SPECULATIONS ON THE PRIMITIVE NEMATODE AND THE EARLY EVOLUTION OF THE CLASS NEMATODA

by

F. RIEMANN

Institut für Meeresforschung, D-2850 Bremerhaven, G.F.R.

SUMMARY

For the reconstruction of the phylogeny the discrimination of primitive and derived characters is indispensable. This can be done by using the criteria of (1) systematic character precedence, (2) geological character precedence, (3) chorological criteria, (4) criterion of ontogenetic character precedence, (5) teratological criterion, (6) functional criteria. The value of these criteria for recognizing the primitive nematode is discussed and with particular consideration of functional aspects (turgor pressure hypothesis) the arguments favouring the assumption of the primitivity of the Trichodoroidea, Diphtherophoroidea, Onchulinae and Tripyla are presented. Regarding the oldest bifurcation steps in the evolution of nematodes the Adenophorea/Secernentea and the Enoplia/Chromadoria concept is critically examined. It is suggested to consider the marginal oesophageal tubes as an early derived character shared by Monhysteridae, Araeolaimida, Comesomatidae and Secernentea thus indicating the monophyletic origin of these taxa.

THE EXCRETION ORGAN OF SABATIERIA (NEMATODA, CHROMADORIDA) AND ITS PHYLOGENETIC SIGNIFICANCE

by

F. RIEMANN

Institut für Meeresforschung, D-2850 Bremerhaven, G.F.R.

SUMMARY

Sabatieria (Comesomatidae) has not only an uninucleated ventral gland cell as other Chromadorida but in addition lateral ducts are attached to the excretory ampulla. The lateral ducts are ending in pyriform uninucleated glands laying far behind the oesophageal region. This situation reminds of a secernentean type of excretory organs.