

lometrinae which can be separated by the presence and absence of a cirrus sac respectively (Cable and Hunninen, 1942). It is the author's opinion that this difference is fundamental and considerably more significant than the characters used by Skrjabin to separate these subfamilies from the others.

Manter (1963) erected the subfamily Megaperinae and transferred the subfamily Sphincterostomatinae Yamaguti, 1958, from the family Allocreadiidae to the Lepocreadiidae. Furthermore, he emended the spelling of the Homalometrinae to Homalometroninae since it was based on the genus *Homalometron*. However, Nahhas and Cable (1964) gave the Megaperinae family status in anticipation of features likely to be present during the development of the excretory system. The author follows this decision and further points out that the Sphincterostomatinae lack a cirrus sac and can accordingly be accommodated in the Homalometroninae. Bravo-Hollis and Manter (1957) noted that *Dactylostroma* Bravo-Hollis and Manter, 1957, which was classified by these authors in the Homalometroninae, is similar in general structure to *Sphincterostoma* Yamaguti, 1937, type genus of the Sphincterostomatinae.

Thus the family Lepocreadiidae contains only two subfamilies, the Lepocreadiinae and Homalometroninae, separated by the presence and absence of a cirrus sac respectively.

*Neocreadium* has been compared with, and shows closest resemblance to, genera which are members of the subfamily Lepocreadiinae, and it is proposed that it should be accommodated in this subfamily. The diagnosis of the subfamily Lepocreadiinae given by Cable and Hunninen (1942) therefore requires emendation to include forms with a lymphatic system.

The presence of a lymphatic system in *Neocreadium* is not unique but is also characteristic of the lepocreadiid genera *Apocreadium* Manter, 1937, *Neapocreadium* Siddiqui and Cable, 1960, and *Choanodera* Manter, 1940, and other digenetic trematode families including the Waretrematidae Srivastava, 1939 (= Megasolenidae Skrjabin, 1942), Gyliuchenidae Ozaki, 1933, and Paramphistomidae Fiscoeder, 1901. It has been used, along with other characters, to support a relationship between these families by some authors (e.g., Manter 1937, 1940). However, while the lymphatic system may support other evidence in indicating a relationship between the Waretrematidae, Gyliuchenidae, and Lepocreadiidae, it cannot be considered as indicative of any relationship between these families and the Paramphistomidae (Cable, 1956).

Within the Lepocreadiidae, the presence of a lymphatic system in *Neocreadium* serves to link the Lepocreadiinae and Homalometroninae. Furthermore, if the development of structures around the external seminal vesicle is considered at the same time groups of genera within the family can be demonstrated as shown in Table I.

It should be pointed out that two species of *Myzoxenus*, *M. insolens* (Crowcroft, 1945) and *M. crowcrofti* Manter, 1954, apparently lack gland cells around the external seminal vesicle. In view of the fact that the presence or absence of gland cells around the external seminal vesicle can be regarded as a stable feature among the species of a given genus in the subfamily Lepocreadiinae, it could be argued that the two species of *Myzoxenus* mentioned warrant transferring to another genus. If this is done, *Gnathomyzon* Crowcroft, 1945, originally proposed for *M. insolens*, is available.

Some disagreement has arisen regarding the status of the genus *Hypocreadium* Ozaki, 1936. Recently, Sogandares-Bernal (1959) reviewed the literature dealing with this problem and synonymised *Hypocreadium* with *Pseudocreadium* Layman, 1930. Nahhas and Cable (1964) have supported this decision. Sogandares-Bernal maintained that to accept these two genera as distinct on the basis of the position of the ovary and the extent of the uterus is not valid as intergradations of