Gastrointestinal parasites of cats in Denmark assessed by necropsy and concentration McMaster technique

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The large population of feral cats in Denmark may potentially transmit pathogens to household cats and zoonotic parasites to humans. A total of 99 euthanized cats; feral cats (n = 92) and household cats with outdoor access (n = 7), were collected from March to May 2014 from the Zealand region, Denmark. The sedimentation and counting technique (SCT) was used to isolate helminths and coproscopy was done by concentration McMaster technique (c-McMaster). Overall, 90.1% of the cats were infected and a total of 10 species were recorded by SCT: 5 nematode species: Toxocara cati (84.8%), Ollulanus tricuspis (13.1%), Aonchotheca putorii (7.1%), Paersonema spp. (3.0%), Strongyloides spp. (1.0%); 3 cestodes: Hydatigera taeniaeformis (36.4%), Mesocestoides sp. (3.0%), Dipylidium caninum (1.0%); and 2 trematodes: Cryptocotyle spp. (5.1%) and Pseudamphistomum truncatum (1.0%). O. tricuspis was the second most common gastrointestinal nematode of cats but had the highest intensity of infection. For T. cati, prevalence and worm burden were significantly higher in feral than household cats. No juvenile cats were infected with H. taeniaeformis, and age thus had a significant effect on prevalence and worm burdens of this species. Rural cats had a higher prevalence and worm burden of A. putorii than urban cats. By c-McMaster, ascarid, capillarid, strongylid or taeniid type eggs were found in 77.9% of the cats while Cystoisospora felis was found in 2.1%. The sensitivity of the c-McMaster was 82.5% for T. cati but 26.5% for taeniid eggs, using the SCT as gold standard. A positive correlation between faecal egg counts and worm burdens was seen for T. cati, but not for taeniid eggs (assumed to be H. taeniaeformis). Coprological examination also detected the eggs of extraintestinal Capillariidae species including Eucoleus aerophilus and Eucoleus boehmi, but further necropsy studies are needed to confirm these findings.

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