

SHORT CONTRIBUTIONS

ECTOPARASITES OF THE WILD RABBIT, *ORYCTOLAGUS CUNICULUS* (L.), IN AUSTRALIA*

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Widespread epidemics of myxomatosis in Australia have been correlated with the activity of relatively mobile vectors such as mosquitoes (Culicidae) and sandflies (Simuliidae) (Ratcliffe *et al.* 1952). As it was known that ectoparasites could also transmit the disease, their occurrence on the rabbit, *Oryctolagus cuniculus* (L.), was noted during the course of field surveys of myxomatosis in Australia by members of the Wildlife Survey Section, C.S.I.R.O. The species so far recorded from wild rabbits are listed in Table 1, which also incorporates information published by Seddon (1947).

Those parasites whose natural host is shown as the rabbit seem to occur in all areas, irrespective of environmental conditions, and they tend to infest a very high percentage of individuals. In contrast, parasites for which the rabbit is indicated as an occasional host were very rarely found, and then only on occasional individuals in a population; this suggests that the relationship was accidental. Some ectoparasites of native and domesticated animals have adopted the wild rabbit as an alternative host. Their occurrence is very patchy, and seems to depend upon environmental conditions.

The European rabbit flea, *Spilopsyllus cuniculi* (L.), which has been incriminated as the main vector of myxomatosis in the British Isles, has not been found in the field in Australia.

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TABLE 1
ECTOPARASITES RECORDED FROM WILD RABBITS IN AUSTRALIA

Ectoparasites	Collector in Case of New Record of Occurrence on Rabbit	Host-parasite Relationship	States from which Recorded					Other Known Hosts in Australia
			N.S.W.	Vic.	S.A.	Qld.	W.A.	Tas.
Anoplura <i>Haemodipus ventricosus</i> (Denny) Siphonaptera <i>Ctenocephalides canis</i> (Curtis) <i>Ctenocephalides felis</i> (Bouché) <i>Echinophaga gallinacea</i> (Westwood) <i>Echinophaga myrmecobii</i> (Rothschild) <i>Echinophaga perilis</i> Jordan	Waterhouse	Natural	S*, X†	S	X	X	X	X
		Occasional	S					
		Alternative	S, X	X		X		
		Occasional	S, X		X		S, X	
		Alternative	S, X	X	X		S, X	
		Alternative	S, X	X	X	X	S, X	
Acarina <i>Amblyomma</i> sp. (larvae) <i>Boophilus microplus</i> (Canestrini)		Occasional Occasional	X S					

* S = reported by Seddon (1947). † X = new records.

TABLE 1 (Continued)

Ectoparasites	Collector in Case of New Record of Occurrence on Rabbit	Host-parasite Relationship	States from which Recorded					Other Known Hosts in Australia
			N.S.W.	Vic.	S.A.	Qld.	W.A.	Tas.
Acarina (continued)								
<i>Ixodes holocyclus</i> Neumann		Occasional	S*					Cattle, sheep, dog, pig, cat, wallaby, fowl (Seddon 1947); goat, duck, black rat, spiny anteater (Seddon 1951)
<i>Acomatoxenus</i> sp. (undescribed)	Mykytowycz	Occasional	X†					
<i>Bdellonyssus bacoti</i> Hirst	Mykytowycz	Occasional	X					
<i>Cheyletiella parasitivorax</i> (Megnin)	Mykytowycz	Natural	X	X		X		Rat, man (Roberts 1952)
<i>Euschoengastia popei</i> Womersley	Waterhouse	Occasional	X				X	Domestic rabbit
(New undescribed variant)								
<i>Haemolaelaps marsupialis</i> Berlese†	Rowley	Occasional						Bandicoot (Berlese 1910)
<i>Heterolaelaps antipodiana</i> Hirst†	Rowley	Occasional						Long-nosed bandicoot (Hirst 1926)
<i>Lasitrophorus gibbus</i> Pagenstecher	Mykytowycz	Natural	X	X		X	X	Hare and laboratory rabbit
<i>Mesolaelaps australiensis</i> Hirst	Dyce	Occasional				X		Mouse (Strickland 1929); bandicoot (Mackerras, personal communication)
<i>Schöngastia antipodiana</i> (Hirst)	Fennessy	Alternative	X					Brown rat (Womersley 1952)
<i>Trombicula samboni</i> Womersley		Alternative			S			Man, cattle, horse, sheep (Seddon 1951)

* S = reported by Seddon (1947).

† X = new records.

‡ Collected from "silver haired" wild rabbits on Betsy L., Tas.