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The psilopezoid fungi. II. *Thecotheus rivicola* comb. nov. and other Iodophaneae (Pezizales) occurring on water-soaked wood.<sup>1</sup>

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PFISTER, D. H. (Dept. of Plant Pathology, Cornell Univ., Ithaca, N.Y. 14850). The psilopezoid fungi. II. *Thecotheus rivicola* comb. nov. and other Iodophaneae (Pezizales) occurring on water-soaked wood. Bull. Torrey Bot. Club 99: 198-200. 1972.—Several species, all occurring on wet or water-soaked wood, belonging to the genera *Iodophanus* and *Thecotheus*, have been described in the genus *Psilopezia*. They are: *Psilopezia aurantiaca*, *P. aurantiaca* subsp. *xylogena*, *P. aquatica*, and *P. rivicola*. Taxonomic and nomenclatural studies of these species support the proposal of *Thecotheus rivicola* as a new combination.

The genera of psilopezoid fungi have been discussed previously and new delimitations given for the genera *Psilopezia* Berk. and *Pachyella* Boud. (Pfister 1972). The point was made that two genera of the Ascobolaceae in the tribe Iodophaneae, *Thecotheus* Boud. and *Iodophanus* Korf, may occur on water-soaked wood and may be mistaken for species of *Psilopezia* or *Pachyella*. Though the species of both *Iodophanus* and *Thecotheus* occur primarily on dung, this confusion may arise in the lignicolous species. The diffuse iodine reaction of the asci of *Pachyella* is similar to that of *Thecotheus* and *Iodophanus*. The North American species of both genera have been monographed, *Thecotheus* by Kimbrough (1969) and *Iodophanus* by Kimbrough, Luck-Allen, and Cain (1969). There are several species of *Iodophanus* which Kimbrough et al. (1969) report on decaying vegetable debris. They are: *I. testaceus*

(Moug. in Fr.) Korf in Kimb. and Korf, *I. carneus* (Pers. ex Pers.) Korf in Kimb. and Korf and *I. difformis* (Karst.) Kimb. Species of *Thecotheus* have heretofore been reported to occur only on dung.

The following list is based on a study of species which have been described or placed in the genus *Psilopezia* but which apparently belong either to *Iodophanus* or

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*Thecotheus*. The loan of specimens by the curators and directors of the following institutions is acknowledged: National Museum Praha (PR), The Museum of Natural History Stockholm (S), and Orto Botanico Padova (PAD).

1. PSILOPEZIA AURANTIACA Gill., Champignons de France. Les Discomycètes p. 28. 1879. pl. 30. no. 2.  
 ≡ *Ascophanus aurantiacus* (Gill.) Boud., Hist. Class. Discom. d'Eur. p. 76. 1907.

No type specimens of this species have been located. The illustration accompanying the description shows bright orange apothecia on a twig; the asci are illustrated as rather broad. Though there is no indication as to the reaction of the ascus in Melzer's reagent, from the illustration this species appears to belong to *Iodophanus*. Its exact identification, however, awaits either the location of specimens or its recollection. From Boudier's placement of this species in *Ascophanus* it would appear that he also thought it to be allied to the coprophilous species.

2. PSILOPEZIA AURANTIACA Gill. subsp. XYLOGENA Sacc., Malpighia 10: 271. 1896.  
 ≡ *Ascophanus aurantiacus* (Gill.) Boud. var. *xylogena* (Sacc.) Boud., Hist. Class. Discom. d'Eur. p. 76. 1907.

This subspecies is *Iodophanus testaceus* and should be included in the synonymy of that species. *I. testaceus* has been reported to occur on decaying vegetable debris. Again, Boudier's inclusion of this subspecies in *Ascophanus* supports its placement in *Iodophanus*.

SPECIMENS EXAMINED: in ligno emortuis, *Populi laurifoliae*. Siberia. 10. V. 1892. (Holotype: PAD = CUP 50944).

3. PSILOPEZIA AQUATICA (Lam. ex Fr.) Rehm in Sacc. and D. Sacc., Syll. Fung. 18: 12. 1906.  
 ≡ [*Peziza aquatica* Lam., Ency. Methodique, Bot. 48: 216. 1804.]  
 ≡ *Peziza aquatica* Lam. ex Fr., Syst. Mycol. 2: 137. 1822.  
 ≡ *Humaria aquatica* (Lam. ex Fr.) Rehm in Rabenh. Krypt.-Fl. 1(3): 954. 1894.

In the original description, Lamarck characterized this fungus as being flat or slightly convex, without a margin, sessile

and a clear red: it was found in a water conduit. No type specimens have been located.

Rehm (1894, 1904) discussed the species and indicated that the hymenium was iodine positive. In the Rehm herbarium, however, there are two specimens labeled *Psilopezia aquatica*; one is an inoperculate Discomycete, the other is *Pachyella babingtonii* (Berk. & Br.) Boud. Lind (1913) used the name for a Discomycete which was found on old clothing and dry ground in a forest. The fungus is described as having asci 150  $\mu\text{m}$   $\times$  28  $\mu\text{m}$ , spores biseriolate without oil drops, paraphyses granular, epithecium J +, and looking like dry stains of red paint. It seems likely that the specimen described by Lind is an *Iodophanus*. Judging by my studies of specimens identified as *Psilopezia aquatica* by Seaver, his concept (1928) was quite ambiguous, based as it was on specimens of *Pachyella*, *Scutellinia* (Cooke) Lamb. and "*Peziza*" *lechithina* Cooke. Certainly doubt clouds the true identity of *P. aquatica*.

Article 69 of the International Code of Botanical Nomenclature states that, "A name must be rejected if it is used in different senses and so has become a long-persistent source of error." In the case of *Psilopezia aquatica* it is suggested that the name should be abandoned and considered a *nomen ambiguum* since it has been used to apply to several different taxa, and since the question of its identity, at present, cannot be resolved.

4. PSILOPEZIA RIVICOLA Vaček, Studia Bot. Českoslovaca 10: 129. 1949.

This species is a *Thecotheus*, the only species of that genus thus far reported which occurs on water-soaked wood. The new combination is made as follows and is accompanied by a modified description:

***Thecotheus rivicola*** (Vaček) Kimbrough et Pfister, comb. nov.

≡ *Psilopezia rivicola* Vaček, Studia Bot. Českoslovaca 10: 129. 1949.

Apothecium: dirty white in youth becoming gray-brown; in dried condition brown-black, sometimes with purple tints; 1-7 mm in diam; discoid to somewhat concave. Medullary excipulum: of globose cells intermixed with filamentous cells from 7-15  $\mu\text{m}$  in diam. Ectal excipulum: of dark-walled cells which are elongate and perpendicular to the outside of the apothecium,

reaching a diam of 30  $\mu\text{m}$ . Asci: 8-spored; diffusely J+ for most of their length; 240–300  $\mu\text{m}$   $\times$  12–15  $\mu\text{m}$ . Ascospores: uniseriate; eguttulate; thick-walled strongly cyanophilic in cotton blue-lactic acid and loosening from the inner spore layer; apiculate, the apiculus reaching a length of 3  $\mu\text{m}$ ; lateral walls marked with inconspicuous, irregular warts; 17–22  $\times$  7–8 (9.5)  $\mu\text{m}$ . Paraphyses: encrusted externally; up to 3  $\mu\text{m}$  wide.

HABITAT: on twigs and wood in water.

SPECIMENS EXAMINED: ad ramulum *Pruni spinosae* in rivulo, Vonomklasy, Bohemia, 17. X. 1948. V. Vaček (Holotype: PR = CUP 52287); Lloyd Cornell Preserve, McLean, New York, 2. X. 1953, R. A. Shoemaker, R. L. Shaffer, R. P. Korf (R.P.K. 53–227 and 53–229).

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