

horizon in other parts of the world. This genus and allied forms had the body except the front leg covered by thin cuticle. The absence of any remains of the body in the present case, though the Chela is well preserved, may be for the same reason.

The following details relating to the occurrence of this and similar nodules were furnished by Mr. S. Subramanyam of the F.A.C.T.:—

This zone is several feet thick and composed of calcareous sandstone and shale of ferruginous and calcareous origin. Numerous calcareous concretions generally rounded or nodular, occasionally of fantastic shapes, varying from the size of a walnut to that of an apple are embedded in this shale. Many concretions are found to have no organic fragment as a core. The nodules crop up in very large numbers and the only intermediate layers are some rows of yellow calcareous shale, or less often, white or pink ferruginous shale. They are inclined at every possible angle. The clays contain the fossils of the Upper Uttattur group in moderate numbers. But the most peculiar fact is that these concretions have really occupied hollows in the original surface of the soil. They fill regular spherical depressions in the apex of cones as shown by numerous sections. It is by these enclosed layers of foreign rock substance that the dip and strike of this great mass of clays must be determined, because the clays themselves show little stratification. The nallah section shows the different bands of sandstone patches or boulders with an average thickness of three to four feet. But the stratification is always obscure and is usually obliterated not only by the secondary stratification but also by shearing and shattering. These divisions of the group present their distinctive mineral and Palaeontological characters as far south as the high grounds between the forks of Periammapalayan odias where they begin to blend into Trichy group; to the north even as far as Kunnam and Anthoor they are more prevalent in the upper part of the group and each zone is to a great extent characterised by

peculiar fossils. The section near the ravine where the nodule with the Decapod Chela was collected is very similar in character. It is due west of Kunnam village, *i.e.*, within a mile from Odhium village proper.

INFORMATION WANTED ON THE INDIAN RHINOCEROS

Tabulated by

E. P. GEE.

1. The Rhino's Horn.

- (a) It is known that the Indian Rhino (*R. unicornis*) often uses its tushes (in its lower jaw) for attacking, fighting and biting. Does it also use its horn? If so, does it use its horn at the first charge only, and then its tushes later? Or when?
- (b) Does it use its horn for "rooting", *i.e.*, digging up roots, grasses, etc.?
- (c) Does it use its horn for steering its calf when the calf runs in front of the mother, as in the case of the African White Rhino?

2. Rhino Mating and Fighting.

- (a) It is known that bull rhino sometimes fight. Does this happen in the breeding season for the possession of a cow? If so, in what months does it happen?
- (b) In what months of the year does the actual mating of rhino take place?
- (c) Where, and at what time of the day does it take place?
- (d) Do females ever fight? Or a male with a female?
- (e) Do fights ever take place in dispute over "territory"?

3. Rhino Breeding.

- (a) It is believed that the period of gestation of rhino is 18½ or 19 months. Is this correct?
- (b) How does birth take place, lying down or how?

- (c) What happens to the afterbirth?
- (d) What time of the year are rhino calves born?
- (e) Does the newly born calf have a pinkish colour? If so, for how long?
- (f) Are twins ever born?
- (g) Does the previous calf remain with the mother after a new calf is born? If so, how big was the previous calf (height to shoulder)? And how long does it remain?
- (h) How soon after the birth can the baby follow its mother?
- (i) Which goes first along the path, the baby or its mother?
- (j) If ever a newly born calf is found dead, it should be carefully measured, giving height at shoulder, length of body from tip of nose to root of tail, length of tail, and weight in pounds.

4. Rhino Dung Heaps.

- (a) It is known that the rhino deposits its dung in heaps. Does each particular rhino have its own heap?
- (b) Or do rhino deposit at any heap that happens to be there, as they happen to pass by?
- (c) Do dung heaps denote "rhino territory"?

5. Rhino Swimming.

- (a) It is known that the Indian rhino can swim, but does it swim willingly and deliberately?
- (b) Or does it only swim when it is compelled to?

6. Rhino and Birds.

- (a) It is noted in Kaziranga that the jungle Mynah is the mynah seen on the backs of rhino looking for ticks, etc. and that egrets are also seen accompanying rhino. Is this confirmed by other observers?

- (b) Which kind of egret is found with rhino?
- (c) Do any other kinds of bird keep company with rhino?

7. Rhino and other Animals.

- (a) It is believed that tiger possibly avoid rhino, and are afraid of them. How do tiger react when they meet rhino, and vice versa?
- (b) Are wild elephants scared of rhino, as are domesticated ones?
- (c) Wild buffalo have occasionally been seen in close company with rhino. Is this confirmed?
- (d) Do deer of different kinds, swamp deer and hog deer, consort with rhino?
- (e) Are wild pig ever found in close company with rhino?
- (f) Do any other wild animals show friendship for or enmity against rhino?

8. Rhino in Olden Times.

- (a) It is recorded that in olden days rhino were kept by Princes and others, and used in battle against their enemies. This implies domestication and a great deal of training. Are there any detailed accounts of domestication and training of rhino, and of their use in war, etc.? If so, how was it done, when, where and by whom?
- (b) In these old accounts, is there any information about the life history, etc., of rhino, such as is sought about their breeding, etc.?

9. Noises made by Rhino.

(a) Grunts and whistling noises have been recorded (as well as roars when a rhino is trapped). Is the whistling noise made only in the mating season?

(b) And by which sex is the whistling noise made?

N.B. All observations made in the field should be strictly accurate, and not based on hearsay without verification, or coloured by imagination. Every report should contain the date, time of day, full name and status of the person(s) who made the observation, and names of any witnesses—especially if the event reported is noteworthy. It is suggested that, with the approval of the Conservator of Forests, all reports made by members of the Forest Staff should be sent through the usual channels to their respective D.F.O.'s, copy to Mr. E. P. Gee, Doyang T.E., Oating P.O., Assam, who will only be too pleased to compile all information thus received.

DOYANG T.E.,
OATING P.O.,
ASSAM.
April 24th, 1953.

E. P. GEE.

A CATALOGUE OF THE PLANTS OF SIKKIM
HIMALAYA

BY

B. N. GHOSE.

This catalogue has been compiled mainly for the use of non-botanists, for use in the field and forests, who may find it difficult to determine the names of species of trees and plants they may come across for want of a handy volume on the plants of Sikkim Himalaya while botanising in this locality. This list is by no means complete. I hope future collectors of plants will add to the information herein given.

The arrangement of the orders, genera and species of the flowering plants is in accordance with that adopted by Hooker in the Flora of British India. Native names are given wherever possible. The Lepcha names are more or less dependable.

The figures in columns 4 and 5 stand for the months of the year; 3 would mean March, 4 April, and so on. 'L' in the last column stands for Lepcha, 'Bg.' for Bengali and 'P' for Parbatia names.