

March 9, 1841.

James Whishaw, Esq., in the Chair.

A paper by Dr. Richardson, on some new or little known fishes from the Australian seas, was read. The following is an abstract of this paper.

1. CHEILODACTYLUS GIBBOSUS, *formd Cheilodactyli zonati, (h. e. capite brevi, ore parvulo, dentibus brevibus setaceis; dorso gibbo, spinâ quartâ longissimâ;) radiis pinnae dorsalis articulatis radios spinosos numero plus duplo excedentibus.*

RADII. P. 8·VI; D. 17·36; V. 1·5; A. 3·8; C.

This species differs from the ordinary *Cheilodactyli*, and agrees with the Japanese species discovered by the naturalists who accompanied Admiral Krusenstern, in the body being very high in the pectoral region, and tapering away in a lengthened manner posteriorly; in the abruptly and steeply arched form of the spinous dorsal anteriorly, the smallness of the mouth, the slender teeth, and in horn-like protuberances on the fore-part of the orbit, and also on the tip of the snout, the latter formed by the projecting shoulders of the maxillary bones. The Japanese species named *zonatus* in the 'Hist. des Poissons,' has only twenty-nine articulated rays in the dorsal, and differs in the distribution of its dark bands of colour, which in *gibbosus* run as follows:—one obliquely backwards over the eye and operculum, another over the nape and tip of the gill-flap, meeting the former at the base of the pectoral; a third takes in the first three short dorsal spines, and tapers away on the side under the middle of the pectoral; while a fourth proceeding from a black patch which occupies the fifth and seven following spines, and keeping parallel to the base of the dorsal, runs along the summit of the back to the tail. In *zonatus* there are seven or eight dark stripes running obliquely backwards. Both species appear to have spots on the tail. The description of *Cheilodactylus gibbosus* is drawn up from two Western Australian specimens brought home by Mr. Gould; and the fish also inhabits the seas of New Zealand, Mr. Gray having recognised a drawing by Parkinson of a specimen which was caught in Endeavour River, on Cook's second voyage, as being a correct representation of this fish. (Vide Banks, Icon. ined. t. 23.) One of Mr. Gould's specimens is deposited in the British Museum, and the other at Haslar Hospital.

2. OSTRACION LENTICULARIS, *inermis, ovali-compressus, dorso ventrique carinatis.*

RADII. P. 12; D. 10; A. 10; C. 11.

The discovery of this species adds another form to the genus *Ostracion*, the shapes enumerated in the 'Règne Animal' being triangular with or without spines, quadrangular with or without spines,—

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and compressed with a keeled belly and scattered spines. In *lenticularis* we have a compressed form with a keeled back and belly and no spines. The compressed Ostracions with scattered spines have been characterized by Mr. Gray as a subgeneric group, under the name of *Aracana*, and several Van Diemen's Land species were lately described to the Society by the author of the present paper. The *Aracana Reevesii* (Gray) from China differs from the Van Diemen's Land species in having the back slightly keeled, and thus forms a transition to the form of *lenticularis*, in which the sides are convex, the back and belly acute, and the profile elliptical. *Lenticularis*, though unarmed, exhibits an analogy to the armed *Aracana*, in the umbones of the reticulated surface being largest where the spines would be situated, did they exist. The species is Australian, and the author expresses his obligations to Dr. Andrew Smith, of Fort Pitt, for the loan of two specimens of different ages.

3. *ANGUILLA AUSTRALIS*. Van Diemen's Land Eel.

ANGUILLA AUSTRALIS, *maxillâ inferiore longiore, pinnâ dorsi supra anum incipienti, rictu magno*.

This is a Port Arthur freshwater species, for which the author expresses himself indebted to Mr. Lemprière. It differs from the common freshwater eels of Europe in the more posterior origin of the dorsal, as well as in the more anterior position of the vent. The pectorals are lanceolate, the vertical fins are but moderately high, and the gape extends to the posterior margin of the orbit.

4. *NARCINE TASMANIENSIS*, *dorso dipterygio, corpore latè obovato; valvulâ nasali obtusè trilobatâ integerrimâ; pinnâ ventrali dispectorali approximâtâ*.

The author having but recently had an opportunity of consulting Henle's Monograph of the genus *Narcine*, takes this opportunity of supplying a specific character of the Van Diemen's Land species, which was formerly described to the Society (Zool. Proceed. for March 1840, p. 29), but which could not be distinctively characterized from his want of knowledge of the other species.

A paper by W. J. Broderip, Esq., in which the author proceeds with his descriptions of Mr. Cuming's shells, was next read.

HELIX CRYPTICA. *Hel. testâ tumidâ, subumbilicatâ, subglobosâ, anfractibus 3 subcorrugatis (ultimo longè maximo, obscurè fasciato), lineis incrementi creberrimè obliquè substriatis, purpureo-brunneâ, epidermide sordidè brunneâ; aperturâ subelongato-auriculiformi, intus subargenteo-cærulescente, subiridescente; labiî limbo rubro-brunneo, haud patulo, reflexo*.

Long. $1\frac{6}{8}$; lat. $2\frac{1}{2}$ poll.

Hab. ad Catbalonga Insulæ Samar sub foliis desiccatis.

Mr. Cuming found this *Helix* hidden under the decayed leaves of trees. The inside of the mouth has that silvery iridescence which may be observed in the tendon of a muscle in some of the mammiferous animals, and through it may be seen the purple-brown colour of the shell, which thus puts on a subcærulescent appearance.