Wild Tiger Health Centre Information Sheet

Disease threat: Neospora caninum

Hazard description: A coccidian parasite structurally very similar to *Toxoplasma* and *Hammondia*.

Host species: Domestic dogs are the major definitive host, with evidence of prolonged faecal oocyst shedding (McGarry et al. 2003). The role of wild carnivores in a sylvatic cycle is still unclear, with coyotes and possibly red foxes the only definitive host so far confirmed (Dubey et al. 2007). There are reports of seropositive free-living wild felids (Onuma et al. 2014; Spencer et al. 2003; Sobrino et al. 2008; Ferroglio et al. 2003), consistent with exposure to *Neospora*, but no evidence of a role anything other than as an intermediate host – and no evidence of oocyst excretion.

Pathogenesis: *Neospora* infection causes bovine abortion. Dogs can also act as intermediate hosts with neurological disease seen in transplacentally infected puppies (Taylor et al. 2001).

Diagnosis: Oocysts in faeces (canids). Serology. PCR possible, but faecal test kits not commercially available (US may have).

Vaccination: None (for carnivorous hosts).

Free-ranging tiger occurrence: No reports found.

Distribution: Worldwide distribution (Taylor et al. 2001).

Assumptions: None.

Limitations: Poor understanding of sylvatic cycle.