

Lignicolous macrofungi from Turkey and Iran

TUOMO NIEMELÄ and PERTTI UOTILA

NIEMELÄ, T. & UOTILA, P. 1977: Lignicolous macrofungi from Turkey and Iran. — *Karstenia* 17: 33—39.

Thirty-two species of Aphyllophorales, consisting of polypores, stereoid Corticiaceae and Schizophyllaceae, are reported from Turkey and Iran. The most notable finds are *Stereum gausapatum* (Fr.) Fr., *S. insignitum* Quéél., *Coltricia spathulata* (Hook.) Murr., *Phellinus tremulae* (Bond.) Bond. & Borisov, *Fistulina hepatica* Fr., *Daedaleopsis confragosa* (Fr.) J. Schroet. s.lat., *Lenzites warnieri* Dur. & Mont., *Podofomes trogii* (Fr.) Pouzar, *Buglossoporus pulvinus* (Pers.) Donk and *Incrustoporia nivea* (Jungh.) Ryv. The list contains several species evidently recorded for the first time from Turkey or Iran.

Tuomo Niemelä & Pertti Uotila, Department of Botany, University of Helsinki, Unioninkatu 44, SF-00170 Helsinki 17, Finland

Considerable attention is being paid at present to the vascular plants of Turkey and Iran, but only fragmentary records exist on the fungal flora of the region, and few of these relate to the macrofungi.

Until now, about 80 species of Polyporaceae and stereoid Corticiaceae have been reported from Turkey and Iran. This suggests that possibly a half of the macrofungi of these countries is still unrecorded. There are no floras or monographic studies of the Aphyllophorales covering the study area. The closest ones are the fungus flora of Soviet Armenia by Melik-Haçatryan & Martirosyan (1971), and, to some extent, that of Bondarcev (1953).

The most considerable of the older studies on the Aphyllophorales flora of the area is that of Pilát (1932) from the Ilgaz Dağları mountains (A4/5 Çankiri/Kastamonu). Notable recent contributions to the literature are the studies of Lohweg (1963) from the Belgrad forest near A2(E) Istanbul, of Kotlaba (1976), mainly from C5/6 Hatay in Turkey, and of Saber (1972, 1974), Watling & Sweeney (1974) and Soleimani (1976) from N Iran, mostly the Hyrcanian forest area.

Material

The material for the present study was collected by Dr. Ilkka Kukkonen, Mr. Mauri Korhonen and the author Uotila during the Finnish botanical expedition to West-Central Asia in 1972 (for itinerary, see Kukkonen & Uotila 1976). The total number of fungi collected is ca. 750, of which ca. 570 are macrofungi. Collections were chiefly made in Bavaria in Germany, Montenegro in Yugoslavia, NW Tur-

key, the Hyrcanian forest area in N Iran, the mountains N of Rawalpindi in Pakistan, and NW India (Himachal Pradesh).

The material is deposited in H. The most complete duplicate sets of Turkish and Iranian fungi are in E and K; other duplicates will be sent later on an exchange basis.

The majority of the specimens listed in this paper were identified by the author Niemelä, and a few by Dr. Leif Ryvarde (Oslo, Norway), the determinations of the latter being indicated in the text. Apart from the groups dealt with here, notes on the macrofungi collected in Turkey, Iran and Afghanistan will be published separately (Watling & Gregory 1977).

The nomenclature of the pore fungi follows Donk (1974), with some alterations.

Main collecting sites

Collections were made from 20 localities, of which the most frequently mentioned are listed below. The localities are numbered as in the complete list of collecting sites visited on the expedition (Kukkonen & Uotila 1976).

Turkey

Locs. 61, 313, 314. A3 Bolu, ca. 15 km W of Bolu by road E5, Koru Motel, alt. 850 m. — **Loc. 61.** Margin of mixed forest by a rivulet, April 12, 1972. — **Loc. 313.** Mixed forest with *Fagus* and *Abies bornmuelleriana* on gentle, roughly N-facing slope, Aug. 30, 1972. — **Loc. 314.** Gentle, roughly S-facing meadow slope with solitary trees and bushes, Aug. 30, 1972.

Loc. 316. A3 Izmit (Kocaeli), Lake Sapanca Gölü, 3 km W of Saracoğlu Motel, orchard on lake shore, alt. 40 m. Sept. 1, 1972.

Loc. 317. A2(E) Istanbul, ca. 25 km N of Istanbul, Belgrad forest, UTM:PF3, oak and beech wood on steep N-facing slope, alt. ca. 200 m, Sept. 3, 1972.

Iran

Locs. 95, 96, 245, 246. Khorasan, Tangehbol, Mohammad Reza Shah Wildlife Park. — **Loc. 95.** Deciduous *Quercus castaneefolia* forest on fairly open, steep S-facing slope in mountains just N of the station buildings, alt. 1000 m, Aug. 3, 1972. — **Loc. 96.** Old, fairly open *Acer velutinum* forest by the river W of the station, alt. ca. 600 m, May 1, 1972. — **Loc. 245.** Yard of the office buildings with solitary trees and bushes, alt. 650 m, Aug. 3, 1972. — **Loc. 246.** Ravine with small brook and luxuriant mixed deciduous forest just N of the office buildings, alt. 650 m, Aug. 3, 1972.

Loc. 251. Mazandaran, ca. 65 km E of Gorgan along highway, dense mixed deciduous forest by road, alt. 70 m, Aug. 6, 1972.

Corticiaceae

Stereum gausapatum Fr.

Turkey: A2(E) Istanbul, loc. 317, on stump, Uotila 20223.

Recorded from NW Turkey by Lohwag (1957a, 1963), and from N Iran by Watling & Sweeney (1974).

S. hirsutum (Fr.) S.F. Gray

Turkey: A1(E) Edirne, loc. 50, Kesan, ca. 10 km W of road crossing to Çanakkale by road E5, UTM:MF4, stump of *Quercus*, April 8, 1972 Uotila 14885; A3 Bolu, loc. 313, twig of deciduous tree, Uotila 20091; A3 Bolu, loc. 314, wooden post of deciduous tree, Uotila 20032. — Iran: Mazandaran, loc. 89, ca. 20 km E of Gorgan on road to Mashhad, alt. 70 m, *Parrotia persica* forest, April 29, 1972 Kukkonen 5639.

Common and frequently reported species in both countries (von Keissler 1900, Rostrup 1908, Lohwag 1957a, 1963, Saber 1974, Kotlaba 1976, Soleimani 1976).

S. insignitum Quéf.

Det. Leif Ryvarde 1977

Turkey: A2(E) Istanbul, loc. 317, decaying twig of deciduous tree, Uotila 20210.

The first record from Turkey. This species has a mainly Mediterranean to Submediterranean — Atlantic distribution and is known only from Europe (Jahn 1971).

Schizophyllaceae

Schizophyllum commune Fr.

Iran: Mazandaran, loc. 86, ca. 10 km N of Amol on road from Tehran to the Caspian coast, alt. 30 m, moist mixed forest with *Alnus*, *Pterocarya*, etc., on *Alnus subcordata*, April 28, 1972 Uotila 15953; Khorasan, loc. 246, twig of deciduous tree, Kukkonen 7672.

Common species in both countries (Rabenhorst 1871, Rostrup 1908, Petrak 1939, Lohwag 1957a,b,

1963, Watling & Sweeney 1974, Kotlaba 1976, Soleimani 1976).

Hymenochaetaceae

Coltricia spathulata (Hooker) Murrill

Det. Leif Ryvarde 1977

Iran: Mazandaran, loc. 259, ca. 27 km S of Amol on the road to Tehran, alt. 320 m, deciduous forest on steep E-facing slope, on ground, Aug. 9, 1972 Uotila 19317.

Fruit body centrally stipitate, rigid when dry. Cap lobed, 4 cm in diam.; stipe 1 cm long, 0.5–0.8 cm thick, flattened. Surface of pileus with low tomentum, cinnamon brown, subzonate, at margin lighter brown, silky. Context 4 mm or thinner, duplex, layers separated by thin black border zone. Tubes 1 mm or shorter, pore layer light cinnamon, pores round, 7–9 per mm. Monomitic, hyphae brown, simple-septate, in trama 2 μ m in diam., in lower layer of context parallel and 3–4 μ m in diam., in spongy upper layer of context interwoven and 3–6 μ m in diam. No setae. Spores ellipsoid, smooth, pale yellowish, 2.5–3.5 \times 2.3–3.0 μ m negative in Melzer's reagent, cyanophilous.

New to Iran. The main distributional area of this uncommon species is in tropical and subtropical America (Murrill 1915, Fidalgo & Fidalgo 1968, Dennis 1970).

Inonotus hispidus (Fr.) Karst.

Turkey: A3 Izmit, loc. 316, on apple tree in orchard, Korhonen 1150.

Apparently a common species in the region, reported by Lohwag (1957a, b, 1963), Saber (1974), Kotlaba (1976) and Soleimani (1976).

Phaeolus schweinitzii (Fr.) Pat.

Turkey: A3 Bolu, loc. 313, Uotila 20084.

The specimen is a young, ca. 7 cm tall stipitate fruit body, which has grown on ground under *Abies bornmuelleriana*. It is typical of the species, with tobacco brown surface and context, sulphur yellow margin, clampless hyphae and capitate cystidia.

The inclusion of the genus *Phaeolus* in the Hymenochaetaceae is questionable. Though resembling *Inonotus*, *Coltricia* and other genera of the family in having brown clampless hyphae and in external appearance, it differs from them clearly in having capitate cystidia, and in causing brown rot. This is one example of the difficulties of delimiting the family. The chemotaxonomical studies pursued at present in France, Estonia and elsewhere may

help to solve these problems. Our present treatment of *Phaeolus* reflects current practice rather than our personal view.

P. schweinitzii has been reported earlier from Turkey by Pilát (1932, 1936—1942) and Lohwag (1957a, b).

Phellinus igniarius (Fr.) Quél.

Turkey: B7 Erzurum, Gölouga, alt. 1230 m, Aug. 22, 1972, Korhonen 1120.

This specimen, though externally confusingly similar to *P. robustus* (Karst.) Bourd. & Galz., has an inner structure typical of *P. igniarius* var. *igniarius*, with thick, smoky brown context, index-trinoid spores $5.2\text{--}6.0 \times 4.3\text{--}5.0 \mu\text{m}$, subulate setae $12\text{--}17 \times 6\text{--}7 \mu\text{m}$, and interwoven skeletal hyphae in the dissepimental trama.

P. igniarius has been reported several times from Turkey, but sight determinations are highly unreliable in this group of polypores, and the complex has been studied critically only during some ten years (cf. Niemelä 1975), so that older records must be considered uncertain. However, the record of Kotlaba (1976) from Ankara-Hasköy most probably refers to the species in the strict sense.

P. pomaceus (S.F. Gray) Maire

Turkey: A3 Bolu, loc. 313, on dead *Prunus* in open place, Uotila 20069.

The specimen has yellowish brown context, spores measuring $5.1\text{--}6.0 \times 4.0\text{--}4.6 \mu\text{m}$, subulate setae, and the context hyphae subparallel.

P. pomaceus has been reported many times from both Turkey and Iran, and seems to be one of the commonest species of *Phellinus* there. *P. pomaceus* and its world distribution is discussed more closely by Niemelä (1977).

P. torulosus (Pers.) Bourd. & Galz.

Turkey: A2(E) Istanbul, loc. 317, Uotila 20217; A3 Izmit, loc. 316, on apple tree, Korhonen 1153.

Reported from both Turkey (Lohwag 1957a, 1963, Kotlaba 1976) and Iran (Saber 1972, 1974, Soleimani 1976). *P. torulosus* grows most often on *Quercus*, but also on numerous other hardwoods. The apple tree is an uncommon, though not impossible host.

P. tremulae (Bond.) Bond. & Borisov

Turkey: A3 Bolu, loc. 313, Korhonen 1189.

One specimen, evidently from *Populus tremula*. Though small, the fruit body possesses a pronounced core, characteristic of the species. Spores $5.0\text{--}5.5 \times 3.9\text{--}4.0 \mu\text{m}$, setae $19\text{--}25 \times 6.5\text{--}7.0 \mu\text{m}$. These and other microscopic characters fit those of the N European material well (Niemelä 1974), and the parallel dissepimental hyphae rule out the possibility that the specimen is *P. igniarius*.

Reported earlier from Turkey (Kotlaba & Pouzar 1968, Kotlaba 1976, and evidently also Lohwag's 1963 record of *P. igniarius* 'an Aststellen von Pappeln'), this species may be even commoner than *P. igniarius* in Turkey.

Ganodermataceae

Ganoderma adpersum (Schulz.) Donk

Turkey: A6 Samsun, loc. 301, near Black Sea coast, ca. 60 km E of Samsun, 1 km E of Terme river, *Salix* cf. *alba* row between road and field, on *Salix* cf. *alba*, alt. 10 m, Aug. 26, 1972 Kukkonen 8180.

One fruit body, ca. 10.5 cm wide, projecting 7.5 cm, 1.5 cm thick at base. Crust not resinous, chocolate brown with indistinct zones; pore surface light with yellowish or greenish tint. Spores $10\text{--}11 \times 6.3\text{--}7.2 \mu\text{m}$.

G. adpersum has been reported from Turkey, C5 Adana and Hatay, by Kotlaba (1976), and from Iran by Saber (1972, 1974) and Soleimani (1976).

G. applanatum (S.F. Gray) Pat.

Turkey: A3 Bolu, loc. 313, on stump of *Fagus*, Korhonen 1194.

Reported earlier from both Turkey (Lohwag 1957a, 1963) and Iran (Saber 1972, Watling & Sweetney 1974, Soleimani 1976).

G. lucidum (Fr.) Karst.

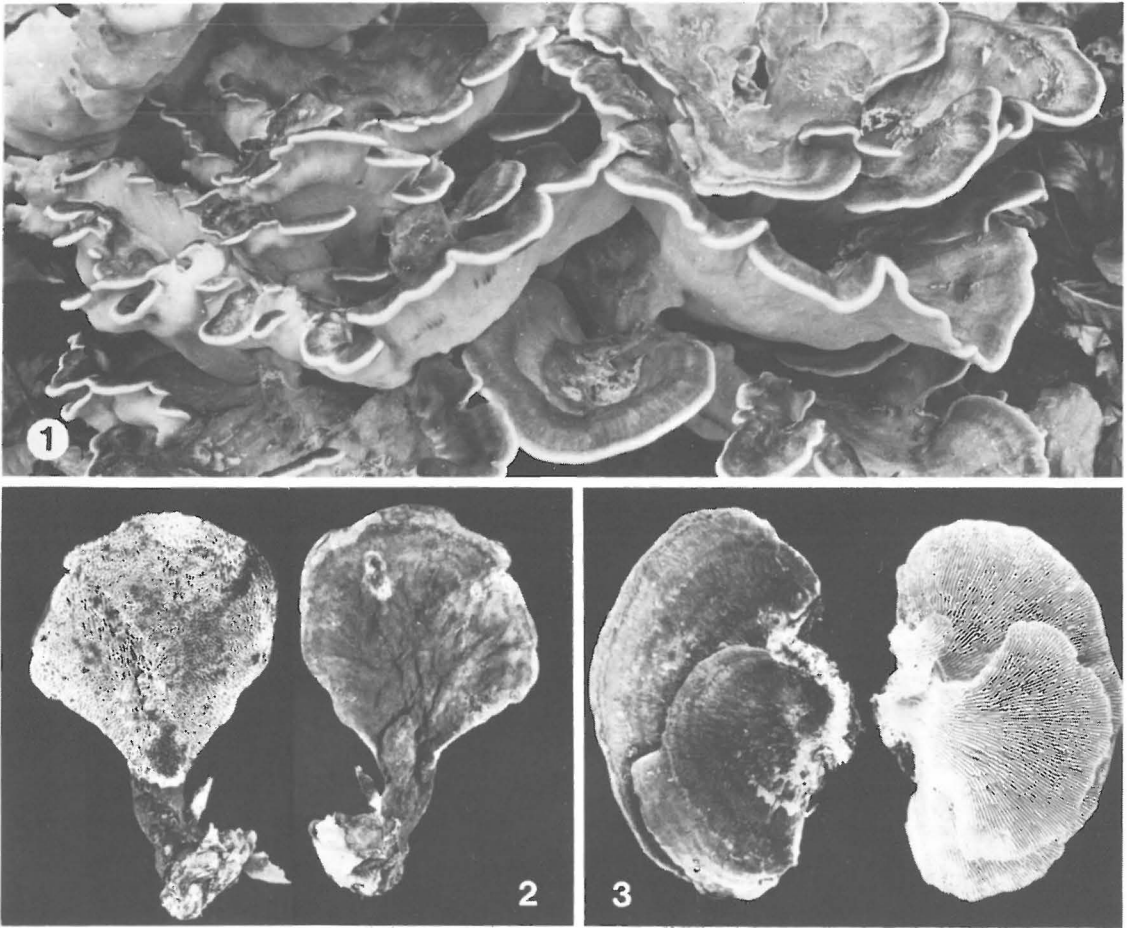
Turkey: A2(E) Istanbul, loc. 317, decaying stump of deciduous tree, Uotila 20225; A1(E) Tekirdağ, loc. 318, ca. 25 km W of Tekirdağ, UTM:Nf2, alt. 140 m, waste land on roadside, on stump, Uotila 20194.

Earlier records from both Turkey (Pilát 1932, Lohwag 1957a, 1963) and Iran (Khabiri 1958, Saber 1972, Soleimani 1976).

Fistulinaceae

Fistulina hepatica (Schaeff.) Fr.

Turkey: A2(E) Istanbul, loc. 317, stump of *Quercus* cf. *trojana*, Uotila 20196.



Figs. 1—3. — 1: *Meripilus giganteus*, $\times 0.4$ (specimen Korhonen 1170). — 2: *Podofomes trogii*, $\times 0.9$ (Uotila 20090). — 3: *Daedaleopsis confragosa* s.lat., $\times 0.9$ (Korhonen 1146). Photo: Mauri Korhonen.

Evidently the first record of the species from Turkey. Soleimani (1976) reports it from Iran, Bondarcev (1953) mentions collections from the Crimea and the N Caucasus, and Melik-Hačatryan & Martirosyan (1971) from Soviet Armenia.

Polyporaceae s. lat.

Buglossoporus pulvinus (Pers.) Donk
(*Piptoporus quercinus* (Schrad.) Karst.)

Turkey: A3 Bolu, loc. 314, on large decaying stump, Uotila 20095.

The substrate could not be identified, but the surrounding vegetation suggests that the most probable host is *Quercus*. The collection consists of large

(projecting up to 14 cm), lateral fruit bodies with a chestnut brown surface, darkened tube layer, and up to 4 cm thick, light-weight corky context. The specimens agree with the species as it occurs in C Europe.

To our knowledge, *B. pulvinus* has not been reported earlier from either Turkey or Iran. Its occurrence in the area might be expected, as it has been reported from the S Urals (Stepanova-Kartavenko 1967), the Ukraine and the SE Caucasus (Bondarcev 1953).

Daedalea quercina Fr.

Iran: Khorasan, loc. 246, Korhonen 1125.

Reported from Iran by Saber (1972) and Watling & Sweeney (1974), and from Turkey, A2(E) Istanbul, by von Keissler (1900) and Lohwag (1957a, 1963).

Daedaleopsis confragosa (Fr.) J. Schroet. — Fig. 3.
Det. Leif Ryvarden 1977

Iran: Khorasan, loc. 246, on dead, standing *Parrotia persica*, Korhonen 1146.

The specimens are applanate, 6–9 cm wide, at base 4–7 mm thick. Surface matt, subzonate, at base nodulous, cork to chocolate brown. Hymenophore in young specimens with elongated pores, in mature fruit bodies with repeatedly dichotomously branched low lamellae, in margin 2–3 per mm.

This thin form with low lamellae belongs to *D. confragosa* in the wide sense. The species is also reported from Iran by Saber (1972).

Fomes fomentarius (Fr.) Fr.

Turkey: A3 Bolu, ca. 15 km W of Bolu by road E5, Kuru Motel, April 12, 1972 (sight record; specimens used for decorative purposes in the restaurant of the motel). — Iran: Mazandaran, Hyrcan forest near Babol on Caspian coast, trunk of deciduous tree, Aug. 7, 1972 (specimen lost); Ostanemarkazi, Tehran, Gol-e-Sahra Camping, April 1972 (sight record; specimens used for decorative purposes in the restaurant of the camping ground, and introduced from areas N of Tehran).

In all cases the fruit bodies were exceptionally large compared with specimens from N Europe. *F. fomentarius* has been reported from Turkey by Lohwag (1957a, b, 1963), and from Iran by Khabiri (1958), Saber (1972, 1974) and Soleimani (1976).

Fomitopsis pinicola (Fr.) Karst.

Turkey: A3 Bolu, loc. 313, stump of *Alnus*, Uotila 20083.

Earlier reported from Turkey by Pilát (1932, 1936–1942) and Lohwag (1957a, b), and from Iran by Saber (1972) and Soleimani (1976).

Gloeophyllum abietinum (Fr.) Karst.

Turkey: A3 Bolu, loc. 313, decaying wooden post, Uotila 20081.

The collection consists of several neat fruit bodies with light smoky brown to sepia colouration and distinct lamellae. Spores 12–13 × 4.0–4.3 μm, hymenium with ca. 35 × 5 μm cystidia, often with slight encrustation at tip.

G. abietinum has been reported earlier from Turkey by Pilát (1932, 1936–1942) and Lohwag (1957a, b).

Hirschioporus pargamenus (Fr.) Bond. & Sing.

(*Trichaptum biformis* (Kl.) Ryv., according to Ryvarden 1972)

Iran: Khorasan, loc. 96, decaying trunk of deciduous tree, Uotila 16196; Khorasan, loc. 246, trunk of *Quercus semecarpifolia*, Korhonen 1124b (conf. L. Ryvarden 1977), 1128 (conf. L. Ryvarden 1977).

Reported by Saber (1972, 1974) from Iran. Also Soleimani's (1976) record of *H. abietinus* (Fr.) Donk, on a broad-leaved tree, might in fact be this species. *H. pargamenus* was reported from European Turkey by Lohwag (1957a, 1963).

Incrustoporia nivea (Jungh.) Ryv.

(*I. semipileata* (Peck) Donk)

Turkey: A2(E) Istanbul, loc. 317, Uotila 20213.

Evidently collected from *Fagus*. The collection consists of several small effused-reflexed specimens, cream-coloured with some greyish patches. Pores rounded, very small, 9–12 per mm. Spores allantoid, 3.0–3.5 × 0.7 μm. Hyphal tips at dissepiment edges encrusted.

This is evidently the first record of *I. nivea* from this region. It is widely distributed in the W Mediterranean area, and so the find of the species from Turkey was not unexpected.

Lenzites betulina (Fr.) Fr.

Iran: Mazandaran, loc. 251, Korhonen 1147.

These hirsute, compact specimens are typical of the species. They were growing laterally or in rosettes on the upper part of the trunk.

This species has been reported earlier by Lohwag (1963) and Soleimani (1976).

L. warnieri Dur. & Mont.

(*L. reichardtii* Schultz., *Trametes quercina* f. *lenzitoidea* Pilát)

Iran: Khorasan, loc. 96, Korhonen 1130.

The fruit bodies are robust, 2–3.5 cm thick at base, the largest of the four specimens collected measuring 15 × 23 cm. The pilei are rather old and weathered, but they show the typical glabrous, tubercular surface, and widely spaced gills, at margin 6–7 (–8) per cm. The spores are elliptic, 7.5–7.7 × 3.1–3.2 μm.

No records of this species were found in the study area, but *L. warnieri* has been reported from some adjacent regions: SE Yugoslavia (Tortić 1972), Bulgaria (Pilát 1936–1942), and many places in the southern U.S.S.R., viz., Armenia (Melik-Hačatryan & Martirosyan 1971), the Caucasus, Georgia and Turkmenistan (Bondarcev 1953) and Kazakhstan (Švarcman 1964). It is a S European — Mediterranean species, and its range also includes Czechoslovakia (Pilát 1936–1942), Austria (Passauer 1976), Hungary (Igmándy 1962), France (David 1967, Marchand 1975), Algeria (Donk 1974) and Morocco (Pilát 1936–1942). Igmándy (1962) and Tortić (1972) write that this species occurs in riverside forests and flooded areas. The present find from *Acer velutinum* forest by the river supports this observation.

Meripilus giganteus (Fr.) Karst. — Fig. 1.
Turkey: A2(E) Istanbul, loc. 317, Korhonen 1170.

Evidently the first record from Turkey. Reported from Iran by Saber (1972) and Soleimani (1976).

Podofomes trogii (Fr.) Pouzar — Fig. 2.
(*Ischnoderma trogii* (Fr.) Donk)

Turkey: A3 Bolu, loc. 313, on ground, Uotila 20090.

Fruit body laterally stipitate, cap roundish, 4 × 4 cm, ca. 8 mm thick at base, stipe 2.5 cm long. Stipe and pileus dark sepia brown, matt. Pores elliptic to angular, 2.5–3 per mm, light greyish brown, similar in colour to *Aporpium caryae* (Schw.) Teix. & Rogers, and darkening similarly when bruised. Spores ellipsoid, 5.0–5.4 × 2.6–3.0 μm, with distinct guttules and thin, nonamyloid, indextrinoid, acyanophilous walls. Hyphal system dimitic with strongly cyanophilous skeletal hyphae.

This rare species was first reported from Turkey by Pilát (1932, as *Ungulina corrugis* (Fr.) Bourd. & Galz.). It has also been mentioned from the adjacent area of the southern U.S.S.R., from the Caucasus (Bondarcev 1953) and Kazakhstan (Švarcman 1964), in both cases as *Pelloporus corrugis* (Fr.) Bond. & Sing. It has a wide, though scattered, distribution in C and S Europe.

Polyporus anisoporus Del. & Mont.

Iran: Khorasan, loc. 96, Korhonen 1129.

The specimens are rather small, the centrally stipitate pileus ca. 3 cm in diameter, leather brown to light ochraceous, with no clear scales but with a strigose margin; stipe ca. 2 cm, straw-coloured,

upper part glabrous, lower half tomentose. Pores elongated, 1–2 mm long in dry specimens. Spores 7.0–8.5 × 2.8 μm.

The taxonomy of this group of polypores is not yet settled, but these specimens agree with *P. anisoporus*, as described by Domański et al. (1973). *P. arcularius* Fr., which may mean the same species, has been reported from Turkey (Lohweg 1963) and Iran (Soleimani 1976).

Rigidoporus ulmarius (Fr.) Imazeki

Iran: Mazandaran, loc. 86, ca. 10 km N of Amol, road from Tehran to the Caspian coast, moist mixed forest with *Alnus*, *Pterocarya*, etc., alt. 30 m, April 28, 1972 Korhonen 1121; Mazandaran, loc. 257, ca. 10 km N of Amol, alluvial forest with *Carpinus*, *Quercus*, *Alnus*, etc., alt. 0 m, Aug. 8, 1972 Kukkonen 7814.

Fruit bodies large, cream to cork-coloured and tuberculate, pore layer with reddish tint. Hyphal system monomitic, hyphae simple septate. Spores subglobose, 6.0–7.4 × 5.9–6.8 μm.

Reported earlier from Iran (Saber 1972, 1974, Soleimani 1976) and Turkey (Lohweg 1957a, 1963, Kotlaba 1976).

Trametes gibbosa (Fr.) Fr.

Turkey: A3 Bolu, loc. 61, stump of cf. *Fagus*, Korhonen 1119.

Reported from European Turkey by Lohweg (1957a, 1963), and from Iran by Khabiri (1958) and Saber (1972).

T. hirsuta (Fr.) Pilát

Turkey: A3 Bolu, loc. 60, Boludaği Pass on E5 road to Ankara, ca. 20 km E of Düzce, alt. 650 m, *Rhododendron* — *Fagus* forest on the fairly steep northern slope, on stump of *Fagus*, April 12, 1972 Kukkonen 5387. — Iran: Khorasan, loc. 245, on decaying twig on ground, Uotila 19054; Mazandaran, loc. 251, Korhonen 1147.

The specimens Kukkonen 5387 and Korhonen 1147, determined by Leif Ryvarden, represent a form with low, soft hairs corresponding to *T. velutina* (Fr.) Cunningham (Ryvarden in litt.).

Reported from Turkey by Lohweg (1957a, b, 1963), and from Iran by Rostrup (1908), Petrak (1949), Saber (1972), Watling & Sweeney (1974) and Soleimani (1976).

T. versicolor (Fr.) Pilát

Turkey: A2(E) Istanbul, loc. 317, decaying root of deciduous tree, Uotila 20191; A3 Bolu, loc. 313, stump of *Fagus*,

Korhonen 1192, Uotila 20092; A3 Izmit, loc. 316, on rotten wood, Korhonen 1151. — Iran: Mazandaran, loc. 251, rotten twig on ground, Uotila 19231.

One of the most common species of the polypores in both countries. Reported many times, from Turkey by von Keissler (1900), Lohwag (1957a, b, 1963) and Kotlaba (1976); from Iran by Rabenhorst (1871), Khabiri (1958), Saber (1972, 1974), Watling & Sweeney (1974) and Soleimani (1976).

Acknowledgements. The authors are indebted to Dr. Leif Ryvarden (Oslo, Norway) for determining some specimens, to Dr. František Kotlaba and Dr. Zdeněk Pouzar (Praha, Czechoslovakia), and Dr. Roy Watling (Edinburgh, Scotland) for helping to check previous literature. We wish to express our thanks also to the other members of the expedition (Dr. Ilkka Kukkonen and Mr. Mauri Korhonen, Helsinki) for placing their material at our disposal, and to the institutions and foundations (listed in Kukkonen & Uotila 1976) which gave financial support to the expedition.

References

- Bondarcev, A.** 1953: Trutovye griby evropejskoj časti SSSR i Kavkaza. — 1106 pp. Moskva—Leningrad.
- David, A.** 1967: *Lenzites reichardtii* Schulz., espece nouvelle pour la flore Française. — Bull. Soc. Linn. Lyon 36: 155—163.
- Dennis, R.** 1970: Fungus flora of Venezuela and adjacent countries. — Kew Bull. Additional Ser. 3: 1—531.
- Domański, S., Orłóš, H. & Skirgiello, A.** 1973: Fungi: Polyporaceae 2, Mucronoporaceae 2, Ganodermataceae, Bondarzewiaceae, Boletopsidaceae and Fistulinaceae. — 332 pp. Warsaw.
- Donk, M.** 1974: Check list of European polypores. — 469 pp. Amsterdam.
- Fidalgo, O. & Kauffmann Fidalgo, M.** 1968: Polyporaceae from Venezuela 1. — Mem. New York Bot. Garden 17: 1—34.
- Igmándy, Z.** 1962: A feketé lemezestapló (*Lenzites reichardtii* Schulzer). — Erdészettudományi Közlemények 1962(1): 137—146.
- Jahn, H.** 1971: Stereoidé Pilze in Europa ... — Westfälische Pilzbrieft 8: 69—176.
- von Keissler, K.** 1900: Fungi. In: Fritsch, K. (ed.), Beitrag zur Flora von Constantinopel. — Denkschr. Kaiserl. Akad. Wiss. Math.-Naturw. Classe 68: 219—250.
- Khabiri, E.** 1958: Contribution à la mycoflore de l'Iran, troisième liste. — Rev. Mycol. 23: 408—412.
- Kotlaba, F.** 1976: Contribution to the knowledge of the Turkish macromycetes. — Česká Mykol. 30: 156—169.
- Kotlaba, F. & Pouzar, Z.** 1968: Někteřé nové poznatky o ohřovci osikovém — *Phellinus tremulae* (Bond.) Bond. & Borisov. (Summary: Some new data concerning *Phellinus tremulae* (Bond.) Bond. & Borisov) — Česká Mykol. 22: 279—295.
- Kukkonen, I. & Uotila, P.** 1976: Finnish botanical expedition to West-Central Asia in 1972. — Pamphlet Bot. Mus. Univ. Helsinki 7: 1—21.
- Lohwag, K.** 1957a: Ein Beitrag zur Pilzflora der Türkei. — Istanbul Orman Fak. Dergisi (Ser. A) 7: 118—128.
- » -1957b: Mykologische Eindrücke aus der Türkei. — Z. Pilzkunde 23: 135—136.
- » -1963: Mykologische Notizen aus dem Belgrader Wald bei Istanbul in der Türkei. — Sydowia, Ann. Mycol. 16: 199—204.
- Marchand, A.** 1975: Champignons du nord et du midi 3. Bolétales et Aphyllophorales. — 275 pp. Perpignan.
- Melik-Hacıatryan, D. & Martirosyan, S.** 1971: Gasteromycety i Afilloforovyje griby. In: Mikoflora Armyanskoj SSR 2. — 383 pp. Erevan.
- Murrill, W.** 1915: Tropical polypores. — 113 pp. New York.
- Niemelä, T.** 1974: On Fennoscandian polypores 3. *Phellinus tremulae* (Bond.) Bond. & Borisov. — Ann. Bot. Fennici 11: 202—215.
- » -1975: On Fennoscandian polypores 4. *Phellinus igniarius*, *P. nigricans* and *P. populicola*, n.sp. — Ann. Bot. Fennici 12: 93—122.
- » -1977: On Fennoscandian polypores 5. *Phellinus pomaceus*. — In preparation.
- Passauer, U.** 1976: Über einen Fund von *Daedalea quercina* Fries f. *lenzitoidea* Bres. aus Niederösterreich. — Ann. Naturhist. Mus. Wien 80: 87—91.
- Petrak, F.** 1939: Fungi, Ergebnisse einer botanischen Reise nach dem Iran, 1937. — Ann. Naturhist. Mus. Wien 50: 414—521.
- » -1949: Beiträge zur Pilzflora Irans. — Sydowia, Ann. Mycol. 3: 268—332.
- Pilát, A.** 1932: Contribution à l'étude des Hymenomycetes de l'Asie Mineure, première partie. — Bull. Soc. Mycol. France 48: 162—189, pls. 14—22.
- » -1936—1942: Polyporaceae. In: Kavina, C. & Pilát, A., Atlas des champignons de l'Europe 3. — 624 pp., 374 pls. Praha.
- Rabenhorst, L.** 1871: Uebersicht der von Herrn Prof. Dr. Haussknecht im Orient gesammelten Kryptogamen. — Hedwigia 10: 17—27.
- Rostrup, E.** 1908: Fungi. Lieutenant Olufsen's second Pamir-expedition, plants collected in Asia-Media and Persia by Ove Paulsen 5. — Bot. Tidsskr. 28: 215—218.
- Ryvarden, L.** 1972: A critical checklist of the Polyporaceae in tropical East Africa. — Norwegian J. Bot. 19: 229—238.
- Saber, M.** 1972: Identification of Homobasidiomycetes collected in Iran. — Iranian J. Plant Path. 8: 13—19.
- » -1974: Contribution to the knowledge of Thelephoraceae, Meruliaceae and Polyporaceae collected in Iran. — Iranian J. Plant Path. 10: 9—14.
- Soleimani, P.** 1976: Wood destroying fungi in Iran. — Europ. J. Forest Path. 6: 75—79.
- Stepanova-Kartavenko, N.** 1967: Afilloforovyje griby Urala. — 296 pp. Sverdlovsk.
- Švarcman, S.** 1964: Geterobazidial'nye i avtobazidial'nye griby. In: Flora sporovyh rastenij Kazahstana 4. — 716 pp. Alma-Ata.
- Tortić, M.** 1972: *Lenzites reichardtii* Schulzer. — Acta Bot. Croatica 31: 191—197.
- Watling, R. & Gregory, N.** 1977: Larger fungi from Turkey, Iran & Afghanistan. — In preparation.
- Watling, R. & Sweeney, J.** 1974: Larger fungi from Iran. — Notes R. Bot. Garden Edinburgh 33: 333—339.

Accepted for publication
on February 23, 1977