

gleich insofern nicht vollkommen durchführen, als die Bothriocephaliden ja schon ursprünglich nur zwei Bothrien besitzen, durch deren Verschmelzung dann natürlich nur ein unpaares und scheidelständiges Saugorgan entstehen kann, wie es für die Gattungen *Bothrimonus* und *Cyathocephalus* charakteristisch ist, während wir andererseits bei den Tetrarhynchen trotz der erwähnten Verschmelzung immer noch paarige und seitliche, sei es marginale sei es laterale, Bothridien finden, als natürliche Folge der ursprünglichen Vierzahl.

4. On the Formation of the Pelvic Plexus, with especial Reference to the Nervus Collector, in the Genus *Mustelus*.

By R. C. Punnett, B.A., Cambridge.

(Paper read before the Royal Society, London, November 16, 1899.)

(Abstract.)

eingeg. 24. November 1899.

The main object of this investigation was to ascertain whether at any period in the development of the animal selected, the number of branches composing the nervus collector was greater than that found in the adult. As a logical consequence of Gegenbaur's theory we should expect such to be the case, and the ontogenetic history of the nervus collector recorded in this paper, its maximum development in young embryos, and its subsequent gradual decrease through the later stages of embryonic existence leading to its condition in the adult, must, if there is any truth in the recapitulation theory, all point to its primitive character.

The history of the posterior collector, the very existence of which has not hitherto been described, throws important light upon the theory mentioned above. Here we have a collector formed in the embryo, from which in later stages the component nerves separate and run singly into the fin. Such a fact points very strongly to the collector condition being more primitive than that condition in which the nerves reach it without previously effecting any junction with one another.

It is further shown that the formation of this collector is due to migration of the whole fin rostrally, and not merely to a contraction of the fin area, and in support of this the following evidence is brought forward. The two species, *M. laevis* and *M. vulgaris*, differ from one another chiefly in the more rostral position of the pelvic girdle in the former. That it is highly improbable such a condition should be due

to excalation of vertebrae between the pelvis and head region of *M. laevis* is shown in such facts as the following:—

a) The great amount of both excalation and intercalation which must be going on in different regions of the animal on such a hypothesis.

b) In some cases the girdle-piercing nerve may pass partly over and partly through the girdle, not showing that rigidity which on the excalation theory we should be led to expect.

c) The serial number of the girdle-piercing nerve may be different on the two sides of the same individual.

On the hypothesis of migration such facts receive an easy explanation which is also in accordance with the existence of a greater caudal extension of the area of innervation of the pelvic fin in the males of *M. laevis* than the females, and in the great amount of variability in *M. laevis* which species we suppose to have been derived from a more stable form such as *M. vulgaris* by a rostral migration of the pelvic girdle.

Hence migration being rendered very probable on other grounds, the posterior collector must be supposed to be formed as a direct result of that migration, and its undoubted connection with the shifting of the fin along the vertebral column is of great importance in explaining the formation of the anterior nervous collector.

5. Les glandes pygidiennes du *Pheropsophus Bohemani* Chaud.

Par Fr. Dierckx, S.J., Louvain.

(Avec 3 figures.)

eingeg. 25. November 1899.

Parmi les Carabides bombardiers le genre *Pheropsophus* semble tenir le record par la complexité de son organe défensif.

Nous avons eu la bonne fortune de disséquer le *Pheropsophus Bohemani* Chaud., grâce à l'obligeance d'un naturaliste distingué, le P. O'Neil, S.J. qui s'est fait un nom par ses découvertes entomologiques dans l'Afrique australe.

L'insecte, capturé à Dunbrody (Blue Cliff) dans la Colonie du Cap, est arrivé à Louvain, vivant, mais trop affaibli pour fournir un long service parmi les artilleurs de notre terrarium. Dans le seul essai physiologique auquel nous avons pu le soumettre, des bulles gazeuses s'égrenaient régulièrement par les deux pores de décharge, entraînant une pâte jaunâtre qui remontait sans pulvérisation sur les élytres, et y restait avec tous les caractères d'une matière absolument fixe. Sans doute notre bombardier ne nous a donné là qu'une idée très

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Zoologischer Anzeiger](#)

Jahr/Year: 1900

Band/Volume: [23](#)

Autor(en)/Author(s): Punnett R. C.

Artikel/Article: [On the Formation of the Pelvic Plexus, with especial Reference to the Nervus Collector, in the Genus Mustelus. 14-15](#)