
A new species of *Cnemaspis* (Sauria: Gekkonidae) from Assam, north-eastern India

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Abstract

A new species of *Cnemaspis* (Sauria: Gekkonidae) is reported from the Mayeng Reserve Forest, Kamrup District, Assam, north-eastern India. The species is considered morphologically similar to south Asian species of the genus, rather than to those of south-east Asia, and can be diagnosed from all described congeners using the following combination of characters: snout-vent length 28.0 mm; canthal ridge absent; no ridges of tubercles along mandible or in nape region; supranasals separated by a single scale; nasals in narrow contact with supralabial I. Three postnasals bound nasal; postmentals separated by one scale; chin shields not separated from infralabials by enlarged scales; no decrease in dorsal scale size posterior to thorax; ventral scales increase in size from chin to gular, pectoral and abdominal regions. Scales on dorsum at mid-body much smaller than those of ventrum at same level; scales on vertebral region not reduced, lacking a spinous process; no enlarged tubercles on dorsum; spine-like tubercles on flanks; pectoral and abdominal scales smooth, imbricate, not distinctly elongated; no preanal or femoral pores; no preanal groove; no enlarged series of subtibial scales; 2–5 greatly enlarged basal scansors; tail segmented, with enlarged flattened scales forming whorls; ventral surface of tail with a median, continuous series of enlarged scales, supralabials (to mid-orbit position) 8–9; infralabials 7; interorbital scale rows (at midpoint of orbit) 5; mid-ventral scale rows to lowest row of tubercles 24–26.

Key words: *Cnemaspis* new species, *Cnemaspis assamensis*, systematics, Assam, India.

Introduction

The frontier Indian state of Assam, that lies at the political contact of China, India and Myanmar, is one of the most biodiverse regions in Asia. Indeed, the Eastern Himalayas hotspot (sensu Myers, 1988) straddles the state, making it an important contributor to the overall high richness figures given for the biota of India.

Although it encompasses almost the whole of the floodplain of the Brahmaputra River, Assam also includes a large number of hill ranges, such as the Karbi, Cachar and Mishmi Hills, and parts of the northern slopes of the Garo and Khasi Hills. Extremes of temperature and high precipitation (exceeding 2,000 mm/yr, and including some of the world's wettest regions) characterise the state. A general

account of the physiography of the state is given by Taher and Ahmed (1998); Rao (1974) described the vegetation and phytogeography of the region.

Altogether, 40 species of gekkonid lizards of the genus *Cnemaspis* have now been described from Asia (Kluge, 1993; Das, 1993; Das and Bauer, 1998; 2000; Bauer and Das, 1998). These appear to be restricted to the hills of southern peninsular India and an apparent disjunction in northern and eastern India, reappear in Thailand, the Malay Peninsula, offshore islands of Vietnam, and the islands of the Sundas (McCann, 1953; Wermuth, 1966; Rösler, 1995). Mathew (1995) reported *C. jerdoni*, a Western Ghats endemic, from the Garo Hills, the first record of the genus from the north-eastern hills. Because the description provided was inadequate, we refrain from commenting on the identity of this specimen.

During field work in Mayeng Forest Reserve, Kamrup District, Assam, north of the Garo Hills, we collected three examples of a *Cnemaspis* that we allocate to a new species.

Material and methods

Specimens were hand-collected, the holotype photographed in life, the entire type series fixed in 10% neutral buffered formalin and transferred to 70% ethanol within a week of collection. The following measurements were taken with Mitutoyo Dial Vernier Calipers (to the nearest 0.1 mm): snout-vent length (SVL; from tip of snout to vent), tail length (TL; from vent to tip of unregenerated tail), tail width (TW; measured at base of tail); head length (HL; distance between posterior edge of last supralabial and snout-tip), head width (HW; measured at angle of jaws), head depth (HD; maximum height of head, from occiput to throat), ear length (EL; greater ear length); forearm length (FA; distance between the palm and elbow); tibia length (TBL; measured from heel to knee), eye diameter (ED; greatest diameter of orbit), eye to nostril distance (E-N; distance between anteriormost point of eyes and nostrils), eye to snout distance (E-S; distance between anteriormost point of eyes and tip of snout), eye to ear distance (E-E; distance from anterior edge of ear opening to posterior corner of eyes), internarial distance (IN; distance between nares), and interorbital distance (IO; shortest distance between orbits). Colour notes of the holotype in life were taken from slide transparencies and compared with the colour swatches of Smith (1975; 1981). Comparative material examined is listed in Appendix I. Institutional acronyms follow Leviton et al. (1985). Additional sources of information include Boulenger (1912), Smith (1935); Deraniyagala (1944;

1953), Nicholls (1949), Taylor (1963), Dring (1979), Inger et al. (1984), Tikader and Sharma (1992) and Cox et al. (1998).

Cnemaspis assamensis sp. nov.

Figures 1–2, Table 1

Holotype. ZRC 2.4674 (adult male), 28.0 mm SVL, from Mayeng Reserve Forest (91°21–32'E; 25° 48'–55'N), alt. ca. 90 m above msl, Kamrup District, Assam State, north-eastern India (Fig. 3). Collected by Saibal Sengupta and Indraneil Das, 21 June 1999.

Paratypes. ZRC 2.4675 (33.2 mm SVL, adult female) and ZRC 2.4676 (17.2 mm SVL, juvenile male). Data as above.

Diagnosis

A small species of *Cnemaspis* (SVL to 28.0 mm in an adult male; 33.2 mm in an adult female), diagnosable from congeneric species in showing the following combination of characters: snout-vent length 28.0 mm; canthal ridge absent; no ridges of tubercles along mandible or in nape region; supranasals separated by a single scale; nasals in narrow contact with supralabial I. Three postnasals bound nasal; postmentals separated by one scale; chin shields not separated from infralabials by enlarged scales; no

Table 1. Measurements of the type series of *Cnemaspis assamensis* sp. nov. (in mm). See text for details. Asterisk refers to damaged parts.

	Holotype	Paratypes	
	ZRC 2.4674 adult male	ZRC 2.4675 adult female	ZRC 2.4676 juvenile male
SVL	28.0	33.2	17.2
FA	5.0	5.2	2.6
TBL	5.8	6.0	3.3
TL	34.5	36.0	17.1
TW	2.8	3.2	1.7
A-G	10.5	14.2	5.8
HL	5.1	5.3	3.5
HW	4.2	5.0	3.2
HD	2.9	2.8*	1.7*
ED	2.2	2.4	1.3
E-E	2.2	2.4	1.4
E-S	3.3	3.5	2.2
E-N	2.5	2.3	1.6
IO	1.7	2.0	0.8
EL	0.5	0.5	0.3
IN	1.2	1.5	0.7

decrease in dorsal scale size posterior to thorax; ventral scales increase in size from chin to gular, pectoral and abdominal regions. Scales on dorsum at mid-body much smaller than those of ventrum at same level; scales on vertebral region not reduced, lacking a spinous process; no enlarged tubercles on dorsum; spine-like tubercles on flanks; pectoral and abdominal scales smooth, imbricate, not distinctly elongated; no preanal or femoral pores; no preanal groove; no enlarged series of subtibial scales; 2–5 greatly enlarged basal scansors; tail segmented, with enlarged flattened scales forming whorls; ventral surface of tail with a median, continuous series of enlarged scales, supralabials (to mid-orbit position) 8–9; infralabials 7; interorbital scale rows (at midpoint of orbit) 5; mid-ventral scale rows to lowest row of tubercles 24–26.

Description of holotype

Adult male, snout-vent length 28.0 mm; head oblong, large (HL/SVL ratio 0.182), narrow (HW/SVL ratio 0.150), depressed (HD/HL ratio 0.569), distinct from neck; lores and interorbital region distinctly depressed; snout long (E-S/HW ratio 0.786), longer than eye diameter (ED/E-S ratio 0.667), scales on snout and forehead flattened, under magnification slightly raised; scales on snout larger than those on occipital region; eye large (ED/HL ratio 0.431), orbits of eyes with 'extra-brillar fringes' (sensu Underwood, 1954); pupil round; elongated supraciliaries on top half of orbit; canthal ridge absent; tympanum deep, oval shaped, its greatest diameter vertically, fairly narrow (EL/HL ratio 0.098); eye to ear distance equals eye diameter (E-E/ED ratio 1.00); no ridges of tubercles along mandible or in nape region; rostral divided by a groove which meets anterior of snout; rostral nearly half as deep as wide (rostral width 1.1 mm; rostral depth 0.6 mm), contacted posteriorly by nostrils and two elongated supranasals that are separated by a single scale, ventro-posteriorly, rostral in contact with supralabial I. Nostrils oval, situated within nasals, and oriented dorsally, on account of depressed snout; nasals in narrow contact with supralabial I. Three postnasals bound nasal; ca. eight scales separate orbit from supralabials. Mentals almost square, about as deep as wide; paired postmentals smooth, rounded, smaller than mental, larger than gulars, separated by one scale. Infralabials not separated from chin shields by enlarged scales.

Body slender, elongate (A-G/SVL ratio 0.375), dorsally, scale size does not decrease after thorax; ventrally, scales increase in size from chin to gular, pectoral and abdominal regions. Scales on dorsum at mid-body much smaller than those of ventrum at same



Figure 1. Holotype of *Cnemaspis assamensis* (ZRC 2.4674) in life, showing the body in dorsal view. Photo: Indraneil Das.



Figure 2. Holotype of *Cnemaspis assamensis* (ZRC 2.4674), in life, showing the body in lateral view. Photo: Indraneil Das.

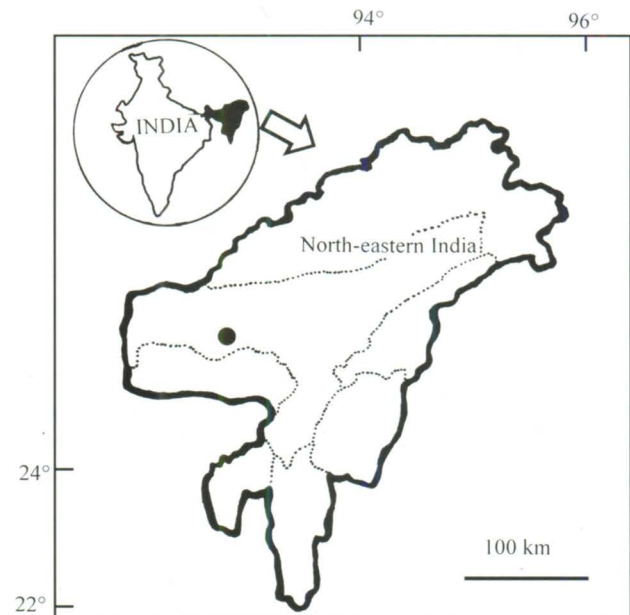


Figure 3. Map of north-eastern India, showing the type locality of *Cnemaspis assamensis* sp. nov. Marker = 100 km. Inset: Locator map of India and surrounding countries. Marker = 500 km.

level; scales on vertebral region not reduced, lacking a spinous process.

Enlarged tubercles absent on dorsum; spine-like tubercles on flanks present. Pectoral and abdominal scales smooth, imbricate, not distinctly elongated; no preanal or femoral pores; no preanal groove; no enlarged series of subtibial scales; anal fragmented. Scales on palm and sole smooth, rounded; scales on inner surface of forearm weakly keeled, those on distal aspect of upper arm with a single keel; scales of dorsal surface of thighs, tibia; upper arm and forearm unicarinate.

Forelimbs moderately long, slender; forearm short; hindlimbs relatively short; tibia short (TBL/SVL ratio 0.207). Digits elongate, all bearing claws that are slightly recurved; subdigital scansors entire, except for two to three fragmented ones at base, unnotched; five greatly enlarged scansors that are basal, over twice width of distal scansors; interdigital webbing absent. Relative length (measurements in parentheses, in mm) of digits (fingers): 4 (1.9) > 3 (1.7) = 5 (1.7) > 2 (1.5) > 1 (1.5); (toes): 3 (3.9) > 4 (3.8) = 2 (3.8) > 5 (1.7) > 1 (1.4); lamellae under fingers: 11, 14, 16, 15, 15; under toes: 9, 18, 20, 20, 19.

Tail long, longer than snout-vent length (TL/SVL ratio 1.232), tail base distinctly swollen, segmented, with enlarged flattened scales forming whorls, each separated by a single scale within a whorl, each segment 5–6 scales wide; two conical postcloacal spurs present. Tail with a distinct pair of furrow laterally. Ventral surface of tail with a median, continuous series of greatly enlarged scales, becoming less differentiated distally. Dorsum of tail distinctly segmented, with conical whorls of 7–9 enlarged scales. Scales on postanal region and under tail smooth.

Scutellation (holotype, followed by the range shown in the type series in parentheses): supralabials (to mid-orbit position) 8 (8–9); infralabials 7 (7); interorbital scale rows (at midpoint of orbit) 5 (5); mid-ventrals scale rows to lowest row of tubercles 26 (24–26); lamellae under toe IV 20 (11–20).

Colouration (in life), dorsum light drab, with a buff vertebral stripe; a chevron-like pale pattern on dorsum, dark-edged anteriorly. A cream-coloured transverse bar in occipital region. A black nuchal spot. Digits and upper surfaces of limbs with dark brown bands. Ventrally, unpatterned cream. Iris golden spectrum yellow, pupil black.

Sexual dimorphism and variation

Besides being smaller than the female, the male shows a swollen postanal region. The female shows enlarged endolymphatic sacs on sides of the throat. The adult female shows four enlarged scansors at the base of

digits of pes, the juvenile male, two on left, three on right limbs. Measurements are in Table 1.

Natural history notes

The types were taken from 35–148 cm above substrate, on a tree trunk, at around 1000 hours, within a subtropical evergreen forest. The following species of amphibians and reptiles were found in sympatry: *Cosymbotus "platyurus"*, *Amphiesma stolatum*, *Rhabdophis subminiatus*, *Naja kaouthia*, *Leptobrachium "hasseltii"*, *Megophrys parva*, *Amolops gerbillus*, *Rana alticola*, *Rana (Silvirana) sp.*, *Microhyla "ornata"*, *M. berdmorei* and *Fejervarya "limnocharis"*. The presence of two eggs in the oviducts of the female and enlarged endolymphatic sacs (suspected to be associated with calcium storage for reproduction and/or growth, see Bauer, 1989), suggest that the eggs in the species are laid during or at the end of the Southwest Monsoons (July–September).

Etymology

The species is named for Assam State in north-eastern India.

Comparisons

The new species from Assam is compared with congeneric species from peninsular India and Sri Lanka, listing only opposing suites of characters: *Cnemaspis beddomei* (Theobald, 1876— distribution: the hill ranges in the extreme south of the Western Ghats, in south-western India), SVL to 50.0 mm, ventrals keeled, and preanal pores 6–9; *C. boei* (Gray, 1842— distribution: "India", without a more precise location), SVL to 34.0 mm, postmentals in contact, and no enlarged caudal tubercles; *C. goaensis* Sharma, 1976 (distribution: Goa State, south-western India), SVL to 71.0 mm, W-shaped dorsal pattern, preanal pores 2–3, and gulars keeled; *C. gracilis* (Beddome, 1870— distribution: hills of the southern Western Ghats, in south-western India), SVL to 40.0 mm, and postmentals in contact; *C. indica* (Gray, 1846— distribution: Nilgiri Hills and Travancore region of the southern Western Ghats, south-western India), SVL to 38.0 mm, and postmentals in contact; *C. jerdonii* (Theobald, 1868— distribution: hill ranges in southern Western Ghats, in south-western India, the Sri Lankan subspecies, *scalpensis* Ferguson, 1877, which lacks preanals, is distributed in the central hills), SVL to 40.0 mm, and no black vertebral spots; *C. kandiana* (Kelaart, 1852: as presently understood, this species has a wide distribution: southern and central parts of the Western Ghats, the central hills of Sri Lanka [the type locality], the Andaman and Nicobar Islands and some of the islands of the Mentawai Archipelago,

Sumatera Province, Indonesia; see Rösler, 1981; Dring, 1979, included Taylor's 1963: 738–740 *C. mysoriensis* (Jerdon, 1853) in his account of this species; further systematic work on the complex is in progress), SVL to 40.0 mm, dorsum lacking black blotches, postmental bounded by five scales, gulars keeled, and mid-ventrals 29–33; *C. littoralis* (Jerdon, 1853—distribution: western slopes of Nilgiri Hills, southern Western Ghats, in south-western India), SVL to 30.0 mm, femoral pores 14–18, and 3–5 large, squarish subdigital lamellae; *C. mysoriensis* (Jerdon, 1853—distribution: hill ranges of the southern Western Ghats, in south-western India), SVL to 26.0 mm, conical tubercles on flanks, and preanal pores 2–3; *C. nairi* Inger, Marx & Koshy, 1984, SVL to 44.0 mm, dark gular band present, and dorsum with pale vertebral spots; *C. ornata* (Beddome, 1870—distribution: southern ranges of the Western Ghats, in south-western India), SVL to 52.0 mm, preanal pores 6–9, dorsal tubercles arranged in ca. 15 longitudinal rows, and light dark-edged ocelli on dorsum; *C. podihuna* (Deraniyagala, 1944—distribution: Lahugala-Maha Oya region of Eastern Province, Sri Lanka), SVL to 26 mm, enlarged, pad-like scales on basal phalanx of digits, and preanal pores separated from femoral pores by glandular scales; *C. sisparensis* (Theobald, 1876—distribution: Nilgiri Hills and Kalavai in Cochin, in the southern Western Ghats, south-western India), SVL to 62.0 mm, femoral pores 7–8, and dorsum with a grizzled appearance; *Cnemaspis tropidogaster* (Boulenger, 1885), SVL to 40.0 mm, ventrals keeled, and scansors under toe IV 4–6; and *C. wynadensis* (Beddome, 1870—distribution: Wynad and hills further south, in Kerala State, south-western India), SVL to 40.0 mm, and no black spots on dorsum.

The new species is compared here with two peninsular Indian species being described by Das and Bauer (2000). The first, from Yercaud, in the Shevaroy Hills: scales on upper limbs weakly uncarinate, preanal pores 2, tuberculate ridge originating from corner of orbit present, postmentals separate, mid-ventrals 22, and lamellae under toe IV 11–12. The second from Vellore, Eastern Ghats: SVL to 29.7 mm; paired postmentals in broad contact; nostril not in contact with supralabial I; each postmental bounded by three scales; mid-ventrals 18; dorsal tubercles isolated and scattered; no spine-like tubercles on flanks; ventrals smooth; four preanal and three femoral pores; lamellae under toe IV—distal from expanded ones 16; and dorsum greyish-brown, with three pairs of black spots on paravertebrals fused over vertebral region.

Finally, we compare the new species with

congeners from south-east Asia: *Cnemaspis affinis* Stoliczka, 1870 (distribution: Peninsular Malaysia): SVL to 46.7 mm, median subcaudals keeled, distinct canthal ridge present, a dark blotch or ocellus in the axilla, tail lacking in tubercles, and preanal pores 2–6; *Cnemaspis argus* Dring, 1979 (distribution: Peninsular Malaysia): SVL to 65.3 mm, ventrals keeled, fourth and fifth fingers subequal, two paravertebral rows of dorsal tubercles, and no enlarged median subcaudal scales; *Cnemaspis boulengeri* Strauch, 1887 (distribution: Con Son, Con Dao (= Pulo Condore) and Hon Bai Can, islands off mainland Vietnam): SVL to 66.0 mm, a series of shield-like subtibial scales as large as tibia, and femoral pores present; *Cnemaspis chanthaburiensis* Bauer and Das, 1998 (distribution: Chanthaburi Province, south-eastern Thailand): SVL to 41.0 mm, preanals 7–9, postmentals in contact, 2–3 enlarged scales separate infralabials from chin shields, and dorsal pattern comprising white paravertebral markings; *Cnemaspis dringi* Das & Bauer, 1998 (distribution: Sarawak, East Malaysia [Borneo]): SVL to 45.5 mm, postnasals five, pectoral and abdominal scales distinctly elongated, preanal pores three, no postcloacal spur, ventrum dark-pigmented, and flanks of body with white patches; *Cnemaspis flavolineatus*: (distribution: southern Thailand and Peninsular Malaysia): preanal pores present, male SVL to 31–46.7 mm, dorsum with yellow vertebral stripes; *Cnemaspis gordongekko* Das, 1993 (distribution: Lombok, Nusa Tenggara Province, Indonesia): SVL to 73 mm, dorsum with large, scattered tubercles, and mid-ventrals 30; *Cnemaspis kendallii* (Gray, 1845) (distribution: Peninsular Malaysia, Borneo and Riao Archipelago): SVL to 44.1–56.8 mm in males, 50.7–79.5 mm in females, femoral pores present, supralabials to mid-orbital position 10–12, mid-ventrals 40, and ventrum pigmented; *Cnemaspis kumpoli* Taylor, 1963 (distribution: Trang Province, Thailand): SVL to 52 mm, ventrals keeled, preanal pores 3–4, and enlarged dorsal tubercles arranged in a longitudinal series; *Cnemaspis nigridius* (Smith, 1925) (distribution: Peninsular Malaysia and Borneo): SVL to 80 mm, ventrals keeled, preanal pores 7–16, supralabials to mid-orbital position 11; and mid-ventrals 68; and *Cnemaspis siamensis* (Smith, 1925) (distribution: southern Thailand and northern Malay Peninsula): SVL to 40 mm, ventrals keeled, preanal pores 2–8 (populations from the northern Malay Peninsula; those north of the Isthmus of Kra lacks preanal pores; see Dring, 1979: 223), dorsum with scattered tuberculate scales, and black and white spots and bands on neck and forehead (see illustration in Cox et al., 1998: 91).

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Appendix 1

Comparative material examined

- Cnemaspis affinis* Stoliczka, 1870: ZSI 5964 (holotype), from "Penang" (= Pulau Pinang, West Malaysia); ZMA 11987 and ZRC 2.1098, Pulo Pinang, West Malaysia.
- Cnemaspis argus* Dring, 1979: BMNH 1974.4910 (holotype) and BMNH 1974.4911 (paratype). "...790 m on the east ridge of G. Lawit" (in Trengganu State, West Malaysia).
- Cnemaspis beddomei* (Theobald, 1876): BMNH 1946.9.4.81–87 (seven syntypes), ZSI 5859 (syntype), "South Tinnevely and Travankor hills 3–5000 feet" (= Tirunelveli, southern Tamil Nadu State, southern India and Travancore, in Kerala State, south-western India).
- Cnemaspis boiei* (Gray, 1842): BMNH 1962.181 (holotype), "India".
- Cnemaspis boulengeri* Strauch, 1887: MCZ 39014–23. Pulo Condore (= Con Dao), Vietnam.
- Cnemaspis chanthaburiensis* Bauer and Das, 1998: FMNH 215979 (holotype). "Khao Soi Daow (Dao) Wildlife Sanctuary, Pongnomron (Pong Nam Ron), Chantaburi (Chanthaburi) Province, Thailand (approximately 13°00'N, 102°05'E)"; BMNH 1917.5.14.4 (paratype). "Chantaburi (Chanthaburi Province), Siam (Thailand)"; FMNH 191479 (paratype). "Khao Soi Dao Tai, Pong Nam Ron, Chantaburi (Chanthaburi) Province, Thailand (approximately 13°00'N, 102°05'E), 850 m"; FMNH 215978 (paratype). "Khao Khiew (Khieo) Wildlife Sanctuary, Chon Buri Province, Thailand" (approximately 13°4'N, 101°08'E)"; FMNH 215980 (paratype). "Amphoe Muang, Suan Kaset, Chantaburi (Chanthaburi) Province, Thailand (approximately 12°36'N, 102°09'E)".
- Cnemaspis dringi* Das & Bauer, 1998: FMNH 148588 (FMNH FS 19914; holotype), "Labang Camp (03° 20'N; 113° 29'E), Bintulu District, Fourth Division, Sarawak, East Malaysia, Borneo"; FMNH 221478 (FMNH FS 34321; paratype), from "Sungai Segaham (02° 44'N; 113° 53'E), Belaga District, Seventh Division, Sarawak, East Malaysia".
- Cnemaspis goaensis* Sharma, 1976: ZSI 22100 (holotype), ZSI 22213–22216 (four paratypes), "ca. 3 km S. of Forest Rest House, Canacona (Poinguinim), Goa" (in south-western India).
- Cnemaspis gordongekko* Das, 1993: ZRC 2.3380–81 (holotype and paratype), vicinity of Sendanggila Falls, circa 0.5 km south of Senaru village, Lombok, Nusa Tenggara District, Republic of Indonesia (8° 45'S, 116° 30'E).
- Cnemaspis gracilis* (Beddome, 1870): BMNH 74.4.29.393–399 (seven syntypes), "Palghat hills" (in Kerala State, south-western India).
- Cnemaspis indica* (Gray, 1846): BMNH 46.11.22.22a–c. (syntypes), "Madras" (= probably Madras Presidency, which included Tamil Nadu State, as well as other parts of southern India); MCZ 7138 from "Nilgiri Hills" (in Tamil Nadu State, south-western India).
- Cnemaspis jerdonii* (Theobald, 1868): ZSI 6179–80 (syntypes); type locality not mentioned in the original description.
- Cnemaspis kandiana* (Kelaart, 1852): BMNH 60.3.17.1066, 80.2.2.119, 53.4.1.1 (three syntypes), "Kandian hills, Ceylon" (= hills of Kandy [or Mahanuwarra], Central Province, Sri Lanka); MCZ 162896, 162899, "Madras" (see comments above); MCZ 4138 and 26719, "Ceylon" (= Sri Lanka); ZSI 5971 (holotype of *Gymnodactylus Humei* Theobald, 1876), "Kandy" (in the Central Province, Sri Lanka).
- Cnemaspis kendallii* (Gray, 1845): BMNH XXII.92a (lectotype, designated by Dring, 1979), "Borneo"; FMNH 223201, MCZ 157158–59. Bako National Park, Sarawak, East Malaysia (Borneo); FMNH 223201; MCZ 157158–59. Bidi, Sarawak, East Malaysia (Borneo); FMNH 184424. Bukit Lanjan, Selangor, West Malaysia; BMNH 1902.12.12.12. Bidi, Sarawak, East Malaysia (Borneo); Bau, Sarawak, East Malaysia (Borneo); BMNH 1911.1.20.7–9. Bau, Sarawak, East Malaysia (Borneo); BPBM 7494, Alag Sungei Ayer, Pulau Tioman, Pahang, West Malaysia; ZRC 2.1101. Jerantut, Pahang, West Malaysia; ZRC 2.1102, Gunung Rokan, Pulau Tioman, Pahang, West Malaysia; ZRC 2.1103. Sedagong, Pulau Tioman, Pahang, West Malaysia; ZRC 2.1109–10. Pulau Siantan, Anamba, Riau Archipelago, Indonesia; ZRC 2.1112–13. Sungei Ulu, Great Natuna, Riau Archipelago, Indonesia; ZRC 2.3014. Bukit Timah, Singapore; ZRC 2.3015. Gunung Ladang, Melaka, West Malaysia; USNM 26573. Pulau Bunoa, Tambelan Islands, Indonesia; USNM 26555. St. Barbe Island, Indonesia; USNM 26547–49. Bunguran, Natunas, Riau Archipelago, Indonesia; USNM 28145. Pulau Lingung, Natuna, Riau Archipelago, Indonesia; USNM 28149. Sirhassen, Natuna, Riau Archipelago, Indonesia; also UF 78463 and ZSI 14767 and 19637, from "Borneo".
- Cnemaspis littoralis* (Jerdon, 1853): AMNH 107256, "Madras" (see comments above); AMNH 110804–05, Okha, Gujarat, India (probably in error).
- Cnemaspis nairi* Inger, Marx & Koshy, 1984: FMNH 216571–79 (nine paratypes), "Ponmudi, Trivandrum District, Kerala State, India, at 600 m above sea level".
- Cnemaspis nigridius* (Smith, 1925): BMNH 1946.8.22.90 (formerly BMNH 1925.9.1.8), MCZ 39024; ZRC 2.1114–115 (syntypes), "Mt. Gadin" (= Gunung

- Gading, Sarawak, East Malaysia; Borneo); MCZ 15250. Lundu, Sarawak, East Malaysia (Borneo).
- Cnemaspis ornata* (Beddome, 1870): BMNH 74.4.29.400–408 (eight syntypes), “South Tinnevelly hills” (= Tirunelveli, Tamil Nadu State, south-western India).
- Cnemaspis siamensis* (Smith, 1925): MCZ 39025. Maprit, Patiyu, Thailand; MCZ 39694, Klong Bang Lai, Thailand.
- Cnemaspis sisparensis* Theobald, 1876: BMNH 74.4.29.383 (holotype), “Sholakal, the foot of Sispara Ghat” (not located, although a locality called Sholaka, exists in from the Nilgiri Hills, Tamil Nadu State, south-western India); ZSI 17970 (holotype of *Gonatodes bireticulatus* Annandale, 1915), from “Kavalai, 1300–3000 feet, Cochin State” (in Kerala State, south-western India).
- Cnemaspis tropidogaster* (Boulenger, 1885): BMNH 71.12.14.49 (one syntype), “Ceylon” (= Sri Lanka); BMNH 82.5.22.61–67 (seven syntypes), “Tinnevelly” (= Tirunelveli District, Tamil Nadu State, south-western India); BMNH 74.4.29.729 (one syntype), “Nilgherries” (= Nilgiri District, Tamil Nadu State, south-western India); and BMNH 74.4.29.372–274 (three syntypes), “Wynaad” (in Kerala State, south-western India).