

from the tip of the offshoot and the continuation of this offshoot is thinner and more hook-like than that of *O. rubricervi*. The interno-lateral process of *O. lasensis* is not oar-shaped, neither do the spicules of this species bear the pectinate interno-lateral margin. The gubernaculum of *O. lasensis* bears a handle-like expansion at its proximal end and tapers distally to a point. The gubernaculum of *O. rubricervi* lacks this expansion and forks distally.

O. rubricervi was always found in small numbers forming, at the most, 5% of the trichostrongylid population. For this reason and because they lacked sufficient diagnostic characteristics, it was found impossible to isolate the female of this species, thus the only adult specimens recovered were males.

O. rubricervi was found to occur in association with the following trichostrongylids: *Spiculopteria asymmetrica*, *S. böhmi*, *Ostertagia leptospicularis*, and *Rinadia quadrifurcata*.

O. rubricervi appears to have little or no effect on its red deer host as the stomach wall was free from nodules and lesions, and the host animals showed no signs of anaemia.

By reason of its presence in both North and South Islands, and the fact that there is no interchange of deer between these two Islands, the occurrence of *O. rubricervi* in red deer can only be the result of one of the following; either its presence in red deer before introduction into New Zealand, or, transmission from another infected introduced feral mammal, or, transmission from domestic stock, common to, and frequently interchanged between the North and South Islands. Of these three possibilities the first and second are the most likely as the nematode parasites of domestic stock have been well studied (Brunsdon, 1960), and this parasite was not found.

Genus RINADIA Grigoryan, 1951

Rinadia quadrifurcata n.sp. Pl. II, figs. 4-8.

MATERIAL EXAMINED. Male specimens only were recovered from the abomasum of an adult male red deer from Lake Marchant, Fiordland, 20.4.62.

DIAGNOSIS. A translucent, white, filiform nematode with the body cuticle bearing approximately 30 longitudinal striations but no transverse striations. Spicules with four distal offshoots, gubernaculum absent.

DESCRIPTION. *Male:* The holotype and one paratype, both adult males, are held in the collections of the Zoology Department, Victoria University of Wellington. Body length is 6.1mm; mid-body width 80μ ; head diameter 25μ ; body width just anterior to the copulatory bursa 130μ . Oesophagus 560μ long, club-shaped, expanding posteriorly. Diameter of oesophagus at the anterior end 15μ ; mid-portion 25μ ; posterior end 45μ (maximum diameter), (Fig. 4).

The nerve ring surrounding the oesophagus is situated 260μ from the anterior end of the body. Cervical papillae are found 310μ , and the excretory pore 290μ , from the anterior extremity respectively. Prebursal papillae 65μ anterior to the copulatory bursa (Fig. 4).

Paired copulatory spicules are equal in size and configuration except for slight asymmetry in the distal region. They are brown in colour and 185μ in length, expanding in the region of the eyelet to a maximum width of 25μ . The left spicule is generally 10μ longer than the right. Distally the left spicule branches into four offshoots. The externo-lateral offshoot is short and pointed, its distal end being continuous with a transparent membrane. Next to the externo-lateral offshoot are the median dorsal and ventral offshoots. The dorsal median offshoot is the larger of the two, curves in towards the mid-line, expands distally, and terminates in a transparent membrane. The ventral median offshoot is shorter, curves in towards the mid-line and terminates 20μ from the distal end of the spicule. The interno-lateral offshoot is long and slender, 50μ in length, originating in the region of the eyelet and terminating as a blunt expansion in the region of termination of the ventral median offshoot. The right spicule is similar in most details but the median dorsal offshoot is shorter, and the median ventral offshoot terminates bluntly and curves in towards the interno-lateral offshoot (Figs. 7 and 8). Gubernaculum absent.