

Short Communication

Materials for the fungus flora of Japan (48)*

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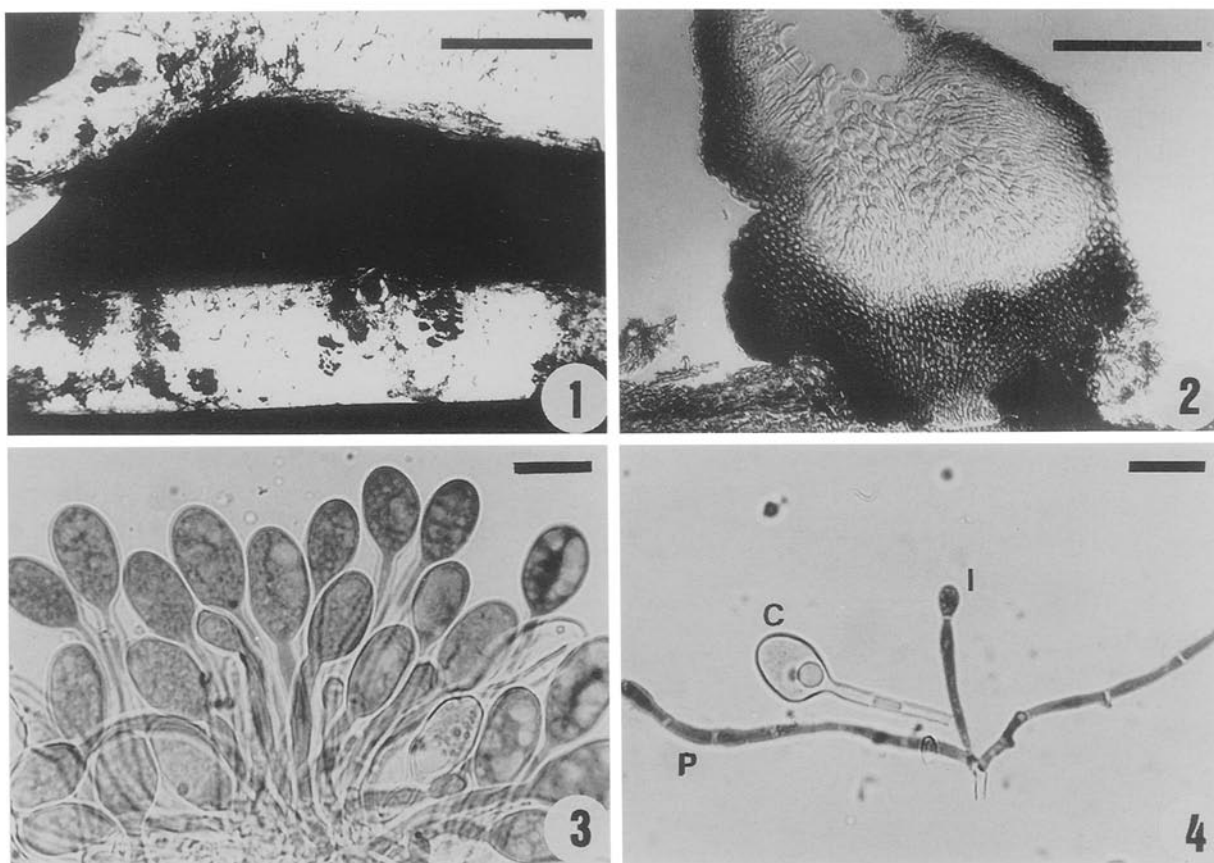
Accepted for publication 29 May 1995

A coelomycete *Polymorphum quercinum*, newly found on the branches of *Fagus crenata* in Japan, is described.Key Words—beech bark fungus; *Fagus*; *Polymorphum quercinum*.

102. *Polymorphum quercinum* (Pers.) Chev., J. Phys. Chem. Hist. Nat. **94**: 33. 1822; Hawksworth, Taxon **32**: 216. 1983. Figs. 1–4
 Basyonym: *Opegrapha quercina* Pers., Usteri's Annin Bot. **7**: 32. 1794.

Synonym: *Polymorphum rugosum* (Fr.) Hawksworth & Punithalingam, Trans. Br. Mycol. Soc. **60**: 503. 1973.

Conidiomata eustromatic, immersed in outer layer of bark in origin, becoming erumpent and superficial at maturity, gregarious, round to elongate hysterooid, black-



Figs. 1–4. *Polymorphum quercinum*. 1. Black conidiomata on the branches of *Fagus crenata*. 2. Transverse section of a conidioma. 3. Conidia produced on conidiophores. 4. Septate conidiophores (P), a conidium (C), and an immature conidium (I). Scales: 1, 10 mm; 2, 200 μ m; 3 and 4, 20 μ m.

*(47): Kobayashi, T. et al., Mycoscience **35**: 399–401, 1994.

ish brown to black, 400–1,500 μm long, 280–400 μm wide, 200–300 μm high, opening by a distinct slit, unilocular; wall composed of an outer layer of dark brown thick-walled *textura angularis*, a median layer of paler *textura prismatica* and an inner layer of pale brown *textura angularis*. Conidiophores hyaline, 24–48 μm long, 2–3 μm wide, occasionally 2–3 septate, rarely branched at the base. Conidia holoblastic, hyaline, ovate to cylindrical, wall thin, occasionally breaking off with the conidigenous cell still attached and appearing pedicelate, 24–30 \times 12–14 μm .

Material examined: on living branches of *Fagus crenata* Blume (*Buna*), Dake, Mt. Hayachine, Iwate Pref., 19 May 1989, S. Kaneko, deposited in the mycological herbarium, Forestry and Forest Products Research Institute (TFM:FPH 7360).

Note

This fungus is common on the barks of *Fagus* and *Quercus* species in Europe and North America (Hawksworth and Punithalingam, 1973; Butin and Parameswaran, 1980). In Asia, however, distribution of the species was recorded only in Pakistan (Sutton, 1980). Lectotype of the species in Persoon's herbarium in L was designated by Hawksworth and Punithalingam (1973). A detailed discussion on the nomenclature of the species was given by Hawksworth (1983).

Butin (1977) described the teleomorph of this fungus as *Ascodichaena rugosa* Butin belonging to Phacidiaceae, Phacidiales. According to him, the ascigerous state is more rarely formed on *Fagus* species than on *Quercus* species.

It is probable that new conidiomata are formed every year from the same perennial stromata. I have found several collections similar to this species on the living branches of *Fagus japonica* Maxim. (*Inubuna*) at Ogawa, Kitaibaraki, Ibaraki prefecture. The specimens resembled the spermogonial state of *P. quercinum*. However, identification of the collections was not made because of lack of matured spore state.

Polymorphum quercinum had been considered to be a saprophytic fungus inhabiting bark surface. Butin and Parameswaran (1980), however, found haustoria of this fungus in cork cells of *Fagus*. In my observation, the fungus seems to be a weak parasite attacking branches of stressed beech. To confirm this, inoculation experiment is needed.

Literature cited

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