

TWO INTERESTING STEREA NEW FOR
JUGOSLAVIA: *XYLOBOLUS SUBPILEATUS*
(BERK. ET CURT.) BOID. AND *STEREUM*
REFLEXULUM REID

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During the investigations of the mycoflora of Jugoslavia, particularly the lignicolous species, many of them were established as new for this country. Two species of *Stereaceae*, with one locality each will be presented here. One of them was known up to now only from a few localities in the Mediterranean.

Xylobolus subpileatus (Berk. et Curt.) Boid. is, according to the literature, a subtropical-tropical species, widely distributed in North Africa and the warmer parts of Asia and America. In Europe, it represents a Mediterranean element and is known from Austria (near Vienna), Czechoslovakia, Italy, occurring only on oak, in Czechoslovakia mainly on *Quercus cerris*.

In the literature (Boidin 1958, Jahn 1971) it has been cited also from Jugoslavia, after Pilát (1937) who identified as this species a specimen collected from *Fagus* by V. Lindtner 20. 10. 1935 on m. Avala near Beograd. That specimen however, preserved in PR, was revised by Z. Pouzar and proved to be *Stereum insignitum* Quél. The duplicate in BEO was revised by the author.

Still, it was to be expected that *X. subpileatum* would be found in Jugoslavia eventually, and, recently, the first sure locality, backed by voucher specimens, has been established. It is about 40 km west of Zagreb, in the mountain range of Žumberačka gora, in the valley of the rivulet Bregana on a log of *Quercus* cf. *cerris*, at about 300 m altitude, 15°33' and 45°48'. Above the brook, facing south-west, rises a steep grassy slope with scattered Turkey oaks (*Quercus cerris*) — the remains of a wood. Although several oak logs lie near the water, the fungus grew on only one of them. It was first noticed by the author and her husband, S. Tortić, 18. 3. 1973 and numerous fruitbodies are still growing. They are very large and coalesced together (Fig. 1). The upper surface is

dark brown, densely tomentose, with many narrow zones; the growing margin is yellow. The hymenial surface is pale yellowish, yellowish brownish or greyish and cracked in many fields (Fig. 1b). The context is brown, sharply demarcated from the tomentum by a blackish thick line of the cortex. The hymenium consists of several layers, as the fungus is perennial. In the hymenium there are two forms of sterile elements: pseudocystidia, cylindrical, somewhat broadened towards the apex, with thickened walls, and numerous acanthophyses, also cylindrical with relatively thinner or thicker walls and minute aculeate processes at the apex. The spores are hyaline, elliptical, about $4.5 \times 3 \mu$.

This species causes a very characteristic white pocket rot, similar to that caused by its better known near relative, *X frustulatus*.

It is probable that this species grows mostly on *Quercus cerris* whenever it occurs in Europe. The author collected it on a known locality in Austria (park Schönbrunn in Vienna) from two stumps of Turkey oak. As this tree is widely spread in Yugoslavia, particularly in eastern parts, other localities will certainly be found.

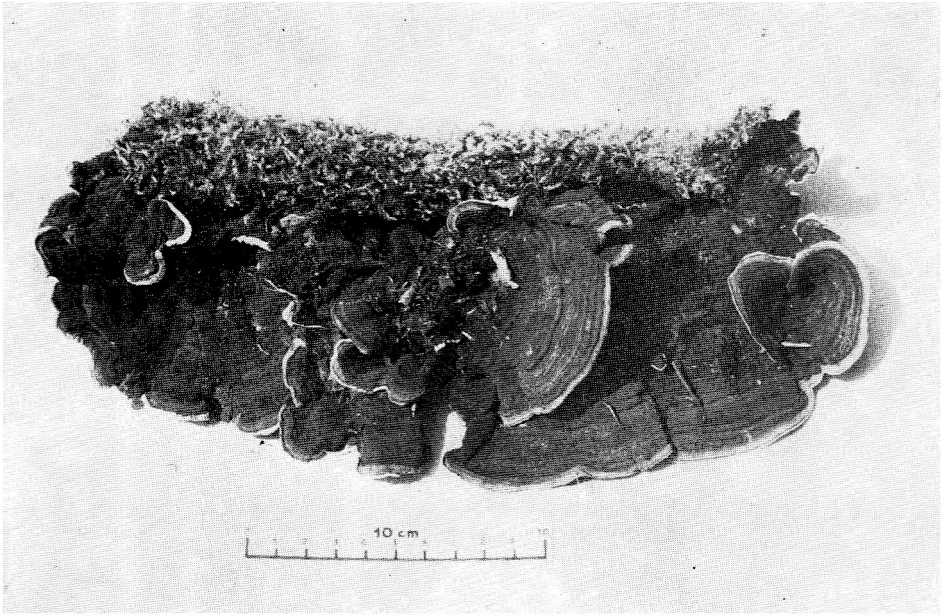
Stereum reflexulum Reid. In 1969 Reid described this species, growing on *Cistus* twigs, from Corsica and Tangiers. Recently Ryvar den (1974) reported new finds from Canary Islands and Portugal.

During a visit to the Natural Sciences Museum in Vienna (W) I found a small *Stereum*, collected in the island of Lokrum near Dubrovnik in May 1930 by K. Reching er. There are two envelopes, one determined by V. Litschauer as *Stereum hirsutum*, the other by K. Keissler as *S. fasciatum*. The specimens grew on thin twigs and looked somewhat like a small *Stereum hirsutum*, but resembled also a small light coloured *S. insignitum*. The microscopical examination showed numerous pseudoacanthophyses, characteristic of *S. reflexulum*. By courtesy of Dr. Reid I obtained a fragment of the type of *S. reflexulum* for comparison, and the structure proved to be identical with the specimens from Yugoslavia. These specimens, however, differ macroscopically from the type, and their detailed description will be given.

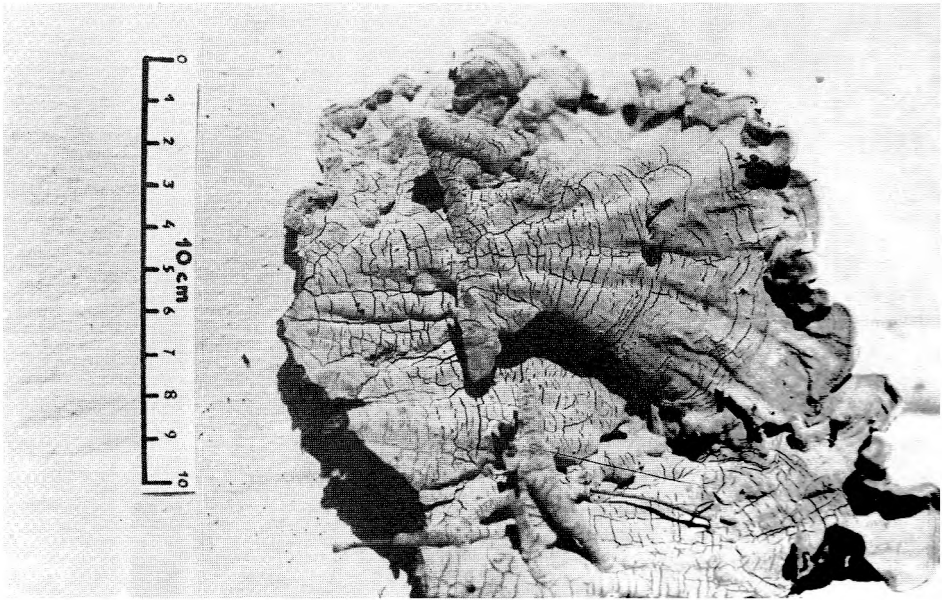
The pilei are thin, up to nearly 2 cm in length and 1 cm in width (measured perpendicularly from the substrate). They grow around one point of attachment and coalesce together. From above (Fig. 2a) it looks as if fan-shaped pilei grew from the twig towards both sides, but from the underside (Fig. 2b) it can be seen that the two opposite fans are part of one fruitbody. The upper surface is densely tomentose, with many narrow zones. Under the lens the zones are shaggy hirsute as stated by Reid — like a *S. hirsutum* in miniature. The colour is greyish in the middle, becoming brownish towards the margin. The hymenial surface is greyish yellowish, with indistinct zones; the margin is orange. Except in the smallest fruitbodies of 1—2 mm in diameter, this surface is minutely cracked into small fields, scarcely visible with the naked eye. The context is greyish yellowish like the hymenium, demarcated from the tomentum by a thin yellow-brown line of the cortex.

In the hymenium there are numerous cylindrical pseudocystidia with thickened walls which thin out toward the thin-walled apex, and pseudoacanthophyses, cylindrical, with thin walls and numerous aculeate processes, sometimes rather long, at the apex.

Fig. 1. *Xylobolus subpileatus* (Berk. et Curt.) Boid. a) from above, b) from below. Photo Dr. B. Đuić

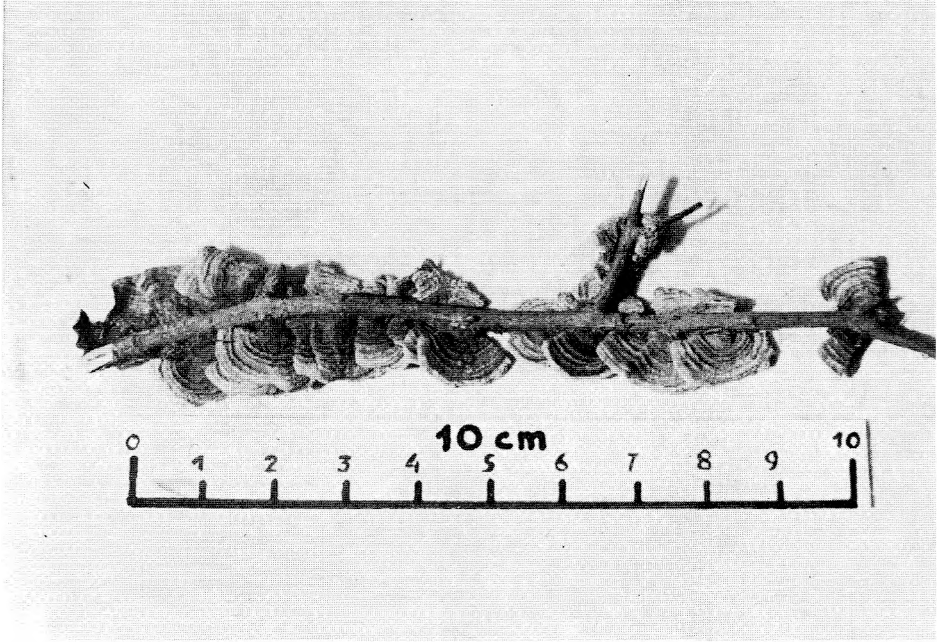


a

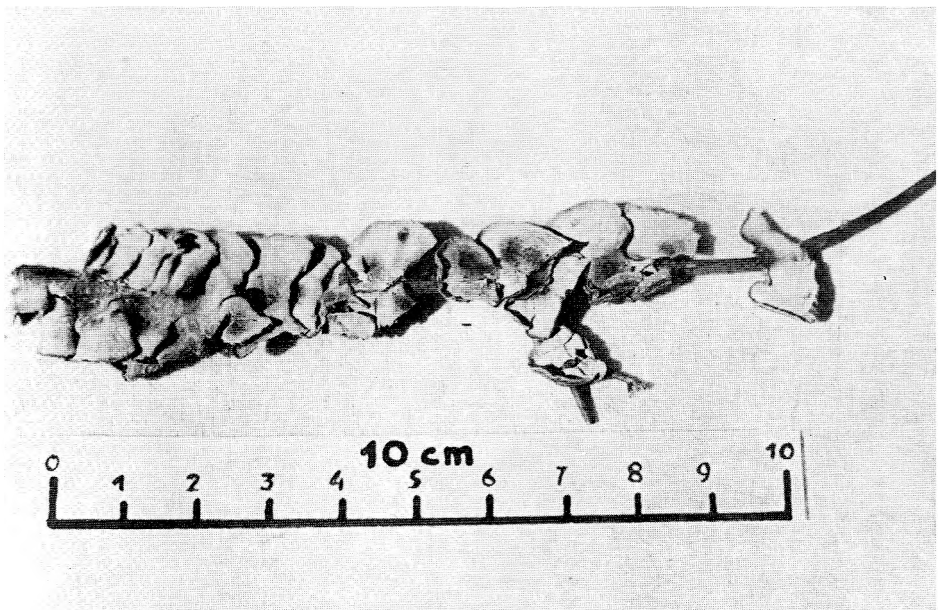


b

Fig. 1. — Sl. 1.



a



b

Fig. 2. — Sl. 2.

Unfortunately, although there was plenty of material, spores could not be found, which are, according to the diagnosis, hyaline, amyloid, narrowly elliptical to slightly allantoid, $4.5-7 \times (2.2) 2.5(3) \mu$.

The twigs on which the fungus was growing could not be identified, as they were too thin, but it is very probable that they belong to *Cistus*.

The type as described by Reid was quite resupinate. The collection from Tangiers had small pilei, covered with pale greyish tomentum. In both collections the margin of the hymenium was whitish. The material from the Canary Islands was macroscopically close to *Stereum hirsutum*, with more narrowly zoned brownish upper surface. The last named specimens are apparently most similar to those from Lokrum.

This is the first find of this species not only in Yugoslavia but also in the Eastern Mediterranean. The Yugoslav sea coast was only sporadically investigated for fungi, mostly by occasional visitors, and it is probable that *Stereum reflexulum* will be found to be more frequent in this country. Also, its occurrence in other Mediterranean countries is to be expected.

Summary

The first finds of *Xylobolus subpileatus* (Berk. et Curt.) Boid. and *Stereum reflexulum* Reid in Yugoslavia are presented, the earlier publication of *X. subpileatus* for this country being based on incorrect determination. Although only one locality for each has been established, it is very probable that they are more widely spread.

The author wishes to thank Dr. D. A. Reid (Kew) for sending the material of the type of *Stereum reflexulum*.

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During the printing of this paper, a specimen of *S. reflexulum*, collected by Lj. Glišić 8. 9. 1940 in Igalo (Gulf of Kotor) on the twigs of *Juniperus oxycedrus* (herb. Lindtner 5326) was found and identified by the author in the herbarium of the Natural History Museum in Beograd (BEO). This is therefore the second locality in Yugoslavia.

Literature

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Fig. 2. *Stereum reflexulum* Reid a) from above, b) from below. Photo Dr. B. Đulić

SADRŽAJ

DVIJE ZANIMLJIVE VRSTE FAM. STEREEACEAE NOVE ZA JUGOSLAVIJU: XYLOBOLUS SUBPILEATUS (BERK. ET CURT.) BOID. I STEREUM REFLEXULUM REID

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Xylobolus subpileatus (Berk. et Curt.) Boid. pripada tropsko-suptropskim vrstama, a u Evropi predstavlja mediteranski element i dosada je poznat iz Austrije, Čehoslovačke i Italije, gdje raste na hrastu, i to uglavnom na ceru. Za Jugoslaviju ga je objavio Pilát (1937) no kasnije je njegov primjerak ispravno određen kao *Stereum insignitum* Quéf. Autorica je sada ustanovila prvo sigurno nalazište *X. subpileatum* u Jugoslaviji, nedaleko Zagreba (Žumberačko gorje, dolina potoka Brepane), vrlo vjerojatno također na ceru.

Stereum reflexulum Reid je opisan tek nedavno (Reid 1969) i od njega su bila poznata svega dva lokaliteta u području Mediterana. Nedavno je Ryvarden (1974) objavio tu vrstu s Kanarskih otoka i Portugala. U herbaru Prirodoslovnog muzeja u Beču (W) našla je autorica materijal sabran na Lokrumu još 1930. i određen kao *Stereum hirsutum* i *S. fasciatum*, koji bez sumnje pripada toj vrsti. To bi, dakle, bio prvi nalaz u Jugoslaviji i u istočnom dijelu Mediterana.

Pretpostavlja se da će tokom daljih istraživanja obje prikazane vrste biti nađene i na drugim lokalitetima

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Za vrijeme tiskanja ovog članka autorica je u herbariju Prirodnjačkog muzeja u Beogradu (BEO) našla i odredila primjerak *S. reflexulum* koji je sabrao Lj. Glišić 8. 9. 1940. u Igalu (Boka Kotorska) na grančicama *Juniperus oxycedrus* (herb. Lindtner 5326). To je, prema tome, drugo nalazište u našoj zemlji.

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