



1, Apothecium (ca  $\times 0.5$ ); 2, Paraphysis (ca  $\times 1600$ ); 3, Asymmetrical smooth-walled ascospore (ca  $\times 3600$ ); 4, Rough-walled ascospore showing continuous epispore (ca  $\times 3600$ ). All from DAOM 145970.

*Discina korfii* Raitv., Bot.-alased t  d, Tartu 9: 371. 1970.

$\equiv$  *Gyromitra korfii* (Raitv.) Harmaja, Karstenia 13: 56. 1973.

**APOTHECIA** with the pileus inflated, generally wavy to cerebriform, to 3-9 cm broad and high; on a stipe ca 2.3 cm thick and 5 cm long, when fresh white, translucent, hollow and stuffed at the base with white, cottony mycelium. Hymenial surface yellow-brown (7.5YR4/4), covering folds which often extend down around the stipe and fuse with the stipe at some points.

**TISSUE** of the pileus white, when fresh rubbery-brittle, 1-2 mm thick, of *textura intricata*; the hyphae hyaline, thin-walled, septate, 5-16 $\mu$  in diam. **PARAPHYSES** slenderly clavate to cylindrical, mostly 7.5-8(-9.8) $\mu$  broad at the apex, gradually tapering to 5-5.4 $\mu$  about 50 $\mu$  below apex, septate at a point 60-85 $\mu$  below apex and branched about 50 $\mu$  further down. **ASCI**, when fresh, 470-485  $\times$  16-19 $\mu$ , essentially cylindrical, not bluing in Melzer's reagent. **ASCOSPORES** fusoid to broadly ellipsoid, some flattened on one side, (23-)24-27.5(-31)  $\times$  (9-)11-12.5(-13.5) $\mu$  excluding appendages and measured from mounts in Melzer's; epispore continuous, generally wrinkled, up to 1 $\mu$  thick except for the apex where thickened to 2.5 $\mu$  to form a truncated appendage, bluing in cotton-blue.

**SUBSTRATE:** Soil, duff, well-rotted wood and old logs, stumps, etc. of hardwoods, particularly *Betula* spp.

**DISTRIBUTION:** Quebec, Ontario

COLLECTIONS (selected): Que., Gatineau Park, Harrington Lake, 17.V.1954, DAOM 44192 (R. Horner); Cantley, 23.V.1974, 145970 (J. Ginns). Ont., Bell's Corners, 22.IV.1953, 39903 (J.W. Groves); Ramsayville, 16.V.1961, 84135 (JWG & M.E. Elliott); South Gloucester, 29.IV.1955, 48078 (D.B.O. Savile & J.A. Parmelee); Algonquin Park, 20.V.1974, 147686 (P. Johnson).

NOTES: One collection was from Algonquin Park, Ontario and the remainder from the environs of Ottawa in Ontario and adjacent Quebec, and appeared from mid-April through May. The one specimen (145970) observed over a 3 week period in the field failed to display any change or darkening in the yellow-brown color of the hymenium. The specimen was then dried because it began to show signs of deterioration, and after drying the hymenium had turned to brown or pale brown, the color typical of dried specimens of the *Discina-Gyromitra* group. The color of the hymenium in the field may prove to be an aid in separating similar species but the present observations are too few to be of value.

The species epithet applied to this fungus has changed over the years from *caroliniana* to *gigas* to *fastigiata* to *korfii*. Generally each change has reflected a narrowing of the limits of the species concept (see the detailed accounts by McKnight in *Gr. Basin Nat.* 31: 35, 1971, and *Mich. Bot.* 12: 147, 1973 and 13: 51, 1974, and Harmaja in *Karstenia* 13: 48, 1973). In North America, because three or perhaps four species have been lumped under one name, it is generally impossible to be certain of the identity of fungi reported in earlier literature. *Discina korfii* is the name now applied to the specimens at DAOM reported as *Gyromitra gigas* by Groves and Hoare (*Can. Field-Nat.* 67: 95-102, 1953) and Groves (*Edible and Poisonous Mushrooms of Canada*, Ottawa, p. 260, 1962). It is used because the type specimen exists, was collected in nearby New York State, and because opinions vary on the application of the early European names. For the earlier names the types were not preserved, the illustrations and descriptions, especially of *gigas*, lack the critical features needed to distinguish the species, and the recent European studies express doubt that *gigas* exists in North America. The features distinguishing the European *gigas* from *korfii* are slight differences in shape of the paraphyses and in size and shape of the ascospores. These characters seem to me to be variable between collections and perhaps will be shown to intergrade when a large number of collections is compared.

The similar *Discina montana* (Harmaja: l.c., p. 56 ut *Gyromitra*) Ginns, *comb. nov.*, apparently widespread in the North American cordillera (see McKnight: l.c., 1971, p. 44 ut *G. gigas*), is known in Canada from a collection by Miss M.C. Melburn made at Honeymoon Bay, Vancouver Island (DAOM 124683). It differs from *D. korfii* in having larger spores, 27.5-31 × 12-13 $\mu$ , with thinner and broader, cap-like appendages.

J. Ginns