

Microlaimidae Micoletzky, 1922

*Aponematinae* Jensen, 1978, syn. Lorenzen, 1981 : 189

*Bolbolaiminae* Jensen, 1978, syn. Lorenzen, 1981 : 189

The cuticle is usually striated; only in *Ixonema* is it smooth. Personal observations have shown that animals of most of the species, when

preserved in formalin, cannot be coloured using cotton blue and are a yellowish to brownish colour in glycerine preparations. The labial sensilla are very short. The 6+4 cephalic sensilla are always in two separate circles; the posterior 4 sensilla are always longer than the anterior 6 sensilla. The amphids are round. The buccal cavity contains one larger dorsal tooth and two, smaller sub-ventral teeth which are situated further back. The pharynx swells posteriorly, forming a muscular end bulb. The females always have two outstretched ovaries and the males usually have two opposed testes; rarely is only one anterior testis present (*Aponema*). Within species the anterior gonad usually lies to the left or the right of the intestine and the posterior gonad on the opposite side to the anterior one; it is less common to find the anterior gonad constantly to the left and the posterior gonad constantly to the right of the intestine. The family is marine; only a few species penetrate brackish water which contains a lot of freshwater.

**Discussion:** Despite the presence of outstretched ovaries, the Microlaimidae are put in the Chromadorida not in the Monhysterida on account of the twelve-fold vestibulum found in many species of the Microlaimidae (mostly in those species with one large dorsal tooth), and on account of the teeth in the buccal cavity which do not occur with this structure and in this arrangement anywhere else besides in the Chromadorida (discussion points 51 and 66). It is currently undecided whether the outstretched condition of the ovaries can be considered as a holapomorphy of the Microlaimidae alone or of the Microlaimidae and the Aponchiidae together (discussion point 51).

*Molgolaimus*, *Prodesmodora*, *Paramicrolaimus* and *Ohridius* have hitherto been classed as Microlaimidae. The species of the four genera possess antidromously reflexed ovaries. In the present work the four genera are put in the Molgolaiminae, Prodesmodorinae (both Desmodoridae), Paramicrolaimidae and Ohridiidae (both Leptolaimina) respectively. Jensen (1978a) has already removed the four genera from the Microlaimidae; they were, in part, given a different systematic classification from that of the current work.

The distinction between the "Microlaimidae" and the "Molgolaimidae", and the division of the two families into sub-families by Jensen (1978a) depends partly on an incorrect series of arguments and is therefore not accepted. This all resulted in the Aponematinae and Bolbolaiminae being regarded as synonymous with the Microlaimidae. According to Jensen, the pharynx in the "Microlaimidae" has a small end bulb with weak cuticularization of the inner wall, and in the "Molgolaimidae" it has a marked end bulb with a strongly cuticularized inner wall. However, the type species of *Microlaimus*, *M. globiceps*, has a marked end bulb with a very thick, cuticularized inner

wall (de Man, 1922 : 240; personal observation), with the result that the two families cannot be separated using the criterion. According to Jensen's diagnosis the cervical pore (referred to as the excretion pore) may be situated anterior or posterior to the nerve ring both in the Microlaimidae and in the Mologolaimidae, and it therefore cannot be used to distinguish between the two families, as Jensen has done in his Fig. 1. The marked cuticularization of the buccal cavity, the inner wall of the pharynx and the copulatory apparatus, as well as the large end bulb of the pharynx in *Bolbolaimus*, show no more than gradual differences from the remaining Microlaimidae and therefore do not justify the introduction of the Bolbolaiminae. It cannot be concluded that the sub-family represents a connecting link between the Microlaimidae and Desmodoridae because species without the peculiarities described also exist within the Desmodoridae.

Jensen's classification of species in the individual genera of the Microlaimidae is accepted, with the exception of *Microlaimus tenuis-niculum* de Man, 1922, which is kept in the genus *Microlaimus* and not put into *Mologolaimus* on account of the occurrence of outstretched ovaries.