

NEW OR INTERESTING BRITISH FUNGI

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(With 26 Text-figures)

The fungi here described have been accumulating over a period of years. To all who have assisted by sending in interesting material our thanks are due.

Anthurus Archeri (Berk.) Fischer in *Jahrb. k. bot. Gart. u. bot. Mus. Berlin*, IV, 81 (1886).

This beautiful phalloid, new to this country and no doubt an introduced alien, occurred in Trewidden Gardens, near Penzance, towards the end of October 1945. The finder, Pte N. E. M. Walters, R.A.P.C., had observed the 'eggs' among rotten stumps at the base of an *Escallonia*, and recognizing that it was something unusual sent material to Kew.

The genus *Anthurus* differs from *Lysurus* in that the arms of the receptacle are not sharply distinct from the stem, and are, at least at first, united with one another at the apices. In *Lysurus* the arms are distinct from the stem and usually quite free from one another at the tips.

Anthurus Archeri is described by Cunningham (1944) as follows: Un-expanded plant obovate, to 4 cm. diameter, usually smaller, exterior furfuraceous, dingy white. Receptacle with a short, stout, hollow, usually flaring stem, attenuate and white below, slightly expanded, open and red above, to 5 cm. long, often much less, 1-2.5 cm. diameter, divided directly into five to eight orange-red, simple arms, transversely rugulose on the interior, sutured longitudinally externally, chambered, apically united when freshly expanded, but often breaking away in older plants, varying from 3 to 7 cm. in length, occasionally bifurcate at the extremities. Spore mass borne on the inner surface of the arms, foetid, olivaceous, mucilaginous. Spores elliptical, 6-7.5 × 2-2.5 μ, epispore hyaline, smooth, 0.75 μ thick.

The Cornish specimen had seven arms, and two pairs at least were apically united. The spores measured 5-6 × 1.5-2 μ, a little smaller than the measurements given by Cunningham, but larger than those of most related phalloids. There seems little doubt that the plant can be referred to *A. Archeri*, a species widespread in Australia and Malaya.

Psilocybe cyanescens Wakefield, sp.nov.

Pileus 2-4 (rarius -7.5) cm. diam., e convexo expansus, glaber, hygrophanus, viscidus, udo castaneus, sicco flavidus vel ochraceus margine striatulo, tactu cyanescens: in statu juvenile cortina delicata nivea cum stipite conjunctus. Stipes albidus, sericeo-fibrillosus, 6-8 cm. longus, 2.5-5 mm. crassus, rarius ad 10 cm. × 7 mm., subrigidus, basi incrassatus et saepe incurvus, strigosus, tactu vel siccitate cyanescens. Lamellae e

cinnamomeo badio-fuscae, adnatae vel adnato-decurrentes, subdistantes, ad 5 mm. latae, acie pallidiore. Cheilocystidia lageniformia, circa $18-20 \times 8 \mu$. Basidia tetraspora, obclavata, supra 8μ crassa. Sporae sub lente flavo-brunneae, in massa fuscae, ellipticae, uno latere vix depressae, $10-12 \times 6-7 \times 5 \mu$, poro germinationis indistincto praeditae.

Hab. Ad terram, inter folia, ramenta, etc. in silvis, autumnno, Hort. Bot. Reg. Kew.

This striking fungus has been known to the senior author for many years, and can usually be found in the autumn in the more woodland parts of Kew Gardens. It has, however, not been seen elsewhere, except once in the near neighbourhood of the Gardens, when it appeared to have originated from some rotting wood. The general appearance suggests a species near *Naucoria Myosotis*, but the spore-print is distinctly fuscous, and the decided indigo-blue colour which develops on both stem and pileus when handled distinguishes the fungus from anything which has been described in the genus *Naucoria*. A similar colour-change has been described in an American species of *Psilocybe*, *P. caerulescens* Murr., but that species is much more robust and the spores are smaller than those of the plant in question. The Kew plant in its micro- and macroscopic characters would probably be included in the genus *Deconica* W. G. Sm. by those who adopt this genus. It is retained in *Psilocybe* for the time being, until such time as a thorough revision of the purple-spored Agarics is forthcoming.*

Exobasidium Camelliae Shirai in *Bot. Mag., Tokio*, x, 51 (1896).

This fungus was described by Shirai (loc. cit.) as follows: 'Hymenium thick and white, forming a continuous layer all over the surface of the deformed organs, at first covered with a thick layer of subepidermal tissue, composed of 10 or more layers of cells, which it ruptures and breaks to a number of small pieces. Spores 4 to each basidium, oblong obovate, $14.5-17 \times 7 \mu$. This species always attacks the flower buds of *Thea* (*Camellia japonica* Nois, causing the hypertrophy and deformation of their parts. Very often the whole plant is reduced to an irregular mass of somewhat spherical form with a hollow interior, measuring 15 cm. or more in length. Common in Tokyo in May.' His Fig. 3 shows very long slender basidia with 2, 3, 3, 3, and 4 sterigmata respectively. Assuming a mean spore length of 15μ the basidia drawn were about $100-120 \mu$ long.

In June 1944 there was received at Kew an abnormal flower of *Camellia*, grown at Handcross, Sussex. Instead of the normal petals the whole flower had been transformed into a thick white, more or less globular structure. On close examination this gall was found to consist of a shallow cup with rounded and incurved edges, bearing on the outside some brown membranous fragments, apparently the remains of petals. The entire outer surface of the gall was covered with the powdery white hymenium of an *Exobasidium*, consisting of densely packed more or less cylindrical basidia gradually narrowing to their parent hyphae below. The exact base of such basidia is difficult to determine but their length appeared to be approximately $90-100 \mu$ and their greatest width $7-9 \mu$. Each bore two very short

* See p. 165.