

PARASITES OF THE BANDICOOT, ISOODON OBESULUS.

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A considerable number of parasites from bandicoots in south-east Queensland has been collected during the past two years. Several of the records are new, and it has been thought worth while to bring them all together in this preliminary list, even though some of the identifications are incomplete.

We are indebted to Dr. E. H. Derrick of this Institute for referring certain species to us.

PROTOZOA.

Trypanosoma sp.: Found in the blood. There are no previous records in Australian marsupials, but a large trypanosome has been found in the platypus in Tasmania.

Haemogregarina ?*peramelis* Welsh and Dalyell: Described in 1910 from *Perameles nasuta*; apparently this is the first record since then. Our material does not agree completely with the original description.

Theileria sp.: Species of *Theileria* are well known in Eutheria (*T. mutans* was introduced into Australia in cattle) and have been found in Monotremes as follows:—*T. tachyglossi* Priestley in *Tachyglossus aculeatus*, and *Theileria* sp. in *Ornithorhynchus anatinus* (Duncan, personal communication); they have not previously been recorded from marsupials.

Klossiella sp.: Found in the kidney of bandicoots in Brisbane by Derrick and Smith (personal communication).

Encephalitozoon sp.: This is an obscure genus which has not been recorded previously from marsupials. An infection was found first in mice inoculated from a bandicoot and later confirmed by finding a single group of parasites in sections of the brain of the bandicoot (E. H. Derrick, personal communication).

Sarcocystis sp.: Found in voluntary muscle of the bodywall. This genus was recorded by Bourne (1934) in *Bettongia*, but is not otherwise known from marsupials.

PLATYHELMINTHES.

TREMATODA:

Brachylaemus similis (S. J. Johnston), syn. *Harmostomum simile*.

Platynosomum Looss (new record). The recovery of *Platynosomum* sp. appears to be the first record of a pancreatic fluke from an indigenous Australian mammal.

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CESTODA :

Hymenolepis peramelidarum Nybelin.

Linstowia echidnae (Thompson) (recorded by other workers but not taken by us).

Linstowia semoni Zschokke (recorded by other workers but not taken by us).

ACANTHOCEPHALA.

Gigantorhynchus semoni Linstow.

NEMATODA :

CAPILLARIINAE (new record). These very slender worms were found embedded or half embedded in the oesophageal walls of the host.

Echinonema cincta (Linstow), syn. *Hoplocephalus cinctus* Linstow.

Filarinema peramelis T. H. Johnston and Mawson.

Subulura peramelis Baylis.

Trichuris peramelis Baylis.

METASTRONGYLIDAE. The first record is made of a lung worm from an Australian marsupial.

FILARIOIDEA. A new species of *Dipetalonema* was found in the subcutaneous tissue. No microfilariae were found in the blood, but on making sections of the skin they were found immediately below the Malpighian layer. The finding of microfilariae in the skin suggests relationship with *Onchocerca*, but the worm is quite distinct morphologically. The life history is still unknown. The intermediate host may be a biting insect, e.g. a mosquito or sandfly, or it may be a mite.

ECTOPARASITES.

The ectoparasites of this bandicoot are quite numerous, the following having been recorded either from *Isoodon obesulus* or *I. macrourus*. Dr. E. H. Derrick and Mr. D. J. W. Smith included many of them in their studies on Q fever, and published a list in the Annual Report of the Health and Medical Services of the State of Queensland for 1937-38.

ACARINA.

TICKS.—*Ixodes holocyclus* Neumann; *I. tasmani* Neumann; *I. feicalis* Warburton and Nuttall; *Haemaphysalis humerosa* Warburton and Nuttall.

MITES.—*Heterolaelaps antipodianum* Hirst; *Mesolaelaps australiensis* Hirst; *M. anomalus* Hirst; *Laelaps nuttalli* Hirst; *Ascoschöngastia dasycerci* (Hirst); *A. cairnsensis* (Womersley and Heaslip); *A. peramelis* (Womersley); *A. phascogale* (Womersley and Heaslip); *Trombicula deliensis* Walch; *T. minor* Berlese; *Guntherana bipygalis* (Gunther); *Bdellonyssus bursa* (Berlese); LISTROPHORIDAE, species not yet identified.

INSECTA.

MALLOPHAGA.—*Boopia* sp.

SIPHONAPTERA.—*Acedestia chera* Jordan; *Stephanocircus dasyuri* Skuse; *Pygiopsylla zethi* Jordan and Rothschild; *P. congrua* Jordan and Rothschild; *P. hoplia* Jordan and Rothschild; *Ctenocephalides canis* (Curtis); *C. felis* (Bouché).

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