

im 4. Myotom bildend, auf der andern, linken Seite aber, bloß bis zum 4. Myotom. Dem ungeübten Beobachter könnte es scheinen, als wäre auf der rechten Seite das Ganglion des 4. Myotoms atrophiert, während es tatsächlich noch gar nicht differenziert ist.

Über die Visceralmuskulatur folgt in nächster Zeit eine besondere Mitteilung.

Meine hier angeführten Beobachtungen sind nach vorzüglichen Schnittserien des Zoologischen Kabinetts der Universität in Kasan, die ich dem Student der physiko-mathematischen Fakultät, S. A. Tichenko, verdanke, gemacht worden.

21. Februar 1906.

#### 4. An Abnormal Dogfish (*Scyllium canicula*).

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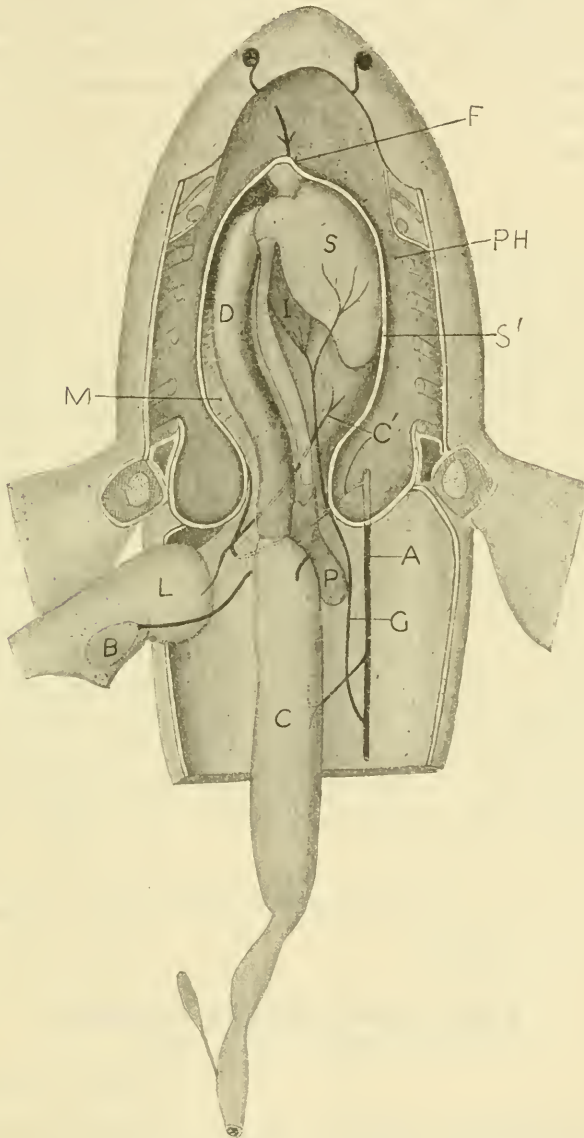
(With 1 fig.)

eingeg. 18. März 1906.

The dogfish now described was about to undergo dissection in a class, when the apparent absence of the whole stomach attracted attention. Upon opening the pharynx by cutting laterally through its right and left wall, there was seen lying in its cavity a flattened spatulate-shaped mass (Fig. 1 *S'*) which was at first sight suggestive of the existence of a hernial sac. Subsequent examination of it shewed however that it was not of this nature. Upon cutting open the sac, the distal loop (*D*) of the siphonal stomach and the spleen (*S*) were seen contained within it. The posterior end of the sac opened into the abdominal coelom and was lined internally by coelomic epithelium. Through this wide orifice into the abdominal coelom, the distal loop of the stomach passed and was immediately continued into the anterior extremity (bursa enteriana) of the colon (*C*). Immediately behind this orifice and extending partly into it, was the pancreas (*P*), otherwise normal in its relationships, but slightly smaller than usual. The pancreatic duct opened into the bursa enteriana at the normal place.

The anterior mesenteric artery ran a perfectly normal course, but while the lieno-gastric artery (*G*) arose from the aorta (*A*) in its proper position, it ran forwards through the wide coelomic orifice of the sac to its anterior end, where it divided to supply the spleen (*S*) and a peculiar triangular-shaped caecal invagination (*I*) of the anterior end of the sac. The lieno-gastric artery is thus very much longer than the normal one, and so much so, that extension of it to this degree would undoubtedly

have ruptured it. The coeliac artery (*C'*) was likewise normal in its origin but it extended backwards to as far as the coelomic orifice of the sac, when it turned round the rim of this, and divided into three



Showing the everted proximal limb of the stomach of an abnormal dogfish (*Scyllium canicula*). The floor of the pharynx (*PH*) has been cut away and the ventral wall of the sac (*S'*) has also been removed. The dorsal aorta (*A*) has been represented as removed towards the animal's left, for the sake of clearness.

branches. One of these branches supplied the liver, and the two others supplied each the ventral and dorsal wall of the sac.

An examination of the outer, dorsal surface and of the right hand side of the anterior end of the sac shewed the existence of a slit-like aperture, the position of which is indicated by the arrowed line and by the index line of *F*. Upon passing a probe into this it was found to lead into the distal loop (*D*) of the stomach which extended right up to the anterior extremity of the sac. At the hinder end of this slit-like aperture was the semi-crescentic lip of the triangular-shaped invaginated caecal pouch (*I*), the apex of which is directed backwards into the sac (*S'*) itself, and which has already been noticed as being supplied by a branch of the lieno-gastric artery (*G*).

The interpretation of the condition just described, is obviously to be sought in the distribution of the coeliac artery (*C'*). The fact that this artery supplies the internal surface of the sac (*S'*) clearly indicates that it is the everted proximal limb of the stomach, and consequently this dogfish must have lived with the inner surface of its stomach turned inside out and everted into the pharyngeal cavity. The distribution of the right and left gastric branches of the vagus nerves corroborates this conclusion, since each are turned round the coelomic orifice of the sac and spread out over its internal dorsal surface, of their respective sides.

That the condition here described was a permanent one is shewn by the great length of the lieno-gastric artery and by the presence of the invaginated sac I. At quite an early stage in the differentiation of the primitive gut, the proximal loop of the stomach probably become gradually everted, this eversion setting up on the one side, a tension upon the lieno-gastric artery which grew with the growth of the everted sac, and on the other, a tension upon the proximal loop of the stomach near its junction with the distal loop, and which resulted in the formation of the invaginated sac I.

The animal was fully nourished and the ovary was of normal size and laden with large eggs. The specimen is in the Museum of the London Hospital Medical College.

## 5. Diagnosen neuer japanischer Alcyonaceen.

Von Prof. W. Kükenthal, Breslau.

eingeg. 21. März 1906.

Die hier aufgeführten Formen stammen zum größten Teil aus der Reiseausbeute Herrn Dr. Dofleins, einige auch aus dem Material der Museen zu Berlin, Wien, Hamburg und München.

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