Wild Tiger Health Centre Information Sheet

Disease threat: Echinococcus granulosus

Hazard description: A cestode (ca 6mm, with 3-4 segements) in the genus *Echinococcus,* Family Taeniidae (along with species in genus *Taenia*) and Order Cyclophyllidea. There are several biotypes relating mainly to the predominant intermediate host involved in the life cycle.

Host species: The life cycle is indirect: encysted larval forms of the parasite are found in the liver and lungs of intermediate host species – ungulates, lagomorphs, primates and man; adult forms are found in the intestine of final host species – canids and to lesser extent felids. *E. granulosus* has been reported from Amur leopard (Konyaev 2012). *E. felidis*, a distinct species, has been reported from free-ranging African lions (Kagendo et al. 2014; Huettner et al. 2009).

Pathogenesis: In intermediate hosts disease associated with cystic development is termed cystic echinococcosis (hydatidosis) (Taylor et al. 2007). In two EEP leopards, hepatic cysts, consistent with *Echinococcus* spp. were found at *post-mortem:* in one case possibly associated with cause of death (definitive cause unknown, but nephropathy also reported); in the other case, considered an incidental finding. A hydatid cyst in the liver of a captive lion has been reported (Ganorkar et al. 1997), but the parasite is generally considered non-pathogenic in final host species.

Diagnosis: Eggs in faeces, ELISA assay.

Free-ranging tiger occurrence: No reports found.

Distribution: Considered worldwide.

Assumptions: Assume relatively non-pathogenic in wild felids.

Limitations: None.