to furnish a meal, but the smaller ones when so treated as above set out will make a welcome addition to other edible fungi. We know that all the species of Morchellae and Helvellae are very delicious esculents, but I think the flavour of these is greatly improved and their flesh made more tender if they are cooked in some good stock and then served on toast, because they are of a somewhat cartilaginous consistency. I have previously insisted on the necessity of rejecting the liquid in which *Helvella crispa* has been cooked and I think this should always be done with all the edible Discomycetae. These should never be eaten raw as grave inconvenience has been caused to persons partaking of them in this condition. In some years in the spring we meet with great numbers of *Disciotis venosa* and *Sarcosphaera coronaria*, and again later on specimens of *Aleuria vesiculosa, Otidea onotica, Otidea leporina* and *Peziza aurantia* are abundant. These are all highly pleasing to the taste and of a delicate consistency. I have now passed in brief review the principal esculent fungi that I have personally tested. They are all of excellent flavour and form a very valuable addition to our somewhat limited cuisine. In recent years many of us have been unable to afford many dainties and meatless days were often the rule, especially at hotels during the war. These appetizing morsels are open to us all and it only requires a little knowledge to identify the greater number of these. There is an old saying about mushroom eaters that those who eat them many times "nil amplius edit" (eats no more of anything), and I dare say many of our members feel inclined to wish that I had done the same before inflicting this long paper upon you. Lastly I may express the hope that some of our members who came to scoff will remain to prey.

NEW BRITISH DISCOMYCETES.

By W. D. Buckley.

The study of Discomycetes pursued as a recreation while on business journeys in many parts of the country has brought several interesting species under observation. The working out of the details from notes made at the time and specimens preserved has had to be deferred until opportunity could be found to consult the literature. The present notes and records relate to some of the most interesting species so far identified. A visit to Scotland for fourteen weeks convinced me that the mild and

humid sub-alpine districts of the west and north would well repay close investigation. The extensive forest fires which occurred in 1920 and 1921 left burnt ground on which many interesting Discomycetes were found. I have to thank my friend Mr J. Ramsbottom of the British Museum for his continued kind encouragement to give attention to the scientific side of the subject and to him I owe a debt of gratitude which I cannot sufficiently express for the benefit of his critical advice.

RAMSBOTTOMIA nov. gen.

Ascomata terrestria, plerumque laeticoloria, parva, lata primum orbicularia dein plana vel lenticularia, externe pilosa, pilis coloratis; asci ampli, maturitate prominentes, operculati, iodo non caerulescentes, octospori; sporidia globosa vel ovata, aspera vel echinulata, hyalina; paraphyses conspicui, iodo atrovirescentes, granulas coloratas continentes.

This genus is best placed immediately following *Boudierella* Sacc. in the Pseudo-Ascoboleae of Boudier's classification.

R. lamprosporoidea n. sp.

Ascomatibus dispersis vel gregariis, primum turbinatis dein planis regularibusque, in majoribus speciminibus explanatis lobatisque, externe pilis longibus, tubulosis, pallide brunneis dense vestitis, pilis ultra marginem non exstantibus, 160–285 × 11–18 μ, ramosis, septatis, interdum ad septa constrictis; hymenio sordide luteo; excipulo parenchymatico, e cellulis amplis, polygonatis vel cuneatis composito, ascis magnis cylindraceis, apicibus late rotundatis, ad basim gradatim attenuatis, 220–325 × 21–29 μ, octosporis, iodo non caerulescentibus; sporidiis uniseriatis, hyalinis, rotundatis vel interdum late ovatis, ad maturitatem guttula magna una ornatis, 18–20 μ diam., reticulatis, echinulatis, spinulis longitudine inter sese valde irregularibus 2–5 μ long.; paraphysibus cylindraceis, clavatis, sparse septatis, 340–350 × 2–3·5 μ, ad apicem 6 μ diam., granulis aurantiacis repletis, iodo atrovirescentibus.

Hab. ad terram argillaceam nudam vel inter muscos in collibus. Dunoon, Argyllshire. May 1921.

This well-marked species was found in some numbers in a small area at Dunoon. It much resembles *Lamprospora Crec'hqueraultii* (Cr.) Boud., but is abundantly distinct in the densely pilose exterior. The hairs are very long, tubular, thin-walled, and arranged in branching fascicles.

Lamprospora campylopodis n. sp.

Ascomatibus gregariis vel dispersis, unicoloribus, flavidis sessilibus, glabris, lenticularibus, minutis usque ad 1 mm. latis, ad maturitatem expansis, tenuissime et laceratim marginatis, cortice parenchymatico, e cellulis polygonatis mediocribus, ad

marginem longioribus composito; ascis cylindraceis, clavatis, ad apicem rotundatis ad basim attenuatis octosporis 180–215 × 18 μ, iodo non caerulescentibus; sporidiis globosis, valde et regulariter reticulatis, 15–18 μ diam.; paraphysibus filiformibus, ad apicem vix vel haud ampliatis, septatis, quam ascis multo longioribus, 230–240 × 2 μ, granulis aurantiacis repletis, iodo viridescentibus.

Hab. ad terram inter muscos (*Campylopus fragilis*) ad radices Pini truncorum in locis humidis. Dunoon, May 1921.

This extremely minute species is closely allied to *L. miniata* (Cr.) de Not. and *L. areolata* Seav. It differs from the former in its constantly minute size and more regular finer network on the spores and from the latter in the absence of the peripheral flange on the spore and in the paraphyses greatly exceeding the asci and not being thickened above: it differs, moreover, from both species in colour.

Ciliaria caudata n. sp.

Ascomatibus congestis, sessilibus, primum orbicularibus, clausis dein poro patescentibus, demum in discum planum explanatis, crassis, ad 4 mm. diam., brunneis, externe pilis brunneolis, pachydermaticis, acutis, ad basim attenuatis et plerumque bifurcatis sparse vestitis, densioribus brevioribusque juxta marginem, ultra quod vix excedent, usque ad 185 × 14–18 μ; hymenio rubro excipulo corticeque parenchymatico, cellulis amplis, brunneolis; ascis cylindraceis ad apicem rotundatis, pedicellis bifurcatis, paulum angustatis, octosporis, 290–320 × 21 μ; sporidiis ellipticis, hyalinis, 25–29 × 16–18 μ, primum biguttulatis utrinque obtusis, intra folliculum grosse reticulatis, appendiculatis, cauda tenuissima, recta vel curvata, ad 18 μ longa; paraphysibus cylindraceis, clavatis, saepe ad apicem furcatis, septatis, usque ad 270 × 3·5–4 μ, granulis aurantiacis repletis, iodo colore vineo vel viride tinctis.

Hab. ad terram inter muscos in locis humidis collinis. Dunoon, May and June 1921.

This species which macroscopically resembles *C. umbrorum* (Fr.) Boud., is well marked by the extremely coarse and large reta on the spores which are enclosed each in a separate follicle and by the presence in the fresh condition of a long fine cilium such as occurs in the spores of *Peziza aurantia* Pers. Hennings in Warburg's Monsunia, I, 1879, p. 35 has described two species of Lachnea from Java, *L. appendiculata* and *L. Fleischeriana*, and von Höhnel in Sitzungsber. k. Akad. Wiss. Math.-Nat. Kl. CXVIII, Abt. I (1909), p. 396, a third species, *L. folliculata*, also from Java, which exhibit similar spore characters—gross reticulations, with a follicle and appendages. von Höhnel remarks:

"Indessen ist höchst auffallend, dass bisher anderswo *Lachnea*-Arten mit derartig gebauten Sporen nicht gefunden wurden. Ich halte es daher nicht für unmöglich dass diese drei Arten in den Formenkreis einer gehören."

Neotiella Hetieri Boud. in Bull. Soc. Mycol. Fr. XII, p. 12 (1896), pl. III, f. 2.

Apothecia gregarious, opening by a pore, hemispherical, then plane, bright yellow, 1–2 mm. broad, externally densely clothed with long, slender, flexuous white hairs, rarely septate; furnished towards the margin with numerous white, pointed, rigid 2–4 septate white hairs 140–180 μ long × 5–9 μ broad, usually arising in pairs from a common cell; excipulum parenchymatous, cells polygonal, small about 7–10 μ in diam., becoming longer and clavate at the margin. Asci cylindrical, apex rounded, base gradually tapering 215–230 μ long × 11–16 μ broad, 8-spored, spores obliquely uniseriate 16 μ long × 9–11 μ broad, smooth, hyaline, broadly elliptical containing one large central gutta. Paraphyses filiform becoming clavate and frequently 2–4 times branched towards the apex, containing orange granulations, septate, up to 235 μ long × 2–3 μ broad (7–9 μ at the apex).

Amongst moss on burnt ground in Pine woods. Inverness, N.B., March 1921; Oxshott, Surrey, Oct. 1922, and Farnham, Bucks., Febr. 1923.

This species is at once recognised by the two kinds of hairs, those on the excipulum being long and flexuous and usually non-septate whilst the marginal ones are pointed and rigid. The colour of the hymenium in my specimens was uniformly yellow and not orange-red as figured by Boudier. The asci, moreover, are constantly somewhat longer than in the original description, where they are recorded as 200–210 μ in length. A character not mentioned by Boudier is the branching of the paraphyses. Boudier placed the species near to *N. albo-cincta* (B. and Br.) and *N. albicans* (Fuckel). It would appear to resemble *N. nivea* (Romell) even more closely.

Lamprospora dictydiola Boud., Hist. et Class. d. Discomycetes d'Europe, p. 68 (1907); Icon. Mycol., pl. 403.

Apothecia scattered, 3–5 mm. broad, orange red, marginal flange paler and dentate. Asci cylindrical, hyaline, apex rounded, base long and tapering, 230–300 μ long, 13–15 μ broad, 8-spored, spores uniseriate, round, hyaline, very finely reticulate, containing one large gutta, 16 μ in diam. Paraphyses filiform, apex slightly thickened, up to 6–7 μ broad, filled with reddish contents, septate and forked at the base.

On burnt ground amongst Moss. Farnham, Bucks., Febr. 1922; near Mere, Wilts., May 1923.

This species is distinguished from its allies by the extreme fineness of the reticulations on the spores. A comparatively large species it is easily seen on account of its brilliant colour. Seaver records (Mycologia, VI, p. 9 (1914)) that in two small gatherings of this fungus in America the apothecia were only about 1 mm. across.

Saccobolus globulifer Boud. in Ann. Sci. Nat., 5th ser., X, p. 232 (1869), pl. 9, fig. XXI.

A number of specimens of this Discomycete came up on what appeared to be horse dung taken from a manure heap at Leeds in April 1922. Macroscopically it is indistinguishable from *S. violascens* Boud. with which it was growing. Characterized by the balling of the spores which when separated are seen to be wedge-shaped, rough on the outside and smooth on the two inner sides of the wedge, it is easily recognised under the microscope. The specimens examined agree closely with Rehm's description and illustration in Rabenhorst's Kryptogamen-Flora, III (1894), pp. 1111 and 1119.

Apothecia scattered or gregarious, sessile, cinereous violet 0·5 mm. broad. Asci clavate, apex blunt, base prolonged into a stem, 70–90 μ long × 20–30 μ broad, 8-spored. Spores wedge-shaped, smooth on the two inner sides, rough on the outside, at first hyaline, passing through violet to brown when mature, 14–16 μ long × 7–8 μ broad, at first combined in a ball and afterwards separating; the secondary membrane typical of the Saccobolaceae not seen. Paraphyses filiform, septate, clavate upwards, 3 μ broad (× 5–7 at the apex), colourless.

As pointed out by Rehm, his description does not wholly agree with the figures in Boudier's classical monograph on the Ascobolaceae.

REMARKS ON THE NATURE AND DEFINITION OF SPECIES.

By R. C. McLean.

The radical difficulty besetting all classification, the delimitation of the units employed, is nowhere more prominent or more acutely felt than in mycology, where the study of the subject organisms has arrived at a higher degree of intensity than prevails in possibly any other plant group. This very intensity of study has led to the expression of opinions antagonistic to those prevailing among the majority of systematists in other