

POSTER PRESENTATION

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# The prevalence of internal parasites in wild boar farms in Finland

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## Background

In Finland, the most important internal parasites in domestic pigs are nematode *Ascaris suum* and coccidia *Isoospora suis*. As the environmental conditions and management practices in wild boar (*Sus scrofa*) outdoor farming are suitable for parasites during most seasons, we wanted to explore the parasite burden of wild boars in Finland. This kind of research has not been carried out earlier in our country. Economical losses caused by internal parasites, especially ascarids, are mainly due to reduced daily weight gain and feed conversion ratio [1].

## Materials and methods

Based on a national record of wild boar farmers, a sampling frame of farms was compiled. Every farm on that list was contacted first by mail and the non-responders received a phone call from research group personnel. All volunteer farms that still had wild boars were included. From all animals slaughtered in study farms during the study period (autumn 2007 – spring 2008), a faecal sample was obtained directly from rectum after slaughter. Faecal egg or oocyst counts regarding *Ascaris suum*, coccidia, *Strongylus* and *Trichuris suis* were counted by the concentration McMaster technique. The number of positive farms (at least one animal with parasite eggs in faecal sample) and summary statistics of egg counts for every parasite type was calculated.

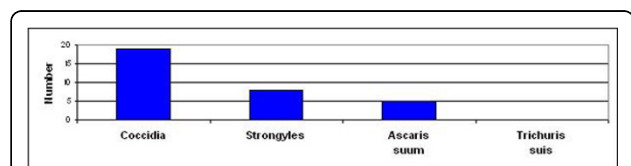
## Results

Altogether 113 samples were collected from 22 farms, a median of 4 samples (1-15) per herd. The median age of sampled wild boars was 18 months. Mean age was found to be 21,5 months (standard deviation 14,5). The

number of positive farms can be seen in Figure 1. and summary statistics for egg or oocyst counts for different parasites studied can be found in Table 1.

## Conclusion

Almost all farms were positive regarding coccidia. The exact diagnosis of the species of the oocysts was not reached, whether they were *Isoospora* or *Eimeria*. Although the established oocyst counts probably are harmless for adult animals, the risk for piglets could be substantial because of environmental contamination, especially in case of *Isoospora*. Smaller number of animals and farms were *Strongylus* or *Ascaris suum* positive. Adult animals are known to be able to develop immunity towards ascarids, thus the low egg burden in sampled animals was quite expected.



**Figure 1** Number of farms with at least one pig positive for different parasites in fecal examination (22 farms included in the study).

**Table 1** Summary statistics for egg counts (epg) for coccidia, *Strongylus*, *Ascaris suum* and *Trichuris suis*.

Parasite	Mean, epg	SD, epg	Min, epg	Max, epg
Coccidia	6 118	1987	0	102 000
<i>Strongylus</i>	300	945	0	6 150
<i>Ascaris suum</i>	29	15	0	1 450
<i>Trichuris suis</i>	0	0	0	0

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#### Reference

1. Corwin RM, Stewart TB: **Internal Parasites.** *Diseases of Swine* Iowa: Iowa State University Press Straw BE, D'Allaire S, Mengeling WL, Taylor DJ Ames , 8 1999, 713-730.

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