

Zeder, a German Naturalist, was the first who established anything like a good classification of the *Entozoa*, dividing them (at the instance of Rudolphi, however,) into families, which again were subdivided into sundry *genera* and species, and as this arrangement constitutes the accepted one of the present day, we cannot do better than adopt it on this occasion. According to this classification, the *Entozoa* are divided into five different families or orders, viz.:—The *Nematodea* or Round Worms, *Acanthocephala* or Hooked Worms, *Trematoda* or Fluke Worms, *Cestoidea* or Tape Worms, and *Cystica* or *Hydatids*.

We shall endeavour now to give a few of the striking characteristics of each group, and thus, as far as may be, describe the subject of the Essay which I have the high honor of submitting to the Natural History Society for full discussion and farther elucidation.

I. *Nematodea* or Round Worms. This family constitutes the most highly organized group of all the *Entozoa*, contains a greater number of *genera*, and comprises more species which are occupants of the human body than any of the other families.

Amongst them the *Filariæ* or Guinea Worms which burrow under the skin; have been known to attain a length of twelve feet in the human subject, and infest all classes of animals from Man to insects. Amongst other strange situations they have been found in, is the human eye; and recent researches have detected them in the blood of some animals. Thus the number of Microscopic *Filariæ*, inhabiting the blood of dogs, have reached in 20 specimens the enormous number of 20,000.

Some years since it was spoken of by M. Chapotin as abounding at Bombay during the rainy season, and as being most common amongst the negroes. And it is stated that the dogs which were kept at the hospital and fed with the poultices which had been applied to the patients who were suffering from the flesh worm, became also infested with them.

It is well-known that the Red Gurnard (*Trigla Pini*), a fish familiarly known on the western coast of England, is constantly found containing entozoons allied to the Guinea Worm, in countless numbers, which completely permeate the muscular structure of the fish, and yet no external indication of disease is perceptible, or the lightest difference discernable between its and its more favored allies.

The *Strongylus gigas* another nematoid Entozoon is frequently met with in the kidneys and bladder of man. It

has been found in the human kidneys three feet long and a half an inch in diameter, its ordinary length, however, being fifteen inches. Its colour is blood-red, owing to the fact of its obtaining its nourishment from the Renal vessels. It is more frequently met with in the kidneys and bladder of the horse and dog than man.

*Ascaris Vermicularis*, (Thread-worm or Maw-worm. Constantly met with in large quantities in the rectum of children, from which they frequently crawl spontaneously in great numbers; and although they are looked upon as proper to the large intestines, they have occasionally been met with in the stomach, and even the œsophagus sometimes, enclosed in a cyst. As many as a thousand have been passed from the human bladder.

*Tricocephalus dispar* (Long Thread-worm.) Although to a casual observer this worm appears identical with the foregoing, it is nevertheless a different species, being considerably larger and longer. Like its congener, however, the sexes are distinct and separate. As a general, but by no means universal rule they are met with in the human cœcum; and in the Museum of the Royal College of Surgeons in London, there is a wet preparation showing the cœcum perforated as with pin-holes by this worm.

*Ascaris Lambrioides* or common round Worm. This Entozoon is too well known as a human parasite to require a lengthened notice. It is a curious fact that it has never been detected in man in its young state.

From well-authenticated cases, the numbers which have infested the human subject at the same time has been very great, as many as from three to four hundred have been vomited up within the space of a few days, and from 50 to 80 have been voided from the bowels at the same time.

Many members of this family infest the Pig and sundry other animals as well as the human subject. One remarkable circumstance in connection with them is, that they, under some circumstances, have been known to pierce the intestinal canal, and they are sometimes met with within the Peritoneal cavity, and outside of the intestine. I can bear testimony to one having been found in this situation in a Wolf which was poisoned by Strychnine some twenty years ago, on the farm of Mr. Bradley; it measured 22 inches. Unfortunately for the cause of science and the Ottawa Natural History Society, it has been lost. They are not unfrequently found to attend scrophula in man and glanders in the horse.

II. *Acanthocephala*, or Hooked Worms, are