

in the abomasum. This species sometimes formed up to 98% of the trichostrongylid population in the host. The largest number of these worms in any one host was estimated at 2,000 plus. Other known hosts are the fallow deer (*Dama dama*), Japanese deer (*Cervus nippon*), and the roe deer (*Capreolus capreolus*).

Spiculopteragia böhmi (Gebauer, 1932) Orlov, 1933. (Text-figs. 4g-4h.)

Recorded from 10 (84%) of hosts examined. Distribution is the same as that of *S. asymmetrica* and is also probably New Zealand wide in distribution. The size of the worm ranged from 5.75mm in the male to 7mm in the female. It is whitish in colour and found in the abomasum. Up to 91% of the total trichostrongylid population was found to be composed of this nematode, the largest population recorded being 2,900. Other known hosts are fallow deer (*Dama dama*), Japanese deer (*Cervus nippon*), chamois (*Rupicapra rupicapra*) and roe deer (*Capreolus capreolus*).

Rinadia quadrifurcata Andrews, 1963. (Text-figs. 4i-4j.)

Recorded from one (9%) of red deer examined. This record was made from Lake Marchant, Fiordland. The male worm is 6.1mm in length, the body is whitish in colour. It is found in the abomasum in very small numbers (estimated total population of this species was approximately 77—7.7% of the total trichostrongylid population). There are no other known hosts for this species.

The six species of nematodes mentioned above are all members of the Family Trichostrongylidae.

Interspecific relationships of trichostrongylids (Text-fig. 5.)

This histogram shows the density relationship of the trichostrongylid species from hosts selected from different geographical areas (two hosts were taken for each area). It can be seen that the concentrations of the different species can vary markedly from area to area (it must be noted here that the samples were taken at approximately the same season of the year). Within each area, however, there appears to be a tendency towards similar concentrations of the different species. A good example of this is shown by the hosts from the Sabine River area, the histogram showing almost identical concentrations of the different species in these two hosts. The Sabine hosts show a better correlation as the basin they inhabited was secluded, both were shot within a short distance of each other, and they probably belonged to the same herd. Whereas the other hosts came from areas in which there was probably more herd movement. This tendency could possibly be explained by the fact that trichostrongylid species in one host, according to their densities, produce proportional quantities of eggs and larvae, thereby giving a potential host in the same area a chance of being infected in similar proportions to that of the original host. However, it must be emphasized that examples of species correlation were not numerous enough, statistically speaking, to draw a hard and fast rule about similar, species densities from hosts in the same area. Further investigation would have to be made to establish this.

Sex Ratio (Text-fig. 6)

This histogram shows the male to female ratio of the trichostrongylids. Owing to the difficulty of separating the females of the different species, the group had to be treated as a whole, all species being considered together. The results would apply more to *Spiculopteragia asymmetrica* and *S. böhmi* as these two species are predominant, the other species would have little effect on the histogram, because of their small numbers. The histogram shows an almost consistent ratio in the vicinity of 65:35, females to males, regardless of the area from which the host came, the variable densities of the different species, and the time of year that the sample was obtained.