

Parasitic worms, animals and human disease

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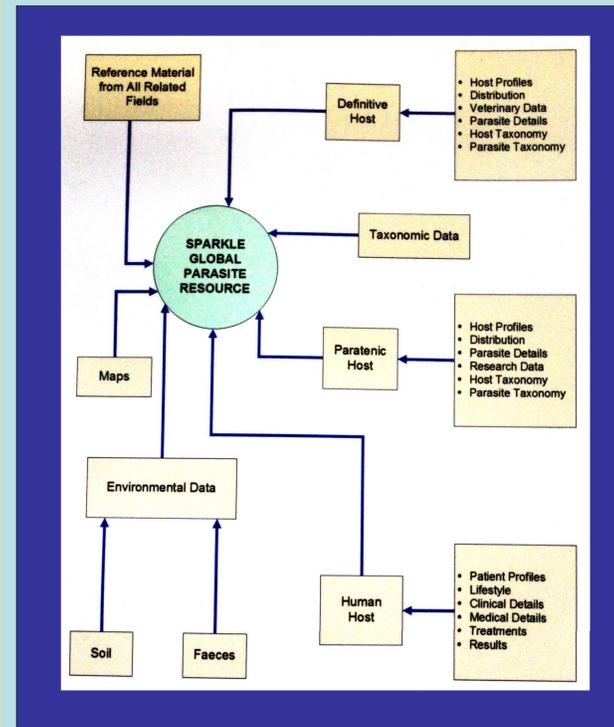
ABSTRACT

Toxocara is a large parasitic roundworm (nematode) occurring in the intestine of carnivorous animals including dogs, cats and foxes (regarded as definitive hosts). Each worm can reach up to 18cm in length and female worms produce up to 25,000 infective stages (eggs) every day. If pet dogs and cats are not regularly treated with anthelmintic drugs, eggs of *Toxocara* will pass out with the animal's faeces and contaminate the surrounding soil, including gardens, parks and children's playground.

If eggs from infected soil are accidentally ingested by humans, especially children who play in these areas, the eggs will hatch into larval stages in the human host (sometimes regarded as the paratenic host). Larvae will then burrow through the wall of the intestine and migrate to the abdomen, liver, lungs, heart and the retina of the eye.

In the eye larval *Toxocara* can cause the disease known as ocular toxocariasis, which results in partial or total blindness due to the destruction of the retina. This is rare in the UK, because responsible owners generally 'de-worm' their pets with advice from veterinary clinics and practices.

On the other hand in the developing world such as parts of Africa, South & Central America and South East Asia, where there are many untreated stray cats and dogs, the incidence of toxocariasis in the human population significantly increases. However in the UK and elsewhere in Europe, the incidence may well rise in the future because foxes are migrating from rural to urban areas in increasing numbers, thereby posing a greater risk of infection to the human population as foxes, unlike domestic pets, are difficult to treat and 'de-worm'.



Collecting information at the Sparkle Hub from around the world

The human/paratenic host

The definitive host