

Rougemont).” He has uniformly found this in company with *Gammarus puteanus*, which, according to Rougemont, is its mortal foe. He agrees with Rougemont in considering that *Asellus cavaticus* is related to *Asellus aquaticus* very much as *Gammarus puteanus* is to *Gammarus pulex*.

At p. 309 other localities are mentioned for the occurrence of *Gammarus puteanus* and *Asellus cavaticus*.

1879. GRENACHER, H.

Untersuchungen über das Sehorgan der Arthropoden, insbesondere der Spinnen, Insecten und Crustaceen. Göttingen. 1879.

Preliminary notices of these investigations were given in the Göttinger Nachrichten, 1874, Nr. 26, and in the Klinischen Monatsblätter für Augenheilkunde, supplementary number for May, 15th year, 1877.

The elaborate and exquisite illustrations to this work seem to show all that is at present known as to the organs with which the book is concerned. Grenacher maintains “the theory of Mosaic Vision,” propounded by Johannes Müller in 1826, and gives references to numerous works more or less opposed to or agreeing with his own views. In pages 109–114, and on Plates IX. and X., he treats of the eyes of the Amphipoda, referring especially to *Gammarus locusta*, *Talitrus saltator*, *Gammarus neglectus*, *Hyperia galba*, *Phronima sedentaria*. Fig. 99 gives a “Schnitt, parallel der Längsaxe des Thieres und senkrecht auf die Längsaxe der Gesamtauges, von *Gammarus locusta*.” Fig. 100 shows a single ocellus from the same animal with the “nuclei of Semper” on the surface over the crystalline cone, composed as usual of two longitudinal segments. Fig. 102, A. and B., shows two ocelli of *Talitrus locusta*, one from the middle, the other from the rim of the eye. Fig. 103 shows the “Zellkerne der Retinula” on either side of the inner end of the crystalline cone of one of these ocelli. Fig. 104 shows the “Krystalkegel mit Retinula aus dem Auge von *Hyperia galba* (H. Latreillei). Der Krystalkegel aus dem peripherischen Theilen des Auges ist von einer weiten Hülle umgeben, deren Kerne vorn gelegen sind. Besondere Zellen, um das Hinterende des Krystalkegels. Das fein quer-gestreifte Rhabdom hat in seinem Innern einen deutlichen Canal.” Fig. 105, a. b., is a “Querschnitte durch den Krystalkegel desselben Thieres in verschiedene Höhen, um das Verhalten desselben zu seiner Hülle zu zeigen.” Fig. 106, a. b. c., shows “Querschnitte durch die Retinula desselben Thieres in drei verschiedenen Gegenden. An allen ist die Zusammensetzung der Retinula aus fünf Zellen, an den beiden ersteren auch die des Rhabdoms aus ebensoviel Stübchen, sowie der centrale Canal desselben zu erkennen.”

1879. HOEK, P. P. C.

Carcinologisches, grösstentheils gearbeitet in der zoologischen Station der niederländischen zoologischen Gesellschaft. Tijdschrift der Nederland. Dierkund. Vereeniging. Deel IV. 1879. pp. 97–161. Mit Taf. V.–X.

The work contains five chapters:—

I. On the anatomy and classification of the Caprellidæ.

II. Contributions to the knowledge of the Corophidæ. Dr. Hoek here goes into detail to confirm the opinion of A. M. Norman that “*Corophium Bonellii*,” Bate and Westwood, is the female of *Corophium crassicorne*, Bruzelius. He unites, in agreement with Axel Boeck,