21 Family Acoleidae Fuhrmann, 1899

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Introduction

The family Acoleidae is based on the genus *Acoleus* Fuhrmann, 1899. Fuhrmann (1907b) elevated the subfamily Acoleininae Fuhrmann, 1899 to family rank [see *ICZN* Art. 36(a)] under the name Acoleinidae, with the main character being the absence of a vaginal pore. Ransom (1909) pointed out that the name is grammatically incorrect and amended it to Acoleidae, accepting in it the genera *Acoleus, Gyrocoelia* Fuhrmann, 1899, *Diplophallus* Fuhrmann, 1900, *Dioecocestus* Fuhrmann, 1900 and *Shipleya* Fuhrmann, 1908. Fuhrmann later (1909a, 1911) added *Progynotaenia* Fuhrmann, 1909 and *Proterogynotaenia* Fuhrmann, 1911.

The validity of the family and the genera attached to it was disputed by several workers. Meggitt (1924a) accepted the family and added *Monoecocestus* Beddard, 1914; *Urocystidium* Beddard, 1912 and *Diploposthe* Jacobi, 1896 to it. Fuhrmann (1932) pointed out that *Monoecocestus* is an anoplocephalid, *Urocystidium* is probably a taeniid larva and *Diploposthe* is a hymenolepidid because there are usually three testes in each proglottid. Poche (1926) established the family Diploposthidae for *Diploposthe* while Southwell & Hilmy (1929) moved *Diplophallus* and *Dioecocestus* to the Diploposthidae. Southwell (1930a) established the Dioecocestidae for cestodes with entirely separate male and female strobilae. Fuhrmann (1932) retained seven genera within the Acoleidae but subsequently (1936a) established the Progynotaeniidae for *Progynotaenia* and *Proterogynotaenia*. He distributed the remaining genera of the Acoleidae between the subfamily Acoleinae for forms without a vaginal pore and Dioecocestinae for separately sexed forms with a vaginal pore.

Burt (1939a) accepted the Dioecocestidae and retained only *Acoleus* and *Diplophallus* in the Acoleidae. More recently, Wardle & McLeod (1952), Yamaguti (1959) and Schmidt (1970) took the view that the Acoleidae contains only *Acoleus*. Spasskii & Spasskaya (1968) considered the Diploposthidae to be

synonymous with the Hymenolepididae.

Ukoli (1965) established *Himantocestus* and assigned it to the Diploposthidae because of the partial duplication of the male genital organs and the absence of vaginal pores. The rostellum in his specimens was unarmed. His specimens are very near to *Diplophallus* and he was probably unaware of *D. andinus* Voge & Reed, 1953 which has an unarmed rostellum. This led Ryzhikov & Tolkacheva (1981) justifiably to synonymize *Himantocestus* and its only species *H. blanksoni* with *Diplophallus* and *D. andinus*, respectively. Olsen (1966) and Ahern & Schmidt (1976) pointed out that many scoleces of *Diplophallus* lose some or all their rostellar hooks during collection and suggested that careful collection and examination of *D. andinus* would probably demonstrate the presence of rostellar hooks. Olsen (1966) reported *D. taglei* from a mammalian host but, as all previous records of the genus came from charadriiform birds, Ryzhikov & Tolkacheva (1981) excluded this species from the genus. Schmidt (1986) accepted *Acoleus, Diplophallus, Diploposthe* and *Jardugia* in the Acoleidae. In this revision, *Diploposthe* and *Jardugia* are assigned to the Hymenolepididae while *Acoleus* and *Diplophallus* are the only genera retained in the Acoleidae.

Family Acoleidae Fuhrmann 1899

Diagnosis: Relatively large, thick cestodes with short proglottids and strong musculature. Scolex with armed or unarmed rostellum and simple unarmed suckers. Single or double male genitalia in each proglottid. Testes numerous. Cirrus-sac large, strongly muscular. Cirrus robust, strongly armed. External vaginal pores absent, vagina represented by transverse seminal receptacle. Ovary transversely elongate. Vitellarium compact, postovarian. Uterus sac-like. Parasites of birds. Type-genus *Acoleus* Fuhrmann, 1899.

Key to genera

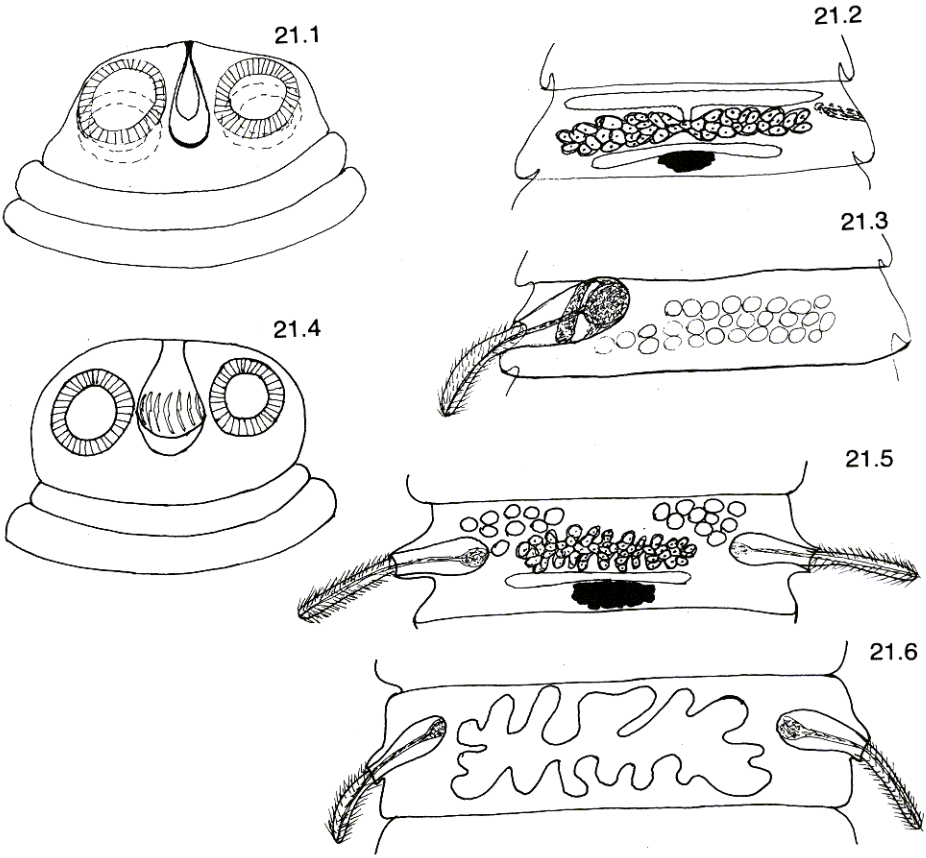
1a. Male and female genitalia single .... ***Acoleus* Fuhrmann, 1899. (Figs 21.1–21.3)**

Diagnosis: Scolex with armed rostellum and simple unarmed suckers. Male genital pores alternate regularly. Cirrus-sac large; cirrus armed. Male duct ventral to poral osmoregulatory canals. Testes numerous, in band across proglottid. Ovary median, transversely elongate, lobed. Young uterus a transverse tube, becoming sac-like, occupying most of proglottid. Eggs round or oval with small polar thickenings. In Charadriiformes and Ralliformes. Cosmopolitan. Type-species *A. vaginatus* (Rudolphi, 1819) Fuhrmann, 1899.

1b. Male genitalia double, female genitalia single .... ***Diplophallus* Fuhrmann, 1900. (Figs 21.4–21.6)**

(Syn. *Himantocestus* Ukoli, 1965).

Diagnosis: Rostellum armed or unarmed. If armed, with single circle of hooks. Suckers well developed, unarmed. Proglottids wider than long. Male genital pores



Figs 21.1-21.3 *Acoleus vaginatus* (Rudolphi, 1819). 21.1. Scolex. 21.2. Functional female proglottid. 21.3. Functional male proglottid.
Figs 21.4-21.6 *Diplophallus coili* Ahern & Schmidt, 1976. 21.4. Scolex. 21.5. Mature proglottid. 21.6. Gravid proglottid.

bilateral. Cirrus-sac well developed; cirrus long, heavily armed. Male ducts ventral to osmoregulatory canals. Testes numerous, in band across proglottid or in two lateral fields. Ovary transversely elongate, lobed. Young uterus a transverse tube becoming sac-like, occupying most of proglottid. Eggs numerous, oval. In Charadriiformes. Cosmopolitan. Type-species *D. polymorphus* (Rudolphi, 1819) Fuhrmann, 1899.