

5. Zusammenfassung/Summary

Zusammenfassung

Ziel vorliegender Untersuchung war es, die Häufigkeit des Vorkommens von *Echinococcus multilocularis* und *Trichinella spiralis* beim Europäischen Rotfuchs (*Vulpes vulpes* L.) im Regierungsbezirk Karlsruhe festzustellen. Darüber hinaus sollte der gesamte Helminthenstatus des Gastrointestinaltraktes der genannten Tierspezies erfaßt werden. Weiterhin wurde aus Rotfüchsen des Untersuchungsgebietes die Morphologie des *Echinococcus multilocularis* mit bereits bekannten Stämmen dieser Art verglichen. Die Untersuchungen erfolgten vom 1.2.1989 - 31.1.1990 an insgesamt 801 Rotfüchsen.

Echinococcus multilocularis-Infektionen konnten bei 11,6% der Rotfüchse im Dünndarm nachgewiesen werden. Zudem wurden zehn weitere Helminthenarten im Magen-Darm-Trakt der Tiere gefunden: Die Zestodenarten *Taenia crassiceps* (19,9%), *Mesocestoides* spp. (16,6%), *Taenia polyacantha* (7,0%), *Hydatigera taeniaeformis* (0,7%), *Dipylidium caninum* (0,5%) und *Diphyllobothrium latum* (0,5%) sowie die Nematodenarten *Toxocara canis* (30,2%), *Uncinaria stenocephala* (24,3%), *Toxascaris leonina* (2,0%) und *Ancylostoma caninum* (1,1%). Larven von *Trichinella spiralis* waren in keinem Fall in der Muskulatur der untersuchten Rotfüchse festzustellen.

Holger Wessbecher: Occurrence and epidemiology of *Echinococcus multilocularis* and *Trichinella spiralis* as well as other helminths of the gastro-intestinal-tract in the Red Fox (*Vulpes vulpes* L.) of the administrating district of Karlsruhe.

Summary

The aim of the present study was justified in the intention to depict in a profound, systematic and critical way the biology and epidemiology of *Echinococcus multilocularis* and *Trichinella spiralis* in the European Red Fox (*Vulpes vulpes* L.) in the investigation territory located in the administrative district of Karlsruhe. In addition the total helminth fauna of the gastrointestinal-tract of the above-mentioned species was studied and recorded. Further an attempt was enforced to define the morphology of the strobila of *Echinococcus multilocularis* drawn out of the small intestines of the natural infected red foxes in all of the anatomical details and to compare explicitly with the construction of well-known *Echinococcus multilocularis*-stocks. The investigation material consisted of an overwhelming majority of animals from the national forestry superintendent's offices and from various owners of the private hunting preserves which were sent for rabies diagnosis to the National Veterinary Investigation Centre in Heidelberg.

All together 801 red foxes were investigated between 1.2.1989 - 31.1.1990. *Echinococcus multilocularis* could be noted with an infection rate of 11,6% in the small intestine of the Red Fox. The following other helminths were found (in order of frequency). Cestodes: *Taenia crassiceps* (19,9%), *Mesocestoides* spp. (16,6%), *Taenia polyacantha* (7,0%), *Hydatigera taeniaeformis* (0,7%), *Dipylidium caninum* (0,5%) and *Diphyllobothrium latum* (0,5%). Nematodes: *Toxocara canis* (30,2%), *Uncinaria stenocephala* (24,3%), *Toxascaris leonina* (2,0%) and *Ancylostoma caninum* (1,1%). However the investigation of muscles of all animals for *Trichinella spiralis* were negative.