

removed; it held the nut under its body with some of its walking legs while it walked off raised high on the tips of the others.

These animals are easily frightened and scuttle off backwards, propelling themselves with their long anterior legs in a series of ungainly jerks. They seem quite conscious of the comparative defencelessness of the abdomen, which they endeavour to thrust under logs or into holes among the roots of trees. They never carry any protective covering on the abdominal region, although in the Cambridge Natural History (vol. iv. p. 174), it is stated that they may sometimes employ an empty coconut shell for this purpose. No authority is given for this statement, nor does there appear to be any reference to it in previously published accounts, and from what I have seen I should think that the thing is an impossibility. A species of *Cænobita*, a closely allied genus, has been described as using a coconut shell for this purpose, and a figure of it carrying one is given in Prof. J. S. Gardiner's 'Fauna and Geography of the Maldive and Laccadive Archipelagoes,' vol. i. p. 69; probably this has been confused with *Birgus*.

The photograph now reproduced (Pl. LXXXIII.) has been exhibited in the Natural History Museum (South Kensington) for some time, but as there still seems to be some doubt as to the climbing habits of these crabs, it has been thought desirable to publish it.

Dr. R. T. Leiper, F.Z.S., exhibited the original specimens of the Nematode Worm *Acanthocheilonema dracunculoides* Cobb., from the Museum of the Royal College of Surgeons. The characters of the genus, of which this is the type, he stated to have been inaccurately interpreted, the posterior end of the worm having been described as the head and the cuticular caudal appendages regarded as "lips." The remarkable specific characters—viz., the entire absence of male forms and the lack in the female of vaginal opening—had also to be repudiated, for both are to be seen in the original material. The genus, as revised, would admit a second species, the *Filaria perstans* of Man.

The following papers were read:—

1. On Change of Colour in a Specimen of *Mellivora ratel* living in the Society's Gardens. By Dr. F. D. WELCH, F.Z.S.

[Received October 14, 1909.]

There is living in the Society's Gardens at Regent's Park a male Ratel which has been mentioned by Mr. Pocock in the Proceedings of the Zoological Society, 1909, p. 397, when referring

to *Mellivora cottoni*, and the history of this animal during the last twelve years is interesting.

I have had this animal under observation during that period, and it is now very different from what it was when first observed. The change I have noticed is, in Mr. Pocock's opinion, as well as my own, worth recording, especially as Mr. Pocock does not remember the colour of the animal twelve years ago, and also as no skin in the Natural History Museum, South Kensington, shows the same coloration. The skins there examined by myself are twenty-six from Africa and South Arabia, and three from India, and I have also seen five living animals from Africa and Arabia, not one of these showing the colour of the aged male *Mellivora*.

Also I have some remarks to make on this specimen and on *M. indica*, which Mr. Pocock has omitted, as regards the locality from which it came, and some notes on skull measurements.

The animal arrived at the Gardens in 1890 and was apparently full-grown according to the keeper who first saw it, and is thus over twenty years old, and the change in it in my opinion is due to senility, as suggested by Mr. Pocock.

When I first knew it twelve years ago its colour was as follows:—Scalp, back of neck, and dorsal surface were very pale grey with a few black hairs scattered at intervals over the posterior half of the back, no black hairs whatever on scalp, back of neck, and anterior half of back; this dorsal patch of grey was very sharply defined from the black of the under parts by a straight, very distinct line. Tail was quite black on upper and under surfaces, as I shall remark on later.

It was then as large as now, and much larger than a female *Mellivora ratel* which lived with it many years and was adult.

It retained its original colour, not altering in any way till the beginning of 1907, when the pale grey dorsal patch commenced turning black, the change being very gradual and evenly distributed over the posterior half of the back and not in patches, and later on spreading to the anterior half of the back and neck.

This change went on very gradually, the well-defined margin of the dorsal grey patch at its junction with the black of the under surfaces and limbs and tail becoming gradually lost; the black of the under surfaces, limbs and tail becoming gradually continuous with the new black of the back, leaving only scattered grey hairs mixed with black where formerly there was the well-defined line of all grey hairs.

At present all the back is "black merely sprinkled with grey," as Mr. Pocock remarks, but on the scalp there are more grey hairs in proportion to black than on the body, and the black of the dorsal surfaces cannot now be distinguished from the black of the under parts, all black being equally dark in colour, while the dividing line at junction of grey and black, formerly so distinct and continuous, is now broken up and ill-defined.

Mr. Pocock has suggested senility as the cause of this change,

and as the animal is otherwise in good health, I do not think there is any doubt on this point.

The locality of this specimen is unknown, but from my examination of the skins of *Mellivora indica* in the Natural History Museum, from Nepal, Rajpootana and Hoshangabad, Central Provinces, I am of opinion that this specimen came from Africa or Arabia, and judging from its appearance twelve years ago it is a *Mellivora ratel*. The *M. indica* skins above mentioned have the upper surface of the tail white continuous with the dorsal pale area, whereas this specimen twelve years ago had the tail all black (see description above).

Also this specimen is much larger than another male *Mellivora ratel* from S. Arabia living with it, and also adult, and from measurements of skulls of *M. indica* and *M. ratel* taken by myself in the Natural History Museum, apparently *M. ratel* varies considerably in size, much more so than *M. indica*.

This specimen, as already stated, is of the large variety of *Mellivora ratel*, and according to the living material seen by myself and measurement of skulls as given below, there is in this species considerable range of size, which in my mind raises the question as to whether the skins hitherto regarded as *M. ratel* may not be divisible into two species differing only in size. However, most of the skulls have no sex stated, so no definite conclusion can be come to on this latter point, as the male would be naturally larger than the female skulls.

Skull measurements (from adult skulls).

<i>M. ratel.</i>			<i>M. indica.</i>		
Male.	Grahamstown...	13.5 cm.	Female.	Rajpootana...	11.5
Male.	Somali.....	12.5	No sex.	Nepal	12.7
Female.	Somali.....	10.7	No sex.	Nepal	12.7
Female.	Suakin.....	10.5	No sex.	N.W. Provinces	11.6
Female.	Suakin.....	11.7			
No sex.	Khartoum	13.1			
	Abyssinia	12.0			
	Somali.....	11.4			
	Suakin.....	12.7			
	Aden	11.6			
	Aden	11.3			
	Kilimanjaro ...	13.1			

Measured from central incisor tooth to anterior margin of foramen magnum.

[So far as can be seen in the living animal, the hairs are either all black throughout or all grey throughout, and not variegated, *i. e.* half black and grey. The black hairs are equally dark in their whole length. Recently the animal has lost a large patch of hair off the back of the neck.—F. D. W.]



Welch, F. D. 1909. "On Change of Colour in a Specimen of *Mellivora ratel* living in the Society's Gardens." *Proceedings of the Zoological Society of London* 1909, 889–891. <https://doi.org/10.1111/j.1469-7998.1910.tb06978.x>.

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