

and more numerous papillæ. In the small piece of test examined, no vessels were to be seen. The mantle, like that of the smaller species of *Culeolus*, is thin, and the musculature is feeble but distinct.

The most striking point of resemblance, however, is in the structure of the branchial sac (Pl. XIII. fig. 9). That organ has here the same simple type hitherto found only in *Culeolus*, and in *Bathyoncus*, one of the Styelinæ. The sac is especially like that of *Culeolus perlucidus*, from which it differs chiefly in that there the fold is formed of simply two internal longitudinal bars, while in the present species there are always three (Pl. XIII. fig. 9, *br.f.*) I have not been able to detect calcareous spicules in any part of the sac. Cilia are present on the internal longitudinal bars, but seem to be confined to the sides, being placed on the small cubical cells forming the lateral walls of the vessel, while the columnar cells on the free internal edge have none.

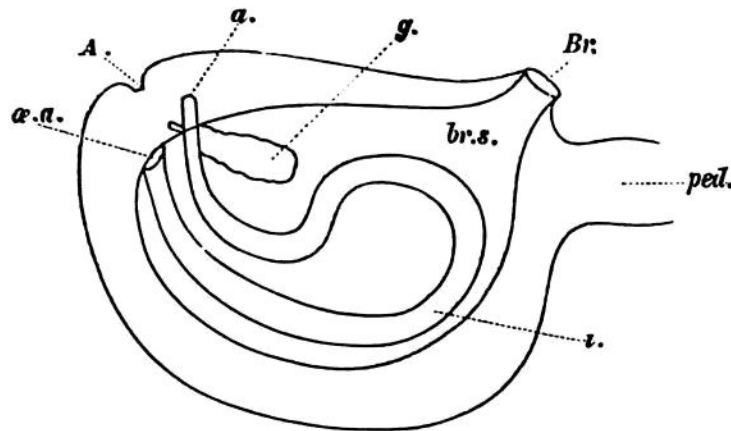


FIG. 16.—Diagrammatic lateral view of *Fungulus cinereus*, showing the course of the Alimentary Canal.

*Br.*, branchial aperture; *At.*, atrial aperture; *ped.*, peduncle; *br.s.*, branchial sac; *æ.a.*, œsophageal aperture; *i.*, intestine; *a.*, anus; *g.*, genital gland of left side.

I could discover no languets. A plain band, about twice the breadth of an internal longitudinal bar, runs along the dorsal edge of the branchial sac, and appears to represent the dorsal lamina. The endostyle is very distinct, but has no calcareous spicules. The central area is about one-third of the entire breadth (Pl. XIII. fig. 10), and is traversed by three pairs of opaque brown bands (*c.b.a.*, and *l.b.b.*) running longitudinally. One of the prominent edges in the piece examined has the blood vessels engorged with brown blood corpuscles (Pl. XIII. fig. 10, *cap.*), while the other edge is clear and transparent. The tentacles are large and much branched. The exact number could not be made out, but it is probably about eight.

The alimentary canal is undifferentiated into regions, and hangs freely in the peribranchial space, having no attachment (except by blood vessels) to the mantle. The œsophageal aperture lies at the posterior end of the branchial sac (fig. 16, *æ.a.*), and the tube has the following course. It first runs ventrally and then anteriorly along the ventral side of the branchial sac. It next turns dorsally (*i.*) and posteriorly and then ventrally, so as to form a curve convex dorsally. It then turns posteriorly and finally dorsally so as to form a second curve, with the concavity dorsal this time, and thus reaches