* is known, discovered in 1910 by BRIQUET. It is located on limestone rocks in the alpine stratum, at an elevation of 1800 - 1930 m.

Spain. The range of *C. prostrata* in Spain covers the mountains of the eastern, and particularly the southeastern part of the country (Andalusia, Murcia, Valencia and Castila Le Nueva). A greater agglomeration of stands can be found in the mountains of the province Granada (1500 - 3415 m).

3. N. W. AFRICA

In Africa *C. prostrata* occurs in Morocco, Algeria and in Tunisia, in the Atlas Mountains: Middle Atlas, Great Atlas, Sahara Atlas, Tell Atlas and Rif Atlas. The stands are as a rule located above 1500 m elevation, usually between 1900 - 2800 m in places however it can also be found above 3000 m; the most elevated stand has been found in Morocco, at an elevation of 3353 m. Similarly as in the other parts of the range of *C. prostrata* it grows in Africa in open places or in sparse forests, on rocky and stony mountain slopes, both on limestone and siliceous substratum.

The variability of *C. prostrata* is as yet little known. One can recognize within the species two varieties, the typical — var. *prostrata* with gray and dull-tomentose leaves on the lower surface and var. *glabrifolia* (Moris) Browicz with more or less glabrous leaves on both surfaces. Both the varieties appear throughout the range, frequently on one and the same stand, it appears however that the typical variety is more common. Besides differences in pubescence there are also differences in the size of the leaf blade, this however may be the result of growth conditions. A more careful note is deserved by the form of *C. prostrata* from the vicinity of Constantine in Algeria (Choulette 129, in sched.) characterized not only by large leaves and long petioles, but also by flowers with wide hypanthiums. Possibly we are dealing here with a local variety.

LOCALITIES

Turkey. Herbarium specimens: By Mahmudiye, 1700 m, 23.4.1930 c.fl., v. Ajati 5 (WU.); M. Ida, in jugo, 15.7.1883 c.fl., Sintenis 544 (JE.K.LE.S.WU.); Edremit: Kazdagi — Zeytinli Bölgesi, 18.9.1969, H. Kayacik 8487 (ISTO.); Armutlu, Ci-

* One more stand from Orjen in Hercegovina, northwest from Lovćen, has been recently reported by EM (1974, in „Wild fruit flora in SR”. Macedonia, Skopje, page 229).

blabdas (*Tmolos occidentalis*) in rupibus schistosis summi montis ca. 1600 m, 14.7.1933, Schwarz 955 (B.); Lycia, Beidagh, 8.7.1883, c.fl., Pichler 263 (LE.WU); Sypile, 1833, Aucher (W.); Mykale, 25.6.1886, Forsyth Mayor 699 (G.); Denizli: Kalkdolinen auf der Hochfläche W von Tavas, 7.5.1969 c.fl., Fitz, Spitzenberger 393 (W.); In rupetribus montis Honaz dagh, 2000 m, prope Denizli, 13.7.1932, Regel (G.); Honaz-Dag, Felsfluren, 1500 m, 25.5.1962 c.fl., Sorger 63-32-20 (Herb. Sorger); Honaz Dagi: Güneybati, 1505 m, 12.8.1967, Sopali, Üsküdar 7130 (ISTO.); Mugla: Sandras Dag, 1900 m, Felssplatten, 10.6.1969 c.fl., Fitz, Spitzenberger 747 (W.); Elmali, 1200 m, 19.4.1936 c.fl., Tengwall 361 (K.S.); Antalya: Kuku Dag, S von Elmali, Gebiet von Çiglikara, 1800 m, in Felsspalten, 13 - 15.6.1969 c.fl., Fitz, Spitzenberger 828 (W.); Caria, 1843, c.fl., Pinard (G.K.W.); Vil. Mugla, Guder Dagh, 2400 m, rocky place, 6.8.1947, Davis 13984 (K.); Prov. Antalya. E slope and valley with gray, stony, loamy soil. Dry stony S slope with *Quercus* shrubs. S side of Avlan Gölü (ca. 80 km SW of Antalya) 28.4.1959 c.fl., Henipman et al. 708 (K.); Antalya: W-Fuss der Bey Daglari, zwischen Sarnic, Güneyi und dem Avlan Gölü, 1800 m, 22.4.1970 c.fl., Bozakman, Fitz. 241 (W.); Susuzdag, offener *Cedrus libani* Wald, ca. 1700 m, 28.5.1963 c.fl., Sorger 63-35-68 (Herb. Sorger); prov. Antalya, distr. Kemer, 2200 m, 10.7.1949 c.fl., Davis 15046 (E.K.); Pisidia, mons Davros dagh, 5.1845 c.fl., Heldreich (G.K.LE.); Davros Dagi, 30.5.1955, Baytop 4287 (E.); Prov. Antalya, distr. Gebiz, 1700 m, Bozburun dag at Tasli yayla, 25.7.1961 c.fr., Davis 15553 (E.K.); Cicedkdaglari, Fuss einer Felswand ca 1300 m, 17.6.1966 c.fr., Sorger 66-49-51 (Herb. Sorger); Dedagöldag, ca. 1800 m, 1.7.1965 c.fl., Sorger 65-42-16 (Herb. Sorger); NO Anamas, Bergsteppe, 1500 m, 16.7.1968, Sorger 68-37-78 (Herb. Sorger); Prov. Mersin, distr. Anamur: Camurlu yayla Olucak (Ermenek-Anamur), 2000 m, 18.8.1949, c.fr., Davis 16308 (E.K.); In monte Tauro, 1836 c.fl., Kotschy 193 (G.K.LE.PR.S.W.); Bulghar Maaden, 2000 m, 6.1895 c.fl., Siehe 170 (B.E.JE.K.LE.WU.); Cilician Taurus, Burujik, Asir Gedigi, steep limestone scree, 7.6.1934 c.fl., Balls 1309 (E.K.); Nigde: Ala Dag, 2750 m, Scree, 28.6.1964 c.fl., Wood, Gibson UT 104 (E.); Prov. Keyseri: Bakir Dag, nr. Akoluk yayla above Kisce, 2000 m, 30.6.1952 c.fl., Davis, Dodds, Cetik 19357 (E.K.); In rupestr. silic. m. Beyrt-dagh, Cataoniae, 8000', 11.8.1865, Haussknecht (JE.W.); Mont Amanus, 5500', 6.1906, Haradjian 758 (G.); ex Amano prope Beilan. Crescit in summis Akma Dagh, 6000', 6.1862 c.fr., Kotschy 290 (W.); Mons Cassius, prope Sordia, 1836, Kotschy 193 (W.).

Literature: Bithynia: inter Smyrnam et Brusam (Tchihatcheff, 1860; Bornmüller, 1908); Phrygia: m. Bulgasdagh pr. Uchak, 1500 m, Balansa (Tchihatcheff, 1860); In montibus Mesogis et Sipylo (Boissier, 1872); Lycia: regione alpina alt 1945 - 2245 m, nec non fissuris rupium pr. lacum Caralitis (Tchihatcheff, 1860); Ak dag, Sandras dag, Boz dag (Quezel et al., 1970); Talas, Steinige Hänge (Krause, 1941).

Syria. Herbarium specimens: Bludan — Ein Anrow, rocky places, 6000 - 7000', 6.6.1943 c.fl., Davis 6189 A (E.); Circa Zebdaine prope Damascum. In rupetribus vallis Uod el Uom, montis Garbi, alt. 4500', 14.6.1855 c.fl., Kotschy 127.200 (PR.W.); Antilibano: Djebel Garbi, 26.5.1881 c.fl., Peyron (G.).

Literature: Au-dessus de Bloudane, Post; Jab. Abou-l-Haoua, Jabal Halimé, Pabot (Mouterde, 1970).

Lebanon. Herbarium specimens: Ad cedretum supra Bacharrah, 6.5.1934 c.fl., Alonzo 396 (S.); In territorio montis „Hermon“. Ad parietes latere aquiloni abverso alt. 7000' frequens, 28.6.1855, Kotschy 200 (S.W.); Mt. Hermon, 6000 - 8000' 1863 - 64 c.fl., Lowne (E.); Sommet de Sannine, Gaillardot (JE.); Sannin, 1.6.1879, Peyron (G.); Jebel Sannin, 7.9.1865, Post (E.); Envir. d'Eden, 1855, Gaillardot (JE.); Between Ehdan and the forest of Ehdan, 1450 - 1500 m, 2.9.1931, Eig, Zohary 254 (HUJ.); Mountain above El Maasser, 26.5.1888 c.fl. Post (E.); Aineta ad 5200', 1858 c.fr., Unger 565 (W.); Supra Ainata in glareosis prope nivem ca. 1800 m, 30.5.1932

c.fl., Samuelsson 1933 (S.); In regione subalpini Antilibani ad rupes cacuminum (supra Baalbek) ad Ain-Yunum, 16 - 1700 m 21.5.1910, J. et F. Bornmüller 11743 (W.); *Montium Libani australis* in declivibus occidentalibus in cedreto supra Ain Zehalta, alt. 1700 - 1800 m, 13 et 19.6.1910 c.fl., J. et F. Bornmüller 11746 (E.); Ex jugo Montis Libani Djebel Baruk dicto supra Ain Zehaleth, 1600 - 2200 m, 25.5.1877 c.fl., Ball (E.); Djebel Baruk dicto supra Baruk, 1500 - 2100 m, 24.5.1877, Ball (E.); Qalaat Aruba, 6000', summit, 15.6.1943 c.fl., Davis 6280 A (E.); Antilibanon, 4500', 1858 c.fr., Unger 462 (W.); Libani, c.fl., Aucher-Eloy 4485 (G.); Liban, c.fl. Labillardiere (G.).

Literature: Mt. Hermon (Avi Shmida, 1700 m); at Ras Qarnita, 1820 m; Jebel Qammoua near Ain el Barqwieh, 2065 m (Zohary, 1973); Hermon, vers 2000 m; Maqmal (Oppenheimer, Evenari, 1940); Oberhalb Ehdén, 1800 m, (Bornmüller, 1914); Jisr-el-Hajar, Hasroun, Les Cèdres, Cèdres de Barouk, Col de Zahlé, Haut-Makmel, 'Ain Hazir (Mouterde, 1970).

Jordan. Literature: Edom: 7 km and 13 km, east of Wadi Musa, north slope, about 1500 m (Zohary, 1951).

Greece. Herbarium specimens: Aegean islands: Insula Samothrake. In monte Phengari 1400 - 1600 m, in saxosis, subst. silic., 18. - 20. 6. 1936 c.fl., Rechinger 9898 (G.W.); Chios, 1853 c.fl., Dr. Pauli 553 (JE.); Insula Samos. In monte Ambelos, in saxosis calc. reg. super. c. 1100 m, 16 - 23. 6. 1932, Rechinger 2170 (W.); Insula Samos. In monte Kerki. In saxosis calc. cacuminis, ca. 1200 - 1400 m, 16 - 23. 6. 1932, Rechinger 2045b, (W.); *ibid.* 15. 4. 1934 c.fl., Rechinger 4102 (W.); In regione alpina montis Kerketeus, Samos, 4. 4.1937, Regel (G.); Insula Mytilene. In monte Olympos ad pagum Ajassos, ca. 940 m, 19.5.1934 c.fr., Rechinger 5542 (W.).

Insula Euboea. In monte Delphi (Dyrphis) in saxosis calc. ca. 1700 m, 13 - 17. 7. 1932 c.fl., Rechinger 2475 (W.); Laconia: in regione alpina m. Taygetes, ad cacumen Hag. Elias, 10. 7. 1899 c.fr., Heldreich 1628b (JE.W.WU.); In excelsibus Taygeti prope nives, 1848, Heldreich (G.W.); In reg alpina montis Taygetes, 5. 8. 1934, Regel (G); Arcadia. In rupestribus calcareis regions alpinae mt. Chelmos (Aróanie vet.) supra pagum Sudena, 1800 - 2000 m, 20. 6. 1893 c.fl., Halacsy (PR. ORC.W.WU.); Mont. Chelmos, inter regionem alpinam, 20. 6. 1893, K. Grimus 1 (W.); Attica: in rupestribus regionis abietinae m. Parnethis, prope cacumen, 4300', raro, 29. 5. 1896 c.fl., Heldreich 1326 (G.JE.PR.PRC.W.U.); In summ. monte Cithaeron, 25. 5. 1888 c.fl., Heldreich (GÖT); Ad rupes in regione abiet. m. Parnassus (Carcaria, Livadi, etc.) 3500' - 5000', 5. 7. 1857, Heldreich 626 (G.JE.S.W.); In rupestribus montes Parnassi, 2000 m, 21. 8. 1931, Regel (G.); Parnasso, in rupestribus 21. 4. 1930 c.fl., Wall (S.); Mt. Vardusa, 7000', 15. 6. 1937 c.fl., Balls, Gouraly 3371 (E.); Kiona, c.fl., Neumayer (W.U.); M. Athos, Friedrichsthal (W.); Mt. Athos, Hagion Oros, solo calc. 1200 - 1800 m, 5 - 7. 1908 - 1909, Dimonie (GÖT.PR.PRC.W.WU.); Athos, 2000 m, 8 - 10. 6. 1932 c.fl., Cyrén (S.); In calcareis reg. alpina montes Athos, 17. 8. 1938, Regel (G.); In saxosis elatioribus Albanii (Epireticum) jugo Baldaneš m. Olyčika distr. Janina et m. Cepalova, 6 - 7. 1896 c.fl. et fr., Baldacci 338 (PRC.W.U.). Nur weniger Exemplar in einer Schuchtal an Gipfel des Valugo in Aetolien, 1842 c.fl., Spruner (W.).

Crete. Distr. Sphakia: Levka Ori, in saxosis calc. montis Malotira prope casas pastorales Kolokitias, ca. 1700 m, 17. 6. 1942 c.fl., Rechinger 13890 (W.); Distr. Mylopotamos: Montes Psiloriti (Ida), in saxosis calc. montium supra altoplanitiem Nida, ca. 1700 - 1900 m, 8. 7. 1942, Rechinger 14286 (G.W.); In dumetis ad spicum Jovis m. Psiloriti (Ida), 9. 6. 1899, Baldacci 67 (G.W.W.U.); Monte Volokia, rochers 10. 6. 1884 c.fl., Reverchon 241 (E.G.GÖT. JE. PRC. S. W.); m. Gigilos et Volakia, distr. Sphakia, 8 - 9. 7. 1893, Baldacci 65 (S.W.W.U.); Lassithi, bei 2000 m, 8. 1937 Lemperg 636 (W.); Distr. Lassithi. In saxosis calc. montis Aphendi Christos, ca. 1800 - 2000 m, 12. 7. 1942, Rechinger 14366 (W.). In reg. alpine montes Theodoris, 8. 8. 1939, Regel (G.); Mavroni Lahour, 22. 7. 1882, Spreitzendorfer (W.U.); Kastro. Sfak. bergen, 1600 m,

23. 5. 1935, Cyrén (S.GÖT.); Auf allen cretischen Bergen bis etwa 1900 m, Hagion Pnema, 1700 - 1800 m, 27 - 30. 6. 1937 c.fl., Lemperg (GÖT.); Rosa, auch an Chelmos, 27. 6. 1937 c.fl., Lemperg 636 (PR.); Distr. Hieraptera: In saxosis calc. montis Aphendi Kavusi, ca. 1450 m, 21. 5. 1942, Rechinger 13234 (W.); Montagnes de Drakona, rare, 9. 7. 1883 c.fl., Reverchon (E.G.); M. Sphak., Herb. Gerhard (JE.); In m. Sphakia, ? (PRC.W.).

Literature: In lapidosis calcareis regionum mediae et superiores montium Kierki et Ambelos (Stefani, Fors. Major, Barbey, 1891); Mytilene: M. Lepetymnos (Rechinger, 1943); Mt. Gerania in isthmo Corinthiaco (Halacsy, 1912); Laconien: Gipfelregion der Taygetos, 1800 - 2000 m; Arcadien: Kyllene, Gipfelregion, 1800 - 2000 m; Achaia: Chelmos 1800 - 2000 m; Lambia. Berg bei Diwri, 1800 m (Rothmaler, 1944); Thessalia: Mt. Kokkino Lithari prope Sermenikon in Pindo (Halacsy, 1898); Chelmos, Abhänge der Styx-Tales, 1600 - 1700 m (Bornmüller, 1928) Crete: M. Mavri, M. Kastron, M. Troxaris, Rethymno: M. Ida, Timios Stavros, Amari: M. Kedros; M. Lazaro (Rechinger, 1943).

Albania. Herbarium specimens: In alpinis m. Čepini (1846), distr. Kuč, 26. 7. 1892, Baldacci 253 (WU.).

Literature: Tomor, Çipinin, Çikë (Mitrushi, 1955).

Jugoslavia. Herbarium specimens: Macedonia. Ohrid, Galitsisa, 30. 5. 1938 c.fl., Lenander (S.); Galicice, 8. 1899, Formanek (PR.); Macedonia: Tomovo am Ohrida-See, 3. 9. 1923 c.fr., Vandas (GÖT.PRC.); Dalmatia: Südseite des Biokovo bei Makarska, 1600 m, 7. 1913, Teyber (GÖT.WU.); Biokovo planina, auf dem Kamm nordwestl. des Sveti Ilija, ca. 1500 - 1600 m, 15. 6. 1908, Janchen (WU.); In subalpinis mt. Velebit, 14. 7. 1896, Adamovic (G.); Sponte crescit in monte „Vellebith“ Dalmatiae, Fritsch et Rechinger 2412 (PR.PRC.S.W.WU.).

Literature: In saxosis montis Lovćen clivo occident. (Rohlena, 1941 - 1942).

Sardinia. Herbarium specimens: In summis jugis editioribus montis Giungieta, 1826, Balbis (G.); Oliena, vetta del S. Ata-e-Bidda, 1895 c.fl., Martelli (GÖT.PRC.S.); In montis Oliena, calcar.-cretaceis, 11. 5. 1884 c.fl., Forsyth Major (E.JE.WU.); In montosis calcareis Oliena, 1830, Moris (G.); In summis monte Genargentu, 1830, Moris (G.).

Literature: In rupestribus, calcareis, editis montis albi Siniscola et in summo monte Oliena 1335 m; in graniticis montis Genargentu, 1800 m (Moris, 1840 - 1843).

Corsica. Herbarium specimens: Vallé sup. d'Asinao. Punta del Fornello, rochers 1800 - 1930 m, calcaire et silice, 25. 7. 1910, Briquet (G.).

Spain. Herbarium specimens: Ex montibus Sierra Nevada, in cacumine Picacho de Veleta, 9 - 11200', 27. 5. 1851 c.fl., Ball 347 (E.); In summis montibus Regni Granat. 6200', 6. 1837, Boissier (G.W.); Sierra Nevada, 1857, c.fl. Campo (G); Pentas des rochers dans la Sierra de Segura, 12. 7. 1850, Bourgeau 648 (G.W.); Serrania de Cuenca, 1898, Gandoger (PRC.W.); Albarracin, 7. 1882 c.fl., Gandoger (PRC.); Sierra d'Albarracin, lieux arides et rocheux, sur le calcaire, 1500 m, rare, 6. 1894 c.fl., Reverchon 955 (JE.S.W.WU.); Prov. Teruel: Sierra del Pinar d'Albarracin, 1500 m, 6. 1894 c.fl., Reverchon (E.G.PR.PRC.W.); Regnum Granatense, col saxosis umbros m. Sierra de la Nivea pr. Yunguera et S de los Cabras pr. Antequera sol. calc. 1500 - 1600 m., 31. 5. - 16. 6. 1879 c.fl., Huter, Porta, Rigo 920 (E.G.GÖT.PRC.W.WU.); Albacante, in pascuis, ad rupes in cacumine elatiore Sierra de Alcaraz, distr. Almenara, solo calcar. 2000 m, 27. 6. 1891 c.fl., Porta, Rigo 296 (G.GÖT.JE.PRC.W.WU.); Granada. Sagra Sierra in petrosis sol. calcar., 2000 - 2500 m, 7. 1890 c.fr., Porta, Rigo 352 (E.PR.PRC.W.); Aragon: Calatayud, Campiel, montagnes, 11. 4. 1907 c.fl., Vicioso 677 (E.GÖT.JE.G.PRC.W.); Sierra Nevada, 1600 m, 28. 5. 1936 c.fl., Wall (S.); ad cacumina montes Tejedes prope Alhama, Webb (G.); Westliche Sierra Nevada, Südteile

(Dornpolsterformation) Weideland oberhalb Capileira, 1700 - 2200 m, 8. 8. 1924, Ginzberger (WU.); Alicante, 1879, Gandoger (PRC.).

Literature: Sierra Tejada (Palacios, 1946); Sierra de Gador; Muela de Montabliche pr. Valez-Blanco, in cacum. (Willkomm, Lange, 1880); in regno Valent.: Sierra Aitana; Aragon austr. Sierra de Javalambre 2020 m (Willkomm, 1893); Sarnago (Caballos) (Vicioso Martinez, 1941); En la zona superior de la *Pino-Juniperion sabinæ*: En el Jabalambre, Albarracin, en Aitana; Maria, La Sagara, Baza, Sierra Nevada, Serrania de Ronda (Goday, Carbonell, 1961).

Marocco. Herbarium specimens: Hab. in rupestribus arenaceis cacumine montis Tidiguin, ad 2450 m, 14. 6. 1929 c.fl., Font Quer 228 (S.); Moyen Atlas: Bekrit, à la Obri Hayane, rocailles calcaires, 2250 m, 16. 6. 1924 c.fl. Jahandiez 624b (E.); Moyen Atlas, S of Asrou, 1900 m, 15. 5. 1934, Wall (S.); Grand Atlas: Irhil Aori. In *Buxetum*, 3000 m, 1. 8. 1951, Spence 134 (E.); Djebel Erdoana, 11.000', 13. 6. 1936 c.fl., Balls 2823 (S.); Moyen Atlas: Timhadit, ou Djebel Tisdadine, rocailles calcaires 2350 m, 24. 7. 1924 c.fr., Jahandiez 838b (E.); Moyen Atlas, camp d'Orbalou Larbi, 1. 7. 1918, Renoir 754 (P.); Djebel Ouensa, sommets de l'Atlas au sud de la ville Maroc, 15 - 25. 4. 1873 Ibrahim (P.); Reraia, 7000', 1871, Hooker (P.).

Literature: Pentes rocailleuses sous le Tizi n'Tasser-dount, à 2600 - 2800 m (Humbert, 1924); Atlas rifain: Mont Tidighin, rocailles Gréseuses du sommet 2500 m; Mont Lechkhab (ou Kraa) rochers calcaires du sommet 2150 m (Emberger, Maire, 1931); J. Tazekka, 1750 - 1980 m; rochers calcaires du Foum Kheneg 1900 m; rochers de l'Akka N'Ijimi 2200 m, (Sauvage, 1966).

Algeria. Herbarium specimens: Sommet du Djebel-Tougour, près Batna, à 2000 m, 21. 5. 1853 c.fl., Gallerand 947 (E.P.W.); Kabylia. Monts Babors, lieux arides, sur le calcaire, 1900 m, 6. 1897, Reverchon (E.P.W.U.); Djebel Tababor, Petite Kabylie, 21. 7. 1861, Cosson (P.); Sommet du Tababor, 1869, Corriard (P.); Constantine, ad rupes summi m. Sidi Mecid, 28. 4. 1870, Paris 444 (JE.P.); Rochers au sommet du Sidi-Mécid à Constantine, 10. 3. 1857 c.fl., 6. 5. 1857 c.fr., Choulette 129 (JE.P.S.W.); Rochers du Sidi Mecid, 26. 4. 1893, Luizet 548 (P.); Djebel Cheliah, Mts. Aurés, prov. de Constantine, 11. 6. 1853, Cosson (P.); Pic de Sidi-Amar, montagne Ouarsensis, 16. 7. 1854, Cosson (P.); Bou Taleb, sur toute le chaine de la montagne, 6. 1873, Reboud 101 (P.); Sidi Marouf, Kabylie, prov. de Constantine, 14. 4. 1861, Cosson (P.); Rochers au sommet du Chettebah, près Constantin, 6. 5. 1840, Durieu (P.); Le Nador de Terny, rochers et racailles, 1500 m, 29. 6. 1933, Faure (P.); Versant septentr. du Djebel Tamgout, Djurdjura, territoire des Benis-bou-Addon, cercle Dra-l-Mizzan, 25 - 27. 6. 1854, Cosson (P.); Djebel Senalba près Djelfa, 5. 1862, Reboud (P.).

Literature: Ras Faraoun, rochers et éboulis calcaires du Coup de talon de Pharaon, 1900 m (Maire, 1927); Dt. de Médéa: falaises calaires des cretes du Djebel Haouas, vers 1500 m. à l'ouest de Djefa. Frequenté dans toutes les montagnes telliennes, est plus étroitement localisé dans l'Atlas saharien. En ce qui concerne les relief du sud algérois, elle n'était encore connue que du Djebel Ougtaia (Debuis, Faurel, 1965).

Tunisia. Herbarium specimens: Djebel Zaghouan, 4. 1924 c.fl., Skottsberg (GÖT.); Dj. Zaghouan, 4. 7. 1854, Kralik (P.); Dj. Zaghouan, 31, 5. 1883, Cosson et al. (P.); Tunetia media. In cacum. montis Dyr-el-Kef, 16. 6. 1896 c.fr., Murbeck (S.); Kef, Sidi Ali, ad rupes, 20. 5. 1887, Letourneux (P.); Guelaad Es Hurm, ad rupes, 29. 6. 1884, Letourneux (P.); Guelaad Ghebibu, 14. 5. 1886, Letourneux (P.).

LITERATURE

1. Boissier E. — 1872. Flora Orientalis 2, Basileae, Genevae, Lugundi.
2. Bornmüller J. — 1908. Florulae Lydiae. Mitt. Thür. Bot. Ver. n.f., 24 : 1 - 140.
3. Bornmüller J. — 1914. Zur Flora des Libanon und Antilibanon. Beih. Bot. Ctrbl., 32,2 : 349 - 419.
4. Bornmüller J. — 1928. Ergebnis einer botanischen Reise nach Griechenland im Jahre 1926. Feddes Repert., 25 : 161 - 203.
5. Brandis D. — 1921. Indian trees, London.
6. Browicz K. — 1969. *Cerasus*. In: K. H. Rechinger, Flora Iranica, 66 : 187 - 202. Graz.
7. Browicz K. — 1972. *Cerasus* Duhamel. In: P. H. Davis, Flora of Turkey, 4 : 12 - 19, Edinburgh.
8. Dubuis A., Faurel L. — 1965. Notes de floristique nord-africaine IV. Bull. Soc. Hist. Nat. Afrique Nord, 55 : 40 - 68.
9. Emberger L., Maire R. — 1931. Matériaux pour la flore marocaine. Bull. Soc. Sci. Nat. Maroc, 10 : 4 - 6.
10. Goday S. R., Carbonell J. B. — 1961. Estudio de Vegetación y Flórula, del Macizo de Gudar y Jabalambre. Anales Inst. Bot. A. J. Cavanilles, 19 : 3 - 550.
11. Halácsy E. — 1898. Beiträge zur Flora von Griechenland. Verh. Zool.-Bot. Ges. Wien, 48.
12. Halácsy E. — 1912. Conspectus Florae graecae. Suppl. 2, Budapestini.
13. Humbert H. — 1924. Végétation du Grand Atlas marocain oriental. Exploration botanique de l'Ari Ayachi. Bull. Soc. Hist. Nat. Afrique Nord, 15 : 147 - 234.
14. Koehne E. — 1912. Die geographische Verbreitung der Kirschen, *Prunus* Subgen. *Cerasus*. Mitt. Deutsch. Dendrol. Ges., 21 : 168 - 183.
15. Kovalev N. V., Kostina K. F. — 1935. A contribution to the study of the genus *Prunus* Focke (in Russian). Bull. Appl. Bot. Genet. Pl. Breed., ser. 8, no. 4.
16. Krause K. — 1941. Über die Flora des Gebietes von Kayseri und Erciyas dâgi. Bot. Jahrb., 71,1 : 32 - 137.
17. Lipsky V. I. — 1904. Materialy dlja Flory Srednej Azii II. Acta Hort. Petrop., 23 : 1 - 247.
18. Maire R. — 1927. Contribution à l'étude de la flore des montagnes du Numidie. Bull. Soc. Hist. Nat. Afrique Nord, 18 : 71 - 76.
19. Mitruschi I. — 1955. Druret dhe Skhurret e Shqiperise, Tirana.
20. Moris G. G. — 1840 - 1843, Flora sardoa, Taurini.
21. Mouterede P. — 1970. Nouvelle Flore du Liban et de la Syrie, 2, Beyrouth.
22. Oppenheimer H. R., Evenari M. — 1940. Reliquiae Aaronshonianaee II. Florula Cisiordanica. Bull. Soc. Bot. Genève, 31.
23. Palacios M. L. — 1946. Estudios sobre la flora y la vegetación de las Sierras Tejada y Almirara. Anales Jard. Bot. Madrid, 6,2 : 217 - 370.
24. Pojarkova A. I. — 1939. Critical Review of the species of Cherry belonging to the Cycle of *Cerasi prostratae* (Labill). Ser. of Central and Anterior Asia, Bot. Zhurn., 24,3 : 225 - 246.
25. Quézel P., Contandriopoulos J., Pamukçuoğlu A. — 1970. Contribution à l'étude de la flore des hautes montagnes de l'Anatolie occidentale. Candollea, 25,2 : 341 : 387.
26. Quézel P., Pamukçuoğlu A. — 1970. Vegetation des hautes montagnes d'Anatolie nord-occidentale, Israel Jour. Bot., 19 - 348 - 387.
27. Rechinger K. H. — 1943. Flora Aegaea, Wien.
28. Rohlena J. — 1941 - 1942. Conspectus Florae Montenegrinae. Preslia 20 - 21.
29. Rothmaler W. — 1944. Floristisches Ergebnisse einer Reise nach dem Peloponnes. Bot. Jahrb., 73,4 : 418 - 452.

30. Sauvage Ch. — 1956. Compte rendu floristique de l'excursion marocaine du VIIIe Congres International de Botanique. Trav. Inst. Sc. Cherifien. Ser. Bot., 8.
31. Schiechtl H. M., Stern R., Weiss E. H. — 1965. In Anatolischen Gebirgen. Kärntne Museumsschriften, 31, Klagenfurt.
32. Stefani C. de, Forsyth Major C. J., Barbey W. — 1891. Samos, Lausanne.
33. Tchihatcheff P. — 1860. Asie Mineure. 3 Botanique, Paris.
34. Vicioso Martinez C. — 1941. Materiales para el estudio de la flora soriana. Anales Jard. Bot. Madrid, 2: 188 - 235.
35. Willkomm H. M. — 1893. Supplementum Prodrumi Florae hispanicae, Stuttgartiae.
36. Willkomm H. M., Lange J. — 1880. Prodrumus Florae hispanicae, 3, Stuttgartiae.
37. Zohary M. — 1951. The arboreal flora of Israel and Transjordan and its ecological and phytogeographical significance. Imperial Forestry Inst., Paper, 26, Oxford.
38. Zohary M. — 1973. Geobotanical Foundations of the Middle East 2, Stuttgart-Amsterdam.

KAZIMIERZ BROWICZ

Cerasus prostrata (Lab.) Ser.

Streszczenie

C. prostrata należy do sekcji *Microcerasus Spach*, podsekcji *Prostrata* (Pojark.). Browicz, do której zalicza się obecnie jeszcze 17 dalszych gatunków. Pierwszą, krytyczną ocenę tej grupy przeprowadziła w 1939 r. Pojarkova. Ogólny zasięg podsekcji *Prostrata* rozciąga się od wschodniej Hiszpanii i północno-zachodniej Afryki poprzez niemal całą południowo-zachodnią Azję aż po północne Indie. W obrębie tej podsekcji *C. prostrata* zajmuje szczególne miejsce. Charakteryzuje się bowiem największym zasięgiem i jest jednocześnie jedynym w tej grupie śródziemnomorskim gatunkiem. Zasięg *C. prostrata* można podzielić na dwie zasadnicze części: wschodnio- i zachodniośródziemnomorską, oddzielone od siebie Półwyspem Apenińskim i Sycylią, na których to terenach *C. prostrata* nie jest znana.

W południowo-zachodniej Azji *C. prostrata* występuje: w Turcji (1050 - 2750 m n.p.m.), w Syrii (1370 - 2135 m), w Libanie (1372 - 2438 m) i w Jordanii, na południe od Morza Martwego (1500 m), a w Europie: w Grecji (940 - 2000 m), w Albanii, Jugosławii, Sardynii (1335 - 1800 m), na Korsyce (1800 - 1930 m) oraz w Hiszpanii (1500 - 3415 m). W północno-zachodniej Afryce *C. prostrata* znana jest w Maroku, Algierii i w Tunisie, w górach Atlasu (1500 - 3353 m).

Stanowiska *C. prostrata* są rozproszone, położone w wyższych partiach gór, powyżej granicy lasu, przeważnie na suchym, wapiennym podłożu.

Jeśli chodzi o zmienność tego gatunku to wyróżnia się u niego dwie odmiany: var. *prostrata* o kutnerowatych po spodniej stronie liściach i var. *glabrifolia* (Moris) Browicz o liściach obustronnie nagich. Zarówno jedna, jak i druga odmiana występuje na całym obszarze, zasięgu, często na jednym i tym samym stanowisku.

Autor podaje mapę zasięgu podsekcji *Prostrata* oraz punktową mapę zasięgu *C. prostrata*, a także pełny wykaz stanowisk na podstawie zbiorów zielnikowych i literatury.

КАЗИМЕЖ БРОВИЧ

Cerasus prostrata (Lab.) Ser.

Резюме

C. prostrata относится к секции *Microcerasus* Spach и подсекции *Prostrata* (Pojark.) Browicz, в которую в настоящее время включают еще 17 видов. Впервые критическую оценку этой группы предприняла в 1939 г. Поляркова. Общий ареал подсекции *Prostrata* простирается от восточной Испании и северо-западной Африки почти через всю юго-западную Азию до северной Индии. *C. prostrata* занимает в этой подсекции особое положение, имея наибольший ареал и являясь в то же время единственным в данной группе средиземноморским видом. В ареале *C. prostrata* можно выделить две основные части — восточную — и западносредиземноморскую; они разделены Апеннинским полуостровом и Сицилией, на территории которых этот вид не был найден.

В юго-западной Азии *C. prostrata* встречается в следующих районах: Турция (1050 - 2750 м над ур.м.), Сирия (1370 - 2135 м), Либан (1372 - 2438 м), Иордания, к югу от Мертвого моря (1500 м). В Европе она отмечена в Греции (940 - 2000 м), в Албании, Югославии, Сардинии (940 - 2000 м), на Корсике (1800 - 1930) и в Испании (1500 - 3415 м). В северо-западной Африке вид этот распространен в Марокко, Алжире и в Тунисе, в горах Атласа (1500 - 3353).

Местонахождения *C. prostrata* разбросаны; они расположены в верхних ярусах гор, выше границы леса, преимущественно на сухих известковых почвах.

Если говорить об изменчивости этого вида, то в нем различают две разновидности: *var. prostrata* с ворсинчатой нижней стороной листьев и *var. glabrifolia* (Moris) Browicz с листьями голыми с обеих сторон. Обе разновидности представлены на всем протяжении ареала, встречаясь иногда на одном и том же местонахождении.

Автор приводит карту ареала подсекции *Prostrata* и точечную карту ареала *C. prostrata* а также полный перечень местонахождений, составленный на основе гербарных материалов и литературных данных.

