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## ADDITIONS TO THE MYCOFLORA OF SOUTH-WESTERN UGANDA

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### INTRODUCTION

The mycoflora of Uganda has probably received more attention than that of other territories in tropical Africa, largely due to the work of C. G. Hansford, Mycologist and then Senior Plant Pathologist to the Uganda Government from 1926 to 1945. The first list of Uganda fungi appears to have been by Miss A. L. Smith (1895) recording material collected by Scott Elliot in the Ruwenzori. The lists of Maitland & Wakefield (1917) and Wakefield (1920) are more comprehensive and the former contains some ecological notes. Hansford published two host lists of Uganda parasitic fungi, each in several parts. The first list (Hansford, 1937a, 1937b, 1937c, 1937d, 1938a) was usefully annotated; the revised list (Hansford, 1943a, 1943b, 1943c) was of nomenclature only. Hansford also initiated the publication of a series of taxonomic papers on Uganda fungi. Two papers on the Meliolinae (Hansford, 1937e, 1938b) were succeeded by one on other Ascomycetes (Hansford, 1941) and others dealing with the Fungi Imperfecti (Hansford, 1943d), the smuts (Ainsworth, 1941), and the rusts (Wakefield & Hansford, 1949). New records and revisions occupied three further papers (Hansford, 1943e, 1944, 1945). Hansford specialized in the dark-coloured foliicolous Ascomycetes, especially the Meliolaceae. There are records and descriptions of new species and varieties of these and other groups from Uganda in papers dealing with fungi from a wider geographical area (Hansford, 1946, 1947a, 1947b, 1949, 1955a, 1955b, 1957, 1958). More recent collections of rust fungi from Uganda are reported by Henderson (1970).

This communication records 19 species of fungi collected (rather spasmodically) during a few days spent in the Ankole, Kigezi, and Toro districts of western Uganda in June 1970. This appears to be the first published Uganda record for 13 of these species, of which 2 are previously undescribed. Four appear to be new host records for Uganda, and 3 records extend the previously reported geographical distribution within Uganda. It is obvious that, although the Uredinales and Meliolineae may now be rather well known, many fungi, both saprophytic and parasitic, still await discovery in Uganda.

Accession numbers with the prefix DLE refer to the author's personal herbarium; that with the prefix S refers to a specimen in the Ukiriguru Plant Pathology Herbarium. Where IMI accession numbers are given, material has been deposited at the Commonwealth Mycological Institute, Kew. Records believed to be new for Uganda, for the host species in Uganda, or for the locality are marked respectively with an asterisk (\*) against the fungus, host, or district name. The classification in the list below follows that outlined in the Plant Pathologist's Pocketbook (C.M.I., 1968, pp 5—6).

## SYSTEMIC LIST

### MYXOMYCOTINA

#### Myxomycetes

##### *Arcyria denudata* (L.) Wettst.\*

On old papyrus thatch; 1900m, Kabale, Kigezi, 6. vi. 1970. DLE 128, 133, 134, 137, 138; IMI 151245, 151251, 151254, 151255.

##### *Arcyria cinerea* (Bull.) Pers.\*

On old papyrus thatch; 1900 m, Kabale, Kigezi. 6. vi. 1970. DLE 129, 136; IMI 151246, 151253.

##### *Arcyria incarnata* Pers.\*

On old papyrus thatch; 1900 m, Kabale, Kigezi, 6. vi. 1970. DLE 139; IMI 151256.

##### *Comatricha laxa* Rost.\*

On old papyrus thatch; 1900 m, Kabale, Kigezi, 6. vi. 1970. DLE 130, 131, 132; IMI 151247, 151248, 151249.

### ASCOMYCOTINA

#### Sphaeriales

##### *Phyllachora bonariensis* Speg.\*

On *Setaria homonyma* (Steud.) Chiov. GRAMINEAE. 1900 m, Bwama Is., Lake Bunyoni, Kigezi, 6. vi. 1970. DLE 154; IMI 155321.

#### Erysiphales

##### *Oidium* stage of an Erysiphaceous fungus.

On fruits of an Umbellifer, possibly *Lefeburia* sp.\* (not matched in the East African Herbarium). 1800 m, Lake Mulehe, Kigezi, 7. vi. 1970. DLE 156.

### BASIDIOMYCOTINA

#### Ustilaginales

##### *Entyloma dahliae* Syd.

On *Dahlia variabilis* (Willd.) Desf. COMPOSITAE. 1900 m, Kabale, Kigezi\*, 6. vi. 1970. S 69; 155337. S 69; IMI 1555337.

#### Uredinales

##### *Puccinia andropogonis* Schw.\*

On *Amphicarpa africana* (Hook. f.) Harms. PAPILIONACEAE. Aecidial stage. 1800 m, Lake Mulehe, Kigezi, 7. vi. 1970. DLE 155; IMI 155322.

##### *Puccinia dietelii* Sacc.\*

On *Chloris pilosa* Schumach. & Thonn. GRAMINEAE. 950 m, Katwe, Toro, 11. vi. 1970. DLE 159; IMI 155325.

##### *Puccinia guizotiae* Cumm.\*

On *Guizotia scabra* (Vis.) Chiov. COMPOSITAE. 1800 m, Lake Mulehe, Kigezi, 7. vi. 1970. DLE 147; IMI 155314.

##### *Puccinia nakamishikii* Diet.

On *Cymbopogon afronardus* Stapf\* GRAMINEAE. 1300 m, nr. Kagera River, Nsongezi.

Ankole\* 5. vi. 1970. DLE 158; IMI 155324.

*Puccinia ocimi* Doidge

On *Ocimum suave* Willd. LABIATAE. Aecidial stage. 1800 m, Lake Mulehe, Kigezi\*, 7. vi. 1970. DLE 152; IMI 155319.

*Uromyces polygoni-avicularis* (Pers.) Karst.

On *Polygonum setosulum* A. Rich.\* POLYGONACEAE. 1900 m, Kisoro, Kigezi, 7. vi. 1970. DLE 146; IMI 155313.

*Aecidium glycines* P. Henn.\*

On *Glycine javanica* L. PAPILIONACEAE. Parasitized by *Cladosporium* sp. 1800 m, Lake Mulehe, Kigezi, 7. vi. 1970. DLE 161; IMI 155327.

*Aecidium matapense* Cumm.\*

On *Dichrocephala integrifolia* (L.) O. Ktze COMPOSITAE. 1900 m, Kabale, Kigezi, 5. vi. 1970. DLE 148; IMI 155315. Exobasidiales

*Kordyana celebensis* Gaum.\*

On *Commelina benghalensis* L. COMMELINACEAE. Forming white patches on the leaves. 1900 m, Bwama Is., Lake Bunyoni, Kigezi, 6. vi. 1970. DLE 151; IMI 155318.

## DEUTEROMYCOTINA

### Hyphomycetes

*Cercospora kigeziensis* D. L. Ebbels & F. C. Deighton\* sp. nov.

Maculae amphigenae, ellipticae, atro-fuscae, usque 14×6 mm, centro interdum pallidiores; caespituli numerosi amphigeni, crebri, in epiphylo dispersiores; stromata olivaceo-brunnea, usque 135×50 μm; conidiophora dense fasciculata, pallide olivacea, recta vel sinuosa, simplicia, 0–2 septata, usque 80 μm longa et 4.5 μm lata, cicatrices conidiales inconspicuae, non incrassatae; conidia subcylindrica, levia, plerumque leniter curvata, apicem versus leniter attenuata, pallide olivacea, apice obtusa, hilo truncato non incrassato 2.5–3.0 μm diam., 3–12 septata, non constricta, 40–80×3.4–4.8 μm (Fig. 1).

*Hab. in foliis Polygalae ruwenzoriensis* Chod. POLYGALACEAE. Lake Mutanda, Kigezi Dist., Uganda Alt. 1,850 m, 7. vi. 1970. DLE 150; IMI 155317 typus.

Spots on both corresponding surfaces of the leaves, elliptical, dark brown, up to 14×6 mm, sometimes with paler centres; caespituli numerous on both leaf surfaces, crowded, more scattered on the adaxial surface; stromata olive-brown, up to 135×50 μm; conidiophores densely fasciculate, pale olive-brown, straight or sinuous, simple, 0–2 septate, up to 80 μm long and 4.5 μm wide, conidial scars inconspicuous, unthickened; conidia subcylindric, smooth, usually slightly curved, slightly attenuate towards the apex, pale olive, obtuse at the apex, with a truncate unthickened hilum 2.5–3.0 μm diam., 3–12 septate, not constricted, 40–80×3.4–4.8 μm (Fig. 1).

On leaves of *Polygala ruwenzoriensis* Chod. POLYGALACEAE. Lake Mutanda, Kigezi Dist., Uganda. Alt. 1,850 m, 7. vi. 1970. DLE 150; IMI 155317 type.

Among the numerous species which have been described in the very large genus *Cercospora* are several hundred showing characters (including the unthickened conidial scars) more or less similar to those of *C. kigeziensis* which, although not a true *Cercospora*, is best placed in that genus pending its thorough taxonomic revision.

In genera such as *Cercospora* it is customary to distinguish species according to their hosts. Although this leads to an undesirable multiplicity of names for morphologically very similar fungi, it is the most convenient system to use until the various host ranges are more fully investigated; a task which will take many years. Eventually it is possible that the creation of *formae speciales* to distinguish morphologically similar forms with differing host ranges might provide an acceptable solution to this problem in the classification of the *Cercospora* complex, as it has done in the classification of *Fusarium oxysporum* Schlecht. emend. Snyder & Hansen.

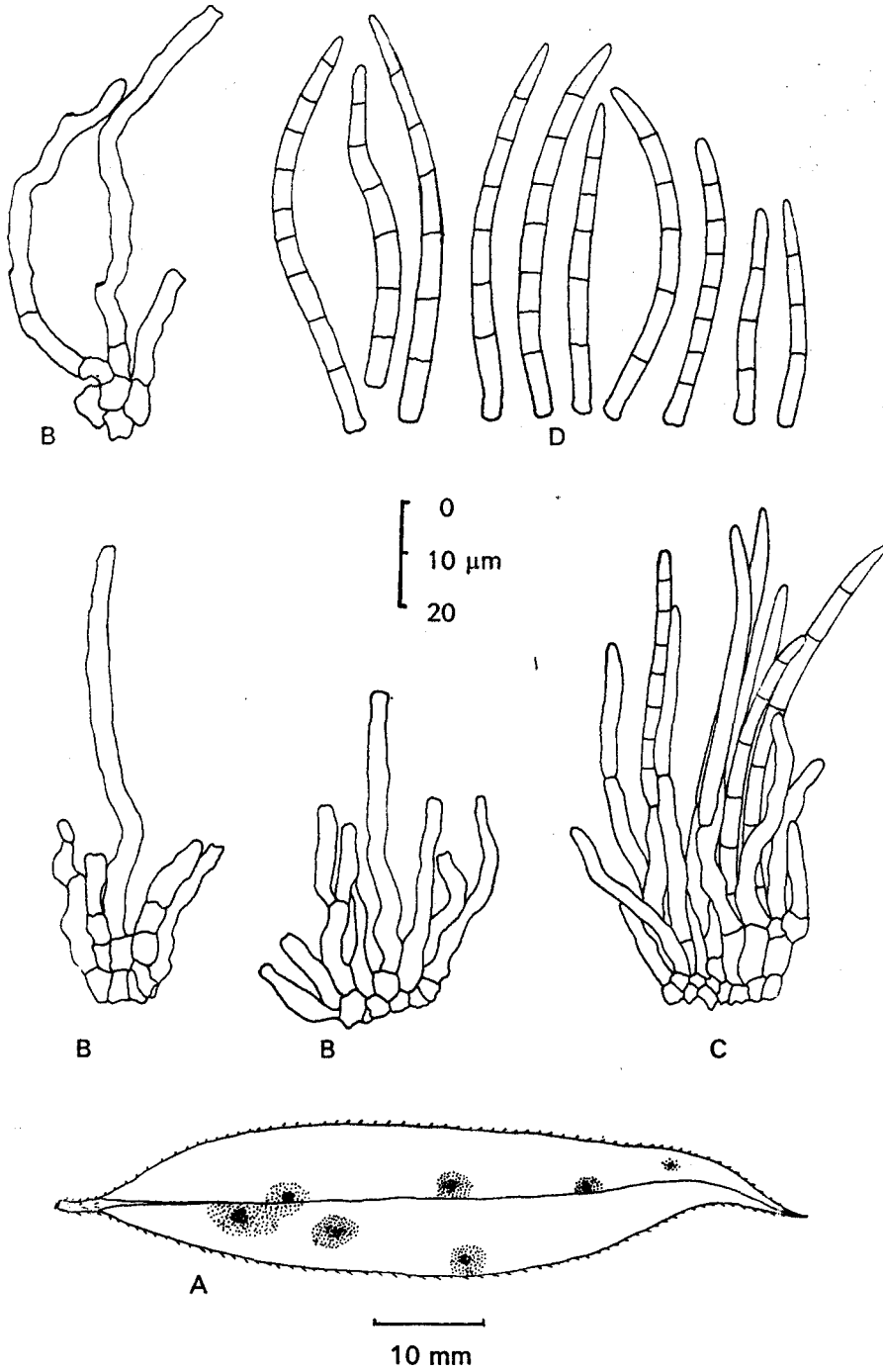


Fig. 1. *Cercospora kigeziensis*. A, spots on leaf of *Polygala ruwenzoriensis*; B, caespituli with stromata and conidiophores; C, caespitulum showing conidiophores with conidia attached; D, conidia.

*Fusarium* sp.

On *Pennisetum trachyphyllum* Pilg.\* GRAMINEAE. Associated with a leaf blotch. 1900 m, Bwama Is., Lake Bunyoni, Kigezi, 6. vi. 1970. DLE 165; IMI 155331. *Ramularia-like fungus\* undescribed.*

On *Pavonia urens* Cav. var. *tomentosa* (Ulbr.) Brenan MALVACEAE. Leaf spot. 1,800m, Lake Mulehe, Kigezi, 7. vi. 1970. DLE 153; IMI 155320.

The spots are circular, up to 5 mm diameter, with a very dark purplish-brown margin. The hyaline conidia and conidiophores impart a whitish centre to sporulating spots. Mr. F. C. Deighton (C. M. I.) comments: 'A *Ramularia*-like fungus, undescribed. Same as IMI 68741 from Kenya on the same host, but in better condition. . . . The conidial scars are not as conspicuous as in the type of *Ramulariopsis*.' It appears that further studies on other collections of this fungus and its near relatives are required before its true taxonomic position can be firmly ascertained. For this reason it is merely reported in this communication and is not scientifically described.

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#### SUMMARY

The literature on Ugandan fungi is briefly reviewed. Nineteen species of fungi collected in 1970 in the Ankole, Kigezi and Toro districts are listed. Thirteen species are believed to be new records for Uganda, including 2 previously undescribed species. *Cercospora kigeziensis* Ebbels & Deighton sp. nov. is described.

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