

KAZIMIERZ BROWICZ

## Distribution of Woody Rosaceae in W. Asia V

### *Laurocerasus officinalis* Roem.

The genus *Laurocerasus* Duh. is often considered to be a subsection, section or subgenus within the broad concept of genus *Prunus* L. According to Roemer (1847) it includes 19 species, according to Schneider (1906) 22, according to Hutchinson (1964) about 26 and according to Koehne (1915) as much as 62. This last author describes several new taxa, the systematic position of which is however not sufficiently clear in many cases. Recently Kalkman (1965) has revised the whole group, however he does not consider it as a separate genus but as a subgenus within *Prunus*. Kalkman came to the conclusion that into this subgenus the tropical genus *Pygeum* Gaertn. should also be included, and then he subdivides it into three basic section: 1. sect. *Laurocerasus*, 2. sect. *Mesopygeum* (Koehne) Kalkman and 3. a section with species from subtropical and tropical America, which Kalkman has not been given a name yet. The first section, with some small additions corresponds to what we have until recently considered to be the genus *Laurocerasus* s. str. Only 14 species belong here with the following distributions:

1. *Laurocerasus pygeoides* (Koehne) Browicz, *comb. nov.* (= *Prunus pygeoides* Koehne, Bot. Jahrb. 52 : 297 (1915)). — India and China (Yunnan).
2. *L. africana* (Hook. f.) Browicz, *comb. nov.* (= *Pygeum africanum* Hook. f., J. Proc. Linn. Soc. Bot. 7 : 191 (1864)). — Tropical Africa.
3. *L. crassifolia* (Haum.) Browicz, *comb. nov.* (= *Pygeum crassifolium* Hauman, Jard. Bot. Brux. 22 : 93 (1952)). — Congo.
4. *L. lusitanica* (L.) Roem. — SW Europe, NW Africa.
5. *L. officinalis* Roem. — SE Europe (Balkan Peninsula), W. Asia, Caucasus.
6. *L. jenkinsii* (Hook. f.) Browicz, *comb. nov.* (= *Prunus jenkinsii* Hook. f., Fl. Brit. Ind. 2 : 317 (1878)). — E. Pakistan, India, N. Burma, China (Yunnan).
7. *L. wallichii* (Steud.) Browicz, *comb. nov.* (= *Prunus wallichii* Steud., Nomencl., 2nd ed. 2 : 404 (1841)). — E. Pakistan, India, Upper Burma, N. Thailand, Laos, N. and S. Vietnam, Sumatra, Malaya.

8. *L. spinulosa* (S. et Z.) Schneid. — China, Japan.
9. *L. phaeosticta* (Hance) Schneid. — E. Pakistan, India, Upper Burma, N. Thailand, China, Taiwan, N. Vietnam.
10. *L. fordiana* (Dunn.) Browicz, *comb. nov.* (= *Prunus fordiana* Dunn, J. Bot. 45 : 402 (1907)). — S. China, Cambodia, N. and S. Vietnam.
11. *L. zippeliana* (Miq.) Browicz, *comb. nov.* (= *Prunus zippeliana* Miq., Fl. Ind. Bat. 1, 1 : 367 (1855)). — China, Taiwan, Japan, N. Vietnam.
12. *L. adenopoda* (K. et V.) Browicz, *comb. nov.* (= *Prunus adenopoda* K. et V., Bull. Inst. Bot. Btzg. 2 : 10 (1899)). — Java.
13. *L. javanica* (T. et B.) Schneid. — Peninsular Burma, S. Vietnam, S. Andaman. Sunda Islands, New Guinea.
14. *L. mirabilis* (Kalkm.) Browicz, *comb. nov.* (= *Prunus mirabilis* Kalkm., Blumea 13, 1 : 49 (1965)). — Borneo.

From the maps published by Kalkman it appears that the range of the genus *Laurocerasus* (*s. str.*) is divided into four parts (fig. 1), with the largest concentration of species in southern China (6 species) and in north Vietnam and Burma (4 species each). In Europe only two species are to be found and in western Asia only one — *Laurocerasus officinalis*.



Fig. 1. The range of *Laurocerasus officinalis* (dark areas) superimposed over the whole range of genus *Laurocerasus* L. *s. str.* (= *Prunus* L. *sub sp.* *Laurocerasus* Rehd. *sect.* *Laurocerasus*) according to Kalkman (1965) with the supplement of *L. lusitanica* from Franco (1964)

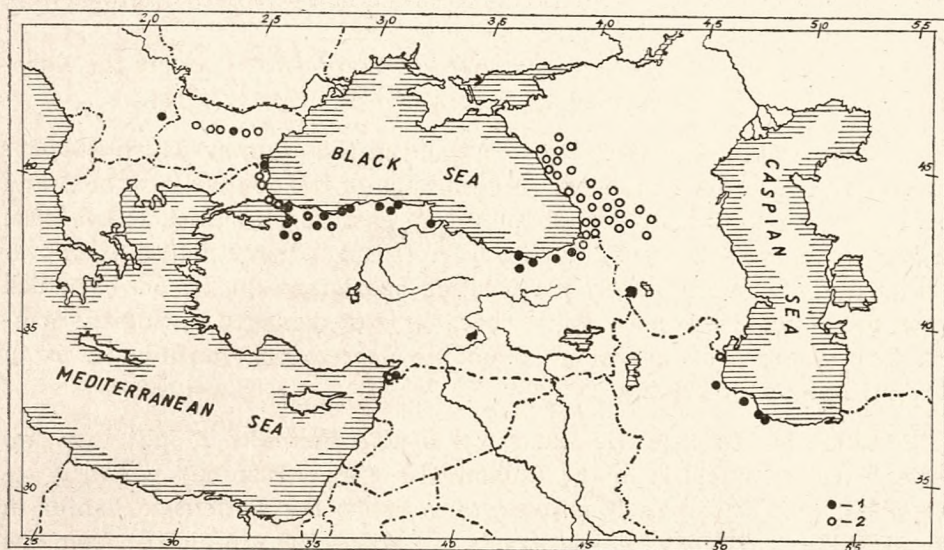


Fig. 2. The range of *Laurocerasus officinalis*: 1. herbarium specimens, 2. literature

Cherry laurel was discovered in Turkey, from the vicinity of Trabzon by the French traveller Pierre Belon in the year 1546, and from here it was taken over to Constantinople. Already from the beginning of the second half of the XVI century it was introduced for cultivation into Italy, at first into the gardens of prince Doria from Genova and later it became popularized in other countries of western Europe (Hegi, 1922). This species was described by Linnaeus in 1753 (*Species Plantarum*) as *Prunus laurocerasus* L.

With years it was found that *L. officinalis* grows also in the Caucasus, on the Balkan Peninsula and in north-western Iran. For the Caucasus a point map of stands distribution has been prepared by Grossheim (1952) and for Bulgaria by Penev (1956). A general range on a line map has been presented several times, the one prepared by Penev (*l. c.*) being most accurate.

The present study has been based on herbarium materials and on information from literature. As can be seen from the point map presented (fig. 2) *L. officinalis* has a disjunct range very similar to that of *Mespilus germanica* and *Rhododendron ponticum* and is located almost exactly in the so-called Euxino-Hercynian province. It is a relict species which as can be judged from paleobotanical material uncovered in France and Austria (Hegi, 1922) has had during the Tertiary a much wider range linking up into a common entity with the range of the present *L. lusitanica*. For this reason Kalkman (1965) came to the conclusion that „... before the Pleistocene glaciations there was in C. and S. Europe only one species

that was segregated into two isolated populations when the approaching ice made climate unsuitable over part of its area".

Since the range of *L. officinalis* only to a small extent covers the European continent, it was decided to discuss it here in its entirety.

**1. Yugoslavia.** The only isolated stand in this country which happens to represent also the most western occurrence of the species is to be found in Serbia on mount Ostrožub about 15 km east of Vlasotinci. It has been accurately characterized by Košanin (1914). Cherry laurel is represented there by vegetatively propagating specimens the shoots of which when not covered by snow tend to become frost damaged during the winter. The distance of this stand from the nearest one in Bulgaria is in straight line about 120 km.

**2. Bulgaria.** In Bulgaria the range of *L. officinalis* is split into two parts. The larger one is in the Balkan Mts. (Stara Planina), where it occurs from the Etropoleška Planina in the west to the Kotlenska Planina in the east. The extremal eastern stands are about 100 km distant from the shores of the Black Sea (Penev, 1956). Cherry laurel grows in the shrub layer of beech forests, particularly on the northern slopes of mountains between 300 and 1600 m above the sea level (Hegi, 1922; Penev, l. c.). In the central part of the Balkan Mts. it forms together with beech a very characteristic association — *Fagetum silvaticae laurocerasosum* and manifests there luxuriant growth. In this association, besides *L. officinalis* the following species of trees and shrubs are to be found: *Acer platanoides*, *Prunus avium*, *Carpinus betulus*, *Ulmus campestris*, *Rubus nemorosus*, *Sambucus nigra* and *Corylus avellana*.

The second smaller part of the range covers the south-eastern extremity of Bulgaria — the Strandža Mts. or rather a fragment of them between the villages Kladara, Gramatikovo and Brodilovo. The cherry laurel occurs in the Strandža only in some inaccessible ravines, usually on northern slopes, in more shaded locations on moist soil. It does not form as in the Balkan Mts. any greater agglomeration of individuals, but accompanies most commonly thickets of *Rhododendron ponticum* in beech forests (Browicz, 1961). It grows at an elevation of 100 to 400 m as near as only 5 km from the sea shore. In contrast to the first part of the cherry laurel range in the Balkan Mts. the beech forests in which it grows here are formed not by *Fagus silvatica* but by *F. orientalis*. Thus Penev has recognized here a different plant association, namely *Fagetum orientale rhododendrosom*. The other species of this association are: *Fraxinus excelsior*, *Carpinus betulus*, *Sorbus torminalis*, *Acer campestre*, *Sorbus domestica*, *Ilex aquifolium*, *Hedera helix*, *Hypericum androsaemum*, *Ruscus hypoglossum*, *Daphne pontica*.

**3. Turkey.** The range of *L. officinalis* in Turkey consists of three parts. The first one extends as a relatively narrow belt along the shores

of the Black Sea: in the European part of Turkey from the Bulgarian frontier (Istranca Dağları) to the Belgrade Forest near Istanbul (Yaltirik, 1966), and then in the Asiatic part from Alemdagh to Alaçam, vilajet Samsun. The most southern stands from this part of the species range are reported from the Bithynian Olimp (Tchihatcheff, 1860; Boissier, 1872; Burnat, in sched.) and from Deirme-Dere near Bozujuk (Bornmüller, 1940). As regards vertical distribution, the lowest stands have been reported from 20 - 30 m above the sea level (Davis, Coode, Yaltirik 37613, in sched. — Prov. Zonguldak, 7 km West of Kozlu) and the highest from 1230 m (Wagenitz, 1963).

The second part of the range is to be found in the Pontic Range east of Trabzon till the Caucasus. According to Handel-Mazzetti (1909) *L. officinalis* is a relatively common species in the vicinity of Trabzon between 700 and 1800 m elevation in the forests or in thickets of *Rhododendron ponticum* and in the town itself it is under cultivation. The further east the higher up are the stands of cherry laurel localized. According to Balls (in sched, 1928 — Beyuik Han above Rize) even at an elevation of about 2000 metres.

The disjunction between the eastern and western parts of cherry laurel range in Turkey extends for about 350 km. It is difficult to say on the basis of available information whether this disjunction is complete. Czeczott (1937) considered *L. officinalis* as a species the range of which „... covers the whole Northern Anatolia, but in the central part the number of occurrences is markedly smaller than to the west and east of it.”, however in this central part there is a complete lack of any data at all. Northern Anatolia is already well known to botanists and so it seems impossible that such a characteristic species as *L. officinalis* could remain unnoticed or missed in the herbarium collections or in published reports\*.

The third and smallest part of the species range in Turkey is located far away from the other two, at the other end of the country in the Amanus mountains. Yaltirik (1958) was the first to report the presence of *L. officinalis* in these mountains. According to him it grows in the southern part of the range in Şimşirlik at about 820 m elevation in the region of *Buxus longifolia* occurrence. Cherry laurel was however found here much earlier namely in 1909 by Manoog Haradjian at an elevation between 650 and 1300 m. This is documented by a herbarium specimen (No. 3195) which can be seen in the herbaria of Geneva and

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\* When this paper was already in print I obtained information that such intermediate stands do in fact exist in the province Ordu, namely: Fasta-Aybastı, 350 m, 1965, Tobey 1321 (E.) and Fatsa's Persembe Yayla-Korgan forest, 1200 m, 1965, Tobey 1396 (E.). Besides these a new stand has been also reported from a most westerly locality in Turkey: Balıkesir-Erdek, 300 - 400 m, 1965, Kayacık, Yaltirik 3270 (E.).

Kew, with a label: „Amanus, Djebel Mousa près d'Antioche". In September 1935 it was also collected by Delbès (Mouterde, 1959) on the Selderer pass at 700 m elevation. Accurate data about these stands is lacking and only Yaltirik (*l. c.*) mentions that cherry laurel from the Amanus Mts. has smaller leaves than that from the Northern Anatolia (perhaps a new variety?).

This disjunction: N. Anatolia and Colchis on the one side and Taurus, Amanus and Lebanon on the other is extremely interesting and requires a detailed study. In concerns among others such species of trees and shrubs as: *Fagus orientalis*, *Pterocarya fraxinifolia*, *Rhododendron ponticum* and *Pyracantha coccinea* (Browicz, 1970).

Judging by the available data *L. officinalis* occurs in Northern Anatolia primarily as brushwood in beech forests (*Fagetum orientalis*) or in *Rhododendron ponticum* brushwood which undoubtedly represents „... secondary communities caused by the removal by lumbering of all high trees (beech and hornbeam)" (Czeczott, 1939). In such thickets in the valley of the Ulu-Dere the main components according to Czeczott are *Rhododendron ponticum* and several meters high trees of *Fagus orientalis*, *Ulmus sp.*, and *Quercus sp.*, as well as the evergreen *Hedera colchica*. In the forest communities, besides beech several other woody species appear such as *Quercus polycarpa*, *Carpinus betulus*, *Castanea vesca*, *Tilia tomentosa* and in the brushwood *Rhododendron ponticum*, *Laurocerasus officinalis*, *Vaccinium artctostaphylos*, *Ilex aquifolium* and others. Thus, similarly as in Bulgaria, cherry laurel is a component of beech forests and its distribution in Turkey, Iran and in the Caucasus is the same as that of *Fagus orientalis*. Outside of beech forests cherry laurel occurs also in Turkey in the *Ostrya* forest in a rocky limestone ravine and in *Abies-Fagus* forest.

**4. Iran.** The range of *L. officinalis* in Iran is restricted to the Caspian regions of the Ghilan province and to the western part of the Mazanderan province. In the north it reaches as far the Talish Mts. (Buhse, Boissier, 1860) and in the east to the valley of the river Talar (Rechinger, 1942). Cherry laurel is common here but only locally. It occurs in forests between 300 and 1200 m elevation.

The Caspian regions of Iran belong to the so called Hercynian floristic sub-province. According to Zohary (1963) *L. officinalis* besides such species as *Cupressus sempervirens*, *Buxus sempervirens*, *Ilex aquifolium*, *Myrtus communis*, *Ruscus hyrcanus*, *Smilax aspera* and *Tamus communis* represent in it the Mediterranean relics from the Neogene „... when a Mediterranean vegetation similar to that of today dominated the coastal regions on either side of the shrinking Tethys in West Asia".

**5. USSR (Caucasus and Talish).** On the Caucasus the range of cherry laurel extends along the Black Sea from Tupase in the north to the Tur-

kish border in the east and extends as a long wedge deep into central Transcaucasia, where *L. officinalis* has been discovered in Kachethia east of the Tbilisi longitude (Matikašvili, 1965). From this region, which is within the Main Caucasian Range Dolukhanov (1961) has reported it from the Batzari gorge (a small gorge of a right hand tributary of the upper Alzani river) together with other species typical for Colchis such as *Rhododendron luteum*, *Vaccinium arctostaphylos*, *Ilex colchica*, *Daphne pontica*, *Hypericum androsaemum* and *Hedera pastuchovii*.

However within this range the main region of cherry laurel is to be found in the western Transcaucasia (Abkhaziya, Colchis, Adzhariya) where it has been reported from almost all forest regions, almost from the Black Sea shore itself to 1800 m elevation. The highest stands are located much higher, even at an elevation of 2400 m (Matikašvili, l. c.). *L. officinalis* grows here primarily in the form of compact, often completely unpassable thickets, together with other evergreen shrub species, and in particular with *Rhododendron ponticum*, in the brushwood of beech, beech-chestnut or even oak-hornbeam forests. Communities with cherry laurel are best developed in Colchis at about 600 - 800 m elevation. At higher elevation cherry laurel can be found in the brushwood of beech-fir forests or in coniferous forests of fir (*Abies nordmanniana*) or with spruce (*Abies nordmanniana* + *Picea orientalis*).

About 500 km southeast from the Caucasian stands there occur isolated stands of cherry laurel in the Talish Mts., in the valley of the Astara-čaj river (Grossheim, 1948). It is striking, that in the relict forests of Talish, as distinct from the forests of Colchis, evergreen shrubs are scanty (besides the cherry laurel only *Ilex hyrcana*, *Ruscus hyrcanus*, *Danaë racemosa* and *Hedera pastuchovii* occur) and do not form dense thickets. This has been caused by snowless winters and lower minimal temperatures than on the Black Sea shore on the one hand and by a shortage of precipitation in the summer on the other. Thus the shrubs appear only in the most favourable conditions, in moist ravines and gullies.

#### LOCALITIES IN W. ASIA

**Turkey.** Herbarium specimens: Auf Alemdagh. Berg an der Mündung des Schwartzten Meers, 2500', 4.1846 c. fl., Noë (E. K.); In silva frondosa Yalova, Istanbul, 1956, Regel (G.); Forêts au pied du village de Gueus Zédé, pied du revers nord du Mont Olympe de Bithynie, 6. 6. 1889 c. fl., Burnat (G.); Prov. Bolu: Düzce to Akçakoca, 320 m, *Fagetum*, 14. 7. 1962, Davis, Coode 37489 (E. K.); Prov. Bolu: Yedi göl to Karadere, 700 m; forest, local (with *Rh. ponticum*), 18. 7. 1962 c. fr., Davis, Coode, Yaltirik 37713 (E.); Prov. Zonguldak: 7 km W. of Kozlu, 20 - 30 m; in rocky limestone ravine (*Ostrya* forest), 16. 7. 1962 c. fr., Davis, Coode, Yaltirik 37613 (E. K.); In silva montana supra Zonguldak, 16. 5. 1956 c. fl., Regel (G.); Prov. Kastamonu: Azdavay to Cide, 40 km from Azdavay. Rocky limestone

cliffs and earthy slopes, 800 m, 31. 7. 1962, Coode, Yaltirik 38628 (E.); Prov. Kastamonu: pass between Küre and Inebolu, 1000 m, *Abies-Fagus* forest, 31. 7. 1962 c. fr., Davis 38558 (E.); Paphlagonia: Wilajet Kastambuli: Inebolu, in valle fluvii, 30. 4. 1892 c. fl., Sintenis 3717 (G. S.); Vilayet Samsun: Dütman Dag (Alaçam, 700 m, 5. 6. 1963 c. fl., Tobey 230 (E.); Trapezunt, 26. 4. 1890 c. fl., Sintenis 2048 (S.), and 25. 7. 1889, Sintenis 1433 (K. S.); Pontus: Sumila, in silvis prope Sta. Barbara, 7. 8. 1889, Sintenis 1789 (S.); Beyuik Han above Rize. Undergrowth in forest of *Fagus*, *Quercus*, *Pyrus* etc., 6000', 9. 8. 1934 c. fr., Balls 1928 (E.); Prov. Coruh (Artvin): Tiryal dağ above Murgul, 1700 m, *Rhododendron* scrub, 23. 6. 1957 c. fl., Davis, Hedge 29920 (E. K.); Lazistan, Ccharista, 600 m, 8. 8. 1917, Schishkin (L.E.); Monts Amanus: Djebel Mousa près d'Antioche, 2 - 4000', 7. 1909 c. fr., Manoog Haradjian 3195 (G. K.).

Literature: NE Strandsha-Gebirges (Hermann, 1936); Ravines above Cilingoz (Webb, 1966); Belgrad forest (Kayacik, 1955; Webb, 1966; Yaltirik, 1966); Sponte convallibus Bosphori, pr. Therapia (Tchihatcheff, 1860); In silvaticis regionis inferioris Thraciae, circa Byzanthium (Boissier, 1872); Bithyniae Olympo (Tchihatcheff, 1860; Boissier, 1872); NW Bolu Da, etwa 900 m, mit *Rhododendron ponticum* in kleinen Schluchten im Buchenwald (Wagenitz, 1963); Unterhalb vom Abant Gölü, etwa 1230 m (Wagenitz, 1963); Bithynia-Phrygia: in montosis silvaticis ad occasum opp. Bozujuk ad Deirmen-dere, 4. 7. 1929, Bernhard (Bornmüller, 1940); Bithynia: circa Hendek, in parte superiore vallis Ibrik-Dere in silva mixta, prope torrentem densa fruticeta, ca. 450 m, 13. 1. 1925 (Czeczott, 1939); ibidem, Ulu-Dere, una cum *Rhododendro* fruticeta constituens, 400 - 450 m, 3. 2. 1925 (Czeczott, 1939); Prov. Pontus, ad Trapezuntum, am Djemil-See, 30. 8. 1928, Bernhard (Bornmüller, 1940); Sandschak Trapezunt, ca. 700 - 1800 m: Vavera Dagh bei Trapezunt; bei Fol Köi; nordhang der Ulugoba; Delikli Tasch; unter der Kisyl Ali-Jaila auf dem Rücken gegen Eseli; Tschemlikdschi Deressi (Handel-Mazzetti, 1909); Col de Selderren, dans l'Amanus, 9. 1935, Delbès (Mouterde, 1959); Simsirlik. 17. 10. 1958 (Yaltirik, 1958).

**Iran.** Herbarium specimens: Tavalesh, Assalem (Aceretum), 1200 m, 19. 5. 1965 c. fl., Inst. d. Forets et Paturages à Karadj (W.); Yehlah-Guilan. Mountain forest-jungle. Common but local, 1936 c. fr., Lindsay 1017 (BM.); Prov. Mazanderan. In valle fluvii Talar. Inter Abbasabad et Čahi, ca. 400 m, 4. 8. 1937 c. fr., Rechinger 2058 (S. W.); Prov. Mazanderan. In valle fluvii Talar prope Shirgah, 300 m, c. fl., Gauba 424 (W.).

Literature: Bei Lahidschan, Vorberge 4. 4. 1848 (Buhse, Boissier, 1860); Im Schiforunthal (Talschgebirge) am Abhange, 20. 4. 1848 (Buhse, Boissier, 1860).

#### LITERATURE

1. Boissier E. — 1872. *Flora Orientalis*, 2, Basileae, Genevae, Lugundi.
2. Bornmüller J. — 1940. *Symbolae ad Floram Anatolicam*, 4/5 Lief., Feddes Repert. (Beih.) 89, 1: 165 - 260.
3. Browicz K. — 1961. The tree vegetation of the Bulgarian part of the Strandsha Planina, *Annal. d. l. Section Dendrologique d. l. Soc. Bot. d. Pologne* 15: 79 - 113 (in Polish).
4. Browicz K. — 1970. Distribution of woody *Rosaceae* VI, *Pyracantha coccinea* Roem., *Arboretum Kórnickie* 15: 17 - 27.
5. Buhse F., Boissier E. — 1860. *Aufzaehlung der auf einer Reise durch*



- Transcaucasien und Persien gesammelten Pflanzen, Nouv. Mém. Coc. Natur. Moscou 12.
6. Czeczott H. — 1937. The distribution of some species in Northern Asia Minor and the problem of Pontide, Bulletin d. Institut. Royales d'Hist. Natur. Sophia 10 : 43 - 68.
  7. Czeczott H. — 1939. A contribution to the knowledge of the flora and vegetation of Turkey, Feddes Repert. (Beih.) 107.
  8. Dolukhanov A. G. — 1961. Botanical excursion on the route to Signakhi, Lagodekhi, the Batzari gorge, in Botanical excursions over Georgia, 27 - 34, Tbilisi.
  9. Franco J. do A. — 1964. O azereiro e as ginjeiras bravas, Boletim d. Sociedade Portuguesa d. Ciencias Naturais, 2ª série 10 : 66 - 90.
  10. Grossheim A. A. — 1948. Rastitelnyj pokrov Kavkaza, Moskva.
  11. Grossheim A. A. — 1952. Flora Kavkaza, 5, Moskva-Leningrad.
  12. Handel-Mazzetti H. — 1909. Ergebnisse einer botanischen Reise in das Pontische Randgebirge im Sandschak Trapezunt, Ann. k. k. naturh. Hofmus. Wien, 23 : 6 - 212.
  13. Hegi G. — 1922. Illustrierte Flora von Mittel-Europa, 4, 2. München.
  14. Hermann F. — 1936. Die Pflanzendecke des Strandsha-Gebirges, Feddes Repert. (Beih.), 87.
  15. Hutchinson J. — 1964. The Genera of Flowering Plants, 1, Oxford.
  16. Kalkman C. — 1965. The Old World species of *Prunus* subg. *Laurocerasus* including those formerly referred to *Pygeum*, Blumea, 13, 1 : 1 - 115.
  17. Kayacik H. — 1955. The flora of Belgrad Forest, Istanbul Univ. Orman Fakult. Derg., 5, 1 - 2.
  18. Koehne E. — 1915. Zur Kenntnis von *Prunus* Grex *Calycopadus* und Grex *Gymnopadus* Sect. *Laurocerasus*, Bot. Jahr. 52: 279 - 333.
  19. Košanin N. — 1914. Lebensweise der Kirschlorbeers auf dem Berge Ostrozub in Serbien, Oesterr. Bot. Zeitschr., 64: 139 - 144, 183 - 200.
  20. Matikašvili V. I. — 1965. *Laurocerasus* Roem., in Dendroflora Kavkaza, 4 : 255 - 263, Tbilisi.
  21. Mouterde P. — 1959. Contribution à l'étude de la flore syrienne et libanaise, Bull. d. l. Soc. Bot. France, 106, 9 : 465 - 474.
  22. Panev L. — 1956. Über die Verbreitung und die Biologie des Kirschlorbeers (*Laurocerasus officinalis* Roem.) in Bulgarien, Bulletin d. l. Inst. Bot. Sofia, 5 : 229 - 262 (in Bulgarian).
  23. Rechinger K. H. — 1943. Ergebnisse einer botanischen Reise nach dem Iran, 1937, III Teil, Ann. Naturh. Mus. Wien, 53, 1 : 340 - 357.
  24. Roemer J. — 1847. Familiarum naturalium Regni Vegetabilis synopses monographicae, 3, Vimarinae.
  25. Schneider C. K. — 1906. Illustrierte Handbuch der Laubholzdunde, 1, Jena.
  26. Tchihatcheff P. — 1860, Asie Mineure 3, Botanique, Paris.
  27. Wagenitz G. — 1963. Zur Kenntnis der Flora und Vegetation Anatoliens, Willdenowia, 3, 2 : 221 - 288.
  28. Webb D. A. — 1966. The Flora of European Turkey, Proceedings of the Royal Irish Academy 65, Sect. B, No. 1 : 1 - 100.
  29. Yaltirik F. — 1958. Floristic observations on the southern part of Amanos Mountains, Revu Fac. Sc. Forest. Univ. Istanbul, 8, 2 : 208 - 211.
  30. Yaltirik F. — 1966. A study on the floristic analysis of vegetation of the Belgrad Forest and composition of the main stand types, Istanbul (in Turkish).
  31. Zohary M. — 1963. On the geobotanical structure of Iran, Bulletin of the Research Council of Israel, Sect. D. Botany, Suppl. to vol. 11D.

KAZIMIERZ BROWICZ

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## Streszczenie

*Laurocerasus officinalis* jest w Azji Zachodniej jedynym przedstawicielem rodzaju *Laurocerasus* Duh. Został tu odkryty bardzo dawno, bo już w 1546 roku, przez podróżnika francuskiego Pierre Belon'a, w okolicach miasta Trabzon. Z biegiem czasu okazało się, że poza Turcją występuje dziko także na Kaukazie, na półwyspie Bałkańskim oraz w północno-zachodnim Iranie. Jego porozrywany na kilka części zasięg pokrywa się niemal zupełnie z Euksyno-Hercyńską prowincją florystyczną. *L. officinalis* uważany jest za gatunek reliktowy, który w okresie trzeciorzędu miał zapewne o wiele większy zasięg, powiązany w jedną całość z zasięgiem zachodnio-europejskiego *L. lusitanica* (L.) Roem.

Autor omawia występowanie *L. officinalis* w oparciu o bogate zbiory zielnikowe i dane z literatury. Na tej podstawie opracował on punktową mapę rozmieszczenia znanych do tej pory stanowisk. Laurowiśnia wschodnia rośnie w następujących krajach:

1. Jugosławia — tylko na górze Ostrozub w Serbii.

2. Bułgaria. W tym kraju zasięg *L. officinalis* podzielony jest na dwie części: a) pasmo Starej Planiny, b) góry Strandży. W pierwszej części laurowiśnia występuje w lasach bukowych i tworzy charakterystyczny zespół — *Fagetum silvaticum laurocerasosum*, między 300 - 1600 m n.p.m. Z drugiej części zasięgu podawana jest już z innego zespołu — *Fagetum orientale rhododendrosom*, z wysokości między 100 - 400 m n.p.m.

3. Turcja. Zasięg laurowiśni w Turcji składa się z trzech części: a) wąski pas nadbrzeżny Morza Czarnego od gór Strandży na północnym-zachodzie do miejscowości Alaçam na wschodzie; b) po około 350 kilometrowej przerwie *L. officinalis* występuje znów w pobliżu Trabzon i górami Pontyjskimi dociera na wschodzie do Kaukazu; c) trzecia część zasięgu przypada na góry Amanos, gdzie laurowiśnia została odkryta w 1909 roku przez Manoog Haradjian'a (*in sched.*). W północnej Anatolii gatunek ten rośnie przede wszystkim w podszyciu lasów buka wschodniego (*Fagus orientalis*), na wysokości od 20 - 30 m n.p.m. aż do około 2000 m; w górach Amanos między 650 - 1300 m n.p.m.

4. Iran. Laurowiśnia występuje w Iranie tylko w przykaspjskim, leśnym rejonie, od granicy z ZSRR na północy, aż po dolinę rzeki Talar na wschodzie, między 300 - 1200 m n.p.m.

5. ZSRR (Kaukaz i góry Tałyszu). Na Kaukazie zasięg *L. officinalis* rozciąga się wzdłuż wybrzeży Morza Czarnego, mniej więcej od Tuapse po granicę turecką i sięga głębokim klinem w centralne Zakaukazie, do Kachetii, na wschód od tbiliskiego południka. Głównym obszarem występowania laurowiśni jest jednak zachodnie Zakaukazie (Abchazja, Kolchida, Adżaria), skąd podawana jest prawie ze wszystkich leśnych rejonów. Rośnie niemal że od samych wybrzeży Morza Czarnego po 2400 m n.p.m. W odległości około 500 km na południowy-wschód od tych kaukaskich stanowisk nieliczne stanowiska laurowiśni znane są jeszcze z gór Tałyszu, z wozu rzeki Astara-čaj.

КАЗИМЕЖ БРОВИЧ

*Laurocerasus officinalis* Roem.

## Резюме

Вид этот является в Западной Азии единственным представителем рода *Laurocerasus* Duh. Открыт он здесь очень давно (в 1546 г.) французским путешественником Пьером Белоном в окрестностях Трабзона. В дальнейшем оказалось, что, кроме Турции, он встречается в дикорастущем состоянии также на Кавказе, на Балканском полуострове и в северо-западном Иране. Его ареал, разорванный на несколько частей, почти полностью совпадает с Евксино-Герцинской флеристической провинцией. *L. officinalis* считается реликтовым видом, имевшим в третичном периоде значительно больший ареал, составляющий едное целое с ареалом западно-европейского вида *L. lusitanica* (L.) Roem.

Автор анализирует распространение вида, опираясь на богатые гербарные сборы и на литературные данные. На их основе он обработал точечную карту размещения всех до сих пор известных местонахождений вида. Он произрастает в следующих странах:

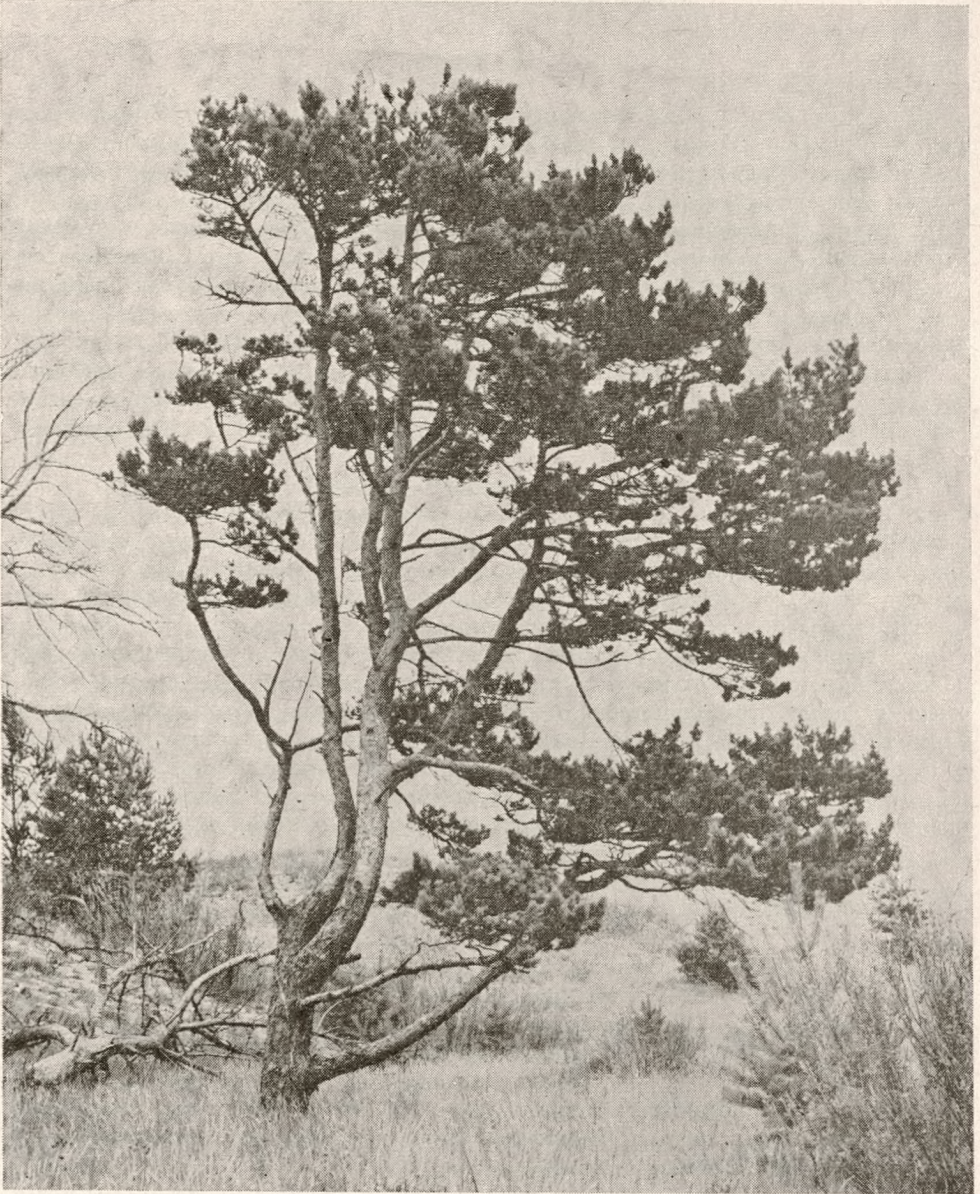
1) Югославия — только на горе Острозуб (Сербия).

2) Болгария. В этой стране ареал вида разделен на две части: а) хребет Стара-Планина, б) хребет Странджа. В первой из них лавровишня растёт в буковых лесах, образуя характерную ассоциацию *Fagetum silvaticum laurocerasosum* (между 300 и 1600 м над ур. м.). Во второй части указывается из другой ассоциации — *Fagetum orientale rhododendrosum* (100 - 400 м над ур. м.).

3) Турция. Ареал вида слагается здесь из трёх частей: а) узкая прибрежная полоса Чёрного моря от хребта Странджа на северо-западе до Алачама на востоке; б) после 350-километрового хиатуса лавровишня встречается вновь по близости от Трабзона и вдоль Понтийских гор доходит на востоке до Кавказа; в) третья часть приурочена к горам Аманос, где вид был открыт в 1909 г. (Manoog Haradjian, *in sched.*). В северной Анатолии лавровишня растёт прежде всего в подлеске лесов из *Fagus orientalis* на высотах от 20-30 до 2000 м над ур. м.; в Аманосе он встречается между 650 и 1300 м над ур. м.

4) Иран. Встречается только в Прикаспийском лесном районе, от границы с СССР на севере до долины реки Тальяр на востоке, между 300 и 1200 м над ур. м.

5) СССР (Кавказ и горы Тальша). Ареал простирается вдоль побережья Чёрного моря, от Туапсе до турецкой границы и глубоко вклинивается в Центральное Закавказье, до Кахетии на восток от тбилисского меридиана. Но главная область распространения лавровишни приурочена к западному Закавказью (Абхазия, Колхида, Аджария), где её находят почти во всех лесных районах. Растёт почти от самого берега моря до 2400 м над ур. м. В 500 км на юго-восток от этих кавказских местонахождений немногочисленные находки лавровишни приводятся с гор Тальша, из ущелья реки Астарачай.



Fot. K. Jakusz

Sosna zwyczajna (*Pinus silvestris* L.) na wydmach Półwyspu Helskiego