typical of *P. cedrelae* P. Henn. In addition, simple unbranched conidiophores are aggregated into loose synnemata whereas in *P. cedrelae* they are separate and formed from radially lobed basal cells. Despite these differences the species is considered to display more affinity with *Pseudobeltrania* than with other genera in the tribe.

Pseudobeltrania chumrungensis sp.nov. (Fig. 1)

Coloniae amphigenae, vulgo hypophyllae, olivaceo-griseae, effusae. Mycelium superficiale ex hyphis repentibus ramosis, pallide brunneis, levibus, septatis, 1·5–4 μm crassis compositum. Mycelium immersum ex hyphis hyalinis, ramosis, levibus, septatis, in contextibus folii. Conidiophora in synnematibus laxis ex lateribus hypharum superficialis oriunda, pallide brunnea, parietibus tenuibus, levibus, ad basim raro ramosa, 0–1(2)-septata, usque ad 15–40 μm longa × 3–5·5 μm crassa; cellulis conidiogenis terminalis cum 1–7 cicatricibus magnis incrassatis procurrens prope apices. Conidia (blastospora) ex apicibus complanatis cicatricum formata, aseptata, levia, equaliter pallide brunnea, limoniformia, lenticularis, ad basim complanata vel truncata cum cicatrice incrassata, ad apicem apiculata, 15·5–23(20) μm × 7–9·5(8·5) μm.

In apice emortuo *Rhododendri* sp., Chumrung, Machhapuchhara, Nepal, M. R. Sutton, 11 Oct. 1969, IMI 143722 Typus.

Colonies amphigenous, mostly hypophyllous, olive grey, effuse. Superficial mycelium composed of branched, septate, pale brown, smooth-walled hyphae 1·5–4 μm wide. Immersed mycelium composed of hyaline, thin-walled, septate hyphae ramifying in the leaf tissues. Conidiophores arise directly from the superficial mycelium, aggregated into loose synnemata, pale brown, thin-walled, smooth, branched only rarely at the base, 0–1 (2) septate, up to 15–40 μm long × 3–5·5 μm wide; conidiogenous cells terminal with 1–7 large thickened projecting scars which are flattened at the apices, more or less restricted to the apex. Conidia formed as blastospores from the projecting scars, aseptate, smooth-walled, evenly pale brown, limoniform, lenticular, flattened or truncate at the base with a thickened scar, at the apex apiculate, 15·5–23 (20) μm × 7–9·5 (8·5) μm.

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ARXIELLA LUNATA SP.NOV.

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An unusual hyphomycete was obtained from leaf litter during an investigation of the succession of micro-fungi on living leaves and leaf litter of the New Zealand hard beech (*Nothofagus truncata* (Col.) Ckn.).

The fungus was isolated from disks cut from freshly fallen leaf litter that had been serially washed using the technique of Kendrick & Burges (1962) and plated out on dextrose–peptone agar containing rose Bengal-streptomycin (Martin, 1950). Its morphological characteristics indicated that it should be placed within the genus *Arxiella* Papendorf (1967) which was erected for a litter and soil fungus, *A. terrestris*, which had sufficient dissimilar characteristics to separate it from the apparently closely related genera *Scolecobasidium* Abbott and *Diplorhinotrichum* Höhnel.

Arxiella lunata sp.nov. (Fig. 1 A–C)

Mycelium appressum, maculis sicutissimo brunneis (bistre) cum olivaceo-viridibus ad viridi-nigris in quibusdam partibus. Hyphae leves, septatae, ramosae, crasso pariete, cum iuvenes 2–3 μm diam, hyalinae vel sub-coloratae, evadentes toruloideae 6–8 μm diam, pallide olivaceae. Chlamydosporae intercalares, 7–10 μm diam, sub-globosae, leves, crasso pariete. Conidiophora unicellularia vel multicellularia; unicellularia, clavata cylindrica vel irregularia, 3 μm diam; multicellularia filamentosa, simplicia vel ramosa, angulata plerumque contorta, subcolorata, 3–5 μm diam. Conidia sessilia vel brevibus denticulis producta in conidiophoras, singulatim oriunda sed in fasces constricta. Conidia plerumque lunata, asymmetrica, terminis, bicornutis ad apices rotundatis, plerumque in medio 1-septata, levia, pariete tenui praedita, hyalina vel sub-colorata 10–17 × 3–4 μm.

Habitat in humo silvatico sub *Nothofagus truncata*, Silverstream, Wellington, N.Z. Typus ut cultura **IMI** 149915 et Q.W.R. S. 69.

Colonies on potato–dextrose agar at first white with pinkish white patches (especially on the reverse), becoming light bistre with olive green to green-black patches (especially on the reverse). Mycelium partly immersed in the medium, attaining 16 mm diam within 1 week at 25 °C. Young hyphae 2–3 μm diam, branched, septate, smooth, thick-walled, hyaline to subhyaline. Old hyphae with inflated cells, deeply constricted at the septa, subdivided by secondary septa, becoming toruloid, 6–8 μm diam, faintly olivaceous, olive in mass. Chlamydospores present, intercalary, 7–10 μm diam, subglobose, smooth, thick-walled. Conidiophores one- to many-celled; unicellular conidiophores clavate, cylindrical or irregular, continuous with hyphae or basally septate, 3 μm diam; multicellular conidiophores filamentous, occasionally clavate or cylindrical, simple of branched, entire conidiophore usually contorted, markedly angular at the septa, individual cells cylindrical or irregular, subhyaline, 3–5 μm diam, thick-walled, all cells conidiogenous. Conidia sessile on conidiophores or on short protuberances, the latter not left as distinct tubular appendages on the conidiophores; or conidia sessile on hyphae or on similar protuberances. Conidia borne singly, but often held together in loose clusters of up to six conidia. Immature conidia falcate or lunate, with sharply pointed apices, continuous, hyaline. Mature conidia 10–17 × 3–4 μm lunate, asymmetrical, ends bicornute with rounded apices, 1–3 transverse septa (usually one, medianly placed), smooth, thin-walled, hyaline or subhyaline.

Holotype subcultures of *A. terrestris* were compared with the isolate of *A. lunata*. Papendorf (1967) considered the most distinguishing and characteristic feature of *Arxiella* to be the shape of the conidia, which are reniform

with ends obliquely cornute. Conidia of *A. lunata* are more elongated and curved than those of *A. terrestris*, and are probably best described as being lunate. However, they share the other characteristics of *A. terrestris*

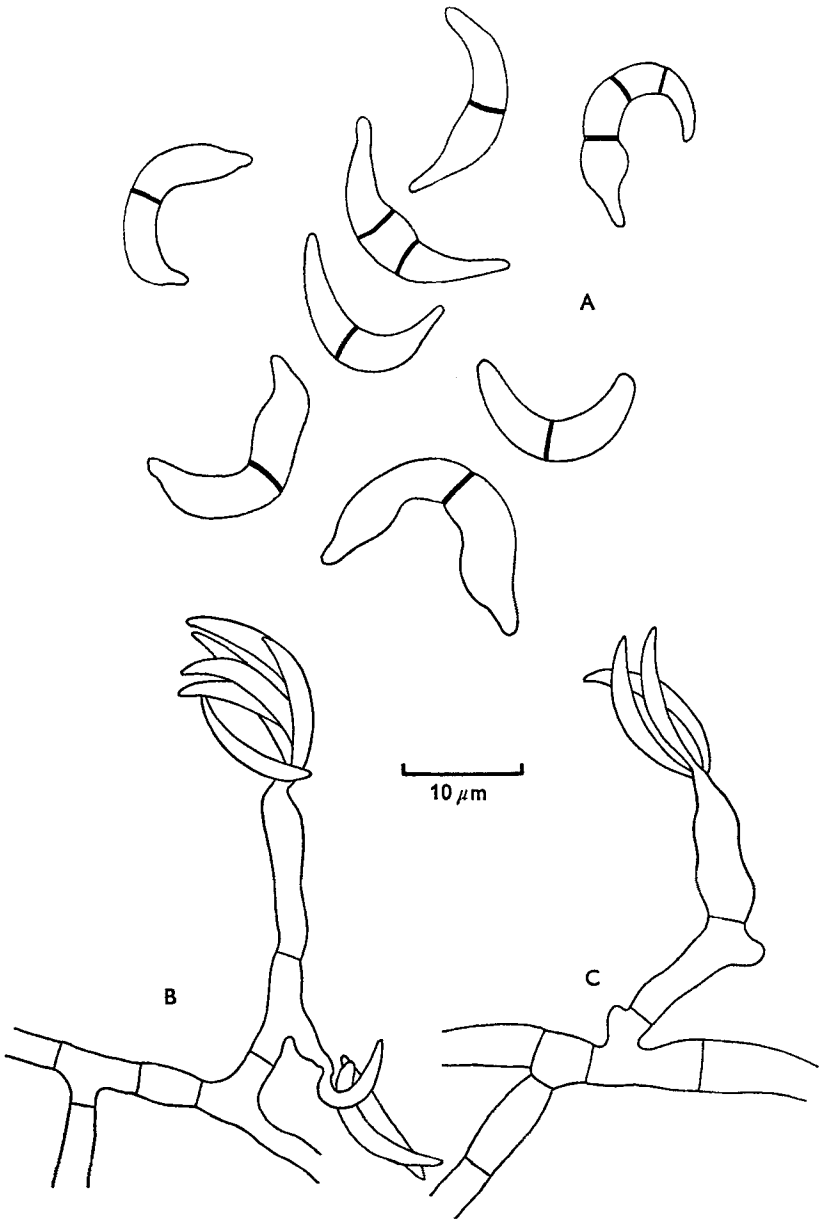

Fig. 1. *Arxiella lunata*. A, Mature conidia; B, C, conidiophores showing lateral and terminal clusters of young conidia.

conidia in that they are bicornute, asymmetrical, often medianly one-septate, and hyaline or subhyaline when old. Conidial shape was constant when *A. lunata* was grown on malt and Czapek-Dox agars. Thus the conidia of the two species have the same basic configuration, but they become reniform in *A. terrestris* and lunate in *A. lunata*. The generic diagnosis of *Arxiella* therefore requires amending to include this lunate spore form. No hilum is present on conidia of *A. lunata*, and this is presumably associated with the failure of the conidia to form chains of clusters of interconnected members as sometimes occurs with *A. terrestris*.

A. lunata may be further distinguished from *A. terrestris* which lacks chlamydospores, has compact, leathery growth with a distinctive metallic sheen, and a slower growth rate.

Both species of *Arxiella* appear to share the same type of habitat. *A. lunata* was not isolated from the soil under hard beech forest during seasonal sampling, although clusters of mature conidia were observed on Rossi-Cholodny slides buried in the humification layer of the litter.

The assistance of Fr G. Head of St Patrick's College, Silverstream, Upper Hutt, New Zealand, who prepared the Latin diagnosis is gratefully acknowledged. This note constitutes Soil Bureau Publication No. 494.

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PARMULARIOPSELLA BURSERACEARUM GEN. ET SP.NOV. AND *MICROCYCLUS PLACODISCI* SP.NOV.

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Parmulariopsella gen.nov.

Ascostromata epiphylla, superficialia, atra, discreta, irregulariter suborbicularia, complanato-convexa, radiatim porcata, plurilocularia, cum hypostromatibus in epidermide folii effectis per hyphas singulas numerosas cuticulam penetrantes connexa. Ex cellulis intimis hypostromatum hyphae 1–3, continuae, irregulariter ramosae, cellulas valli et interdum mesophylli, penetrant. Loculi multi, secus porcas radiantes lineariter aperientes. Asci numerosi, 8-spori, erecti, ellipsoidei vel obovoidei, apice rotundati, sessiles vel breviter stipitati. Paraphyses ramosae. Ascosporae conglobatae vel oblique biseriatae, laeves, brunneae, pyriformes, impariter 1-septatae, cellula superiore longiore latiore, constrictae.

Species typica: *P. burseracearum* A. Sivanesan.

Parmulariae Lév. similis sed epistromate (ascostromate) cum hypostromate per hyphas