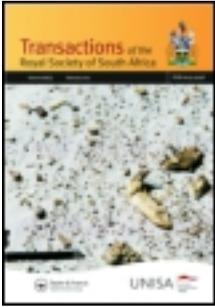


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NOTE ON *LYSURUS WOODII* (MACOWAN), LLOYD.

PAUL A. VAN DER BIJL.

(With Plate XI.)

In 1880 Kalchbrenner\* published under the name *Anthurus Woodii*, MacOwan, the description of a fungus collected by J. Medley Wood at Inanda, Natal. Since that date until 1917, when Mrs. J. G. Hackland, of Ixopo, Natal, favoured me with the specimens, Figs. 1-3, which form the subject of this paper, no similar fungus was collected in Natal, or for that matter in South Africa. The specimens were found in a rhubarb trench, and though at my request Mrs. Hackland subsequently made a thorough search for more material, none could be obtained. When received the fungus was referred as above, and a photograph of it was forwarded to Mr. C. G. Lloyd, Ohio, U.S.A. From the photograph Mr. Lloyd referred it to *Lysurus Gardneri*, Berk., and in publishing† the photograph mentioned that in his mind there was no doubt of this being the original *Anthurus Woodii*.

Considerable interest has recently been taken in the identity or otherwise of the Ceylonese plant *L. Gardneri*, Berk., with the Australian *L. australiensis*, Cooke. Petch‡ made comparative studies of these two plants and has shown that they are entirely different; indeed the differences are so great as to warrant placing *L. Gardneri* in a new genus, for which he suggests the name *Pharus*.

The separation of *Lysurus Gardneri* into the new genus *Pharus* is based on differences in the glebiferous layer. Amongst other points of difference Petch§ showed that whereas in *L. australiensis* the glebiferous layer is composed of a series of closely set horizontal ridges, in *L. Gardneri* (now *Pharus Gardneri* (Berk.), Petch) it is slightly furrowed transversely, and the whole surface minutely granular, the granules being the ends of thin processes or the irregular edges of contorted plates, so closely packed that their outer ends form a continuous surface.

\* Kalchbrenner, K.—Phalloidei novi vel minus cogniti, Budapest, 1880, p. 23.

† Lloyd, C. G.—Mycological Notes, No. 55, p. 793, August, 1918.

‡ Petch, T.—Further Notes on *Colus Gardneri* (Berk.), Fisher, Trans. British Mycological Soc. VI, 122 (1919).

§ Petch, T.—*Loc. cit.*, p. 127.

Fig. 2 is a photograph of the glebiferous layer, after the removal of the gleba, of the Natal *Lysurus*, and we at once notice that it is composed of smooth wrinkles resembling that of *L. australiensis* and differing entirely from that of *L. Gardneri*. Another point in which the Natal plant differs from *L. Gardneri* is that the arms in the former are not borne on separate stalks of their own, a condition which exists in the latter (*vide* fig. 38 in Lloyd's 'Synopsis known Phalloids.') In this it departs from *L. Gardneri* and resembles *L. australiensis*. Illustrations of the latter (*vide* fig. 835 in Lloyd's 'Mycological Notes,' No. 43) shows the "head" separated from the stalk by a constriction, and this is mentioned as usually present. In the Natal *Lysurus* no such constriction is present. The glebiferous layer, after removal of the gleba, is white in the Natal plant, which in this respect resembles *L. australiensis* and differs from *L. Gardneri*, for which the glebiferous layer is recorded as dark olivaceous.

The original illustration\* of *Lysurus Woodii* shows the "arms" as entirely free and the gleba is given as occurring on the outside of the arms. On this presumed latter character the plant was placed in the genus *Anthurus*.

Lloyd,† from an examination of the cotype at Kew, writes: "While it is unsafe to draw conclusions from dried specimens, we believe the species is a *Lysurus* entirely distinct from the genus *Anthurus*, and that Kalchbrenner misconceived and misdrew the illustration." The plant herein referred as *L. Woodii* has no resemblance to an *Anthurus*.

The arms of *L. Woodii* are from the specimen seen six in number; two were united at the apex by a narrow tube (Fig. 2); in section the arms are triangular. Longitudinally the glebiferous layer extends the entire length of the arms and transversely nearly round the arm, leaving only a shallow longitudinal furrow free from gleba. The wrinkles of the glebiferous layer are 3-5 mm. broad, and as in *L. australiensis* are continued from arm to arm at the base. The wall of the stalk has three layers of chambers. The entire plant measures 6 cm. high by 1 cm. diameter in the stalk region. The "cap" is 1.7 cm. long and the gleba dark. The spores are minute, smooth, colourless to very faint greenish yellow, elliptical and 4-4.8 by 1.6  $\mu$  in size.

The relationship of *L. Woodii* must be with those species having a similar glebiferous layer—*L. australiensis*, *L. borealis* and *L. Clarazianus*. Judging from published illustrations we would consider it nearest to *L. borealis*, but much smaller. Until more is known about *L. Woodii* and sufficient material of it collected for comparative studies we consider it best regarded as a distinct species related and close to *L. australiensis* and *L. borealis*.

\* Kalchbrenner, K.—*Loc. cit.*, plate 3, fig. 2.

† Lloyd, C. G.—*Synopsis known Phalloids*, p. 40.

Fig. 3 represents a transverse section through the egg of *L. Woodii*. The microscopic details of the Natal *Lysurus* are now recorded for the first time.

EXPLANATION OF PLATE XI.

FIG.

1. *Lysurus Woodii* (MacOwan), Lloyd. Natural size.
2. Two "arms" of *L. Woodii* with gleba removed and showing the wrinkled glebiferous layer. Note also the two "arms" are joined at the apex and the glebiferous layer is continuous at the base from "arm" to "arm."
3. Transverse section through egg of *L. Woodii*.

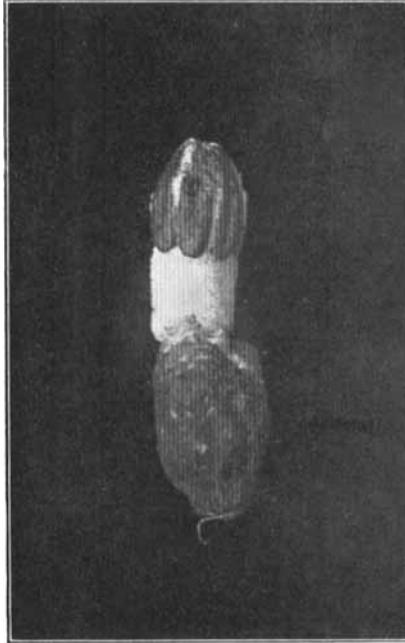


FIG. 1.



FIG. 2.



FIG. 3.