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NOTES ON THE GENUS SARCOSOMA

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In this paper arguments are put forward to show that *Galiella* Nannf. & Korf is in no way different from *Sarcosoma* Casp.

In the subclass of the Discomycetes, the genus *Sarcosoma* has the largest fructifications. The cups of *Sarcosoma globosum* may reach a width of 10.5 cm and a height of 7.5 cm.

Bessey (1), it is true, mentioned on page 196 a *Peziza cacabus*, also known as *Geopyxis cacabus* (Fr.) Sacc., which shows a fruiting structure 3 feet tall, with the cup 20 inches high and 25 inches wide, and the stipe 16 inches high and 3 inches thick. In passing it may be pointed out that this species was not described by Fries but by Ljungh (11) instead, a photocopy of whose paper could be studied through the kindness of Dr. M. A. Donk. From this it is obvious that *Peziza cacabus* surely is not a *Peziza*. The specific epithet '*cacabus*' suggests the Sundanese word 'kakabu', 'supa kakabu' being the name used in West Java for any species of *Calvatia*. *Calvatia gigantea* (Pers.) Lloyd is not rare in Java, but this species, although growing very large, does not fit the description. The plate accompanying the original paper shows an inverted bell-shaped structure provided with a rather long stipe. Although it is impossible to arrive at a satisfactory identification without studying the original material, I would suggest that the specimen depicted is no fungus, not even a plant, but the cup-shaped sponge *Poterion pateri* (Hardwicke) instead. This species neatly agrees with both description and picture.

Returning to the genus *Sarcosoma*, the type species *S. globosum* is still unchallenged in its position of the largest known cup fungus. This species was described in 1797 by Schmidel as *Burcardia globosa*. Fries, however, did not admit this genus, and transferred the species to his genus *Bulgaria*, where it was placed together with such other species as *B. inquinans* which is an inoperculate. Whereas Seaver (12) uses the generic name *Bulgaria* to accomodate the operculate, and *Phaeobulgaria* for the inoperculate species, most recent authors, like Korf (6), prefer *Sarcosoma* for the operculate species. In a second paper this author (7), in collaboration with Nannfeldt, creates a new genus *Galiella* Nannf. & Korf for four of the species out of the previous genus, indicating *Galiella rufa* (Schw.) Nannf. & Korf as the type species. The three remaining species are *G. javanica* (Rehm) Nannf. & Korf, *G. thwaitesii* (Berk. & Br.) Nannf., and *G. celebica* (Henn.) Nannf. It is not clear why *Sarcosoma orientale* Pat. was not incorporated in the new genus.

On carefully reading the generic diagnosis of *Galiella*, it appears that it fits all species of *Sarcosoma* with the exception of *S. globosum*, of which it must be admitted that

it has smooth spores. However, it may be pointed out that in the genus *Sarcosoma* a continuous series of species without and with variously developed spore ornamentations may be found: smooth spores are found in *S. globosum*, moderately developed spore ornamentation occurs in *S. javanicum* and *S. celebicum*, whilst the coarsest markings are to be found in *S. thwaitesii* and *S. orientale*.

According to Korf, *Galiella* would differ from *Sarcosoma*, first, in the callose-pectic markings of the spore-wall and, secondly, in the smaller apothecia which are said to contain no gelatinous fluid.

As to the spore markings, it has been shown above that these are absent only in *S. globosum*.

With regard to the size of the apothecia, this character cannot be accepted as being of generic value. There are numerous genera which include species with both small and large fructifications. Moreover, most species of *Galiella* are nearly as large as *Sarcosoma globosum*. The type species *Galiella rufa*, for one, is about 5 cm in diameter according to Seaver's Plate 56 (12); *G. javanica* is 4–8 cm in diameter and up to 5.5 cm high; *G. celebica* is 2–6.5 cm in diameter and 1–3.5 cm high. These are measurements from collections made in Indonesia which often consisted of a few specimens only. I am, however, convinced that when more material becomes available, still larger apothecia will be found.

Finally, as far as the third character mentioned by Korf is concerned, it is certainly not true that all species of *Galiella* lack a layer of liquid. Fresh specimens of *G. javanica* and *G. celebica* are known to squirt a jet of gelatinous liquid when squeezed, as I often had the opportunity to observe.

Thus, as the alleged differences between *Sarcosoma* and *Galiella* prove unsupported, *Galiella* is a superfluous name and must be rejected.

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