Return this book on or before the Latest Date stamped below. A charge is made on all overdue books.

University of Illinois Library

DEC 12 1949

DEC 12 1951

FEB 20 1952

NOV 10 1952

JUL 8 1953
THREE NEW SNAKES FROM THE
PERUVIAN ANDES

BY KARL P. SCHMIDT
CHIEF CURATOR, DEPARTMENT OF ZOOLOGY
AND
WARREN F. WALKER, JR.
HARVARD UNIVERSITY

In the course of recent studies on the coastal snakes of Peru, three undescribed forms from the eastern Andean area have come to our attention. These new forms, of the colubrid genera *Dromicus* and *Atractus*, are described below.

**Dromicus inca** sp. nov.

*Type* from Cajamarca, Department of Cajamarca, Peru. No. 5713 Field Museum of Natural History. Young male. Collected by W. H. Osgood and M. P. Anderson in April, 1912.

*Diagnosis.*—A *Dromicus* closely allied to *angustilineatus* in color pattern but differing from that species in having a lower number of ventrals, 184 as opposed to 195 for the minimum in males of *angustilineatus*; differing also in having a more distinct lateral stripe.

*Range.*—Known only from the type locality.

*Description of type.*—A snake of typical colubrid proportions; posterior maxillary teeth enlarged but not grooved; hemipenis bifurcate, with bifurcate sulcus spermaticus and calyculate tip.

Rostral broader than deep, just visible from above; internasals shorter than the prefrontals; frontal twice as long as broad, longer than its distance from the end of the snout, as long as the parietals; supraoculars of moderate size; nasal divided; loreal nearly as deep as long; one preocular reaching the top of the head but not in contact with the frontal; two postoculars; temporals 2-3; eight upper labials with the fourth and fifth entering the eye; ten lower labials, five in

No. 534 325
contact with the anterior chin shields, which are slightly shorter than the posterior pair.

Dorsal scales smooth with a formula of 19–19–15; apical pits present, single; ventrals 184; anal divided; subcaudals 110.

Coloration similar to that of angustilineatus; a black mid-dorsal line one scale wide throughout most of its length, widening a little on the neck; on either side of this a light brown band with a barely distinguishable row of dark spots down its center; below this a distinct dark brown stripe bounded above by a faint dark line; first and second rows of scales light brown, with a row of darker spots on the first; belly mottled gray and yellow; head brownish, with a dark brown stripe extending from the snout through the eye and across the temporals to become continuous with the dark lateral stripe; labials and chin, abnormally darkened through preservation, probably yellow with grayish markings in life.

Measurements of type.—Total length 278; tail 77.

Remarks.—This species greatly resembles angustilineatus (Schmidt and Walker, 1943, p. 308) from the southern part of the coastal region, and with more material available, especially from central Peru, it may prove to be a northern and eastern race of that species. The lower ventral count, and the large geographic hiatus between the two forms warrants the description of inca as a new species. Moreover, angustilineatus does not seem to be represented in the coastal fauna of central and northern Peru, to judge from its nonappearance in collections from the departments of Lima, Ancash, Libertad, and Piura.

Atractus pauciscutatus sp. nov.

Type from Carpapata, in the upper Chanchamayo Valley, northeast of Tarma, Department of Junin, Peru. Altitude 10,500 feet. No. 36725 Field Museum of Natural History. Adult female. Collected by Felix Woytkowski May 14, 1940, on a footpath through stony ground, at night.

Diagnosis.—An Atractus close to bocourti in coloration, but differing in having ventrals 146 as opposed to the much higher range of 170–182 in females of bocourti known to us.

Range.—Known only from the type locality in the Chanchamayo Valley.

Description of type.—A small ground snake with a moderately stout body, a small head barely distinguishable from the neck, and a short tail; maxillary teeth decreasing in size posteriorly.
The rostral broader than deep, just visible from above; internasals small, less than half the length of the prefrontals; prefrontals large; frontal small, as broad as long, as long as its distance from the internasals, much shorter than the parietals; supraorbitals moderate; nasal divided; loreal twice as long as deep; no preocular; 2 postoculars; temporals 1–2; supralabials 7 on the right side and 6 on the left, the third and fourth entering the orbit on both sides; 7 lower labials, the first four in contact with the single pair of chin shields.

Dorsal scales smooth, without pits, with formula 17–17–17; ventrals 146; anal entire; subcaudals 18.

Coloration very similar to that of bocourti, the body pale brown above with a narrow black vertebral line, and most of the lateral scales marked with black, many of these black spots running together in such a way as to give the impression of two irregular and discontinuous lateral lines on each side, these lines converging on the tail to form one distinct lateral line; head brown, mottled with black, and with a black stripe extending from the nostril back through the eye and across the posterior supralabials; a transverse stripe on the nape; belly and tail yellowish, mottled with black, with a row of partly confluent streaks forming two lines along the sides.

Measurements of type.—Total length 330; tail 27.

Atractus nigricaudus sp. nov.


Diagnosis.—An Atractus close to bocourti and pauciscutatus, differing in having ventrals 157–158 in females, thus significantly separated from bocourti with ventrals 170–182 in females, on the one hand, and from pauciscutatus with ventrals 146 in the same sex on the other; differing from both in having the under side of the tail entirely or nearly entirely black, and from pauciscutatus in having the frontal as long as its distance from the end of the snout, instead of as long as its distance from the internasals.

Range.—Known only from Huachon in the upper part of the Paucartambo Valley.

Description of type.—A small ground snake with a moderately stout body, a small head barely distinguishable from the neck, and a short tail; maxillary teeth decreasing in size posteriorly.
The rostral broader than deep, barely visible from above; internasals very small, about one-third the length of the prefrontals; prefrontals large; frontal nearly as broad as long, as long as its distance from the end of the snout, shorter than the parietals; supraoculars of moderate size; nasal divided; loreal 2½ times as long as deep; no preocular; 2 postoculars; temporals 1–2; upper labials 7, the third and fourth entering the eye; lower labials 7, the first four in contact with the single pair of chin shields.

Dorsal scales smooth, without pits, with the formula 17–17–17; ventrals 157; anal entire; subcaudals 19.

Coloration obscure, as the skin was evidently about to be shed; resembling that of \textit{pauciscutatus}, the body pale brown above with the scales marked with black; a black vertebral line and faint indications of two lateral lines on each side converging to form one on the tail; head brown, mottled with black, with a longitudinal black stripe passing through the eye, and a transverse one on the nape; belly yellowish, mottled with black, and on each side a row of partly confluent streaks forming two lines along the sides; the under side of the tail nearly entirely black.

\textit{Measurements of type}.—Total length 367; tail 32.

\textit{Notes on paratype}.—A single specimen, M.C.Z. 45910, a young female, was collected with the type. It agrees very well with the type, except in having a somewhat shorter loreal (possibly a juvenile character); ventrals 158; subcaudals 17. The color pattern is less obscure. The under side of the tail is entirely black. Total length 145; tail 10.

\textit{Remarks}.—These two new species of \textit{Atractus} are obviously closely related to one another, but the genus is in such a confused state that their affinities with other forms can only be guessed. Among the Peruvian members, they appear to be closest to \textit{bocourti} (Boulenger, 1894, p. 306). These three species seem to form a compact group, with \textit{bocourti} probably limited to the Huallaga Valley where it is known to occur from 300 feet to about 7,000. It has been taken at Acomayo (the type locality),\footnote{According to Stiglich (1922) there are two localities of this name, one near Niepos in the Pacific drainage of the Department of Cajamarca, and one in the upper Huallaga Valley in the Department of Huanuco. The latter is the more likely in view of other specimens taken in the Huallaga Valley.} Yurimaguas (Boulenger, 1896, p. 645), and Taruco (a series collected by the junior author) near Acomayo. The ventrals of this form, in females, range from 170 to 182. \textit{A. nigricaudus} and \textit{A. pauciscutatus} are found slightly
to the south at about 10,000 feet, in two separate tributaries of the Perené, thus isolated from the Huallaga Valley by a mountain range some 12,000–13,000 feet high, and somewhat less sharply from each other. Thus the bocourtii stock appears to have spread up the Perené and its tributaries from lower elevations, becoming quite distinct from the parent bocourtii beyond the Huallaga divide, and breaking up in turn into two somewhat less sharply distinguished forms in the two valleys tributary to the Perené. To our knowledge, no other species of Atractus occurs in the above-mentioned valleys. It seems evident that the secretive habits of the species of Atractus are associated with the great number of geographic forms already known in this genus.

REFERENCES

Boulenger, G. A.

Schmidt, K. P. and Walker, W. F., Jr.

Stiglich, German