This article was downloaded by: [University of Glasgow]
On: 04 January 2015, At: 12:39
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer
Street, London W1T 3JH, UK

Annals and Magazine of Natural History: Series 4

Publication details, including instructions for authors and subscription information:
<http://www.tandfonline.com/loi/tnah10>

On the skull of the spectacled bear of Peru and of the Helarctos from Malacca and Java

Dr. J.E. Gray F.R.S.

Published online: 13 Oct 2009.

To cite this article: Dr. J.E. Gray F.R.S. (1873) On the skull of the spectacled bear of Peru and of the Helarctos from Malacca and Java , Annals and Magazine of Natural History: Series 4, 12:68, 182-183, DOI: [10.1080/00222937308680732](https://doi.org/10.1080/00222937308680732)

To link to this article: <http://dx.doi.org/10.1080/00222937308680732>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs,

expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

MISCELLANEOUS.

Further Additions to the Ichthyological Fauna of Zanzibar.

By Dr. A. GÜNTHER.

In the 'Annals and Magazine of Natural History' for 1868, i. p. 457, I have mentioned several species of fishes previously not known to exist on the coast of Zanzibar; and I have now the pleasure of adding some others, contained in a collection brought home by Bartle Frere, Esq., who accompanied his father, Sir Bartle Frere, on his mission to Zanzibar, and who kindly allowed me to select desiderata for the British Museum. The new additions to the Zanzibar fauna are the following:—

1. *Serranus sexmaculatus*.
2. *Diagramma crassispinum*.—This fish is new to the collection of the British Museum. The specimen differs from the description given by Rüppell and Klunzinger in having rather irregular oblique black bands on the body. It is nearly 8 inches long.
3. *Diagramma reticulatum*.—The Zanzibar specimen agrees very well with the typical specimens (see Fish. i. p. 334); but I have some doubt whether this species is not identical with *D. foetela*. Rüppell had ascribed twelve dorsal spines to this latter species; but Klunzinger states that it has thirteen; so that the number of dorsal spines can no longer be considered a specific difference. This species extends to Australia.
4. *Seriolichthys bipinnulatus*.—A. $\frac{1}{8}$ | II.
5. *Acanthurus lineatus*.
6. *Pseudoscarus strongylocephalus*.
7. *Carcharias Bleekeri*.—Previously known from a single specimen from the Seychelles.
8. *Galeocerdo tigrinus*.

On the Skull of the Spectacled Bear of Peru and of the Helarctos from Malacca and Java. By Dr. J. E. GRAY, F.R.S., &c.

The British Museum has lately received from Mr. Whitely, jun., two skulls of different ages of the spectacled bear of Peru, which are interesting as we have never before received any, and only knew it from the figures of the skeleton and skull in Blainv. Ostéogr. t. iv. and t. viii., which belonged to a specimen described when living by Frédéric Cuvier.

The skull of this bear has been referred to the genus *Helarctos*, of which the Malayan bear is the type.

The skull is very peculiar in the form of the large scar left by the temporal muscle at the hinder part of the lower jaw, the scar only occupying the end and the upper process, and being separated from the rest of the jaw by a very large elevated plate occupying the whole of the front edge of the muscle, thus giving a considerable extent of attachment and consequent power to the latter.

The outer side of the lower jaw, just in front of this elevated plate, is furnished with a large, oblong, subtriangular concavity, about an

inch in each direction, and so deep that it is only separated from the inner surface of the jaw by a thin translucent layer of bone.

In the more perfect adult skull the upper jaw is furnished with three nearly equal small false grinders, which are so compressed together that the middle one is on the outside of the other two. The front one is rather larger than the other two; but they are very nearly equal and have a slightly lobulated surface. The lower jaw has three similar, but rather larger lobulated teeth placed rather further apart, the two in front being the closest, and the front one rather the largest, and very close on the back edge of the canine.

It is very clear that this bear should not be referred to *Helarctos*, which ought to be thus characterized:—

1. *HELARCTOS*, Horsfield; Gray, Cat. Carniv. &c. p. 234.

False grinders 1.1 in the upper and 2.2 in the lower jaw: the upper one small, at the base of the canine, between it and the front edge of the flesh-tooth; the two lower ones smaller. Scar of the temporal muscle subtriangular, occupying the greater part of the end of the lower jaw, gradually shelving into the surface of the jaw. Claws compressed, very much curved.

Helarctos malayanus, Gray, Cat. Carniv. p. 234.

There is no difference between the skulls of *Ursus malayanus* and *U. eurypilus*.

As the skulls of the Malay bear in the Museum had lost their false grinders, in the paper on bears in the 'Proceedings of the Zoological Society' I took the account of them from De Blainville's figure of *Ursus ornatus*, which had them all complete; and therefore they do not agree with the proper generic character of *Helarctos* of Horsfield.

2. *NEARCTOS*.

False grinders in upper jaw 3.3, crowded together between the canine and the base of the flesh-tooth, forming an arched line, the middle one being more outward: in the lower jaw 4.4, conical, slightly 3-lobed, in a straight continuous line; the two middle equal, small; the front larger, and the hindmost largest. The scar of the temporal muscle oblong, deep, with a well-marked raised margin on its front edge, separating it from a large deep concavity on the hinder part of the outer surface of the jaw, which is only separated from the inner surface by a thin translucent layer of bone.

Nearctos ornatus.

Helarctos ornatus, Gray, Cat. Carniv. p. 236.

Hab. Cordilleras (*Whitely*).

De Blainville seems to have overlooked the peculiarity of the form of the lower jaw in the young skull which he figured (t. viii.), although it is represented in the figure, but not nearly so well defined as in the adult specimens; and I was induced by his observations to refer this bear to the genus *Helarctos* before I had the opportunity of observing its skull. And he appears also to have overlooked the differences in the numbers of the false grinders, although the artist figures them.