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OCCURRENCE OF *CALOTES* (REPTILIA : AGAMIDAE) IN THE PREHISTORIC SITE OF HARAPPA, PAKISTAN

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ABSTRACT

The skeletal remains of an agamid, lizard, *Calotes* found among the preserved animal remains from Harappa, a type site of Indus Valley Civilization (*Circa* 2500-1500 B.C.), are recorded in this paper. This is the first record of *Calotes* from the Indian Prehistoric sites.

Introduction

Among the animal remains from Harappa, preserved in the Zoological Survey of India, we found some fragments of unidentified bones. On examination, the material appeared to consist of remains of the agamid lizard, *Calotes* sp. Prashad (1936) reported only remains of caudal vertebra of monitor lizard from Harappa (Sub-order Lacertilia). As far as we could ascertain from literature (cf. Nath, 1968) no other remains of Lacertilians have been recorded so far from prehistoric sites of India. Our discovery of the skeletal remains of *Colotes* sp. from Harappa, therefore, constitutes the first record of this lizard from the Indian prehistoric sites. In the absence of more material it was not possible for us to run down to species with certainty.

The matarial under report was excavated by Shri Madho Swarup Vat, probably during the field session 1928 through 1930. Harappa, a type site of Indus Valley Civilization (*circa* 2500-1500 B.C.), is situated in Montogomery District, Punjab (now in Pakistan) and is contemporaneous with Mohenjodaro in chronology. The material of the lizard described here was recovered from the area 'H' in Harappa which was the cemetery area. Unlike the mounds in AB and D areas this was not on raised ground but was a low area believed to be the latest amongst the culture sites in Harappa. The remains were entombed in burial jars, buried under the earth, and were in a better state of preservation because of their confinement. The remains were fragile and were about 5000 years old. A detailed description of the material is given below.

Systematic Account

Phylum	CHORDATA
Class	REPTILIA
Order	SQUAMATA
Family	Agamidae

Calotes sp.

Material

(Pl. I)

Total number of identified fragments—30.
Location—Harappa ; Cemetery H,
Square R 33, 34/35, 21 ; depth—71 cm.
Area H 231 (b) ; Fragments of mandible—2 ; Thoracic vertebra—3 ; Sacral vertebra with transverse process—2 ; Caudal vertebra—7 ; Right femur—1.
Area H 231 (c) ; Broken humerus—1 ; Broken radius—4 ; Ulna—2 ; Sternal rib—7 ; Episternum—1.

Description

The mandibular ramus includes parts of angular and dentary. The mandible has a distinct cleft, the crest possesses a row of regularly arranged teeth, few molar and the rest are pointed and with slightly recurved dentine. All the teeth are sheathed firmly above minute concave depressions. The mandible on comparison with that of recent specimens, was found to be similar to that of *Calotes* ; in size it is larger.

The vertebral remains contained three thoracic vertebrae, two sacral vertebrae and seven caudal vertebrae. The thoracic vertebrae were all procoelus and hypopopoyses were ill developed. These vertebrae bore thoracic ribs, sacral vertebrae were large in size and possessed transverse processes. The caudal vertebrae were similar to those of recent specimens in shape.

Only the right femur was found. The proximal portion was broken. The femur was stout with the distal portion having the marks of two ball-like condyles.

The above description relates to the material recovered from the Area H 231(b). From the H 231 (c) area the following skeletal remains were found.

Humerus was broken at the distal end, the proximal end was with swellings or condyles. The shaft was slightly curved.

There were 4 broken shafts of radius and two broken ulna. The shaft of radius and the narrow bones of ulna had short processes called olecranon process.

Besides these there were seven sternal ribs and one episternum.

The measurements could not be taken as the remains were fragile and could not stand handling.

The bones, on comparison with the corresponding bones of recent species of *Calotes*, undoubtedly appear to belong to the genus *Calotes*.

Discussion

Calotes is a very common genus of agamids in India and occurs in the locality from where the present remains were recorded. This lizard, unlike other species of animals like horse and dog frequently associated with burials in other prehistoric sites, do not seem to have any cultural significance. The burial jars were used to include food material and other earthly possessions (like ornaments made out of molluscan shells) that were buried along with the dead as was a common practice among the ancient people, and to this day lingers in several tribal communities. Only a single relict of *Calotes* has so far been

discovered in such situation. The lizard might have strayed into the burial jar while the preparations for burial were being made and might have made itself comfortable inside the vast jar and ultimately buried. Academically speaking this is an interesting case, though zoologically it does not have any special significance. *Calotes* is very widely distributed in the Indian subcontinent and is quite abundant in inhabited localities, though not living in houses. Its find in a burial jar in this prehistoric site, therefore, appears to be by accident rather than by design. It is not improbable that the food material contained in the jar might have lured the animal.

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Skeletal remains of *Calotes* from Harappa excavation.
1—4. Fragmentary unidentified bones. 5. Episternum. 6. Broken right femur. 7—8. Sacral vertebrae. 12—17. Caudal vertebrae. 18—19. Portion of mandibles. 20—22. Fragments of ulna. 23. Broken humerus. 24—27. Broken radii. 28—32. Sternal ribs. 33. Fragmentary unidentified bones.