

A new species of *Coluber* from northern Namibia (Reptilia: Serpentes)

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ABSTRACT

A new species of *Coluber* (*sensu lato*) is described from near the Cunene River in northern Namibia. The genus has not previously been recorded south of Kenya. This snake appears to be most closely related to *C. florulentus*, which occurs 3 000 km to the north, but it differs in its strongly-banded pattern, suggesting mimicry of the Zebra Spitting Cobra *Naja nigricollis nigricincta*.

INTRODUCTION

The polyphyletic genus *Coluber* (s.l.) presently comprises about 34 species (Schätti & Lanza, 1989) distributed throughout the Nearctic, Palearctic and northern Afrotropical regions. The Old World taxa will probably have to be assigned to several genera, but phyletic analyses of these groups have not yet been completed (Schätti 1986). A single representative *Coluber smithi* (Boulenger), is found south of the equator in southernmost Kenya and probably adjacent Tanzania (Schätti 1988).

A single damaged male *Coluber* found in northern Namibia in 1991 is described below as a new species. Its discovery provides further evidence for the transient arid corridor linking the Horn of Africa with the South-West Arid (Balinsky 1962: Fig. 1). The dik-dik (*Madoqua kirkii*) and gemsbok (*Oryx gazella*) show this disjunct distribution particularly well (Smithers 1983).

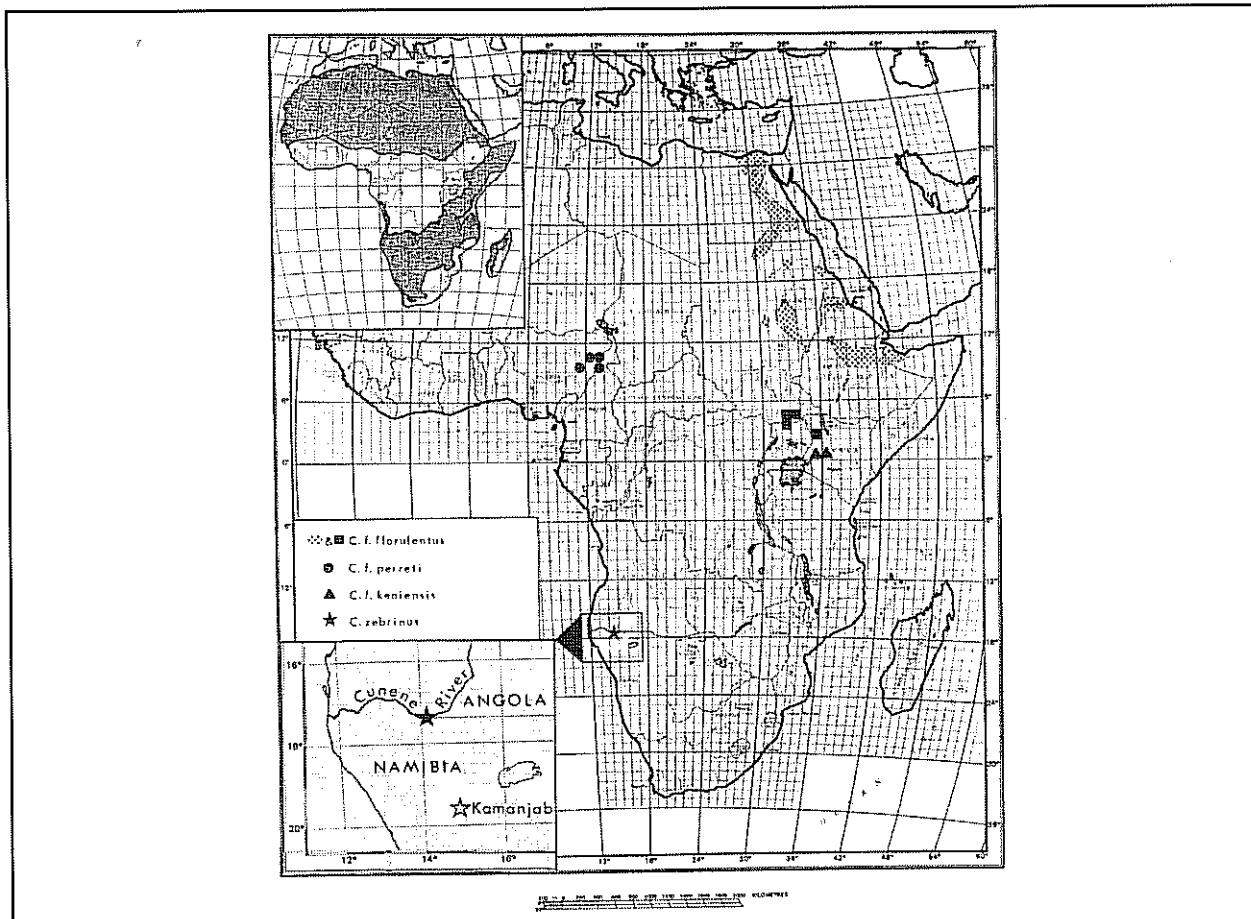


FIGURE 1: Distribution of *Coluber zebrinus* in relation to that of *C. florulentus*. Upper insert (shaded): The 'arid corridor', the areas in which the rainfall is less than 10 mm per month in at least three consecutive months (from Balinsky 1962).

COLUBER ZEBRINUS sp. nov. (Figs 2 & 3)

Holotype: a male, SMWN (= National Museum of Namibia, Windhoek) R. 8046, from near the Cunene River, at Ruacana, western Owamboland, Namibia (17°25'S, 14°10'E). Collected dead on road by M. Lindeque and M. Griffin, 10 April 1991.

Etymology: Named for the zebra striping on the dorsum.

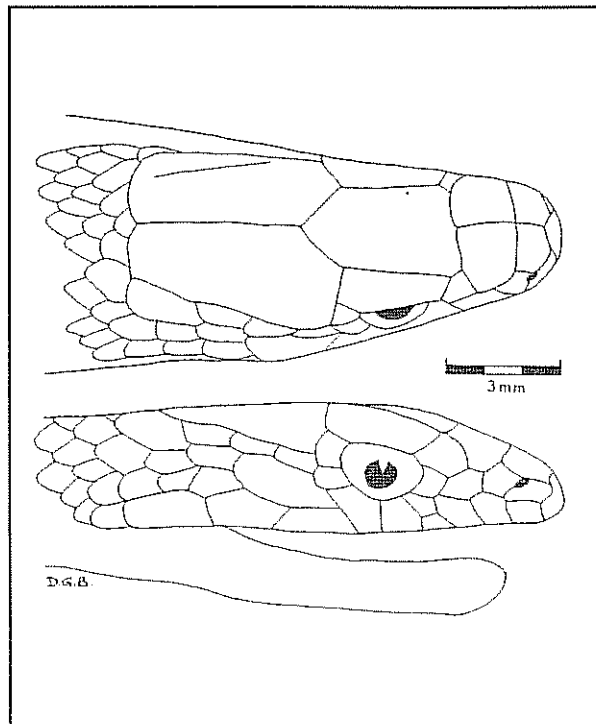


FIGURE 2: *Coluber zebrius* sp. nov. (holotype). Dorsal and lateral views of head.

Diagnosis: A species of *Coluber* with 21 scale rows on the neck, 23 at midbody and 17 before the vent, the increase and reductions all lateral; ventrals approx. 195, subcaudals 90.

Description of the holotype: Ventrals approx. 195 (neck region damaged), paired subcaudals 90; anal scute divided. Nine supralabials, fifth and sixth entering orbit, one anterior subocular above fourth and anterior part of fifth supralabials, smaller than loreal shield. Two preoculars and two postoculars, upper one larger. A single large lower anterior temporal shield above 7th and 8th supralabials, two upper anterior temporals, three posterior temporals (Fig. 2). Dorsal scales with two apical pits, in 21 rows anteriorly (but neck damaged), increasing to 23 rows at the level of the 37th (right) and 39th (left) ventral by the division of row 5, reducing caudad to 17 rows by means of three lateral reductions including rows $5 + 6 = 5$ at the level of the 119th ventral, $3 + 4 = 3$ (126) and $4 + 5 = 4$ (174/175). Maxillary with $17 + 2$ teeth separated by a diastema. Snout-vent length 290 mm, tail 95 mm.

Pale grey above, becoming white laterally and ventrally, with irregular broad, dark crossbands which seem to be derived from the fusion of paravertebral rows of black blotches, which have in some cases fused again with lateral series of irregular black vertical bars or two rows of lateral spots; both anteriorly and posteriorly the dorsal crossbars are not aligned with the lateral vertical bars (Fig. 3). These dorsal markings fade out at the base of the tail. Snout yellowish, top of head uniform grey-brown, labials yellowish, with a black patch on the fifth supralabial just below the eye. Ventrum uniform white, except for irregular black spots laterally, in some cases these are linked to the lateral black bars; subcaudals white with some fine grey stippling laterally.

DISCUSSION

This new species may be most closely related to *C. florulentus* Geoffroy, the nearest populations being *C. f. perreti* in north-western Nigeria and northern Cameroon, *C. f. florulentus* in southern Sudan and north-western Kenya and *C. f. keniensis* in western Kenya

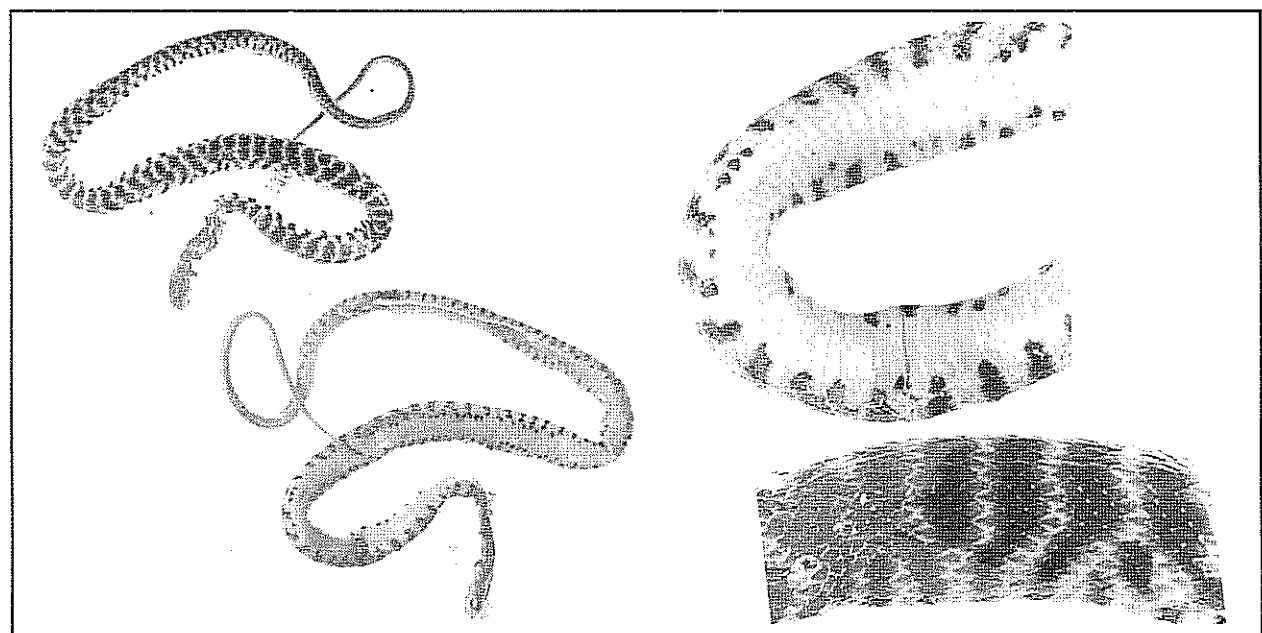


FIGURE 3: *Coluber zebrius* sp. nov. (holotype). Dorsal and ventral views and detail of dorsal and ventral markings.

(Schätti 1988). A single large lower temporal shield and a divided preocular are found in *C. zebrinus* and *C. florulentus*. However, the latter species has one lateral and at least two paravertebral reductions, whereas in *C. zebrinus* all fusions are lateral (rows 3 to 6). *C. florulentus* differs from *C. zebrinus* in having dark head markings and the dorsal and lateral rows of dark spots are discrete and usually staggered, so that there is no fusion. Parker (1949) noted that in "[African] mainland species of *Coluber* a pattern of distinct crossbars is associated with immaturity, the crossbands tending to be broken up or to become indistinct with increasing age. In the absence of any evidence that such a distinctive livery is

a special adaptation for the young, it is reasonable to regard the presence of the pattern as primitive and its loss as secondary". The banded pattern of *C. zebrinus* suggests that it is a Batesian mimic of the sympatric Zebra Spitting Cobra (*Naja nigricollis nigricincta* Bogert), which is a relatively slim cobra and is often active by day.

HABITAT

The type specimen was killed at 09h00 on stony ground (dolomite) with thick scrub *Colophospermum* and *Terminalia*, several kilometres from the Cunene River at Ruacana (Fig. 4).

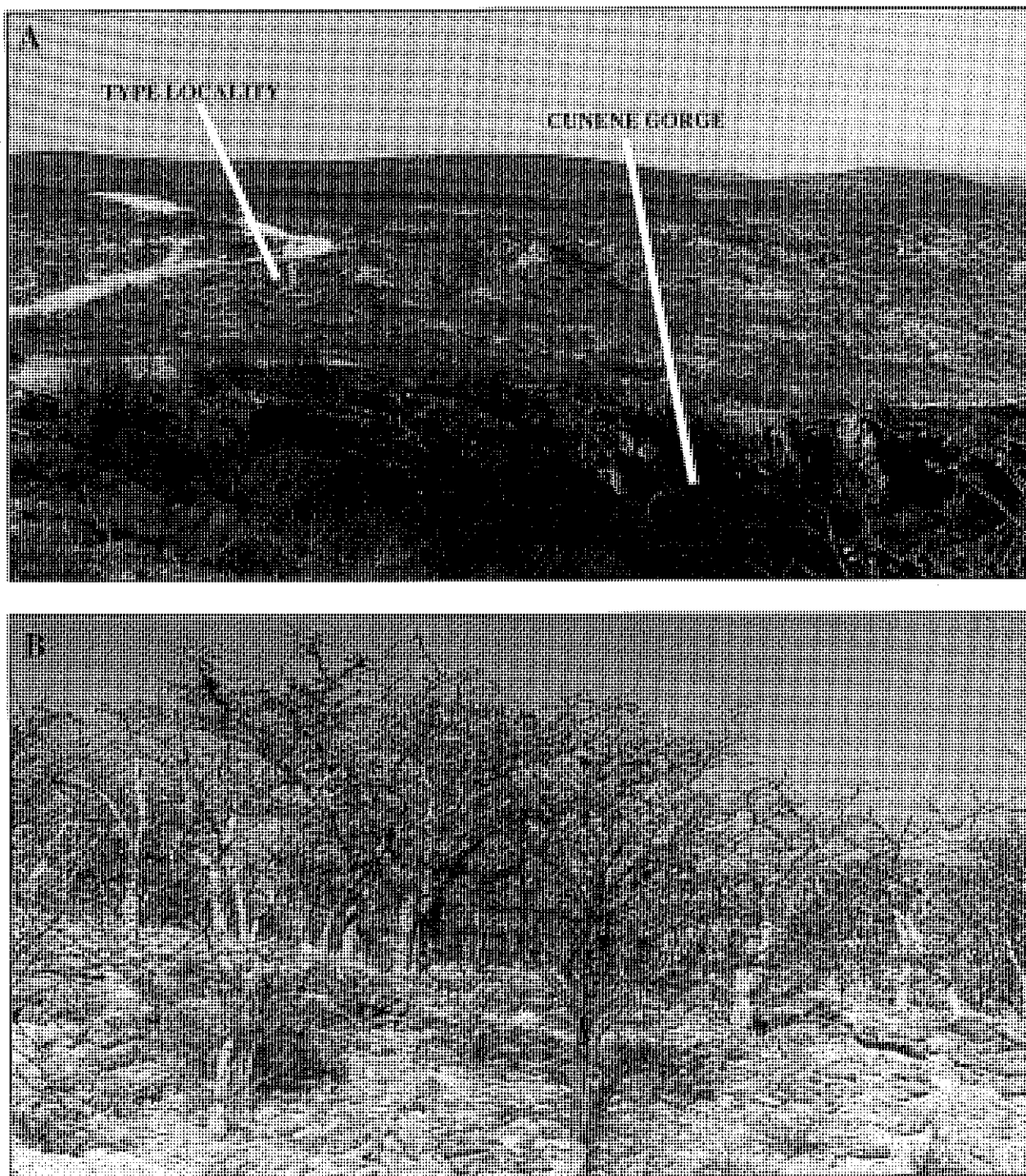
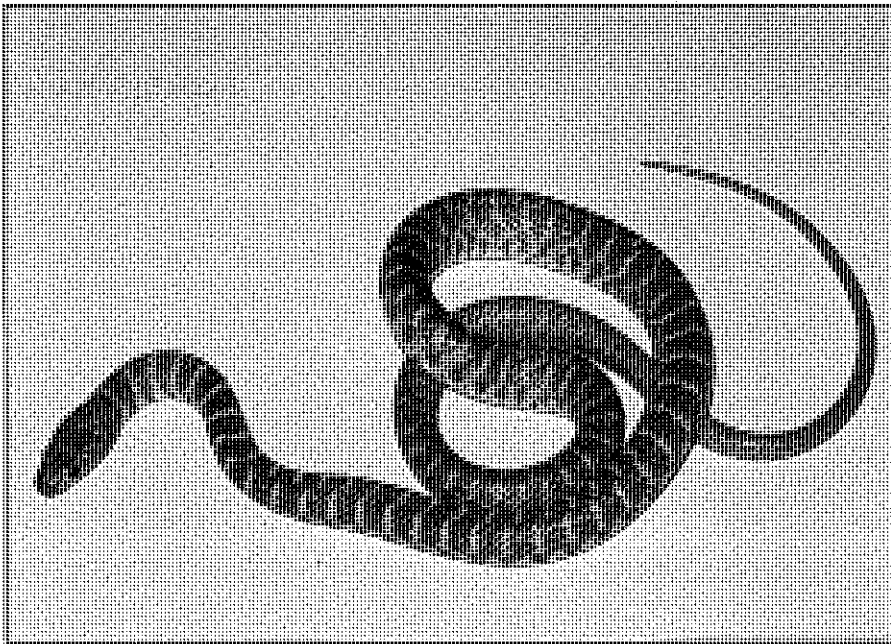


FIGURE 4: Habitat of *Coluber zebrinus* just south of the Cunene Gorge.

FIGURE 4: *continued*FIGURE 5: A 65 cm live specimen of *Coluber zebrinus* from near Kamanjab, Namibia

ACKNOWLEDGEMENTS

We are indebted to Mike Griffin for running over the holotype of *Coluber zebrinus*, M. Lindeque for picking it up and Eryn Griffin for sending the specimen to D.G.B. for identification. The photographs of the holotype are by the staff photographer at the Muséum d'Histoire Naturelle, Geneva, those of the habitat at the type locality and additional live specimen were taken by M. Griffin.

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