

DOLLMAN

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THE STANDARD NATURAL HISTORY

FROM AMOEBA TO MAN

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WITH TWELVE COLOUR PLATES
AND
OVER 900 ILLUSTRATIONS
IN THE TEXT

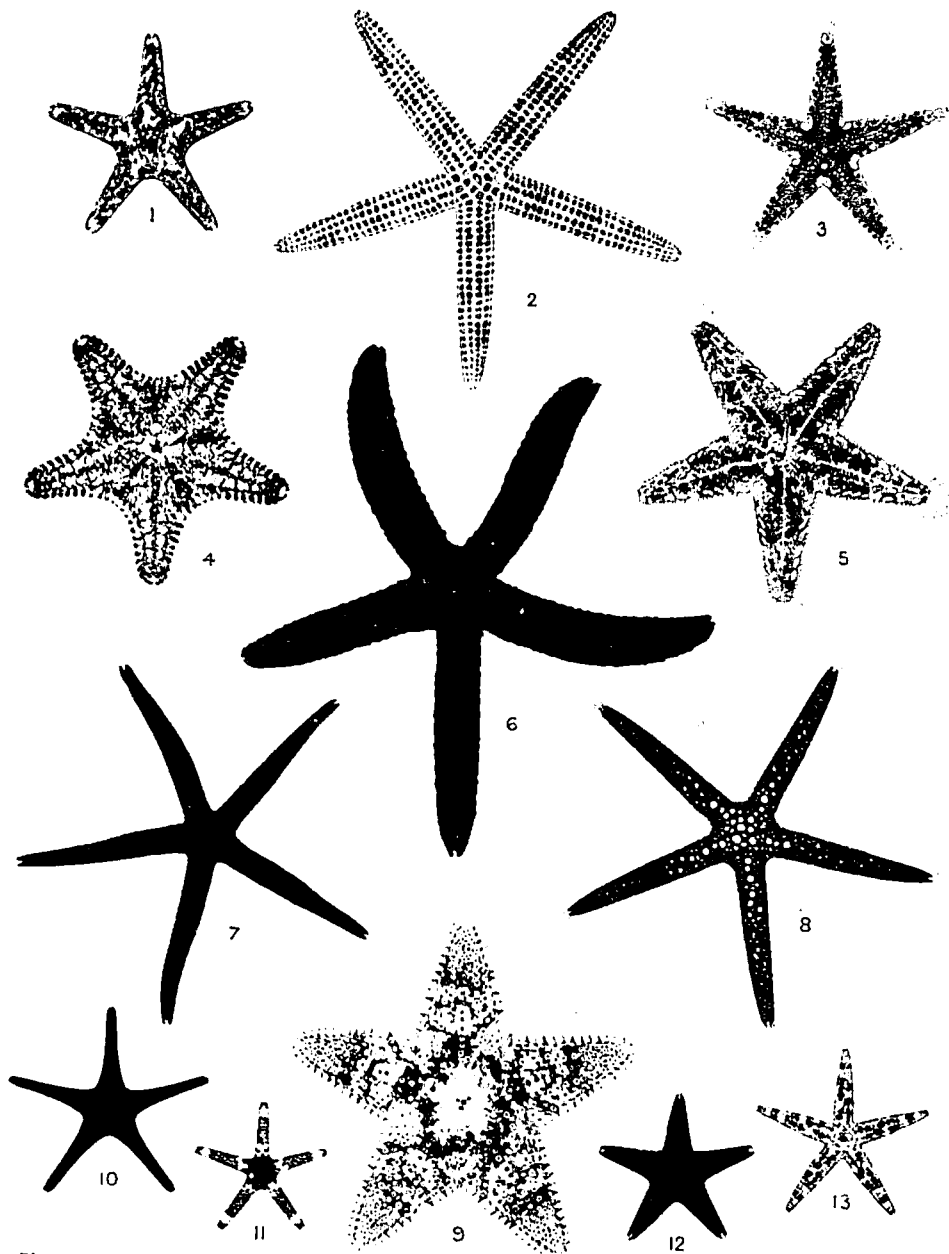
Mammalia by J. S. Dollman

xiv, 892

FREDERICK WARNE & CO., LTD.

LONDON AND NEW YORK

1931



Pl. 1.

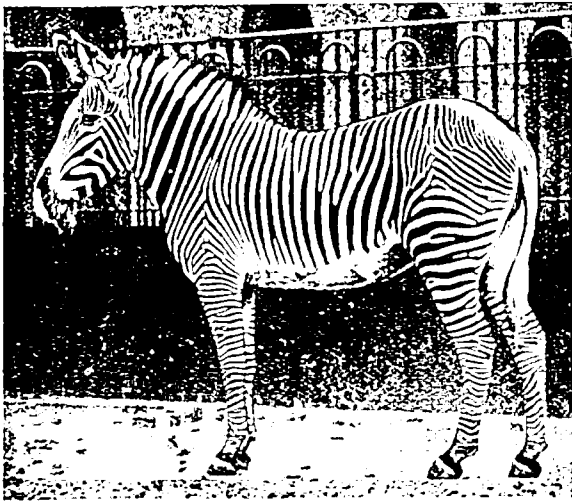
STARFISHES FROM TORRES STRAITS.

Frontispiece.

1, *Napanthia brevis*; 2, *Tamaria tubrifera*; 3, *Ferdina ocellata*; 4, *Anthenea tuberculosa*; 5, *Valvaster spiniferus*;
6, *Linckia lorvigata*; 7, *Echinaster luzonicus*; 8, *Nardoa rosea*; 9, *Asterope carinifera*; 10, *Fromia elegans*;
11, *Bunaster uniseriatus*; 12, *Fromia milleporella*; 13, *Ophidiaster granifer*.

Baluchistan, and Western Mongolia; it is smaller and paler than the other forms, and has a broad, dorsal stripe.

The next group (*Dolichobippus*), which contains only a single species, Grévy's-zebra (*E. grevyi*), has the broad ears thickly haired on the inside, and the coat is marked by numerous narrow stripes; this animal is found only in Abyssinia, Somaliland, and Kenya Colony.



GRÉVY'S-ZEBRA (*Equus grevyi*).

The last group (*Hippotigris*) contains all the remainder of the zebras, that is, the Bonte-quaggas and mountain, or true, zebras, and the extinct Quagga. The latter animal, which was formerly very common in South Africa, was striped only on the neck and shoulders, the rest of the upper parts being brownish and the limbs pale. The true zebras (*E. zebra*) are found only in South and South-West Africa; they are remarkable for the transverse striping or gridiron pattern on the

posterior back. The Bonte-quaggas, which do not possess the gridiron marking on the rump, are widely distributed over Africa south of the Sahara. The true Wild Ass (*E. asinus africanus*) comes from North-East Africa. It differs from its Asiatic cousin in having longer ears, a shorter mane, and less hairy tail. The colour lacks the rufous tinge of the Kiang, and the shoulder-stripe is usually well marked.

Family Tapiridae

The Tapirs form the second family of the Perissodactyla; the group is characterised by the possession of four front and three hind toes. The cheek-teeth are simple and low-crowned. These animals are further distinguished by the elongation of the snout into a short trunk. The distribution is somewhat remarkable, one species being found in the Malay while the other four are confined to Central and South America. The Malay tapir (*Tapirus indicus*) is the largest member of the family, standing nearly three and a half feet at the shoulder. In colour this animal is as strange as

the giant panda, the head, fore-part of body, and limbs being black, while the body behind the shoulders to the rump is white. The newly born young are, however, striped and spotted with yellowish-white. The distributional range extends from the Malay Peninsula to Tenasserim, and also includes the Islands of Borneo and Sumatra.

The American tapirs, of which four species are recognised, are uniformly coloured when adult, the coat being a dark, brownish tint, but the young are striped and spotted in the same manner as is the juvenile coat of the Malayan species. The common South American-tapir (*T. terrestris*) has a shorter snout than the Asiatic animal, and there is a stiff, upright mane on the neck. Roulin's-tapir (*T. roulini*) is an allied species from the mountains of Ecuador and Colombia, and two further species occur in Central America—Baird's-tapir (*T. bairdi*) and Dow's-tapir (*T. dowi*). These American tapirs are, by some authorities, referred to different genera.

Family Rhinocerotidae

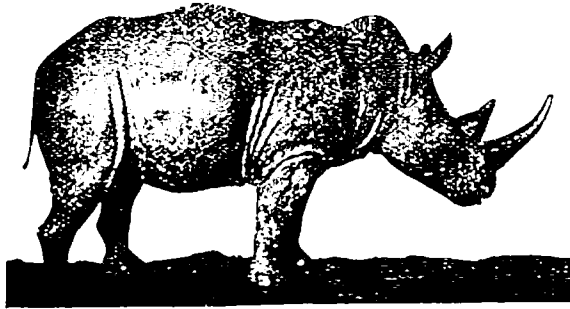
The Rhinoceroses constitute the third family of Perissodactyla, the *Rhinocerotidae*, the members of which are easily recognised by their massive proportions, by the toes being reduced to three in number on both the fore- and hind-feet, and to the presence, at least in the male sex, of one or two median horns on the head; these horns are composed of horny fibres arising from the skin, and are not connected with the skull, although the latter develops a bony boss on which the horns rest. One of the reasons why the Asiatic rhinoceroses have been nearly exterminated in many of their former haunts is because of the demand for rhinoceros-horn for medicinal purposes in China.

Three of the species are Asiatic, two African. Commencing with the great Indian-rhinoceros (*Rhinoceros unicornis*) we have a very large, one-horned animal; the horn is comparatively short, twenty-four inches being the record horn-length for this species. In large specimens the shoulder height is nearly six feet, this rhinoceros being the largest of the Asiatic species. The skin exhibits a number of deep folds around the neck and three on the body, one in front of the shoulders, which does not extend across the back, one behind the shoulders, and one in front of the thighs; the latter two folds are continued across the back. The skin of the sides of the body is thickly studded with rounded tubercles, and that of the limbs is composed of many-sided, scale-like scutes. The distributional range was at one time quite extensive; it is now restricted to Nepal, Assam, and some of the adjacent territory.

The Javan-rhinoceros (*R. sondaicus*), which is also a one-horned species, is distinguished from the Indian-rhinoceros by its smaller size, standing about five and a half feet at the shoulder, and by the mosaic-like pattern of the skin. In addition, the male of this species alone carries a horn; the

latter is smaller than that of the Indian species, the record specimen measuring only ten and three-quarters inches in length. Formerly it was widely distributed in South-Eastern Asia, occurring in the Sanderbans and other parts of Eastern Bengal, Sikkim, and Assam, and through Burma to the Malay Peninsula and Java; it has, however, been exterminated in most of these localities. The skin-folds differ from those of the Indian species in that all three folds are carried across the back.

The Sumatran-rhinoceros is the only species in Asia possessing two horns; it resembles the other Asiatic rhinoceroses, however, in having teeth in the front of the jaw, and cannot be considered as a near relation of the two-horned African species. It differs from the Indian and Javan rhinoceroses in having only a single pair of lower incisors, the small, central pair of the other two species being absent. It is the smallest of the rhinoceroses, measuring only about four and a half feet at the shoulder; it is also the most



WHITE RHINOCEROS (*Rhinoceros (Diceros) simus*).

hairy of the existing species, and may be distinguished from all the members of the family by the fact that it has got two horns and also a folded skin. The skin is not marked in the same mosaic-like manner as in the Javan animal, nor are the rounded tubercles, or polygonal scutes, of the Indian species developed, but the skin has a granular

texture. This species is found in Sumatra, Borneo, and the Malay Peninsula northwards to Assam and Siam. Its scientific name is *Rhinoceros (Dicerorhinus) sumatrensis*. The African rhinoceroses represent two species, the White-rhinoceros (*R. (Diceros) simus*) and the Black-rhinoceros (*R. (Diceros) bicornis*). The former is a very large animal (height at shoulder about five feet six inches), and the females often carry longer horns than the males, the record horn-length being sixty-two and a half inches. Both the African rhinoceroses carry two horns. They are distinguished from one another by the shape of the muzzle; in the white species this is large and square-shaped, whereas in the black rhinoceros the muzzle is pointed and the upper lip prehensile. The Black-rhinoceros is a smaller animal than its square-mouthed cousin, and is more of a browser, whereas the white species usually grazes. In colour both forms are dirty-brown, the "white" rhinoceros appearing rather paler than the black species.

The horns of the latter are never as large as the largest White-rhinoceros horns, forty inches is a good length for a horn, and fifty-three and a half inches is the record length for the front horn; the rear horn is nearly always the shorter of the two, rarely exceeding twenty inches in the black species or fifteen inches in the white. The cheek-teeth of the two animals differ considerably, those of the White-rhinoceros being specially adapted for chewing grass, whereas those of the black variety are modified for masticating twigs and leaves. The skulls of both the African species are easily distinguished from those of the Oriental rhinoceroses by the entire absence of front teeth. A well-marked external difference between the two groups is the absence, or slight development, of the folds in the skin in the African species, these folds never being so well marked as they are in the Asiatic forms.

The black species enjoys a wide distribution, extending from Nyasaland and Northern Rhodesia northwards to Abyssinia and Somaliland, and in the west it reaches Nigeria and the drier parts of Central and West Africa. The Black-rhinoceros, like its white cousin, was formerly a very common animal in South Africa, but these animals have nearly all been shot down, a few remaining where protection is afforded them. The White-rhinoceros is now practically exterminated in South Africa; north of the Zambesi this species again occurs in the Sudan, Uganda, and Northern Congo.

Sub-order HYRACOIDEA

(*Hyraces, or Dassies*)

This sub-order contains a group of small animals whose affinities have long been a puzzle to the systematic zoologist. From their size and general appearance they were formerly thought to be allied to the rodents. At a later date they were placed in the Order Ungulata, associated with the rhinoceroses; the group is now considered to represent a distinct sub-order, the Hyracoidea, and is usually placed between the rhinoceroses and elephants. These animals are remarkable for their rodent-like teeth; the upper incisors, which are reduced to a single pair, grow from persistent pulps and are curved as in rodents. Instead, however, of being fashioned on the chisel plan, they are prismatic and terminate in sharp points. There are two pairs of lower front teeth, both being rooted, and therefore very unlike the true rodent-type; the outermost pair are set rather horizontally and have their crowns divided into three lobes. The cheek-teeth, which are separated from the incisors by a considerable space, are seven in number, and resemble the teeth of Perissodactyle ungulates. The tail is quite short and collar-bones are not developed. The ears are small and rounded; the colour of the coat is usually brownish-grey, mixed with black; and there is a light or dark glandular spot near the