

ANATOMY OF THE MANDIBLE OF RHINOCEROS CALF

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The great Indian one horned rhinoceros, one of the largest of all existing rhinoceroses stand in danger of extinction. Considering the paucity of information on anatomical details an attempt was made to elucidate the anatomical study on the mandible of Indian one horned rhinoceros calf.

Materials and Methods

The present study was conducted on the mandible of one male rhinoceros (*Rhinoceros Unicornis*) calf aged of about 1 year. The carcass was received after post mortem examination from the Kaziranga National Park, Government of Assam. The

mandible was macerated and processed (Young, 1980) and prepared for recording the gross morphological features.

Results and Discussion

The mandible of rhinoceros calf was comprised of two equal halves that were not fused, had a symphysis as reported in cattle (Getty, 1975). Each part of the mandible has a body and a ramus (Fig.)

The rostral incisive part and caudal molar part of the body of the mandible were separated by very short diastema. Two surfaces and two borders were observed in the body as in domestic animals (Getty,

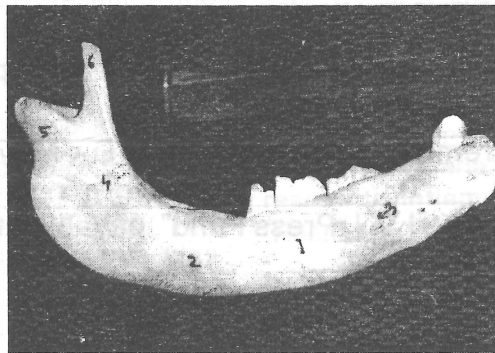


Fig. - Photograph of the lateral view of the mandible of Indian one-horned rhinoceros calf, showing body (1), ramus (2), mental foramen (3), masseteric fossa (4), condylar process (5) and coronoid process (6)

Anatomy of mandible of rhinoceros

1975). The single mental foramen, the lateral opening of the mandibular canal was located on the labial surface, ventral to the first cheek tooth. Getty (*loc. cit.*) also reported that there was only one mental foramen on either side of the mandible in ox and horse.

The alveolar border was slightly concave and contained three alveoli. The ventral border was convex which is in accordance with Nickel *et al.* (1986) in ruminants. The mandibular tuberosity was absent.

The ramus was the expanded vertical part of the mandible, the lateral surface of which was slightly excavated to form the masseteric fossa, while its medial surface was also hollowed out to form the pterygoid fossa which accomodates the medial pterygoideus muscle. The presence of two fossa makes the central part of the ramus extremely thin. The ventral half of the ramus

on the lateral aspect showed an irregular shaped concavity bearing faint muscular lines. The angle of the mandible was approximately 90°. The condylar process of the ramus was placed very low in comparison to the coronoid process. The coronoid process was very extensive as in ruminants and horses (Nickel *et al.*, *loc. cit.*). The coronoid process accounted for the highest point of the mandible as in ruminants (Khatra, 1979).

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