

1880. GRIMM, OSCAR.

Beitrag zur Kenntniss einiger blinden Amphipoden des Kaspisees. Archiv für Naturgeschichte. Sechs und vierzigster Jahrgang. Erster Band. Berlin, 1880. pp. 117-126.

On some Blind Amphipoda of the Caspian Sea. By Dr. Oscar Grimm. Translated by W. S. Dallas, F.L.S., from the "Archiv für Naturgeschichte," 1880. The Annals and Magazine of Natural History. No. 26. February 1880. London, 1880. pp. 85-92.

Dr. Grimm says, "*Gammaracanthus caspius*, mihi, from a depth of 108 fathoms in the Caspian, *Boeckia spinosa*, *nasuta*, and *hystrix*, mihi, from depths of 70-150 fathoms in the Caspian, and various species of *Mysis* from the same sea, and from depths down to 500 fathoms, all have well-developed, large, prominent, and black-pigmented eyes. This sufficiently proves that at the depths indicated the visual organ can be and is made use of, as here absolute darkness does not prevail, but only a dark night."

"In the Caspian Sea, at 0° 12' E. long. (from Baku) and 39° 51' N. lat., I obtained in a single cast of the dredge ten new species of Gammaridæ (namely *Gammarus paucillius*, *G. crassus*, *G. Gregorkowii*, *G. portentosus*, *G. coronifera*, *G. thaumops*, *Pandora cæca*, *Iphigeneia abyssorum*, *Gammaracanthus caspius*, and *Amathilinella cristata*), all of which are furnished with eyes, but in very different degrees of development: thus *Gammaracanthus caspius* has very large round eyes, *Gammarus coronifera* and *Amathilinella cristata* long but narrow eyes, *Gammarus thaumops* triangular unpigmented eyes, and *Pandora cæca* small unpigmented eyes, which can hardly be endowed with the faculty of sight. A still better example is furnished by the following new Amphipoda discovered by me in the Caspian Sea:—

<i>Onesimus caspius</i>	from the depth of 75-250 fathoms,
" pomposus	" " 180 "
" platyuros	" " 40 and 48 "
<i>Pantoporeia microphthalma</i>	" " 80-90 "
<i>Niphargus caspius</i>	" " 35-90 "

of which the last two species, together with *Onesimus caspius*, were also taken in one cast, and, indeed, at a depth of 80-90 fathoms, at 0° 26' E. long. and 41° 6' N. lat. *Pantoporeia microphthalma* and *Niphargus caspius* possess pigmented but small eyes; of the species of *Onesimus* some possess red, others (*On. caspius*) perfectly unpigmented eyes, which, in the last-mentioned species at least, are deprived of the faculty of sight; and with these more or less blind species there live Mysidæ, the large, convex, and black eyes of which certainly absorb a sufficiency of light even in the darkness of the depths."

While taking the quotations from Mr. Dallas's version, I have not followed him in altering his author's *Gammarus coronifera* into *Gammarus coronifer*. It may be observed that the generic name *Boeckia*, is preoccupied, having been used by Malm in 1870, when it forthwith lapsed as a synonym of *Leptocheirus*. *Pantoporeia*, if it be not intended for *Pantoporeia*, is inconveniently near it. *Iphigeneia* makes an even closer approach to *Iphigenia*, a genus of molluscs. *Pandora* is preoccupied over and over again.

Of *Niphargus caspius*, Grimm says, "from this species *N. puteanus* is probably derived. It is possible that it is identical with *N. ponticus*, Czern.; unfortunately I have been unable rightly to determine the latter, as the description which Hr. W. Czernjawsky has given of it appears to be very defective. (See his 'Materialia ad zoographiam ponticam comparatam 1868.')

It must, however, be remarked that our *N. caspius* differs in many respects from