Wild Tiger Health Centre Information Sheet

Disease threat: Ancylostoma spp.

Hazard description: Hookworm nematodes of the small intestine in the Superfamily Ancylostomatoidea.

Host species: *A. tubaeforme* and *A. ceylanicum* appear to be the major 'felid' associated species. *Ancylostoma* species, have been detected in several wild species including free-ranging Amur tiger (likely *A. tubaeforme*) (González *et al.* 2007), Iberian lynx (*A. tubaeforme*) (Millán & Blasco-Costa 2012) – high burdens reported (Vicente *et al.* 2004), free-ranging Amur leopard in RFE (1/7 tests positive), Amur cat (likely *A. ceylanicum*) (González *et al.* 2007), and free-ranging lions (Müller-Graf 1995). Infection of captive tigers in India is commonly reported (eg: Deshmukh *et al.* 2009; Mahali *et al.* 2010), with deaths attributed to hookworm infestation in some cases (Kinge *et al.* 2010b).

Pathogenesis: Infection is acquired by oral and percutaneous infection by the L3 stage. *Ancylostoma* is migratory in the host via lungs (where L3 can be dormant), and possibly muscle. Once in the intestinal tract, egg production is prolific. *A. caninum* in canids can cause severe anaemia and transmission from dam to offspring may be important in the epidemiology (Taylor *et al.* 2007).

Diagnosis: Eggs in faeces.

Free-ranging tiger occurrence: Reported from the Russian Far East (González *et al.* 2007) and the Panna Tiger Reserve in India (Nigam *et al.* 2016). Eggs consistent with *Ancylostoma spp* reported from tiger scats in Thailand (Patton & Rabinowitz, 1994).

Distribution: Considered worldwide. More likely in association with proximity/shared habitat with domestic cats (Millán & Blasco-Costa 2012).

Assumptions: None.

Limitations: Test sensitivity.