

Cooperia curticei (Giles, 1892), *Strongyloides* sp. and a single *Nematodirus* sp. In Australia both *T. vitrinus* and *C. curticei*, as well as representatives of the genera *Nematodirus* and *Strongyloides*, are parasites of sheep, which were presumably the original source of the infection. Bearup and Bolliger (1949) have also found parasites of sheep in phalangers. However, some species of the genus *Strongyloides* may well prove to be native to Australian marsupials (Winter, 1958).

We have recently identified the following nematode parasites, none of which has been reported previously as present in Australia. *Nematodirus abnormalis* May, 1920, was recovered from a number of sheep and *N. helvetianus* May, 1920, from cattle. Several specimens of *Mastophorus muris muris* (Gmelin, 1790) were found in a domestic cat and in an unidentified species of mouse. Pullar (1946) recovered from a fox in Victoria specimens of *Protophysura* (syn. *Mastophorus*), but they were too damaged to permit identification.

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A Hallucinogenic Toadstool

Earlier this year one of us (W.J.) was commissioned to collect specimens of *Panaeolus ovatus* Cke. and Mass. because of its reputation as a hysteria-producing toadstool. This species was not very abundant, but a second species of agaric was very common in the same situations, i.e. on dung. We have since identified this second species as *Psilocybe cubensis* (Earle) Sing. It has been illustrated by Heim (in Wasson, 1957) under the synonym *Stropharia cubense* (Earle), and Singer and Smith (1958) give a full description of the macroscopic and microscopic characters. As far as we are aware, this species has not been recorded before in Australia. Our field observations, combined with the records of dried specimens in the mycological herbarium of the Department of Botany, University of Queensland, showed this species to be distributed throughout the coastal areas of south-eastern Queensland and the Northern Rivers of New South Wales and up to at least 2,000 feet (Springbrook). It is not suggested that these are the limits of the distribution.

In our opinion it is likely that this species rather than *Panaeolus ovatus* Cke. and Mass. has been the causal agent of a number of previous cases of toadstool poisoning, for the

following reasons: (i) a detailed examination of *Panaeolus ovatus* Cke. and Mass. showed it to be closely related to, and possibly identical with, *Anellaria sepulchralis* (Berk.) Sing., which is stated by Singer (1949) to be edible; (ii) *Psilocybe cubensis* (Earle) Sing. has been shown to be hallucinogenic in other countries (Singer, 1958) and hysteria has been a common symptom of the cases reported in Australia; (iii) an observation by Mr. Kebby, of Murwillumbah, points directly to this species as the cause of at least one case of poisoning; (iv) the distribution of *Psilocybe cubensis* (Earle) Sing., as given above, includes the areas commonly associated with this trouble; (v) this species is intermediate in stature between *Panaeolus ovatus* Cke. and Mass. and *Agaricus campestris* L. ex Fr. and therefore is more likely to be confused with the latter species than would be the case for *Panaeolus ovatus* Cke. and Mass.; (vi) on the other hand we have direct evidence that *Psilocybe cubensis* (Earle) Sing. can be confused with *Panaeolus ovatus* Cke. and Mass., which would explain any records of *Panaeolus* spores being identified from the stomach contents of poison cases. This evidence is of course purely circumstantial and direct experiments are necessary to provide conclusive evidence of toxicity.

Psilocybe cubensis (Earle) Sing. can be readily differentiated from *Panaeolus ovatus* Cke. and Mass. in the field in that the stature is sturdier, there is a distinct annulus which is persistent, the mature cap is a yellowish brown colour, and the mature gill colour, though very dark like the *Panaeolus*, has a purplish tinge. Also *Panaeolus ovatus* Cke. and Mass. is closely associated with horse manure, while *Psilocybe cubensis* (Earle) Sing. occurs mainly on cow manure.

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Occurrence of *Ollulanus tricuspis* in Australia

The occurrence of *Ollulanus tricuspis* Leuckart, a nematode parasite of the stomach of the cat, is recorded here for the first time in Australia. *Ollulanus* occurs in England and in some continental European countries and, although it is unlikely, there is still a possibility that the cat escaped from an overseas