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B. 363.

5. DESCRIPTION OF A NEW GEOCLEMYS LATELY LIVING IN THE GARDENS OF THE ZOOLOGICAL SOCIETY. BY DR. J. E. GRAY, F.R.S., F.L.S., ETC.

Some time ago the British Museum received a *Geoclemys* from the Zoological Society that had been living in the Gardens, which we have preserved in spirits. Having occasion to examine it the other day, in connexion with some other Terrapens more lately received, it appears to be distinct from any other that we have, and from any that I can find described. Unfortunately it was not accompanied by any account whence it came, so that I cannot give its habitat.

GEOCLEMYS CALLOCEPHALUS.

Shell oblong, convex, bluntly keeled; dark blackish brown; shields thin, slightly ringed, the margin nearly entire; vertebral shields about



as long as broad, the second and third rather longer; nuchal shield short; the marginal shields broad, the ninth rather higher than the rest; underside of these yellow, not spotted or ringed; the sternum convex, rather bent up in front, broadly truncated before, and behind pale yellow, more or less blackish on each side of the central line. The upper part and side of the neck pale; the upper part of the legs closely speckled with minute black dots; the front of the fore legs pale, with some black spots on the edge of the large flat scales which cover this part; the front toes short, coalesced nearly to the claws, with a few rather narrow angular shields on the upper surface; the palms covered with moderate scales, and with a cross row of five large, nearly uniform-sized, squarish shields on the hinder part of the wrist; the hind legs covered with small scales; the hind foot broad, the toes short, and coalesced like the front one, but with rather larger shields above the soles, with moderate-sized scales, and with some large triangular shields at the hinder part of the heel, in two or three series; the chin and throat white, spotless; the head rather flattened; the eyes lateral; upper jaw slightly notched in front; the crown of the head (in spirits) pale, with three black-edged white broad streaks concentric one within the other, and diverging parallelly towards the occiput, where they are lost among the black specks; cheek with five or six narrow black horizontal lines, the lower bending up to the tip of the ears; there is an obscure black streak from the nose to the middle of the orbit, and a narrow streak near the upper edge of

the upper jaw, and some black oblong spots on the lower side of the ear and temple, which may be more distinct in the living specimen.

Hab. Unknown; perhaps China.

This species in several respects agrees in form and appearance with *Emys chinensis*, of which, as is shown by the specimen brought by Mr. Swinhoe to this country, the Tortoise described by me as *Emys bennetti* is only the adult. It is at once known from *E. chinensis* by the minutely speckled body and the bands on the head, and by the under surface of the marginal shield being destitute of any rings or spots. The head and neck of *E. chinensis* are covered with uniform narrow black lines, which on the chin and throat form circles. *E. chinensis*, like *E. bealei*, is a true *Emys*, with slender, distinctly developed toes and fingers, which are united by a web to the claw,—*E. chinensis* having moderate-sized thick scales in the front of the fore legs, with some larger and broader scales, or small shields, scattered among them, and *E. bealei* small granular scales on the legs, with three or four broad, thin, lunate, band-like shields across the front of the fore legs.

In the black speck on the neck and body, and the ornamental lines on the head, this species has some affinity to *E. pulcherrima*, described and figured in my Catalogue from a very young specimen, said to come from Mexico. But this habitat is doubtful, as some other animals, procured from the same person and said to be from the same habitat, have proved to be from other countries. This species also, as far as can be judged from the dry state of the specimen, may probably be a *Geoclemys*.

6. DESCRIPTION OF A NEW SPECIES OF MACRUROUS DECAPOD CRUSTACEAN BELONGING TO THE GENUS PENÆUS, FROM THE COAST OF PORTUGAL. BY JAMES YATE JOHNSON, CORR. MEM. Z. S.

PENÆUS BOCAGEI, sp. n.

The subcylindrical carapace is less than half the length of the abdomen, including the caudal segment, and is excavated at the middle of the posterior margin. A median crest commences near the posterior margin, and projects in front as the rostrum, which is more than half the length of the carapace. This rostrum extends much beyond the eyes, but not quite so far as the distal extremity of the peduncle of the superior antennæ. It has a slight sigmoid flexure, is compressed, and is marked at each side with two low crests and two grooves. Its lower edge is simple; but its upper edge carries eight small teeth, the first of which is over its base, and the last some little distance from its anterior extremity. There is a fringe of hair at the lower edge posteriorly. The median crest of the carapace carries a single tooth, which is distant from the anterior margin about one-third of the length of the carapace. At each side of the carapace, a little in front of this tooth, there is a large tooth or small spine, in

the neighbourhood of which there is a depression. Above the spine a narrow and somewhat sinuous groove extends nearly the whole length of the carapace. A little behind each anterior angle of the carapace there is another spine smaller than the one last mentioned. The anterior margin of the carapace is deeply excavated at the base of the inferior antennæ, and between this excavation and the base of the ocular peduncle there is a strong sharp tooth or spine; whilst over the base of the eye-stalk there is a minute angular projection, hardly to be called a tooth. The eye is large, being both broader and longer than its stalk.

The superior antennæ have the basal joint of the peduncle broad and much hollowed to receive the eye, and its inner border carries a short lamellar appendage. Each has two filaments with thickened bases, of which one is nearly twice as long as the other, and the longer has a length nearly equal to that of the carapace exclusive of the rostrum. The basal joint of the inferior antennæ is short and thick, and it has a small emargination in front on the upper side. Their palps are large, extending very nearly as far as the rostrum, and they are shaped like the quarter of an elongated ellipse; but the thick outer margin curves slightly inwards, and projects in front as a short tooth. The inner margin is fringed with hair. The filament is longer than the total length of the Crustacean, including the rostrum.

All the feet are slender, and the first three pairs are two-fingered, with ovate hands, the rest being monodactyle: none are multiarticulate. The order of their length, commencing with the longest, is 5, 4=3, 2, 1; the third and fourth pairs reach beyond the eyes; the first pair has a fringe of hair at the under edges of all the joints, and the second and third joints each carry a spine at the distal extremity of the underside. The first pair of pedipalps is long, slender, and pediform; they extend beyond the eyes.

The abdomen is subcompressed in front, much compressed behind, and the anterior five segments are furnished with large and prominent false feet, each terminated by a pair of narrow flexible plates fringed with hair, of which the outer one is longer; the basal joint is shorter than either. All the segments have their inferior margins fringed with hair. The fourth, fifth, and sixth segments possess a median keel, which terminates posteriorly with a small sharp tooth; and the sixth segment has in addition a small tooth at each posterior angle. The posterior margins of the fourth and fifth segments have a small notch at the middle of each side. The seventh or caudal segment is about as long as the sixth, which is longer than any of the preceding segments; it is narrow, terminates in a point, and is armed with a small spine at each side near the posterior extremity. The lateral plates are narrowly oval and fringed with hair; both pairs extend beyond the seventh abdominal segment, but the outer plates are larger than the inner, which latter have a longitudinal median groove on the upper surface between two low crests. There is also a groove on the upper surface of the exterior plates; but it is not in the median line, and it terminates at the outer margin not far

from the posterior extremity of the plate. At this place there is a small sharp tooth, and here commences a low crest which crosses the plate with a curve and divides it into two unequal portions. The common basal joint of these plates has a small sharp tooth at its postero-exterior angle.

Large quantities of this *Penæus* are taken at the mouth of the Tagus during the spring and summer months; and it frequently appears on the breakfast-tables of the hotels in Lisbon, where indeed it first attracted my attention. It is known in the market under the name of "Camarão," *i. e.* Prawn. The living Crustacean has a pale red colour, which deepens on being boiled into the pinky red of our Prawn. It may be readily distinguished from *Penæus caramote*, which has also been taken on the coast of Portugal, by the single crest on the carapace, by the absence of teeth from the underside of the rostrum, by the presence of a spine near the anterior lateral angles of the carapace in addition to the spine between the bases of the inferior antennæ and the eye-stalks, by the much greater length of the filaments of the superior antennæ, which in *P. caramote* are not more than a fourth of the length of the carapace minus the rostrum, by the absence of spines from the two basal joints of the second and third pairs of legs, and by the presence of a single spine, in place of three, at each side of the caudal segment of the abdomen.

Examples having a total length, including the rostrum, of $5\frac{1}{4}$ inches, and a carapace with a width of rather more than half an inch, are not uncommon; but the finest specimen I have seen was kindly presented to me by Dr. J. V. Barbosa de Bocage, Director of the Royal Museum of Lisbon. This specimen, which is now in the British Museum, has the following dimensions:—

	inches.
Total length from tip of rostrum to end of caudal plates	$6\frac{6}{16}$
Rostrum, length	$1\frac{1}{8}$
Carapace, without rostrum, measured at the side, and including the frontal spine	$1\frac{10}{16}$
Carapace, width	$1\frac{10}{16}$
Abdomen, length to the tip of the caudal segment	$3\frac{19}{32}$
First legs, length	$1\frac{1}{8}$
Fifth legs, length	$2\frac{1}{16}$
Outer pedipalps, length	$1\frac{9}{16}$

7. DESCRIPTION OF A NEW SILICEOUS SPONGE FROM THE COAST OF MADEIRA. BY JAMES YATE JOHNSON, CORR. MEM. Z. S.

Order SILICEA, Bowerbank.

DACTYLOCALYX, Bowerbank, Phil. Trans. 1862.

Skeleton siliceo-fibrous. Fibres solid, cylindrical. Reticulations unsymmetrical.

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