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*Publication date:*  
2017

*Document Version*  
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

*Citation (APA):*  
Petersen, H. H., Chriél, M., & Hansen, M. S. (2017). Coccidia infections in Danish farmed mink. Abstract from 26th International Conference of World Association for the Advancement of Veterinary Parasitology (WAAVP), Kuala Lumpur, Malaysia.

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## 26<sup>th</sup> International Conference of the World Association for Advancement of Veterinary Parasitology

Theme: **“Combating Zoonoses: Strength in East-West Partnerships”**

Time: Monday 4 September – Friday 8 September

Venue: Kuala Lumpur Convention Centre, Malaysia

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### Coccidia infections in Danish farmed mink

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Although Danish farmed mink are frequently infected with Coccidia, knowledge of factors affecting the infection is scarce. Thus, we studied age, geographical and season-related factors affecting coccidia prevalence. Unsporulated oocysts excretion was quantified microscopically (n=4142) every 7-14th day (April-October 2016) from bitches and cups on 30 farms (n=335 mink) from South- or North Jutland, or Zealand. Minimum once, 60.9% (n=204) mink excreted *Eimeria*, 56.7% (n=190) *Isospora* and 20.9% (n=70) excreted both coccidia. Positive mink were identified on all farms. *Eimeria* prevalence was higher on the Zealand farms (25.4±2.2%, P<0.0001) compared to South- and North Jutland farms (5.4±2.9%; 7.5±4.1%). *Isospora* prevalence was similar regardless of farm locality (12.2±2.9%, 11.8±3.5%, 9.2±7.1%). *Eimeria* prevalence peaked in June-July (12.6%-24.9%), while *Isospora* prevalence peaked in July-August (12.1%-27.6%). More cups (19.5%) than bitches (4.6%) were *Isospora* positive, while *Eimeria* prevalence was similar for cups (15.7%) and bitches (10.5%). For cups, *Eimeria* prevalence peaked when cups were 7-11 weeks old and again when 18-24 weeks old. *Isospora* prevalence peaked in cups 13-15 weeks old. Three *Eimeria* types were characterized by size and wall thickness (unverified by PCR); A, B and C. Types B and C (40.9%, 39.8%) were more prevalent than A (19.3%). Bitches were primarily infected with type B (50.4%), while type C (48.0%) predominated in cups. Type B infections dominated in mink from Zealand (56.5±13.7%), while mink from Jutland were primarily infected with type C (55.6±28.6%; 81.9±19.4%). Farmed mink showed high coccidia prevalence with seasonal- and age-related *Isospora* prevalence, and seasonal- and geographical-related *Eimeria* prevalence.