

**MYCETOZOA FOUND DURING THE FUNGUS
FORAY IN THE NEIGHBOURHOOD OF DON-
CASTER, SEPT. 22nd TO 25th, 1914.**

By Gulielma Lister, F.L.S.

Our first expedition was to Cusworth Park, west of Doncaster; an old wood-yard with heaps of sawdust gave capital hunting for Mycetozoa; the park itself with open meadowland and strips of woodland lies on Magnesian Limestone, and proved to be rather dry, after the recent fine weather, for favourable results. The second day we spent in the Town Moor, Sandall Beat and Wheatley Woods, to the east of the town: the soil here was peaty and the woods consisted of Birch, Scotch Fir, Oak and some Holly, with undergrowth of Brambles and Bracken. On the third day we visited the 'New Zealand' Woods, near Medge Hall, on flats stretching away to the Humber. The trees were chiefly Birch, with some Scotch Fir and Larch; the deep peaty subsoil was intersected by broad drains. Our last day was spent in Edlington Wood, where flourished a great variety of trees, but the subsoil was Magnesian Limestone and the ground was rather too dry to favour our pursuits.

In the following list of the Mycetozoa that were found the localities visited are abbreviated as follows:—C.=Cusworth Park; S.=Sandall Beat, Town Moor and Wheatley Woods; N.Z.=New Zealand Wood; E.=Edlington Wood.

Badhamia panicea (Chev.) Rost. C. On Elm bark.

Physarum nutans Pers. C., S., N.Z., E. Very abundant on fallen wood.

P. viride (Bull.) Pers. C., S., N.Z., E. Abundant.

P. psittacinum Ditm. E. A single mouldy gathering was obtained. I have never met with this summer-loving species in good condition after August.

P. compressum Alb. & Schw. C. On dead wood.

P. cinereum Link. N.Z. On dead leaves under a heap of Birch boughs. The sporangium walls in this gathering are without lime-deposits, and the capillitium consists partly of branching *Badhamia*-like lime-knots, partly of a network of hyaline threads with wide membranous expansions; the spores measure 8.5μ to 10μ .

Such a form of *P. cinereum* is not unfrequent; in the field it bears close resemblance to *Bahamia foliicola* from which it is distinguished by the sporangia having a tendency to form plasmodiocarps and by the smaller smoother spores.

- Fuligo septica* (L.) Gmelin. C., S., E. Only old and weathered aethalia were obtained.
- Craterium leucocephalum* Ditmar S., N.Z. Fairly abundant on dead Sedge, Holly and Birch leaves. Orange-red sclerotium found on dead leaves in Cusworth Park is referable either to this species or to *C. minutum* (Leers) Fries.
- Leocarpus fragilis* (Dicks) Rost. S., N.Z. On Birch twigs.
- Diderma effusum* (Schwein.) Morg. S. On dead Sedge.
- Didymium difforme* (Pers.) Link. C., S., E. Abundant on old hay and living herbaceous plants in damp hollows.
- D. squamulosum* (Alb. & Schw.) Fries. C., S., N.Z. On dead Holly leaves and Bracken, also on weathered horse dung.
- D. nigripes* Fries. var. *xanthopus* Lister. On hay and hedge clippings.
- D. melanospermum* (Pers.) Macbr., var. *minus* Lister. S. On grass.
- Stemonitis fusca* Roth. C., S., N.Z. On wood.
- S. flavogenita* Jahn. C., N.Z. On stumps and twigs.
- Comatricha nigra* (Pers.) Schroet. C., S., N.Z., E. Frequent on fallen branches.
- C. typhoides* (Bull.) Rost. C. Weathered sporangia, on logs: var. *heterospora* Rex. S. On a Pine stump.
- C. pulchella* (Bab.) Rost. S. Mouldy, on dead leaves.
- Cribraria aurantiaca* Schrad. C., S., N.Z., E. Both the yellow and ochraceous-spored forms were obtained; the latter were very abundant on old sawdust in the Cusworth wood-yard.
- C. rufa* (Roth.) Rost. N.Z. On decayed Larch wood.
- Dictydium cancellatum* (Batsch) Macbr. C., S. Very abundant in Cusworth wood-yard, where some old logs were covered over an area of several square feet with the sporangia.
- Reticularia Lycoperdon* Bull. C., S. Both young and old aethalia found.
- Trichia affinis* de Bary. S. A few sporangia only were found on some grass stalks.
- T. decipiens* (Pers.) Macbr. C. On dead wood.
- Hemitrichia Vesparium* (Batsch) Macbr. C. The closely clustered purple sporangia and nearly black plasmodium were very abundant on the Cusworth sawdust heaps

H. intorta Lister. S. About fifty immature white sporangia were collected on fallen Pine wood, and after being kept moist for a few days matured perfectly. This rare species has hitherto been recorded only from Hitchin, Herts, and Hampstead Park, Staffordshire, in Britain; from Fairmount Park, Philadelphia, and the States of Ohio and Iowa in North America. It is closely allied to *Trichia erecta* Rex, from which it is distinguished by the sporangium-wall being shining yellow all over, not spotted with purple, and by the capillitium forming a continuous skein of twisted threads.

Arcyria denudata (L.) Sheldon. C., S., N.Z., E. On dead wood.

A. incarnata Pers. S. Sparingly found on fallen Oak boughs.

A. cinerea (Bull.) Pers. S., N.Z., E. On dead wood.

A. pomiformis (Leers) Rost. S. On fallen Oak wood.

A. nutans (Bull.) Grev. S., N.Z., E. Abundant on dead wood.

A. Oerstedtii Rost. S. On charred Pine wood. This species has not been recorded before from Yorkshire.

Perichaena depressa Libert. C., E. On Oak bark.

P. corticalis (Batsch) Rost. C. On Poplar bark.

„ var. *affinis* Lister. E. On Oak bark, associated with *P. depressa*. This variety differs from the type in having more abundant, firmer capillitium; the orange-yellow spores measure 10μ to 11μ . In the present specimen the subglobose sporangia are either brownish purple all over or are mottled with yellow, or are shining yellow all over, according to whether the dark granular deposits on the walls are continuous, or partially or completely absent. It has been recorded previously from Yorkshire and Hampshire, from the Jura Mts. and from Portugal.

This list of thirty-five species may be regarded on the whole as a fair one considering the unusually dry season we have had. After a wet summer such fine woods as those we visited would probably have been far richer in Mycetoza.