

in New Zealand, and have caused a number of deaths amongst sheep (Whitten, 1950). Red deer are known to act as reservoir hosts in at least one area (*L. Rotoiti*) and are potential, if not actual hosts in the remaining areas. Forays by deer on to turnip paddocks in some liver fluke areas are well known and would be sufficient to enable the wild host to become infected.

The following is a key to the helminth parasites of red deer in New Zealand.

KEY TO THE HELMINTH PARASITES OF THE RED DEER IN NEW ZEALAND	
1. Nematoda	3
Trematoda, Cestoda, cysts of the latter	21
2. Males with copulatory bursa with supporting ribs, oesophagus club-shaped posteriorly, intestine simple (<i>Strongyloidea</i>)	3
Males without bursa	18
3. With transverse, ventral, cervical groove in cuticle (<i>Oesophagostominae</i>)	4
Without cervical groove	5
4. Mouth directed forward, shallow buccal capsule, male 11.75mm to 14mm in length, female 13mm to 19mm in length, eggs 90 μ x 55 μ , found in the caecum and large intestine	<i>Oesophagostomum venulosum</i>
5. With symmetrical dorsal lobe	6
Without dorsal lobe	17
6. Spicules with fan-like membrane at their distal extremities	7
Spicules without a fan-like membrane	10
7. Spicules less than 220 μ in length	8
Spicules greater than 220 μ in length	9
8. Spicules approximately 170 μ in length, gubernaculum absent. Female 6.3mm to 7mm in length, male 5.75mm to 6.1mm in length, eggs 85 μ x 40 μ . Found in abomasum	<i>Spiculopteragia böhmi</i>
9. Spicules approximately 250 μ in length, gubernaculum absent. Female 8.5mm to 10.1mm in length, male 6.5mm to 7mm in length, eggs 95 μ x 50 μ . Found in the abomasum	<i>Spiculopteragia asymmetrica</i>
10. Gubernaculum present	11
Gubernaculum not present	14
11. Gubernaculum moderately chitinised, dorsal rib long	12
Gubernaculum lightly chitinised, dorsal rib of moderate length	13
12. Spicules trifurcate, approximately 200 μ in length, gubernaculum chitinous 70 μ in length, long oesophagus, male 6.3mm to 6.4mm in length. Found in abomasum	<i>Ostertagia (Grosspiculagia) rubricervi</i>
13. Spicules approximately 170 μ in length. Male 6mm to 6.3mm in length, long oesophagus. Found in the abomasum	<i>Ostertagia leptospicularis</i>
14. Dorsal rib branches three times	15
Dorsal rib bifid and reduced	16
15. Spicules approximately 225 μ in length. No gubernaculum. Male 8.2mm in length. Found in the abomasum	<i>Apteragia quadrispiculata</i>