

## FUNGI FROM THE DJA BIOSPHERE RESERVE (CAMEROON). NOTES ON SOME *GASTEROMYCETES*

by

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**Summary.** CALONGE, F.D. & P.P. DANIËLS (1998). Fungi from the Dja Biosphere Reserve (Cameroon). Notes on some *Gasteromycetes*. *Bol. Soc. Micol. Madrid* 23: 171-174.

Four species of *Gasteromycetes* collected in the Biosphere Reserve of Dja (Cameroon), are briefly described and commented. Two of them: *Cyathus striatus* and *Sphaerobolus stellatus* are well-known in Europe, being cosmopolitan, and the other two: *Geastrum schweinitzii* var. *stipitatum* and *Phallus indusiatus* show a typical pantropical distribution.

**Key words:** *Gasteromycetes*, taxonomy, ecology, chorology, Cameroon, Central Africa.

**Resumen.** CALONGE, F.D. & P.P. DANIËLS (1998). Hongos de la Reserva de la Biosfera del Dja (Camerún). Notas sobre algunos *Gasteromycetes*. *Bol. Soc. Micol. Madrid* 23: 171-174.

Se describen y comentan cuatro especies de *Gasteromycetes* recolectados en la Reserva de la Biosfera del Dja (Camerún). Dos de ellos, *Cyathus striatus* y *Sphaerobolus stellatus*, son cosmopolitas y bien conocidos en Europa, mientras que los otros dos, *Geastrum schweinitzii* var. *stipitatum* y *Phallus indusiatus*, presentan distribución típica pantropical.

**Palabras clave:** *Gasteromycetes*, taxonomía, ecología, corología, Camerún, África Central.

### INTRODUCTION

In 1997, one of us (P.P.D.), spent a month in the Dja Biosphere Reserve and had the opportunity to collect a series of fungi belonging to different groups. Among the species collected there were four *Gasteromycetes*, two of which show a chorological interest. Thus, we decided to publish a short note on them to contribute to a better knowledge on these fungi. The material studied is preserved at the MA-Fungi herbarium.

### MATERIAL STUDIED

***Cyathus striatus*** (Huds.: Pers.) Willd.: Pers.

The specimens studied show the same features as the European ones. Both macro- and microscopy are identical to those presented in the Iberian collections (CALONGE, 1998). The material from Cameroon was growing on dead wood, at

2 kilometres of Bouamir in the path to Somalomo, 12° 48' E, 3° 14' N, 660 m, leg. *P.P. Daniëls, C96Daniëls*, 3-VII-1997, MA-Fungi 39158.

***Geastrum schweinitzii* var. *stipitatum*** (Solms ex Fischer) P. Ponce

≡ *G. stipitatum* Solms ex Fischer

= *G. congolense* Dissing et Lange

The material examined consists in 7 basidiocarps, from which 6 of them were unripe and only one well-developed. Unexpanded basidiocarps 1-1.8 cm broad, globose to ovoid, caespitose, tapering into a short stipe, arising from a prominent white mycelium covered by soil and plant debris. The most spectacular feature is the orange-brown tomentum, which forms conical to pyramidal warts. With maturity the exoperidium splits into 6 triangular lobes which tend to bend outside keeping unhygroscopic and somewhat saccate, slightly rufescent at inner surface (fig. 1). Mycelial layer thick, persistent, tomentose, reddish-brown; fleshy layer thin, brownish. Endoperidium sessile, 12 mm diam., globose, smooth, with a colored peristome and a fimbriate mouth. Spores 3-3.5  $\mu\text{m}$  diam., globose, delicately spinulose, brownish; capillitium thick-walled, with or without lumen, 3-6  $\mu\text{m}$  diam., paler than the spores, with tapering ends, not branching.

*Observations.*—This taxon shows a pantropical distribution. Originally found in Java, it is actually known in the tropics and neotropics (DISSING & LANGE, 1962; PONCE DE LEÓN, 1968; CALONGE & VERDE, 1996). It is easy to identify taking in mind the tomentose exoperidium, the tapering stipe and the capillitium with



Fig. 1.—*Geastrum schweinitzii* var. *stipitatum*: A group of 7 basidiocarps, from which only one is open (MA-Fungi 39161).

unbranched ends, which separates *G. schweinitzii* var. *stipitatum* from other African taxa of this genus (CALONGE & *al.*, 1997).

The material studied was found growing on dead wood, 2 kilometres from Bouamir to Somalomo, 12° 48' E, 3° 14' N, 660 m, leg. *P.P. Daniëls*, C99Daniëls, 3-VII-1997, MA-Fungi 39161.

***Phallus indusiatus* Vent.: Pers.**

≡ *Dictyophora indusiata* (Vent.: Pers.) Desv.

= *D. phalloidea* Desv.

= *D. braunii* P. Henn. apud Sacc.

The fungus, before reaching maturity, consists in a globose egg, 2-4 cm diam., rooting by one to several mycelial strands, dirty white with some shades of lilac to purplish. Dehiscence by apical splitting, forming a basidiocarp up to 15 cm high;



Fig. 2.—*Phallus indusiatus*: Mature basidiocarp showing a well-developed indusium (MA-Fungi 39157).

pseudostipe hollow, spongy, white, tapering towards the apex and keeping the residual egg as a volva-like body at the base.

Receptacle conical, reticulate, open on the top and covered by the gleba, which is mucid, foetid, olivaceous and quickly removed by rain water, insects and other animals. The most spectacular feature is the indusium, a well-developed network, white, pendant, covering the length of the stipe (fig. 2).

The meshes forming the indusium are very variable in size; 1-3 mm wide in some specimens and 8-12 mm wide in others. Spores ovoid,  $2.5-3.5 \times 1.5-2 \mu\text{m}$ , smooth, hyaline.

*Observations.*—*Phallus indusiatus* is a pantropical species, which has already been previously recorded in Cameroon by DRING (1964). According to this author, the West African forms are always pale-coloured or white; strongly coloured specimens are known from other continents. This fact has induced to propose different names, such as *Phallus multicolor*, *P. quadricolor*, etc., which can not be separated as independent species on the basis of showing a different colour.

There is a superstition about this species among population in the Reserve, which says that everyone who touch it will be unlucky.

The material examined was growing in the neighbouring of Mbouma, in the path towards the river Dja,  $13^{\circ} 5' \text{ E}$ ,  $2^{\circ} 45' \text{ N}$ , 600 m, on dead wood in the forest, leg. *P.P. Daniëls*, *C177Daniëls*, 14-VII-1997, MA-Fungi 39157. Other collection was found in an open area, among grasses, near Somalomo,  $12^{\circ} 45' \text{ E}$ ,  $3^{\circ} 23' \text{ N}$ , 640 m, leg. *P.P. Daniëls* & *R. Nnamedoumou*, *C18Daniëls*, 26-VI-1997, MA-Fungi 39162.

### **Sphaerobolus stellatus** Tode: Pers.

The material examined is identical to that known in Europe (CALONGE, 1998). It was growing on dead wood, in the path from Bouamir, km 1.5, to Somalomo,  $12^{\circ} 48' \text{ E}$ ,  $3^{\circ} 14' \text{ N}$ , 660 m, leg. *P.P. Daniëls*, *C105Daniëls*, 3-VII-1997, MA-Fungi 39160.

### ACKNOWLEDGEMENTS

One of us (P.P.D.) would like to express his gratitude to the ECOFAC project (Cameroon component) and to the authorities of the Dja Biosphere Reserve for their help during his stay there, which made possible this work.

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