ACTA MYCOLOGICA
Vol. XXVII (2): 267-269
1991-1992

Two new species of Myxomycetes from Southern Nigeria

EJALE U. ANGELA and GILL L. S.

Dept. of Botany University of Benin, Benin City,
Nigeria

Ejale U. Angela and Gill L. S.: *Two new species of Myxomycetes from southern Nigeria.* Acta Mycol. XXVII (2): 267-269, 1991-1992.

Two new species of *Arcyria* viz: *A. papila* sp. nov. and *A. biniensis* sp. nov. are described from Nigeria.

INTRODUCTION

This paper records two new species of *Myxomycetes* from Edo State (Lat. 5°N and 8°S, Long. 5°E and 7°E) of Nigeria. The type materials have been deposited in the herbarium of the Department of Botany, University of Benin and the deplicates have been sent to the Commonwealth Mycological Institute, Surry, London.

MATERIALS AND METHODS

Fructifications on the bark of oil palm trees (*Elaeis guineensis* Jacq.) and dead rubber trees *Hevea brasiliensis* (Wild. ex Adr. de Juss.) Muel.-Arg. were collected during the raining season. The method outlined by Martin and Alexopoulos (1969) was followed for the microscopic studies. Identifications were done following Lakhanpal and Mukerji (1980), and Martin et al. (1983). Confirmation of identifications was done by Prof. T. N. Lakhanpal of Himachal Pradesh Uniwersity, Simla India.

RESULTS

Arcyria biniensis sp. nov. (Fig. 1a, b, c)

Diagnosis. *Fructificatio sporangiate, gregarilis, 2.4 mm, hypothalus conspicuus, petiolo et sporangiis aequalis elatus; sporae binatim globosis, luteo-brunneae; capillitium brunneum, 3.4 µm diam., cum spinae; plasmodium ignoto.*

Type Locality: Benin City. Habitat: Bark of oil palm trees (*Elaeis guineensis* Jacq). Collection No.: E89045. Distribution: Nigeria.

Fructification 2.0 mm tall, gregarious; very conspicuous hypothallus, stipe and sporangium almost equal in length; spores in pair, yellowish brown, globose, 5.04 µm in diameter, double walled, capillitium brown, 3.4 µm in diameter, with cogs and long spines occasionally interrupted by a complete band around the capillitium threads.

The unique feature of this *Arcyria* species from West Africa is the equal length of the stipe and the sporangium. This feature is not seen in any known species of *Arcyria*. The spores are globose in shape, and yellowish brown in colour. Capillitium is narrow and ornamented by long broad wavy bands; spores occur mostly in pairs.

Arcyria papila sp. nov. (Fig. 1d, e, f)

Diagnosis. *Fructificatio gregaria latericia, stipitis, atrobrunnea, 1.7 x 0.07 mm; sporangium 4.4 x 1.00 mm; sporae dilute-brunneae, 5.0 µm diametro, paries duplex; capillitium 7.0 µm diam., cum spinae.*

Type locality: Opoji. Habitat: Bark of dead rubber trees (*Hevea brasiliensis* Wild. ex Adr. de Juss.) Muell. ex Arg. Collection No.: E89018. Distribution: Nigeria.

Fructification gregarious, brick red; stipe dark brown, 1.7 x 0.07 mm; sporangium 4.4 x 1.0 mm, spore light brown, two walled, 5.0 µm in diameter capillitium 7.0 µm in diameter, ornamented with spines occasionally interrupted by rings, froms characteristic triangular loops, peridium persistent, with a unique nipple-shaped structure at the tip of each sporangium and a well defined cup (calyculus) at the base of cylindrical sporangium.

This new species of *Arcyria* from Nigeria displays a unique feature in having an extended peridium at the tip of the sporangium in the from of a nipple-like structure. It also has prominent smooth cup-like calyculus. The capillitium has threads with prominent curved spines occasionally interrupted by hands.

The authors are grateful to Prof. T. N. Lakhanpal for confirming the identification and Mrs. C. J. Alexopoulos for sending the reprints of the publications of late Prof. C. J. Alexopoulos.

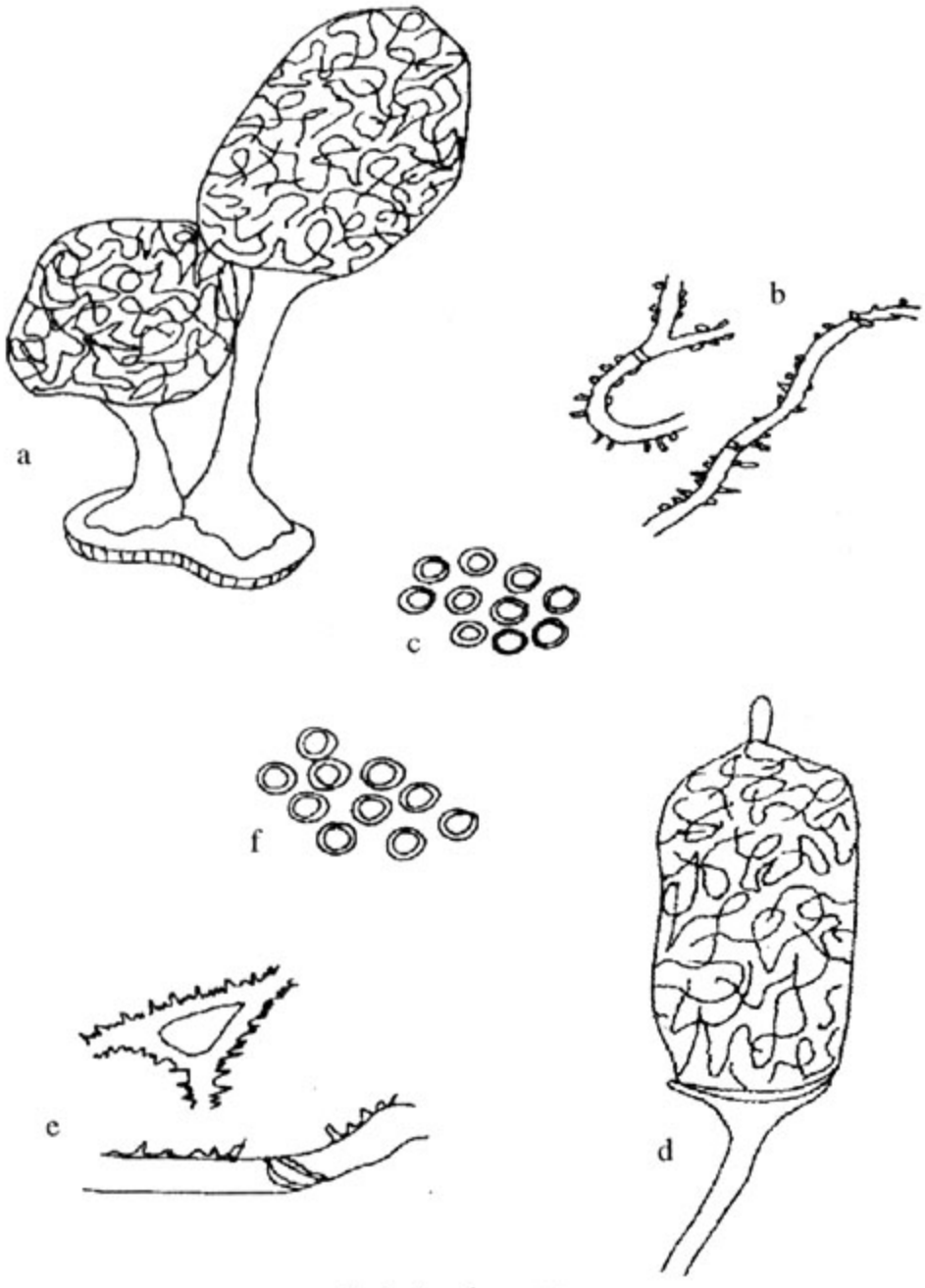

Fig. 1. *Arcyria* sp. nov.

A. biniensis sp. nov.: a – gregarious fructifications (x 70), b – capillitium threads (x 100), c – spores (x 1,200)
A. papila sp. nov.: d – spores (x 1,200), e – sporangium with nipple-like projection (x 30), f – capillitium threads (x 1,400)

REFERENCES

Lakhanpal T. N., Mukerji K. G., 1981. Taxonomy of the Indian *Myxomycetes*. Bibliotheca, mycologia, 78. J. Cramer, pp. 530.

Martin G. W., Alexopoulos C. J., 1969. The *Myxomycetes*. Univ. of Iowa Press, Iowa City. pp. 56.

Martin G. W., Alexopoulos C. J., Farr M. L., 1983. The geneva of *Myxomycetes*. Univ. of Iowa Press, Iowa City, pp.56.