

CONCERNING THE STATUS OF THE GENUS LATERNEA

DAVID H. LINDER

*Mycologist to the Missouri Botanical Garden
Instructor in the Henry Shaw School of Botany of Washington University*

While in Cuba during the summer of 1924, the writer collected a member of the Clathreae which was subsequently determined in Saccardo ('88) as *Clathrus triscapus* (Turpin) Fr.

In going over the literature concerning the simple columnar species of *Clathrus*, it was observed that there were few statements as to the manner in which the gleba is borne. Examination of the figures accompanying the original descriptions led the writer to the conclusion that the majority of these simple species carry the gleba in the same fashion as do the more complex ones in which the columns anastomose to form a latticed sphere. In these latter forms, exemplified by *Clathrus cancellatus* and *C. crispus*, the gleba is closely applied to the inside of the columns or receptacles. However, in the genus *Laternea*, of which *L. triscapa* is the original species, the columns, strictly speaking, are stipes united above, and these subtend an angular body, subovate in outline, the "lanterne" of Turpin (1822).

A comparison of *C. columnatus*, *C. crispus*, and *C. cancellatus* brings out the fact that except for the gross morphological differences, the structure of the simple columnar and the more complex latticed species is essentially the same; that is, the columns may be relatively rough or even smooth on the outside, but on the inside they are always rough and pitted (pl. 20, figs. 3-6). It is to this pitted inside surface of the columns that the gleba is applied. Studies of preserved young material of *Clathrus columnatus* and observations of the other two species in the field at all stages of development amply support this view. There is certainly no evidence that, at the time of rupture of the volva, any definite receptacle other than the column is present.

Aside from the fact that the gleba of *Laternea triscapa* is strictly confined to the angled, subovate, specialized receptacle pendant from the junction of the apices of the columns, it differs from

C. columnatus and other similar members of that genus by being proportionately taller and more slender. In addition, the columns are less angular and the surfaces are smooth, both on the inside and outside (pl. 20, fig. 1, 2).

With the above distinction in mind, it becomes quite evident that Turpin (1822) was thoroughly justified in creating the genus *Laternea* for that form which bears the gleba in the manner mentioned. Accepting this view, then *Laternea triscapa* becomes the only representative of the genus and *Laternea columnata*, *L. pusilla*, *L. rhacoides*, *L. Spegazzini*, *L. angolensis*, and possibly *L. bicornata*, considered as belonging to the genus by Lloyd ('09), should be excluded and treated as members of the genus *Clathrus*, following the treatment by Fischer ('86). Certainly this is a more natural grouping, especially since *Clathrus columnatus* tends towards the more complex type represented by *C. cancellatus*. The latter species may at times be columnar below and only show anastomosis of the receptacle above, while in the former, as is shown in pl. 20, fig. 6, there is a tendency for the columns to divide to produce four or even five. If, however, it is deemed more convenient to separate the simple columnar members from the genus *Clathrus*, then the genus *Colonnaria* Rafinesque (1808), on the basis of priority, should be restored, and *Clathrus* of Micheli (1729) should be reserved for those forms with anastomosed receptacles.

In view of the former uncertainty concerning *Laternea*, it seems advisable, while restoring it to its original status, to re-describe the genus, and also the species as follows:

***Laternea* Turpin:** Columns slender, smooth, usually three, subtending from the junction of the apices an angular, subovate receptacle to which the gleba is restricted.

***Laternea triscapa* Turpin:** columns 3, "capucine buff"¹ at base, becoming "cadmium orange" above; smooth on inner and outer surfaces, 5-6.2 cm. long, 4-5 × 6 mm. in diameter, united above; receptacle pendant, "nopal red," angled, subovate in outline, 10 × 13 mm.; gleba deep olive; volva white, 15 × 20 mm.

In sugar cane field at edge of woods, Soledad, Cuba. Sep-

¹ Ridgway, R. Color standards and nomenclature. Washington, D. C., 1912.

tember, 1924, *Linder* (in Farlow Herb. at Harvard Univ. and writer's herbarium).

In conclusion, the writer wishes to express his indebtedness to Prof. William H. Weston, Jr. for the loan of the preserved material of *Clathrus columnatus* Bosc.

BIBLIOGRAPHY

- Fischer, E. ('86). Versuch einer systematischen Uebersicht über die bisher bekannten Phalloideen. Königl. Bot. Gart. u. Mus. Berlin, Jahrb. 4: 1-92. pl. 1. 1886.
- Lloyd, C. G. ('09). Synopsis of the known Phalloids. pp. 48-65. f. 59-64. Cincinnati, 1909.
- Michelius, P. A. (1729). Nova plantarum genera iuxta Tournefortii methodum disposita. p. 214. pl. 93. Florence, 1729.
- Rafinesque, C. S. (1808). Prospectus of Mr. Rafinesque Schmaltz's two intended works on North American botany; the first on the new genera and species of plants discovered by himself and the second on the natural history of the funguses, or mushroom-tribe of America. N. Y. Med. Repository, 2nd hexade 5 (11): 355. 1808.
- Saccardo, P. A. ('88). Sylloge Fungorum 7: 18-21. 1888.
- Turpin, P. J. F. (1822). Dict. d. Sci. Nat. 25: 248. 1822.



Linder, David H. 1928. "Concerning the Status of the Genus *Laternea*." *Annals of the Missouri Botanical Garden* 15, 109–112. <https://doi.org/10.2307/2394071>.

View This Item Online: <https://www.biodiversitylibrary.org/item/54273>

DOI: <https://doi.org/10.2307/2394071>

Permalink: <https://www.biodiversitylibrary.org/partpdf/3585>

Holding Institution

Missouri Botanical Garden, Peter H. Raven Library

Sponsored by

Missouri Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.