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New Species of *Cnemaspis* (Squamata: Gekkonidae) from Northern Cameroon, a Neglected Biodiversity Hotspot

AARON M. BAUER,¹ LAURENT CHIRIO,² IVAN INEICH,² AND MATTHEW LEBRETON^{3,4}

¹Department of Biology, Villanova University, 800 Lancaster Avenue, Villanova, Pennsylvania 19085, USA; E-mail: aaron.bauer@villanova.edu

²Muséum national d'Histoire naturelle, Département Systématique et Evolution (Reptiles), Case Courrier 30, 25 Rue Cuvier, F-75005 Paris, France

³Cameroon Biodiversity Conservation Society, P.O. Box 3055 Yaoundé Messa, Cameroon

ABSTRACT.—A new species of diurnal gecko of the genus *Cnemaspis* is described from granite boulder habitats in gallery forests in the Monts Alantika and Hosséré Vokré, north of the Adamaoua Plateau in north Cameroon. The new species is most similar to the widespread species *Cnemaspis spinicollis* but differs from this and all other congeners in details of both scalation (single enlarged scale beneath the penultimate interphalangeal joint of digit IV of pes, absence of an enlarged, flattened preaxial metatarsal scale, absence of tubercles on the crown and beneath the ear) and coloration (pale, with little contrast between background

⁴Corresponding Author. Present address: Johns Hopkins Cameroon Program, CRESAR, P.O. Box 7039, Yaoundé, Cameroon; E-mail: mlebreton@hopkinscameroon.org

color and series of distinct whitish dorsal markings, throat markings weakly developed). The discovery of several new reptile species from the Adamaoua Plateau and its outliers highlights the potential importance of the northern Cameroonian highlands as a center of endemism.

RESUMEN.—Une nouvelle espèce de gecko diurne du genre *Cnemaspis* est décrite des éboulis granitiques en galeries forestières dans les monts Alantika et le Hosseré Vokré, au Nord du plateau de l'Adamaoua au Cameroun. Cette nouvelle espèce est morphologiquement très proche de *Cnemaspis spinicollis*, espèce congénérique à large répartition, mais elle diffère de cette dernière et de toutes les autres espèces du genre par des particularités d'écaillage (une écaille agrandie sous le avant-dernier joint interphalangial de l'orteil IV, absence d'écaille métatarsale préaxiale agrandie et aplatie, absence de tubercules sur la couronne et sous l'oreille) et de coloration (ensemble pâle, avec peu de contraste entre la couleur de fond et les punctuations dorsales claires, marques gulaires peu développées). La découverte de plusieurs espèces nouvelles de reptiles dans le massif de l'Adamaoua et les inselbergs qui s'y rattachent souligne l'importance potentielle de cette région comme centre d'endémisme.

Smith (1933) resurrected the name *Cnemaspis* for a group of Asian and African geckos with round pupils and slender digits that had previously been assigned to *Gonatodes* or *Paragonatodes*. *Cnemaspis* has a strange, disjunct distribution, with more than 55 recognized species in tropical Asia and tropical Africa. Although many new species have been discovered in Asia in recent years (e.g., Kluge, 2001; Bauer, 2002; Das and Grismer, 2003; Das and Leong, 2004; Das, 2005; Mukherjee et al., 2005), no new African species have been described since 1986, when Perret described *Cnemaspis petrodroma* and *Cnemaspis gigas* from Nigeria and *Cnemaspis barbouri* and *Cnemaspis uzungwae* from Tanzania, bringing the total number of African forms to 13.

Although Loveridge (1936, 1947) and Perret (1986) revised the African *Cnemaspis*, the monophyly of the genus as a whole has never been adequately tested. African and Asian forms are nonetheless strikingly similar in appearance and have been regarded as congeneric by most herpetologists (e.g., Röslér, 2000; Kluge, 2001), but the name *Ancylodactylus* Müller, 1907 (type species *spinicollis*) is available for the African forms, should they be found to represent a lineage independent of the Asian radiation. This name has been used at the subgeneric level by Perret (1985, 1986) but has not otherwise been recently employed.

Within Africa, members of the genus *Cnemaspis* range from Tanzania in the southeast to Guinea in the northwest and are chiefly associated with either humid forests or savannas. Three species are presently known from Cameroon (Thys van den Audenaerde, 1967; Perret, 1986; LeBreton, 1999). The type locality of *Cnemaspis koehleri* Mertens, 1937 is Buea in southwest Cameroon, and the species has also been recorded by numerous authors from the western areas of Cameroon, from Efulen in the South Province and from Equatorial Guinea

(Mertens, 1937, 1938; Perret, 1986; Lawson, 1993; LeBreton et al., 2003) from forest and edges of torrents (Perret, 1985; Lawson, 1993). *Cnemaspis dilepis* Perret, 1963, was described from Foulassi, South Province, Cameroon, as a subspecies of the eastern form *Cnemaspis quattuorseriatus* and has also been recorded from Efulen and the Lôbo River in southern Cameroon (Perret, 1963, 1985, 1986). The third species, *Cnemaspis spinicollis* Müller, 1907, is widespread in West Africa, from Cote d'Ivoire to Cameroon (Dunger, 1968; Leaché 2005). Within Cameroon, it has been recorded between 400 and 1700 m chiefly from forested habitats in western and southern Cameroon (Fig. 1), with localities including Mundame (Müller, 1907, 1910), Efulen (Nieden, 1910; Loveridge, 1947), Nkoétyé, Kala (Perret, 1986), Mt. Nta Ali (Lawson, 1993), Mendé and Atolo (LeBreton et al., 2003) and Bibundi, but it has also been found in montane savanna near Wum (Böhme, 1975).

In the course of a major herpetological research project in Cameroon, we discovered a distinctive member of the *C. spinicollis* group in gallery forest in two Adamaoua highland savanna localities separated by the Faro River. These geckos may be distinguished from typical *C. spinicollis*, which occurs chiefly in medium-altitude forest in southern Cameroon and are described here as a new species.

MATERIALS AND METHODS

The following measurements were taken with Brown and Sharpe Digit-cal Plus digital calipers (to the nearest 0.1 mm): snout-vent length (SVL; from tip of snout to vent), trunk length (TrunkL; distance from axilla to groin measured from posterior edge of forelimb insertion to anterior edge of hind-limb insertion), crus length (CrusL; from base of heel to knee); tail length (TailL; from vent to tip of tail), tail width (TailW; measured at widest point of tail); head

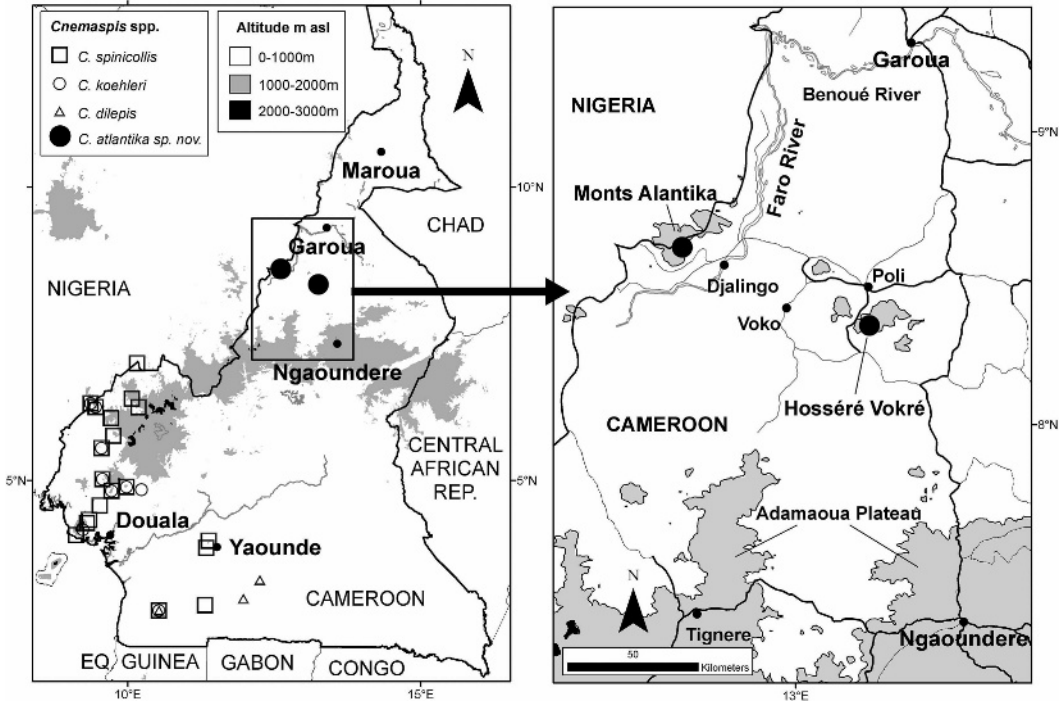


FIG. 1. Map showing the known localities of *Cnemaspis* spp. in Cameroon (left), with inset (right) of northern Cameroon showing the region of distribution of *Cnemaspis alantika* in the Monts Alantika and on Hosséré Vokré.

length (HeadL; distance between retroarticular process of jaw and snout-tip), head width (HeadW; maximum width of head), head height (HeadH; maximum height of head, from occiput to underside of jaws), ear length (EarL; longest dimension of ear); forearm length (ForealL; from base of palm to elbow); orbital diameter (OrbD; greatest diameter of orbit), nares to eye distance (NarEye; distance between anteriormost point of eye and nostril), snout to eye distance (SnEye; distance between anteriormost point of eye and tip of snout), eye to ear distance (EyeEar; distance from anterior edge of ear opening to posterior corner of eye), internarial distance (Internar; distance between nares), and interorbital distance (Interorb; shortest distance between left and right supraciliary scale rows).

Scale counts and external observations of morphology were made using a Nikon SMZ-1000 stereomicroscope. Radiographic observations were made using a Faxitron closed cabinet x-ray unit.

Comparisons were made with specimens of other Cameroonian *Cnemaspis* (Appendix 1) and with the original and secondary descriptions of all described species of African *Cnemaspis* (Loveridge, 1947; Perret, 1963, 1985, 1986).

RESULTS

Cnemaspis alantika, sp. nov. Figures 2–5

Holotype.—Muséum national d'Histoire naturelle (MNHN) 2006.0296 (Field number 90I), adult male, Cameroon, North Province, Monts Alantika, 8°36'18"N, 12°36'47"E, 1650 m (M. LeBreton, 3 June 2001).

Paratypes.—MNHN 2006.0295 (Field number 89I), subadult male, same collection data as holotype. MNHN 2003.1100 (Field number 93I), adult female, Cameroon, Northern Province, Monts Alantika, 8°36'18"N, 12°36'47"E, 1650 m (M. LeBreton, 4 June 2001). MNHN 2006.0297 (Field number 401I), juvenile, Cameroon, Northern Province, Hosséré Vokré, 12°20'16.8"N, 13°15'10.8"E, 1900 m (M. LeBreton, 9 June 2001).

Etymology.—The specific epithet *alantika* is a noun in apposition and refers to the type locality in the Monts Alantika of northern Cameroon.

Diagnosis.—A moderate-sized *Cnemaspis* (to at least 47.5 mm SVL), *C. alantika* may be distinguished from all other African congeners by the following combination of features: phalangeal number in digit IV of the manus and pes reduced (four instead of five); no enlarged metatarsal scale; a single, enlarged scale be-

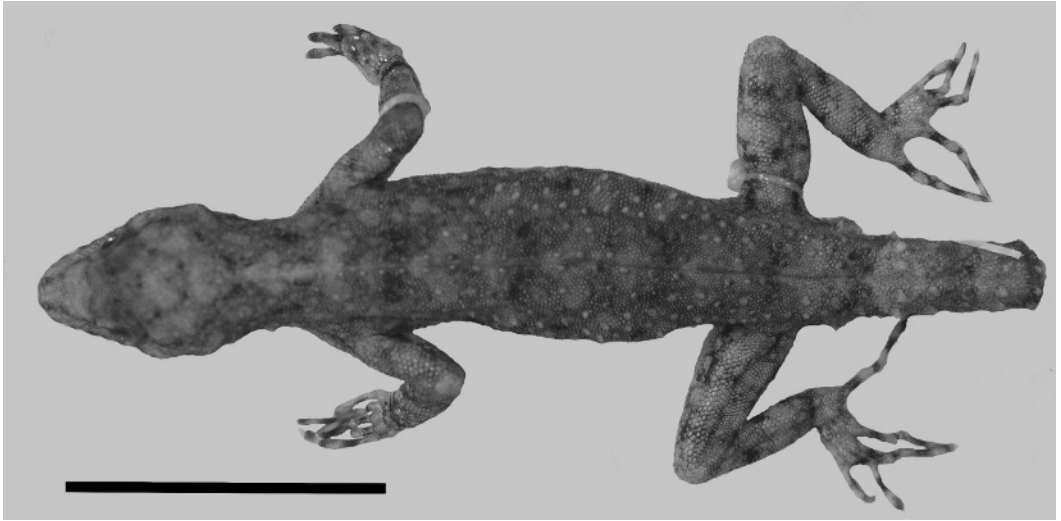


FIG. 2. Dorsal view of the holotype of *Cnemaspis alantika*, sp. nov. (MNHN 2006.0296). Scale bar = 20 mm.

neath the penultimate interphalangeal joint of all digits; 10–12 rows of conical to weakly keeled dorsal tubercles in regular rows; a single small tubercle on side of neck, no tubercles on crown or beneath ear (Figs. 2–3); precloacal pores in a single row of 11 (based on two male specimens); each tail segment with a transverse row of six enlarged, partially erect, keeled

tubercles; three cloacal spurs on each side of tail base.

Cnemaspis alantika may be easily distinguished from most other West African congeners by the presence of a single enlarged scale beneath the penultimate interphalangeal joint of digit IV of pes (Fig. 4; vs. 2–7 enlarged scales beneath the penultimate interphalangeal joint



FIG. 3. Lateral view of the holotype of *Cnemaspis alantika*, sp. nov. in life. Note the rounded pupil, pale dorsum, and relatively prominent caudal tubercles.



FIG. 4. Ventral view of left pes of holotype of *Cnemaspis alantika*, sp. nov. showing the absence of an enlarged metatarsal tubercle and the single enlarged subdigital scale beneath the penultimate interphalangeal joint (black arrows on digits II-V). Scale bar = 5 mm.

and proximal phalanges of digit IV of pes; in *Cnemaspis dilepis*: 2, *C. koehleri*: 4–7, *C. gigas*: 4–6, and *Cnemaspis occidentalis*: 3). It shares this digital condition with *Cnemaspis petrodroma* and *C. spinicollis*. It may be distinguished from the former species by its smaller size (maximum SVL 47.5 vs. 64 mm; Perret 1986), larger, more well-developed dorsal trunk and caudal tuber-

cles, multiple preloacal spurs (vs. a single spur on each side of tail base), absence of an enlarged, flattened preaxial metatarsal scale, and more diffuse dorsal pattern (compare photo of *C. petrodroma*, Perret, 1986:fig. 25 top).

Cnemaspis alantika is most similar to *C. spinicollis*, with which it shares most features of scalation. It may be differentiated from this species by its absence of tubercles on the crown and beneath the ear (vs. scattered occipital and crown tubercles and one to three tubercles at the ventral margin of the ear opening), larger, more erect, regularly aligned trunk and caudal tubercles, lower number of ventral scale rows (24 vs. 26–28), higher average number of preloacal pores (11 vs. typically 8–10, exceptionally 6–7 or 11; Perret, 1986); and by its coloration. *Cnemaspis spinicollis* is typically relatively darkly colored, with pale dorsal markings often coalescing, sometimes forming a vertebral stripe, whereas *C. alantika* is much paler in overall coloration, with little contrast between background color and whitish dorsal markings, and these markings are separated from one another. In the latter species the throat markings are also much less bold than in the former (Fig. 5). *Cnemaspis alantika* also lacks an enlarged, flattened preaxial metatarsal scale, which is present in most *C. spinicollis* (Perret, 1986; however, this scale is not enlarged in

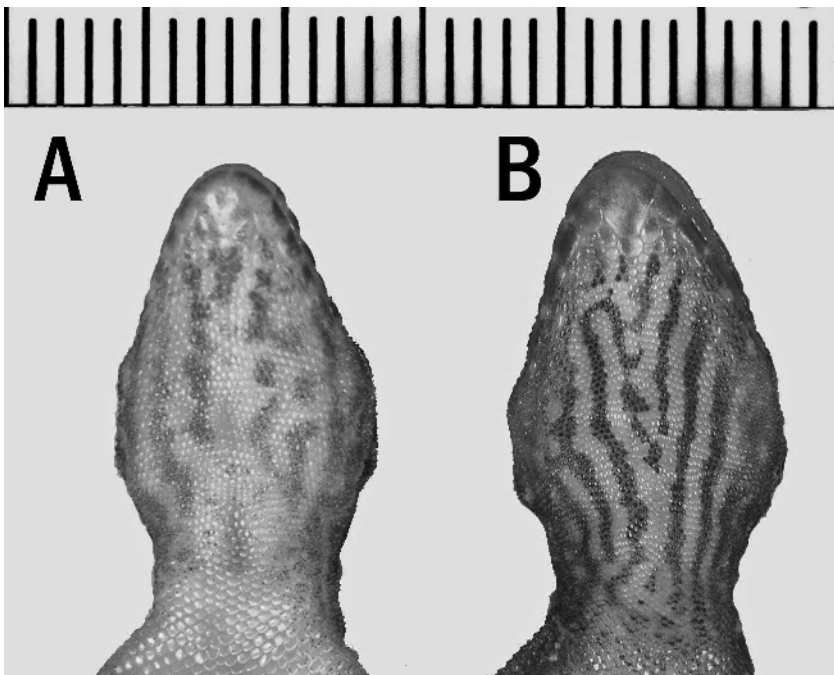


FIG. 5. Ventral view of throat of (A) adult male holotype of *Cnemaspis alantika*, sp. nov. showing the relatively pale markings in comparison to (B) an adult male *Cnemaspis spinicollis* (MNHN 2006.0299). Scale bar in millimeters.

specimens from the Takamanda area or Atolo Mountain, both in the Southwest Province of Cameroon).

Description (Based on *Holotype*).—Adult male, SVL 47.5 mm. Head moderately short (HeadL:SVL ratio 0.25), wide (HeadW:HeadL ratio 0.69), somewhat depressed (HeadH:HL ratio 0.43), very distinct from slender neck. Loreal region slightly inflated, canthus rostralis not prominent. Snout relatively short (SnEye:HeadL ratio 0.41); longer than eye diameter (OrbD:SnEye ratio 0.61); scales on snout small and granular to slightly conical, approximately four times larger than granules on crown of head. Eye relatively large (OrbD:HeadL ratio 0.25); pupil round; anterior supraciliaries large, square, posterior smaller, those at posterior margin of orbit each bearing a tiny spine. Ear opening oval, obliquely oriented, relatively small (EarL:HeadL ratio 0.05); eye to ear distance greater than diameter of eyes (Eye:Ear:OrbD ratio 1.13). Rostral wider (2.0 mm) than deep (1.4 mm), incompletely divided dorsally by weakly developed rostral groove; two somewhat enlarged supranasals separated by a single rounded internasal; rostral in contact with supralabial I, supranasals, internasal and dorsal and ventral postnasals; nostrils oval, each surrounded by supranasal, rostral (narrowly excluded by supranasal on left side), first supralabial, dorsal and ventral postnasals and narrow crescentic nasal; two rows of scales separate the orbit from the supralabials. Mental triangular, slightly wider (2.8 mm) than deep (2.2 mm); one pair of enlarged postmentals, each postmental bordered laterally by first infralabial and anteromedially by mental; a single enlarged throat granule prevents the posterior contact of left and right postmentals. Infralabials bordered by a row of slightly enlarged scales, decreasing in size posteriorly. Enlarged supralabials to angle of jaws 6 (right)–7 (left), anterior supralabials bearing a weak longitudinal keel; infralabials 6; interorbital scale rows across narrowest point of frontal bone 7; 16 scale rows between left and right supraciliaries at midorbit.

Body relatively slender, short (TrunkL:SVL ratio 0.41) without ventrolateral folds. Dorsal scales heterogeneous, granular with small (4–7 times granule size) conical to weakly keeled tubercles extending from above ear to tail; largest tubercles over sacrum, smallest in mid-vertebral position at the level of nape and shoulders; tubercles in 10 longitudinal rows at midbody. A single, relatively small, conical, whitish tubercle on side of neck, halfway between ear and shoulder; tubercles on nape weakly developed, no tubercles on crown or beneath ear. Ventral scales larger than dorsals,

approximately same size as dorsal tubercles, weakly subimbricate with rounded free posterior margins; roughly uniform in size from chest to vent; midbody scale rows across belly to ventrolateral margin 24; chin and gular region with few small, hexagonal, juxtaposed scales. Eleven precloacal pores arranged in a single chevron. No femoral pores or enlarged femoral scales. Scales on palm and sole smooth, rounded; scales on postaxial aspects of limbs small, subimbricate, those on preaxial surfaces enlarged and imbricate, especially on thighs; no tubercles on limbs.

Fore- and hind limbs relatively long, slender; forearm long (ForeaL:SVL ratio 0.18); tibia long (CrusL:SVL ratio 0.22); no enlarged metatarsal scale (Fig. 4); digits long, strongly clawed, unwebbed; digits strongly kinked, distal portions conspicuously laterally compressed, no adhesive scansors beneath digits; a single enlarged oval scale beneath the penultimate interphalangeal joint, a series of much smaller unpaired lamellae basal to this; a series of distal lamellae separated from enlarged oval scale by a few granular scales or a single somewhat enlarged scale with a concave distal margin; distal lamellae 6–6–7–7–7 (left and right manus), 7–7–7–7–8 (left pes), 7–7–7–9–7 (right pes). Relative length of digits (manus): IV > III > V > II > I; (pes): IV > V > III > II > I.

Original portion of tail relatively slender, longer than body in paratype with complete tail (TailL:SVL ratio 1.13); each tail segment with transverse row of 6 enlarged, keeled, posteriorly pointing tubercles; remaining dorsal scales small, granular, juxtaposed in regular rows, eight rows per tail segment; ventral scales larger, smooth, imbricate; median series somewhat larger than more lateral scales. Lateral surfaces of hemipeneal bulge bearing three enlarged tubercles (cloacal spurs): one anteroventrally, one anterodorsally and one posterodorsally.

Osteology.—Phalangeal formulae 2–3–4–4–3 for manus and 2–3–4–4–4 for pes. Presacral vertebrae 26, including three anterior cervical (without ribs), two lumbar, and two sacral vertebrae; five pygal and 5.5 postpygal caudal vertebrae to point of broken tail in holotype (approximately 29 postpygal vertebrae in MNHN 2006.0295). A single pair of slender, crescentic cloacal bones present. Endolymphatic sacs extend extracranially, reaching level of fifth vertebra. The two smaller paratypes exhibit significant unossified epiphyseal plates in the phalanges.

Coloration (*in Preservative*).—Background color light brown with a series of alternating irregular transverse markings of off-white to cream and medium-brown. Whitish markings thicker, forming forward directed chevrons, six

TABLE 1. Mensural data for the types of *Cnemaspis alantika*, sp. nov. Abbreviations as in Materials and Methods. All measurements in millimeters.

| Character | MNHN 2006.0296 (holotype) | MNHN2003.1100 (paratype) | MNHN2006.0295 (paratype) | MNHN2006.0297 (paratype) |
|-----------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Sex | male | female | male | juvenile |
| SVL | 47.5 | 46.6 | 34.9 | 28.7 |
| ForeaL | 8.6 | 8.4 | 6.6 | 5.3 |
| CrusL | 10.4 | 9.6 | 7.2 | 6.5 |
| TailL | 14.28 | 20.7 | 39.5 | 27.1 |
| (regen.) | broken | broken | N/A | tip broken |
| TailW | 4.5 | 3.7 | 3.2 | 2.2 |
| TrunkL | 19.6 | 19.2 | 14.4 | 11.9 |
| HeadL | 11.8 | 12.2 | 9.6 | 8.7 |
| HeadW | 8.1 | 7.7 | 6.0 | 5.4 |
| HeadH | 5.2 | 5.0 | 4.2 | 3.3 |
| OrbD | 3.0 | 2.9 | 2.5 | 2.2 |
| EyeEar | 3.5 | 3.2 | 2.5 | 2.2 |
| SnEye | 4.8 | 4.6 | 3.6 | 3.5 |
| NarEye | 3.4 | 4.2 | 2.8 | 2.2 |
| Interorb | 3.3 | 3.8 | 3.1 | 2.8 |
| EarL | 0.6 | 0.6 | 0.5 | 0.4 |
| Internar | 1.2 | 1.2 | 1.0 | 0.9 |

midbrown cross-markings from nape to sacrum and continuing on to tail. Transverse bands disrupted laterally, resulting in brown and white blotches on flanks. Dorsal tubercles whitish. A narrow midbrown stripe from nostril through orbit to occiput. A thicker stripe above ear extending on to neck and roughly confluent with nape band. Another dark line from posteroventral margin of orbit to ventrolateral margin of neck. Series of dark transverse markings across head at anterior margin of orbits and at midorbit. A series of dark spots defining a forward-directed pentagram on the crown. Labials with alternating cream and midbrown markings. Limbs with irregular dark crossbands, dark bands around wrists and ankles. Feet pale with dark crossmarkings on each digital segment, typically at midphalanx. Venter of trunk, hind limbs and tail buff with only scattered brown pigment near margins. Forelimbs with somewhat heavier pigmentation. Chin and throat pigmented, with four stripes, medial pair shorter than lateral, extending posterior to level of retroarticular process. Another pigmented blotch in ventral midline behind mental (Fig. 5).

Color in Life.—Similar to preserved condition, but with dorsal whitish markings a pale grayish-white and venter with a very pale yellowish tint.

Variation.—See Table 1 for mensural features of the type series. The subadult male paratype (MNHN 2006.0295) also has 11 prelocal pores, these are lacking in the female and juvenile paratypes. Supralabials and infralabials 6 in MNHN 2006.0295, 7 in MNHN 2003.1100, 7 supralabials and 6 infralabials in MNHN

2006.0297. The juvenile paratype from Hosséré Vokré (MNHN 2006.0297) with 12 dorsal tubercle rows and more boldly patterned than the holotype, with cream dorsal markings forming distinct, roughly diamond-shaped markings. Other paratypes with paler ventral markings than holotype but with throat markings still visible.

Distribution.—The species is known only from the North Province of Cameroon, from the Monts Alantika, west of Djalingo, which follow the Cameroon-Nigeria border and are separated from the Adamaoua Plateau by the Faro River on the Benoue Plain, and from Hosséré Vokré, south of Poli, a neighboring plateau, also isolated from the Adamaoua Plateau (Fig. 1). Both localities are at high elevation (1650 and 1900 m asl, respectively) and are isolated from one another by areas under 500 m asl.

Natural History.—The Monts Alantika are characterized by numerous outcrops of large granite boulders, particularly along the stream courses which support narrow gallery forests. *Cnemaspis alantika* were found in medium-sized crevices of shaded boulders in poorly drained soils (Fig. 6). These crevices were more sheltered and humid than those that harbored *Ptyodactylus ragazzi*. *Cnemaspis alantika* specimens were not active when captured but were seen near the outer edge of crevices in the mid- to late afternoon, confirming their diurnality (see Röhl, 2001).

Ptyodactylus ragazzi was common around drier large boulders and *Agama agama*, *Agama paragama*, and *Hemidactylus brookii angulatus* were present around villages and farms; the



FIG. 6. Boulder crevice habitat of *Cnemaspis alantika* at its type locality in the Monts Alantika.

last of these was also found in houses. The small colubrid snake *Rhamphiophis acutus togoensis* was also found on the lower slopes. This uncommon snake had previously only been recorded from the Adamaoua Plateau in Cameroon.

Hosséré Vokré is an elevated plateau north of and isolated from the Adamaoua Plateau by areas of under 500 m. Its highest point is 2049 m, and it has a surface area of approximately 930 km² (B. Larison, T. B. Smith, D. Mcniven, R. Fotso, M. Bruford, K. Holbrook, and A. Lamperti, Faunal Surveys of Selected Montane and Lowland Areas of Cameroon, WWF Cameroon, 1996, unpubl.). There are gallery forests on the plateau following gullies and streams, although most are somewhat narrow. The main forest trees are *Syzigium guineensis* and *Phoenix reclinata* (B. Larison, T. B. Smith, D. Mcniven, R. Fotso, M. Bruford, K. Holbrook, and A. Lamperti, Faunal Surveys of Selected Montane and Lowland Areas of Cameroon, WWF Cameroon, 1996, unpubl.). The presence of *Podocarpus milanjanus*, otherwise known in Cameroon only from the western highlands, is of note. The summit itself is composed of large granite boulders that form caves and deep crevices. The single *Cnemaspis* from this locality was captured in a sheltered crevice in a gallery forest granite boulder. None were observed in the crevices of the drier boulders higher on the slopes. Three species of

Trachylepis were also found on the plateau, *T. maculilabris* along the streams in gallery forests, and *T. perroteti* and *T. quinqueteniata* on the drier slopes. *Typhlops decorosus*, a slender savanna blind snake was found on the plateau near one of the villages, whereas the common savanna lizards *Chamaeleo gracilis* and *Hemidactylus brookii angulatus* were also found in the area, the latter in houses.

On the Hosséré Vokré plateau there are a number of small pastoral villages and many cattle are grazed there. The plateau streams, such as that where *C. alantika* was collected, are used for watering cattle. On the lower slopes, there are also scattered houses and villages, with cultivated areas mostly in clearings on these lower slopes in clearings but also on the plateau.

The gallery forests in both localities are under pressure from local inhabitants for land for cultivation. The moister gallery forests are cleared in patches for small farms and are damaged by grazing, particularly during the dry season when water becomes scarcer. While there is a national park in the region (Faro National Park), it includes no higher altitude areas. The Monts Alantika and Hosséré Vokré themselves currently include no official protected areas, nor are they included in vegetation management plans. The adult female paratype (MNHN 2001.1100) contains two oviductal eggs approximately 6.1 × 5.1 mm in size.

DISCUSSION

The herpetofauna of Cameroon has been enriched by several recent descriptions (e.g., Böhme and Schmitz, 1996; Chirio and Ineich, 2000; Lawson, 2000; Henle and Böhme, 2003; Ineich et al., 2004). Gartshore (1986) noted several anurans restricted to the Adamaoua Plateau (e.g., *Astylosternus ngahanus* from Hosséré Ngang-Ha) but did not consider this an important area of montane endemism. Recently, however, the Adamaoua Plateau has yielded a new lizard *Leptosiphos koutou* Ineich et al., 2004, and other new taxa have been described from two separate isolated peaks north of the massif proper: the skink, *Trachylepis nganghae* from Hosséré Ngang-Ha (Ineich and Chirio, 2004) and a caecilian, *Crotaphatrema tchabalmbaboensis*, from Tchabal Mbabo (Lawson, 2000). The discovery of *C. alantika* in adjacent, but disjunct, highland areas of the Monts Alantika and Hosséré Vokré suggests that such isolated areas of northern Cameroon may harbor a distinctive endemic fauna and that these areas should be targeted for biodiversity surveys and biodiversity conservation projects. Recent surveys of other regions of the country, including the Korup National Park (Lawson, 1993) and the Takamanda Forest Reserve (LeBreton et al., 2003) have likewise revealed particularly rich and diverse herpetofaunas, and Herrmann et al. (2005) have demonstrated that Mt. Nlonako in southwestern Cameroon is the most species rich locality for reptiles in all of Africa (Herrmann et al., 2005). Afromontane regions have been proposed to support particularly high biodiversity because stable and favorable conditions promote both the retention of relictual taxa and the diversification of radiating lineages (Fjeldsa and Lovett, 1997). Cameroon, with a number of highland areas and isolated mountains, particularly along the Nigerian border, remains a grossly understudied biodiversity hotspot. The discovery of a new vertebrate species in the Monts Alantika further argues for more extensive research throughout Cameroon but especially in the northern montane regions, which until recently have been largely neglected.

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APPENDIX 1

Comparative Material

- Cnemaspis koehleri*: MNHN 2003.2909, Mendé, Monts Takamanda, Southwest Province, 6°18'46.8"N, 9°21'50.4"E, 1500 m.
- Cnemaspis spinicollis*: MNHN 2006.0299–300, Mt. Kala, west of Yaoundé, Centre Province, 3°51'00"N, 11°20'24"E, 1156 m; MNHN 2005.0748–749, northern slopes of Mbam Minkom massif northeast of Yaoundé, Centre Province, 3°58'12"N, 11°22'48"E, 860 m; MNHN 2003.1099, 2003.2902, 2003.2904, Etome, Mt. Cameroon, Southwest Province, 4°04'04.8"N, 9°06'50.4"E, 1713 m; MNHN 2003.2907, Ekona Lelu, Mt. Cameroon, Southwest Province, 4°16'22.8"N, 9°18'14.4"E, 1050 m; MNHN 2003.2906, Bavenga, Mt. Cameroon, Southwest Province, 4°19'37.2"N, 9°20'27.6"E, 500 m; MNHN 2005.0746–747, Forest east of Koano, southwest of Batibo, Southwest Province, 5°45'36"N, 9°45'00"E, 800 m; MNHN 2003.2903, 2005.0745, 2006.0298, Atolo Mountain, near Atolo, Mamfe District, Southwest Province, 6°15'00"N, 9°27'00"E, 800 m; MNHN 2003.2901, 2003.2908, Mendé, Monts Takamanda, Southwest Province, 6°18'46.8"N, 9°21'50.4"E, 1500 m; MNHN 2005.0750, Mbweni village, on banks of Mugom River, Northwest Province, 6°14'38.4"N, 10°11'06"E, 700 m; MNHN 2003.2905, Furu-Awa, Northwest Province, 6°59'42"E, 10°09'32.4"E, 395 m.