

6.2 Summary

Helminthes of domestic frogs

176 frogs of the species *Rana* kl. *esculenta* (n = 137), *Rana ridibunda* (n = 7), *Rana temporaria* (n = 19), *Rana arvalis* (n = 18) and *Bufo bufo* (n = 1) taken from 11 different habitats in the Brandenburg state and the state of Saxonia-Anhalt were dissected and helminthologically examined.

One aim of this study was to show the role of indigenous frogs in the epidemiology of trematode infections of carnivorous mammals and birds more closely, and also to attain details the incidence of frogs with larval trematodes, and to get data on endoparasites for whom frogs act as final hosts.

It should have also been illuminated whether correlations exist between the occurrence of specific parasite and species, sex, age and origin of the frog.

Altogether 18 trematodes (*Alaria alata* larv., *Neodiplostomum spathoides* larv., *Strigea sphaerula* larv., *Strigea falconis* larv., *Tylodelphus excavata* larv., *Holostephanus volgensis* larv., *Cathemasia hians* larv., *Chaunocephalus ferox* larv., *Echinostoma revolutum* larv., *Isthmiophora melis* larv., *Diplodiscus subclavatus*, *Opisthodiscus diplodiscoides*, *Haematolechus variegates*, *Opisthioglyphe ranae*, *Paralepoderma cloacicola* larv., *Pleurogenes* sp., *Pleurogenoides medians*, *Prostocus confuses*), as well as six nematodes (*Aplectana acuminata*, *Cosmocerca ornata*, *Neoxysomatium brevicaudatum*, *Rhabdias bufonis*, *Oswaldocrucia filiformis*, *Icosiella neglecta*) and two acanthocephales (*Acanthocephalus falcatus*, *Acanthocephalus ranae*) were found.

Despite the considerable parasitological burden which was present in some cases, an influence on the behaviour or the health of the host could not be detected.

Although differences in the spectrum of parasites and in the existensity and intensity of infection could be expected between different frog species as well as between animals of different origin, these differences were not so apparent due to samples sizes.

Similarly, it was not possible to make a declarative statement about the correlation between the occurrence of a parasite (with respect to quantity and type) and frog's sex due too.

It was clarified, however, that the occurrence of particular types of parasites is related to the type of frog and their different ways of life. In general old frogs were infected more frequently with parasites than young frogs.

The various causes of differences in the prevalence were discussed.