Chapter-II

REVIEW OF LITERATURE

The word ‘Helminthes’ for some parasitic worms in man was first used by Hippocrates (460-377 B.C.). In 1756, Nicholls published a short account of “Worms in animal bodies”. Goeze published the natural history of parasitic worms in 1782. Zeder (1800) classified all worms into five classes viz., “Round worms”, “Hook worms”, “Acanthocephalan”, “Sucking worms” (i.e., Trematoda, Cestoda and Bladder worms). Cobbold (1864) worked on helminthology with reference to the intestinal parasites of man. Stewart (1914) published the “Studies in Indian Helminthology”. Helminthes for the first time in India was reported by Prasad in 1918.

Different authors described many different species of parasites including different aspects of host-parasite relationships from early time till date from different parts of the world.

Bhalerao (1931 and 1942) studied on helminthes of Indian coast while, Chandler (1935) studied on parasites of fishes. Baylis (1939) described the fauna of British India, including Ceylon and Burma. Akhmerov (1951) described some data on the parasites of Alaskan fishes. Polyanski (1961) described the zoogeography of parasites of marine fishes of USSR. Dogiel et al., (1961) discussed the biology and parasitology of fishes. Yamaguti (1961) reported about 300 species of nematodes, representing more than 40 genera in 17 families from fishes. Cheng (1964) reported the biology of animal parasites.

Velasquez (1966) reported some parasitic helminths from fishes of the Philippines. Sinderman (1966) and Collard (1970) worked on parasites and its effects on fishes. Hoffman


2.1. Cestode :

Aristotle (334-322 B.C) refer to tape worms and Theophrastus (372 - 288 BC) discussed on *Taenia* infection. Galen (131- 200 A.D) was also familiar with *Taenia* of man. Linnaeus (1758) reported *Diphyllobothrium latum* in man.

In India, works on systematic of cestode and their life cycles were restricted only to Caryophyllaeids.

Workers who contributibuted significantly to the field of classification and systematics of cestodes, are : Goeze (1782), Hermann (1783), Muller (1787), Abildgard (1790), Gmelin (1790), Rudolfi (1802), Zeder (1803), Blainville (1828), Diesing (1850), Baird (1853),

The following authors who made significant contributions in describing and illustrating new species of cestodes, are: Bremser (1824), Wagener (1854), Mollin (1858), Schneider (1902), Cohn (1908), Mrazek (1908), Cholodkowsky (1915), Cooper (1920), Lamont (1921), Woodland (1923), Moghe (1931), Szidat (1937), Tubangui (1938), Calentine (1962), Furtado (1963), Kennedy (1965), Kulakovskaya and Akhmerov (1965), Calentine and Mackiewicz (1966), McVicar (1976), Monticelli (1982), Mackiewicz (1994), Singh and Sahay (2007), Singh et al., (2007).


2.2. Trematode:

Muller (1773) laid the foundation of the science of Trematology. Rodney et al., (2008) published the keys to the Trematoda (Vol-3).

The significant contributors in the field of classification and systematics of trematodes, are: Fischoeder (1901), Looss (1902), Nicoll (1909), Odhner (1911), Ward (1917), Mehra (1931), Bhalerao (1936 and 1942), Gupta (1954), Agarwal (1955), Cheng (1960), Sah (1999), Sah et al., (2003), Sahay et al., (2003).

Important contributors in the field of morphology and life history of trematodes are: Fischoeder (1901), Dayal (1949), Agarwal (1955), Baugh (1956), Singh (1959), Cheng (1960), Pandey (1966), Mukherjee and Chauhan (1967).

The contributors in the field of description of trematode species are: Wallin (1909), Mehra (1920), Price (1931), Manter (1933), Yamaguti (1934 and 1958), Bhalerao (1936), Dayal (1938), Srivastava (1939), Chauhan (1940), Caballero (1942), Thapar (1948),

The authors who made contributions in the field of biology of trematodes are: Ozaki (1928), Manter (1954), Baugh (1956), Saxena (1958), Hoffman (1960), Oshmarin (1965), Lebedev (1968) and Gupta (1970).


2.3. Nematode:

The nematodes have been known as a large and diverse group since around 1550 B.C., as recorded in the Egyptian history. The nematodes that infect man and animals attracted
the earlier workers, such as, Muller (1776). Baylis (1939) published the first comprehensive account of nematodes from Indian region in the *Fauna of British India*.


and 2010), Sahay et al., (2004), Srivastava and Sahay (2004), Moravec and Jeans-Lou

2.4. Acanthocephala:

Studies on Acanthocephala probably began with Redi (1684) who, for the first time
observed a white worm in the intestine of an eel. Koelreuther (1771) had recognized the group
with the suitable name ‘Acanthocephali’. Goez and Zeder (1803) gave it a German name
‘Hakenumer’ which was later translated by Rudolphi (1808) as ‘Acanthocephala’. Bhattacharya

Important contributors to the description of new species of acanthocephala in general,
include: Baylis (1923 and 1933), Van Cleave (1928), Thapar (1930), Bhalerao (1931), Meyer
(1933), Subrahmanian (1936), Cable and Quick (1954), Soota and Sen (1954), Golvan (1959),
Yamaguti (1961), Datta and Soota (1962), Soota and Bhattacharya (1982), Gupta (1985),

The contributors in the studies of acanthocephala of fishes in general, are: Van Cleave
(1920), Thapar (1927 and 1930), Verma and Datta (1929), Datta and Podder (1935), Sen
(1938), Poddar (1938 and 1941), Baylis (1948), Sarkar (1953), Farooqi (1958), Tripathi (1959),