

A NEW SPECIES OF *CALICIOPSIS* FROM INDIA AND
SUMATRA *

A. Chaves Batista

In the course of taxonomic revision work of the CAPNODIALES fungi that we are doing with Prof. R. Ciferri we paid attention to the study of two distinct specimens identified as *Capnodium fructicolum* Pat.

These specimens lent us through the courtesy of the New York Botanical Garden have the following labels: "Plants of Nepal, India — *Capnodium fructicolum* Pat. on *Myrsine bifaria* = *Myrsine africana* Linn., n.º 22-942; and Plants of Sumatra — *Capnodium fructicolum* Pat. on *Embelia microphylla* Barthelett 8022, May 18, 1927".

Careful examination of the material from both specimens — has showed us the fungus as belonging to the CORYNELIACEAE family, and never to CAPNODIACEAE.

In searching the literature, at first we saw the description of Patouillard for *C. fructicolum* (Jour. of Bot. III, pag. 258-259, 1889, apud Saccardo (Syll. Fung. IX: 441, 1891) which was really in accordance with the characteristics of the family CORYNELIACEAE.

From this conclusion we looked up the previous work made around the CORYNELIACEAE members to know a probable new concept of this species clearly misinterpreted by Patouillard.

In fact, we found that v. Höehnel had observed the incorrect diagnosis of Patouillard and changed the name of the fungus to

* Publication n.º 69 — Institute of Mycology, University of Recife — Brazil

Corynelia fructicola (Pat.) Høehnel. (Sitzb. Kais. Akad. Wiss. Wien. 120: pag. 450, 1911). In this same paper v. Hoehnel defines *Corynelia carpophyla* Syd. described one year before (Engler Bot. Jahrb. 45: pag. 264, 1910) as identical with the *Corynelia fructicola*.

Arnaud (Ann. Epiphy. 16: pag. 269, 1930) proposing the new genus *Lagenula* transfers *Corynelia fructicola* (Pat.) v. Hoehn. to it under the binomium *Lagenula fructicola* (Pat.) Arn. This new genus *Lagenula* has been established as intermediate between *Sorica* and *Tripospora*, having sessile, bottle-shaped apothecia with brown globose ascospores.

More recently, Fitzpatrick, H. M. (Mycologia, 34: pg. 485-487, 492, 1942) revising the CORYNELIACEAE, erected another new genus — *Coryneliospora* with the species *C. fructicola* (Pat.) Fitzpatrick for the *Capnodium fructiculum* Pat. taking into consideration that Arnaud described *Lagenula* as possessing sessile ascocarp (called by himself aphotecia) while in the type species — *L. nigra* (Schleicher) Arnaud "a definite stalk is sometimes present", besides the characteristics of the spores show a "great dissimilarity".

The new genus *Coryneliospora* has ascostroma flask-shaped, sessile, the apex of beak perforated and enlarged like a funnel; asci 8 spored and ascospores brown, echinulate, thick-walled, the echinulate character of the spores distinguishing this genus from *Lagenulopsis* Fitzpatrick which is reserved, however, to species occurring only on *Podocarpus*.

So, the *Capnodium fructiculum* Pat. is now *Coryneliospora fructicola* (Pat.) Fitzp. being used for the study of Fitzpatrick the original material of Patouillard deposited at Harvard University, on fruits of *Myrsine* sp. and collected by Delaway, in the Province of Yun-nan, China, besides other specimens, including the type of *Corynelia carpophila* Syd. and specimens from India on *Myrsine africana*.

Submitting the material on hand to a complete study for the comparison with the *Coryneliospora fructicola* we could not find the supposed identity between them. Our fungus does not agree with that species, lacking essentially the echinulate ascospores.

In view of this discrepancy we were led to the genus *Caliciopsis* Peck. characters of which we verified as satisfactory to contain our fungus. The genus *Caliciopsis* has been also revised by Fitzpatrick (loc. cit), having until now 10 accepted species (Ainsworth & Bisby, A Dictionary of the Fungi, 1954). Following our observations none of this species of the genus *Caliciopsis* correspond to our species and for this fact we describe it below as a new species. It is important to point out the circumstance of their occurrence over

the fruits of *Myrsine africana* and *Embelia microphylla* since the *Coryneliospora fructicola* has been found for the first time on fruits of *Myrsine* sp., in China, and that our specimen comes from India, and has been identified also as *Capnodium fructiculum*, in a host of the same genus *Myrsine*. *Caliciopsis confusa* n. sp.

Mycelium parasitic in the fruits.

Stromata rounded, coriaceous, cespitose, 270-480 u diam. 360-420 u in height, brown-blackish, encircling the fruits.

Ascostroma dense gregarious to cespitose, radiate disposed, bristle like columnar to flask-shaped to clavate, 965-1720 u in height, not proliferant, markedly stalked or not, erect, somewhat curved or straight, with a tapering cylindrical beak, 40-45 u wide in the enlarged area where is the ascigerous locule; when clavate, the terminal clavate portion is 255-400 u wide; the beak is perforated at the maturity by a narrow cylindrical canal; the walls of the ascostroma are prosenchymatic to paraplectenchymatic, composed of rectangular cells, 8,5-28 x 3,5-6,5 u, the outer wall being brown-blackish and opaque; ascigerous locule lageniforme, 60-100 u wide, 180-250 u in height, in the middle or at the top of the ascostromatic column. Asci cylindric-clavate, 1-tunicate, stipitate, 16,5-30 x 6,5-9 u, 8-spored, paraphysate. Ascospores globose or subglobose, brown, continuous, smooth, epispore thick, 3,5-8 u diam. Immersed in the stromatic base there are inconspicuous pycnidia or spermogonia, globose depressed, astomous, 110-125 x 55-90 u brown-blackish, with thin pseudo-parenchymatic walls, 5,5-9 u wide, made of polygonal and subhyaline to brown cells, 3,5-4,5 x 3-4 u. Conidiophores null. Pycnidiospores or spermatia sessile, fusoidal, continuous, not guttulate, hyaline, 3-5,5 x 1-1,5 u, Figs. 1-4.

On fruits of *Myrsine africana* L. Nepal — India. Type. n.º 22942 in The New York Botanical Garden. Another specimen on *Embelia microphylla*, Barthelett, 8022, May 18, 1927, The New York Botanical Garden — U. S. A.

In association with this fungus there is also *Stysanus* sp.

.....
Mycelium parasiticum, fructigenum.

Stromata rotunda, coriacea, cespitosa, 270-480 u diam. 360-420 u alt, atro-brunnea. Spermogonia stromatibus immersis, inconspicua, globose-depressis, astomis, 110-225 x 55-90 u, atro-brunneis, paries tenuiter pseudoparenchymaticis, ex cellulis polygonalis, subhyalinis vel brunneis, 3,5-4,5 x 3-4 u, efformata. Conidiophoris nullis. Spermatiae fusoideae, sessiliae, continuae, non guttulae, hyalinae, 3-5,5 x 1-1,5 u. Ascostromata denseque gregaribus vel caespitosis, radiatim dispositis, columnaris vel lageniformibus vel clavatis, 965-1720 u alt., haud proliferantibus, stipitatis vel sessilibus, erectis, rectis, vel incurvatis, 40-45 u apicaliter diam, 100-140 u in area loculi ascigeri; in clavateformiae apicaliter diam 255-400 u diam; parietibus prosenchymaticis vel

paraplectenchymaticis, ex cellulis rectangularis, 8,5-28 x 3,5-6,5 u, atrobrunneis, opacis, efformata. Loculum ascigeris lageniformibus, 60-100 u diam., 180-250 u alt. medianis vel apicaliter compositum. Asci cylindro-clavati, 1-tunicati, 8 spori, stipitati, 16,5-30 6,5-9 u, aparaphysati. Ascosporae globosae vel sub globosae, brunneae, continuae, leviae, 3,5-8 u diam, episporiae crassae.

In fructibus *Myrsine africanae* L. Nepal, India. Typus. n.º 22942
The New York Botanical Garden. U. S. A.

.....
This species is allied to *Caliciopsis symploci* Fitz. having ascostroma of less height and more wideness, bigger asci and more irregular ascospores; the pycnidia are also immersed in the basal stroma.
.....

The writer wishes to acknowledge to Dr. M. Lourdes Nascimento for her generous assistance in drawing the annex pictures.

SUMÁRIO

Ao examinar tipos e amostras representativas de fungos CAPNODIALES de todo o mundo detivemo-nos sôbre especimens do Nepal — India, e de Sumatra, identificados como *Capnodium fructicolum* Pat. que nos foram cedidos, gentilmente, por The New York Botanical Garden. Verificamos que a diagnose não correspondia ao material, sendo o fungo pertencente à família CORYNELIACEAE. Revendo a literatura constatamos que v. Høehnel (1911) transferira aquele nome para *Corynelia fructicola* (Pat.) v. Høehn e, Fitzpatrick (1942) criara o novo gênero *Coryneliospora* para enquadrar essa espécie, sob a designação de *Coryneliospora fructicola* (Pat.) Fitzp.

Entretanto o esepcimen que estudamos não corresponde à *Coryneliospora*, desde que os seus ascosporos não se mostram equinulados e assim o reconhecemos como uma nova espécie de *Caliciopsis* — *C. confusa* n. sp. cuja descrição é feita também em latim, de vez que as suas características, embora próximas de *C. symploci* Fitzp. se afastam das de seus picnídios afora divergências acentuadas nas proporções micrométricas das demais estruturas de frutificação.

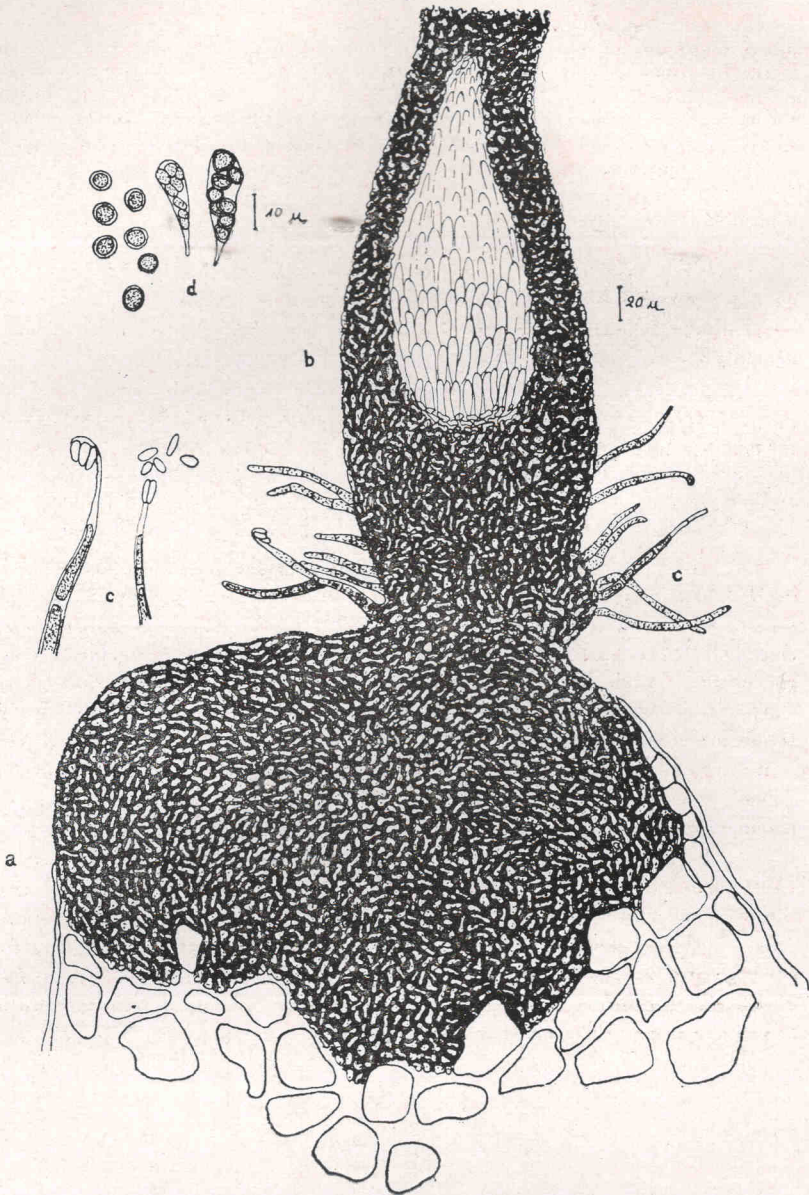


Fig. 1
CALICIOPSIS CONFUSA Bat.
a) Inflated, stromatic base.
b) Longitudinal cut of the ascigerous fructification
c) Conidiophores and conidia of *Stysanus* sp.
d) Asci and ascospores. Original.

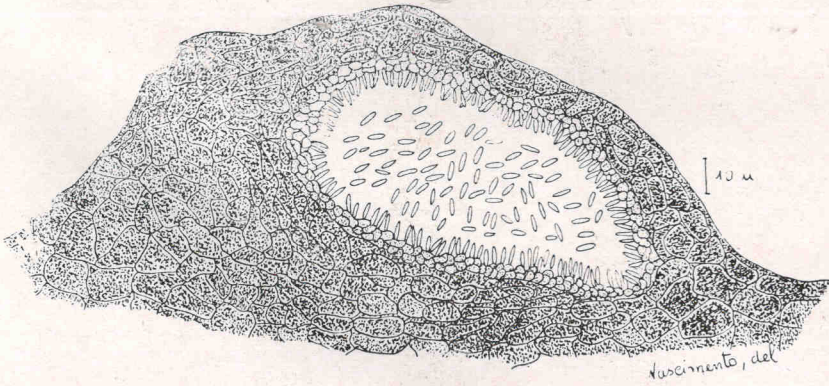


Fig.: 2

CALICIOPSIS CONFUSA Bat.

Pycnidial developed as immerse in the inflated stromatic base.

Orig.

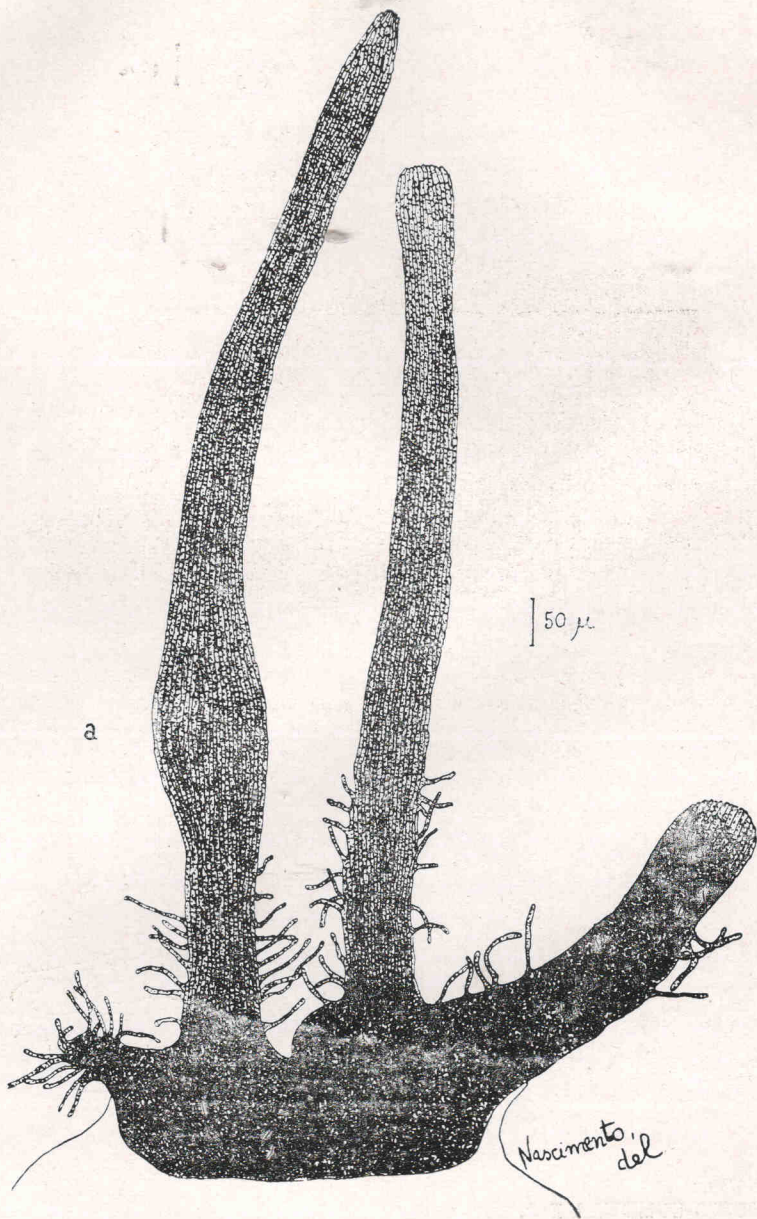


Fig.: 3

CALICIOPSIS CONFUSA Bat.

One aspect of the ascostromatic column, showing in
a) the enlarged area for an ascigerous locule. Orig.

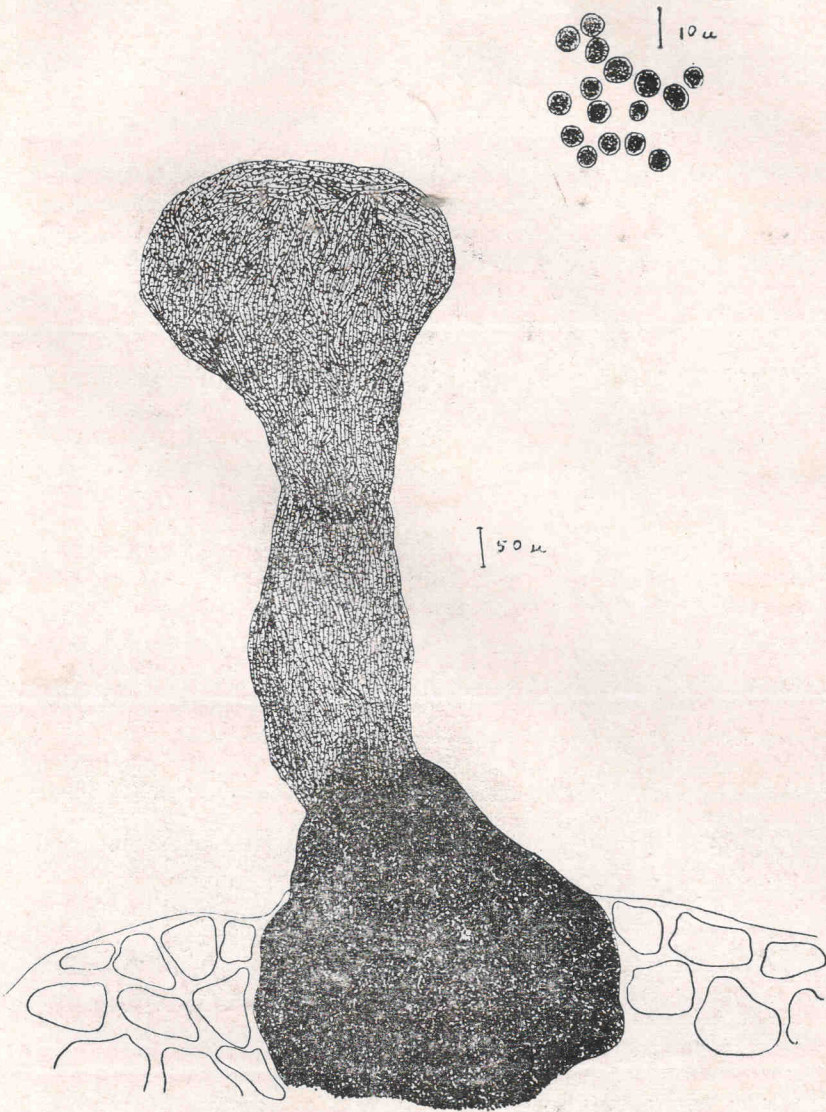


Fig.: 4
CALICIOPSIS CONFUSA Bat.
Another view of the ascigerous stage and ripen ascospores. Orig.