HISTORICAL REVIEW

Parasitology has traveled a long way, and covered a wide area to secure its place today as a distinct scientific discipline. What is more, its ever-expanding frontier continues to bear an eloquent testimony to its vibrant viability. During the long process of growth and evolutionary run, however it has accommodated a diverse flow of contributions from many other disciplines, which in their turn have provided nourishment, enrichment and at times embellishment. Parasitology in its literal sense may go to encompass a wide canvas and parasites like many other organisms have made suitable models for valuable studies on what may be called fundamental biology. However it should be admitted, that all the information’s thus obtained have not always lent them to be exploited meaningfully to answer the needs and problems of parasitology with its conventional and pragmatic connotation. Sanction of usage demands that we look at the parasites and usage with respect to their involvement and responsibility for diseases and disabilities in man and animals. Parasitic diseases continue to be a cause of major concern to human and animal health in several parts of the globe including India, causing high morbidity, mortality and economic losses. Many worms infection prevail in animal hosts, which in turn, may become natural reservoirs of infection to human host. The nature and extent of worm types that occur in food giving animals like fishes, poultry and livestock mammals depend on, and are influenced by the ambient environmental factors and socio-cultural practices prevailing in a region.

There are some pioneer workers in the world: like Yamaguti, Woodland, Southwell, Baylis, Burt etc. In India various workers are working on various aspect i.e. Taxonomy, histopathology, biochemistry, ecology and population dynamics of helminth parasites since last 50 years. These are Singh, Johri, Moghe, G.S. Thapar, Ramadevi, S.P.Gupta, S.M.Ali, Shamsundar Sinha, K.Hanumanth Rao, R.Madhavi, Shinde, Nama, Pandey, Jadhav, Agrwal, G. Mani, C. Vijayalakshmi, Gupta, Srivastava, Malhotra, H. S. Singh, Capoor, Manna, Chopra, Raghvendra Rao, M.Z. Chisti etc. who are working on the various aspects of helminth parasites of different vertebrates.
Helminths are the most common and abundant parasites of fishes. They are occurring as endoparasites usually in the gut and associated organs of fishes. Taxonomic studies on helminth parasites of fishes were initiated in the early 19th century itself by scientists, but they received momentum in the 20th century. To date around 30,000 species of helminth parasites were recorded from freshwater fishes. The present investigation deals with taxonomy of helminth parasites includes the genera like *Lytocestus* Cohn, 1908, *Senga* Dollfus, 1934, *Circumoncobothrium* Shinde, 1968, *Silurotaenia* Nybelin, 1942, *Azygia* Looss, 1899, *Podocotyloides* Yamaguti, 1934; *Camallanus* Railliet and, Henery, 1915, *Procamallanus* Baylis, 1923 and *Spinitectus* Fourment, 1883.


The genus *Senga* was erected by Dollfus in 1934 with its type species *S.besnardi*. Later on many species are added in this genus. In 1933 Teseng described *S.ophiocephalina*; Woodland, 1934 added *S.pcyonomera*. Johri, 1956 described *S.lucknowensis*. In 1964, Furnando and Furtado added *S.malayana* and *S.parva*. Later on Furtado et. al, 1971 added *S.pahangesis*. In 1973 Ramadevi et. al., described *S.visakhapatnamensis*. In 1980 three species are added i.e. *S.khami* by Deshmukh et. al.; *S.godavarii* by Shinde et. al. and *S.aurangabadensis* by Jadhav et. al. Kadam et. al., 1981 added *S.paithanensis*. Majid et. al., 1984
described *S.raoi* and *S.jagannathae*. In 1991 Jadhav et. al., added *S.gachuae* and *S.maharashtrii*; Monzer Hasnain ,1992 added *S.chauhani*. Tat et. al., 1997 added *S.mohekarae*. In 1993 Hiware described *S.armatusae*. Patil et. al. 2003 added *S.tappi*. Lastly in 2006 Pande et. al. described *S.ayodhensis* and *S.baughii*.


The genus *Silurotaenia* was erected by Nybein, 1942 with its type species *S.siluri*. Later on Shinde et. al., 1975 added *S.nyblin*. In 1984 added four species to this genus i. e. *S.macroni, S.seenghala, S.barbusi* and *S.ticto*. Deshmukh et. al., 1989 added *S.behairvnathi*. Later on Gavhane et. al., 1991 described *S.shastri*. Lastly in 2002 Wankhede et. al. added *S.godavari*.

Looss, 1899 in Europe, erected the genus *Azygia*. Other species of the genus were described a few years later namely *A.angusticauda* by Stafford, 1904. *A.loossi* by Marshall and Gilbert, 1905; *A.volgensis* by Von Linstow, 1907; *A.sebago* by Ward, 1910; *A.bulbosa, A.robusta* and *A.acuminata* by Goldberger, 1991. Cooper, 1915 added *A.lucli*; Fujita, 1918 described *A.perryi*. Ozaki, 1924 added *A.anguillae*. Later on *A.pristipomai* added by Tubangu, 1928. In 1933 Tsin added *A.hwangtsinyi*, Zmeev, 1936 described *A.amuriense*. Velasquez, 1958 considered the genera *Eurostomum* Maccallum, 1921 and *Gomtiotrema* Gupta, 1953 to be synonymous with *Azygia* Yamaguti, 1958 has retained eleven species in the genus and agrees with Velasquez that *Eurostomum* is synonymous with *Azygia*. S. L. Rai, 1964 described *A.stunkardi* from India.

Tubangui, 1931, erected the genus *Orientocreadium*. Later on Chatterji, 1933 described *O.clariae*. Pande, 1934 added *O.indicum* and Yamaguti, 1934 added *O.pseudobagari*. 

The genus *Procamallanus* was erected by Baylis, 1923 with its type species *P.laeviconchus* (Wedl, 1862) as well as *P. spiralis*. Later on Fujita, 1927 added *P. parasiluri*. Travassos, 1928 described three species to this genus i.e.*P. inopinatus, P. itherengi* and *P. rarus*. Baylis, 1929 added *P. xenopodis*. In 1930 Agrawal described *P. mehrii*. Tornquest, 1931 added *P. sphaeroconchus*. Vaz and Pereria,1934 described two species i.e. *P. hilarii* and *P. amarali*. In 1935 eight species are added to this genus i.e. *P. kerri*, added by Pearse; *P.wrighti, P.fariasi, P. barrosolomai* and *P.cearnsis* by Pereria; *P. sigani* by Yamaguti; *P. fluvidraconis* by Li and *P. planoratus* by Kulkarni. Later on Southwell and Krishner, 1937 added *P. slomei*. Johnston and Mawson, 1940 described *P. murreyensis*. In 1941 *P.lonis* added by Yamaguti. Annereaux, 1946 added *P. pereirai*. Kung, 1948 added *P. brevis*. Later on S.M. Ali, 1956 added five species to this genus i.e. *P. heteropneustus, P.clarius, Psinghii, P. hyderabadensis* and *P. viviparous*.

The present work will also helpful to focusing the distribution and diversity of helminth parasites from freshwater fishes from Maharashtra state.