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SHORT COMMUNICATION

CATALOGUE OF HERPETOLOGICAL SPECIMENS FROM PENINSULAR INDIA AT THE SÁLIM ALI CENTRE FOR ORNITHOLOGY & NATURAL HISTORY (SACON), INDIA

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Catalogue of herpetological specimens from peninsular India at the Sálím Ali Centre for Ornithology & Natural History (SACON), India

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#deceased on 29/4/2014

Abstract: We list the herpetological voucher specimens in the holdings of the Sálím Ali Centre for Ornithology & Natural History (SACON), a wildlife research institute in India. Most of the collections are the fruition of fieldwork by SACON's herpetologist and a coauthor of this work—late Dr. Subramanian Bhupathy (1963–2014). Taxonomically, the collection represents 125 species, comprising 29 amphibian species belonging to eight families and 96 reptilian species belonging to 17 families. Geographically, the material in this collection originates from the Western Ghats, the Eastern Ghats, the Deccan Plateau, and the Coromandel Coast, comprehensively covering all ecoregions of peninsular India. A total of 15 taxa (three amphibians, 12 reptiles) remain to be fully identified and are provisionally referred to most-resembling taxa, with cf. prefix. All the specimens in this collection are non-types as on date.

Keywords: Amphibians, biological museum, distribution, reptiles, taxonomy.

Natural history collections are professional holdings of scientifically named and classified voucher specimens of organisms or their biological samples thereof, for research and public education purposes (Melber & Abraham 2002). Of late, their value as an enormous source of data on the diversity and distribution of plants and animals have been increasingly realized and

acknowledged (Winker 2004). So much so that even species extirpation patterns and population declines can be traced and deduced from such collections (Shaffer et al. 1998; Lister 2011). Faunal catalogues from under-researched tropical countries have served as immense source of information on regional biodiversity (e.g., Mahony et al. 2009 for Bangladesh's herpetofauna).

In Indian herpetology, most of the historical information on species were based on specimens lodged in the British Museum (now the Natural History Museum London, UK) that were worked out by Boulenger (1882, 1885a,b, 1887, 1889, 1893, 1894, 1896) in a series of technical monographs. Two other important regional museums were the Indian Museum Calcutta (now Zoological Survey of India, ZSI, Kolkata) and the Bombay Natural History Society Museum (BNHS), Mumbai. The herpetological holdings of ZSI were worked out by Theobald (1876) and Sclater (1891, 1892), while that of the snakes of BNHS were enumerated by Phipson (1888).

Later, post-Independence, Satyamurti (1967) enlisted the amphibians of the Madras Government Museum, another old regional museum at Chennai, India (also see

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Thurston 1888). Bauer (1998) published a catalogue of important South Asian herpetological specimens in the Zoological Museum Berlin, Germany. With regards to the type specimens, Das & Chaturvedi (1998) prepared the herpetological type catalogue for the BNHS museum. Das et al. (1998) published the reptilian type catalogue of the Zoological Survey of India (also see Das & Gayen 2004). Chanda et al. (2000) provided the type catalogue of amphibians in the same institution. Lastly, on general holdings, Ganesh & Asokan (2010) published the catalogue of Indian herpetofauna in the Madras Government Museum.

The Sálim Ali Centre for Ornithology & Natural History (SACON), is one of the India's leading institutes dedicated for wildlife research. The institute was inspired by and named in honour of Sálim Ali (1896–1987), the leading pioneer of ornithology in India. Located in the outskirts of Coimbatore City (Tamil Nadu, India), abutting the Western Ghats, this institute has been functioning since 1990. Being a Centre of Excellence, under the auspices of the Ministry of Environment, Forest and Climate Change, Government of India (MoEFCC, GoI), SACON has teams of wildlife biologists and experts conducting research and teaching.

One such scientist of SACON, Dr. Subramanian Bhupathy (1963–2014) headed the Conservation Ecology Division at this institute and with the help of his numerous students, amassed a good collection of amphibian and reptilian specimens as a part of their research work. His publications on herpetology date back to 1986 and he has been conducting field surveys and research throughout the country, on herpetofauna, among other animal taxa. The material enumerated below is from three decades of his fieldwork across Tamil Nadu, Pondicherry, Kerala, Karnataka, Andhra Pradesh, Telangana, Maharashtra, and Odisha states of India. Though old, the material still continues to bear immense academic value. We have already initiated taxonomic studies on several species complexes based on this collection. This holding is now in an initial research collection phase and will subsequently be made available later on for external researchers.

MATERIALS AND METHODS

In the catalogue below, we list entire, formalin-preserved, and identifiable specimens of amphibians and reptiles. As far as possible, all legible hand-written information from the specimen jar labels have been furnished below to maximize the biological importance of specimens mentioned. This includes the scientific name of varying taxonomic resolutions, specimen

collection locality and the number of examples in most cases. Date or year of collections was not to be found in most if not all jars and hence stands unknown. But judging by his track records, it is deduced to be between 1986 and 2014, spanning three decades. We have maintained the Institution acronym SACON for denoting this museum abbreviation as well, accompanied by other suffixes V- for vertebrates, A- for amphibians, R- for Reptiles. This is followed by the museum registration number that continues sequentially, species after species. Where more than a single specimen is in the same jar, alphabets are added onto their registration numbers to differentiate them. Where appropriate, we also furnish comments on taxonomy, nomenclature, and distribution of the species dealt with. Scientific names and taxonomic classifications were updated after recent systematic revisions for species whose labels furnished obsolete names originally. Throughout the catalogue below, we only use the currently-valid scientific names and concepts of taxa (after Frost 2020 for amphibians; Pyron et al. 2016, Uetz et al. 2020 for reptiles).

CATALOGUE OF SPECIMENS

Amphibia

Gymnophiona

Ichthyophiidae

1. Sharp-tailed Caecilian *Uraeotyphlus cf. oxyurus* (Duméril & Bibron, 1841)

Material: SACON/VA-1 one from Anamalai.

Comments: Nominotypical species is endemic to the Western Ghats (Thurston 1888).

Anura

Bufonidae

2. Common Toad *Duttaphrynus melanostictus* (Schneider, 1799)

Material: SACON/VA-2a–c three from Nilgiris, SACON/VA-2d one from Topslip, SACON/VA-2e one from Meghamalai, SACON/VA-2f–h three from unknown locality

Comments: Frost et al. (2006) erected the genus *Duttaphrynus* for this species (type species). Wogan et al. (2016) reported distinct phylogenetic structures in multiple distant populations of this species, after sampling in the eastern parts of its range.

3. Dwarf Toad *Duttaphrynus scaber* (Schneider, 1799)

Material: SACON/VA-3a–b two from Tirunelveli, SACON/VA-3c one from Coimbatore, SACON/VA-3d–j seven from Madurai, SACON/VA-3k–l two from

Srivilliputhur

Comments: Frost et al. (2006) did not include this species in the genus *Bufo* and its generic allocation stood unresolved until Bocxlaer et al. (2009) worked on its taxonomy and gave the current name combination.

4. Marbled Toad *Duttaphrynus stomaticus* (Lütken, 1864)

Material: SACON/VA-4a–c three from Tuticorin, SACON/VA-4d one from Coimbatore, SACON/VA-4e–g three from Srivilliputhur

Comments: For remarks on generic allocation, see comments for the above species.

Microhylidae

5. Triangle-spotted Frog *Uperodon triangularis* (Günther, 1876)

Material: SACON/VA-5 one from Srivilliputhur

Comments: This species was previously classified in the genus *Ramanella*, now synonymized under *Uperodon* by Peloso et al. (2016). Endemic to Western Ghats (Garg et al. 2018a).

6. Marbled Balloon Frog *Uperodon systoma* (Schneider, 1799)

Material: SACON/VA-6a one from Anaikatti, SACON/VA-6b one from Chinnamanur, SACON/VA-6c, one from Gadag

Comments: Garg et al. (2018a) redescribed this species based on the syntypes.

7. Painted Frog *Uperodon taprobanicus* (Parker, 1934)

Material: SACON/VA-7 one from Anaikatti

Comments: Peloso et al. (2016) worked on the generic taxonomy and allocated this species to the strictly southern Asian genus *Uperodon*.

8. Red Small-mouthed Frog *Microhyla rubra* (Jerdon, 1853)

Material: SACON/VA-8a–b two from Anaikatti, SACON/VA-8c one from Gadag

Comments: Wijayathilaka et al. (2016) redescribed this species and restricted it to populations from India, whilst recognizing the Sri Lankan population as a new species *Microhyla mihintalei*.

9. Ornate Small-mouthed Frog *Microhyla ornata* (Duméril & Bibron, 1841)

Material: SACON/VA-9 one from Anaikatti

Comments: This species complex was recently revised by Garg et al. (2018b) and populations from parts of India was recognized as a different species (see below).

10. Nilphamari Small-mouthed Frog *Microhyla*

nilphamariensis Howlader, Nair, Gopalan & Merilä, 2015

Material: SACON/VA-10a–b two from Gadag

Comments: Though originally described from Bangladesh, recent genetic studies revealed populations from parts of Indian peninsula to be conspecific to this species (Garg et al. 2019).

Ranidae

11. Bi-coloured Frog *Clinotarsus curtipes* (Jerdon, 1853)

Material: SACON/VA-11 one from Meghamalai

Comments: This species has not been recorded from Meghamalai so far (Chandramouli & Ganesh 2010; Srinivas & Bhupathy 2013; Chaitanya et al. 2019).

Ranixalidae

12. Short-handed Leaping Frog *Indirana brachytarsus* (Günther, 1876)

Material: SACON/VA-12 one from Srivilliputhur

Comment: Inger et al. (1984) resurrected it from the synonymy of *I. beddomei*, as a valid species endemic to southern Western Ghats.

13. Beddome's Leaping Frog *Indirana beddomii* (Günther, 1876)

Material: SACON/VA-13 one from Ooty

Comment: Dahanukar et al. (2016) redescribed this taxon and restricted the species to populations in the Nilgiri-Wayanad.

Micrixalidae

14. Beautiful Dancing Frog *Micrixalus adonis* Biju, Garg, Gururaja, Shouche & Walujkar, 2014

Material: SACON/VA-14a–b two from Meghamalai

Comment: Biju et al. (2014) revised *M. fuscus* (Boulenger, 1882), restricted it to populations south of Shencottah Gap and described northerly populations from Cardamom hills as a distinct species *Micrixalus adonis*.

Dicroglossidae

15. Paddy Field Frog *Minervarya agricola* (Jerdon, 1853)

Material: SACON/VA-15a one from Anaikatti, SACON/VA-15b one from Gadag

Comment: Ganesh et al. (2017) designated a neotype to this nomen and resurrected this species from the synonymy of the catch-all taxon *Fejervarya limnocharis* (Gravenhorst, 1829). Chandramouli et al. (2019) synonymised *Minervarya granosa* (Kuramoto, Joshy, Kurabayashi & Sumida, 2008) with *Minervarya*

agricola based on genetic studies.

16. Nilgiri Cricket Frog *Minervarya nilagirica* (Jerdon, 1853)

Material: SACON/VA-16a–c three from Nilgiris

Comment: Dubois (1984) resurrected this species from the synonymy of “*Rana limnocharis*” and designated a neotype from Ooty, where it is endemic to upper Nilgiris, Tamil Nadu.

17. Kalinga Cricket Frog *Minervarya cf. kalinga* (Raj, Dinesh, Das, Dutta, Kar & Mohapatra, 2018)

Material: SACON/VA-17 one from Araku Hills

Comments: Raj et al. (2018) described this new species from northern Eastern Ghats, from Odisha State. Populations from further south of these ranges, in Andhra Pradesh state requires further confirmation.

18. Kerala Cricket Frog *Minervarya keralensis* (Dubois, 1981)

Material: SACON/VA-18a one from Anamalai, SACON/VA-18b–c two from Topslip, SACON/VA-18d–k eight from Meghamalai

Comments: Generic allocation follows Sanchez et al. (2018). Endemic to Western Ghats.

19. Western Pond Frog *Euphlyctis cf. mudigere* Joshy, Alam, Kurabayashi, Sumida & Kuramoto, 2009

Material: SACON/VA-19a–b two from Meghamalai

Comments: Khajeh et al. (2014) reported the undocumented presence of many candidate species within the nominal taxon *E. cyanophlyctis* from many southern Asian countries and suggested that populations from parts of southern India and Sri Lanka are not *E. cyanophlyctis*, but referable to *E. mudigere*. We, however, opine that at least one sample from Adyar in Mangalore, was misrepresented as Adyar in Madras, on the eastern coast.

20. Jerdon’s Burrowing Frog *Sphaerotheca pluvialis* (Jerdon, 1853)

Material: SACON/VA-20 one from Araku Hills

Comments: Dutta (1986) provided precise records of *S. dobsonii* group taxa from eastern peninsular India that have later come to be called as *S. pluvialis* (see Dahanukar et al. 2017).

21. Indian Burrowing Frog *Sphaerotheca breviceps* (Schneider, 1799)

Material: SACON/VA-21a–b two from Anaikatti

Comments: Dahanukar et al. (2017) provided a refined definition of the taxon *S. breviceps*, restricting it to parts of eastern peninsular India, in the lowlands.

22. Western Burrowing Frog *Sphaerotheca pashchima* Padhye, Dahanukar, Sulakhe, Dandekar,

Limaye & Jamdade, 2017

Material: SACON/VA-22a–c three from Gadag

Comments: Padhye et al. (2017) recognized the western peninsular or the Deccan Plateau upland populations as a new species, *S. pashchima*.

Rhacophoridae

23. Malabar Flying Frog *Rhacophorus malabaricus* Jerdon, 1870

Material: SACON/VA-23a one from Anamalai, SACON/VA-23b one from Srivilliputhur

Comments: Biju et al. (2013) redescribed and clarified its name-bearing type and provided a summary of previous literature sightings / reports of this species.

24. Variable Ghat Tree Frog *Ghatixalus variabilis* (Jerdon, 1853)

Material: SACON/VA-24 one from Ooty

Comments: Biju et al. (2008) erected the genus *Ghatixalus*, for this species (as *Polypedates variabilis* Jerdon, 1853) and restricted its concept to populations inhabiting Nilgiri Hills.

25. Tinkling Bush Frog *Raorchestes tinniensi* (Jerdon, 1853)

Material: SACON/VA-25a–l 12 from Ooty

Comments: Vijayakumar et al. (2014) refined the definition of *R. tinniensi*, after describing a related new species, *R. primarrumpffi*, also from upper Nilgiris.

26. Nilgiri Bush Frog *Raorchestes signatus* (Boulenger, 1882)

Material: SACON/VA-26a–e five from Ooty

Comments: Zachariah et al. (2011) described a new species *R. thodai*, from the upper Nilgiris, and it is reported to be closely resembling *R. signatus* and a proper clarification of its status is yet awaited (see Vijayakumar et al. 2014).

27. Sacred Grove Bush Frog *Raorchestes sanctisilvaticus* (Das & Chanda, 1997)

Material: SACON/VA-27 one from Araku Hills

Comments: Mirza et al. (2019) redefined this species (previously considered to be endemic to Jabalpur Hills) as his molecular revision proved the conspecificity of two nominate taxa *Philautus terebrans* and *P. simlipalensis* from parts of northern Eastern Ghats.

28. Beddome’s Bush Frog *Raorchestes beddomii* (Günther, 1876)

Material: SACON/VA-28 one from Meghamalai

29. Waynad Bush Frog *Pseudophilautus wynaadensis* (Jerdon, 1853)

Material: SACON/VA-29a one from Topslip, SACON/

VA-29b one from Coonoor, SACON/VA-29c one from Anaimalai

Comments: Gopalan et al. (2016) reported cryptic genetic diversity in populations south of Palghat Gap, by examining populations from Waynad, Idukki, and Ponmudi clusters.

Reptilia

Sauria

Gekkonidae

30. Nilgiri Day Gecko *Cnemaspis indica* Gray, 1846
Material: SACON/VR-1a–d four from Ooty

Comments: Manamendra-Arachchi et al. (2007) redescribed its name-bearing type and clarified its taxonomy as a species endemic to upper Nilgiris and ranges just northwards.

31. Slender Day Gecko *Cnemaspis* cf. *gracilis* (Beddome, 1870)

Material: SACON/VR-2a–c three from Anaikatti, SACON/VR-2d–e two from Srivilliputhur, SACON/VR-2f one from Agasthyamalai

Comments: Manamendra-Arachchi et al. (2007) redescribed the name-bearing type and clarified the systematics of this species, an inhabitant of Palghat-Anaimalai region.

32. Araku Slender Gecko *Hemiphyllodactylus arakuensis* Agarwal, Khandekar, Giri, Ramakrishnan & Karanth, 2019

Material: SACON/VR-3 one from Araku Hills

Comments: Agarwal et al. (2019) described the Araku Hills endemic population in parts of northern Eastern Ghats, as this new species.

33. Clouded Ground Gecko *Cyrtodactylus* cf. *nebulosus* (Beddome, 1870)

Material: SACON/VR-4 one from Araku Hills

Comments: Agarwal & Karanth (2014) showed through their molecular studies that this taxon and its congeners of '*Geckoella*' are in fact nested within the genus *Cyrtodactylus*.

34. Erode Ground Gecko *Cyrtodactylus speciosus* (Beddome, 1870)

Material: SACON/VR-5a–b two from Anaikatti

Comments: This species was recently redescribed and its taxonomy was clarified after elevating it to a species status whilst describing a related, new species from western India (Agarwal et al. 2016).

35. Bark Gecko *Hemidactylus leschenaultii* Duméril & Bibron, 1836

Material: SACON/VR-6a–b two from Anaikatti, SACON/VR-6c one from Srivilliputhur, SACON/VR-6d one from Top Slip

36. House Gecko *Hemidactylus frenatus* Duméril & Bibron, 1836

Material: SACON/VR-7 one from Araku hills

37. Vanam Rock Gecko *Hemidactylus vanam* Chaitanya, Lajmi & Giri 2018

Material: SACON/VR-8a–c three from Srivilliputhur

Comments: This population closely matches with the topotypic specimens from High Wavy Mountains that was described as a new species (Chaitanya et al. 2018).

38. Murray's Gecko *Hemidactylus murrayi* Gleadow, 1887

Material: SACON/VR-9a–d four from Gadag

Comments: This species was resurrected recently, for a predominantly wet zone populations of southern and southeastern Asia (Lajmi et al. 2016).

39. Gleadow's Gecko *Hemidactylus* cf. *gleadowi* Murray, 1884

Material: SACON/VR-10a–c three from Gadag

Comments: Mahony (2011) resurrected this nominate taxon after a taxonomic revision of *Hemidactylus brookii* complex.

40. Spotted House Gecko *Hemidactylus parvimaculatus* Deraniyagala, 1953

Material: SACON/VR-11a–b two from Pondicherry

Comments: This species, once thought to be found only in Sri Lanka and Kerala, was later proved to be widespread throughout much of southeastern India, till Bengal (Lajmi et al. 2016).

41. Whitaker's Gecko *Hemidactylus whitakeri* Mirza, Gowande, Patil, Ambekar & Patel, 2018

Material: SACON/VR-12a–b two from Gadag

Comments: This recently described cryptic species inhabiting the uplands of Mysore Plateau, was long misunderstood to belong to *H. triedrus* (see Mirza et al. 2018).

Agamidae

42. Western Ghats Flying Lizard *Draco dussumierii* Duméril & Bibron, 1837

Material: SACON/VR-12a–c three from Agasthyamalai, SACON/VR-12d one from Meghamalai, SACON/VR-12e–f two from Anaimalai, SACON/VR-12g one from Top Slip

43. Visiri Fan-throated Lizard *Sitana visiri* Deepak, 2016

Material: SACON/VR-13 one from Srivilliputhur

Comments: The southerly populations of fan-throated lizard were found to belong to a different species after a recent study (Deepak et al. 2016).

44. Pondicherry Fan-throated Lizard *Sitana*

ponticeriana Cuvier, 1829

Material: SACON/VR-14 two from Sriharikota

45. Unidentified Fan-throated Lizard **Sitana** sp.

Material: SACON/VR-16a–e five from Gadag

Comments: This population was discerned, characterized, and is undergoing a taxonomic treatment (Deepak & Karanth 2018).

46. Green Forest Lizard **Calotes calotes** (Linnaeus, 1758)

Material: SACON/VR-17a one from Srivilliputhur, SACON/VR-17b one from Meghamalai, SACON/VR-17c–d two from Anaikatti

47. Indian Garden Lizard **Calotes versicolor** (Daudin, 1802)

Material: SACON/VR-18a–b two from Anaikatti, SACON/VR-18c–d two from Maharashtra, SACON/VR-18e–g three from Araku Hills

48. Large-scaled Forest Lizard **Calotes grandisquamis** Günther, 1875

Material: SACON/VR-19a one from Meghamalai, SACON/VR-19b one from Srivilliputhur

Comments: An uncommon endemic species of agamid from the Western Ghats.

49. Nilgiri Forest Lizard **Calotes nemoricola** Jerdon, 1853

Material: SACON/VR-20 one from Agasthyamalai

Comments: An uncommon endemic species of agamid from the Western Ghats.

50. Spiny-headed Lizard **Monilesaurus acanthocephalus** Pal, Vijayakumar, Shankar, Jayraj & Deepak, 2018

Material: SACON/VR-21a–b two from Meghamalai

Comments: This species was recently described as a distinct species, a point-endemic, found only in Meghamalai Hills (Pal et al. 2018).

51. Elliot's Forest Lizard **Monilesaurus ellioti** (Günther, 1864)

Material: SACON/VR-22a–b two from Agasthyamalai, SACON/VR-22c one from Top Slip

Comments: This species was recently reallocated to a newly described endemic genus inhabiting lower elevation forest of the Western Ghats (Pal et al. 2018).

52. Roux's Forest Lizard **Monilesaurus rouxii** (Duméril & Bibron, 1837)

Material: SACON/VR-23a–c three from Nilgiris

Comments: This species was recently reallocated to a newly described endemic genus inhabiting parts of Western and Eastern Ghats and hills in the Deccan (Pal et al. 2018).

53. Anamalai Spiny Lizard **Salea anamallayana**

(Beddome, 1878)

Material: SACON/VR-24a–b two from Anamalai, SACON/VR-24c one from Meghamalai.

Comment: A range-restricted species endemic to Anamalai, Palnis and Meghamalai hills (Srinivas et al. 2008).

54. Nilgiri Spiny Lizard **Salea horsfieldii** Gray, 1845

Material: SACON/VR-25 one from Ooty, Nilgiris

Comment: An endemic species found only in upper Nilgiris (Bhupathy & Nixon 2011).

55. Blandford's Rock Agama **Psammophilus cf. blanfordanus** (Stoliczka, 1871)

Material: SACON/VR-26a–h eight from Araku, SACON/VR-26i–q nine from Vizag Ghats

Comments: This species is most likely restricted to central and eastern peninsular India, as postulated by Pal et al. (2018).

56. Southern Rock Agama **Psammophilus dorsalis** (Gray in Griffith & Pidgeon, 1831)

Material: SACON/VR-27a–e five from Srivilliputhur, SACON/VR-27f–k six from Kolli hills, SACON/VR-27l–r seven from Nagercoil

Comments: This is a species complex pending revision (Pal et al. 2018).

Chamelionidae

57. Southern Asian Chameleon **Chamaeleo zeylanicus** Laurenti, 1768

Material: SACON/VR-28a–d four from Anaikatti.

Varanidae

58. Indian Monitor Lizard **Varanus bengalensis** (Daudin, 1802)

Material: SACON/VR-30 one from Anaikatti.

Mabuyidae

59. Keeled Skink **Eutropis carinata** (Schneider, 1801)

Material: SACON/VR-31a–f six from Anaikatti, SACON/VR-31g one from Araku, SACON/VR-31h–i two from Meghamalai, SACON/VR-31j one from Gadag.

60. Bronze Skink **Eutropis cf. macularia** (Blyth, 1853)

Material: SACON/VR-32a–b two from Anaikatti, SACON/VR-32c–d two from Meghamalai, SACON/VR-32e–f two from Agasthyamalai, SACON/VR-32g one from Gadag.

Comments: This is a species complex pending revision (Datta-Roy et al. 2012).

61. Beddome's Skink **Eutropis beddomei** (Jerdon,

1870)

Material: SACON/VR-33a-d four from Araku hills, SACON/VR-33e one from Anaikatti.

Comments: This species has recently been redescribed (Amarasinghe et al. 2016a).

62. Ponmudi Skink *Eutropis clivicola* (Inger, Shaffer, Koshy & Bakde, 1984)

Material: SACON/VR-34 one from Agasthyamalai.

63. Bibron's Sand Skink *Eutropis bibronii* (Gray, 1839)

Material: SACON/VR-35a one from Sriharikota, SACON/VR-35b-d three from Tuticorin, SACON/VR-35e-h four from Pondicherry.

Comments: This species has recently been redescribed (Amarasinghe et al. 2016b). Chandramouli et al. (2012) reported an inland record from Eastern Ghats and its status is under investigation.

Lygosomidae

64. Spotted Snake Skink *Riopa punctata* (Linnaeus, 1758)

Material: SACON/VR-36a-b two from Araku hills, SACON/VR-36c one from Gadag

Comments: Bauer (2003) clarified some long-standing problems with the identity and authorship of this nomen. Generic assignment follows Freitas et al. (2019).

65. White-spotted Skink *Riopa albopunctata* (Gray, 1846)

Material: SACON/VR-37a-b two from Anaikatti, SACON/VR-37c one from Sriharikota, SACON/VR-37d one from Pondicherry.

Comments: Ganesh (2017) clarified its taxonomy and redescribed topotypical specimens from Madras. Generic assignment and taxonomy follows Freitas et al. (2019).

66. Günther's Supple Skink *Riopa guentheri* (Peters, 1879)

Material: SACON/VR-38 one from Gadag.

Comments: Javed et al. (2010) provided a distribution summary of this species, with a new record from Nallamalai Hills, Eastern Ghats.

Sphenomorphidae

67. Dussumier's Skink *Sphenomorphus dussumierii* (Duméril & Bibron, 1839)

Material: SACON/VR-39 one from Agasthyamalai.

Comment: A species endemic to the Western Ghats (Das, 2002).

68. Side-spotted Skink *Kaestlea laterimaculata* (Boulenger, 1887)

Material: SACON/VR-40a-b two from Meghamalai.

Comments: This species was recorded from High Wavy Mountains by Chandramouli & Ganesh (2010); but see Chaitanya et al. (2019).

69. Twin-striped Skink *Kaestlea bilineata* (Gray, 1846)

Material: SACON/VR-41 one from Ooty.

Comments: This is a fairly common species in this region (Bhupathy & Nixon 2011).

Lacertidae

70. Blinking Lacertid *Ophisops nictans* Arnold, 1989

Material: SACON/VR-42a-c three from Gadag, SACON/VR-42d-f three from Chitradurga.

Serpentes

Typhlopidae

71. Unidentified worm snake *Indotyphlops* sp.

Material: SACON/VR-43a-g seven from unknown localities.

Comments: Hedges et al. (2014) erected the genus *Indotyphlops* for a group of primarily southern Asian worm snakes.

Uropeltidae

72. Spotted Shieldtail *Melanophidium punctatum* Beddome, 1871

Material: SACON/VR-44 one from Anamalai.

Comments: Gower et al. (2016) redefined this species after recognizing the northerly population as a new species – *M. khairei* Gower, Giri, Captain & Wilkinson, 2016.

73. Perrotet's Shieldtail *Plectrurus perroteti* Duméril & Bibron in Duméril & Duméril, 1851

Material: SACON/VR-45a-e five from Ooty

Comments: This species is known only from upper Nilgiris and other records from elsewhere have been doubted (Pyrone et al. 2016).

74. Bloody Shieldtail *Teretrurus sanguineus* (Beddome, 1867)

Material: SACON/VR-46 one from Anamalai

Comments: This is a species complex pending taxonomic revision (Pyrone et al. 2016).

75. Shortt's Shieldtail *Uropeltis* cf. *shorttii* (Beddome, 1863)

Material: SACON/VR-47 one from Anamalai.

Comments: This is currently under taxonomic investigation (in prep).

76. Bhupathy's Shieldtail *Uropeltis bhupathyi* Jins, Sampaio & Gower, 2018

Material: SACON/VR-48a-o 15 from Anaikatti

Comments: This new species is apparently known only from this single location (Jins et al. 2018).

77. Kerala Shieldtail *Uropeltis cf. ceylanica* Cuvier, 1829

Material: SACON/VR-49 one from Anamalai.

Comments: This is a species complex pending taxonomic revision (Pyrone et al. 2016)

78. Elliot's Shieldtail *Uropeltis ellioti* (Gray, 1858)

Material: SACON/VR-50 one from Shevaroy.

Comments: This is a species complex pending taxonomic revision (Whitaker & Captain 2004; Pyrone et al. 2016).

79. Ocellated Shieldtail *Uropeltis cf. ocellata* (Beddome, 1863)

Material: SACON/VR-51 one from Anamalai.

Comments: This species complex is currently under taxonomic investigation (Pyrone et al. 2016).

80. Palni Shieldtail *Uropeltis pulneyensis* (Beddome, 1863)

Material: SACON/VR-52 one from Parambikulam Tiger Reserve.

Comments: This species is endemic to hills between Palghat and Shencottah gaps (Pyrone et al. 2016).

Pythonidae

81. Indian python *Python molurus* (Linnaeus, 1758)

Material: SACON/VR-53 one from Anaikatti (roadkill, juvenile).

Erycidae

82. Common Sand Boa *Eryx conicus* (Schneider, 1801)

Material: SACON/VR-54 one from Anaikatti.

Comments: Pyrone et al. (2014) revised the taxonomy of this and related species.

83. Red Sand Boa *Eryx johnii* (Russell, 1801)

Material: SACON/VR-55 one from Anaikatti.

Viperidae

84. Russell's Viper *Daboia russelii* (Shaw & Nodder, 1797)

Material: SACON/VR-56a–d four from Anaikatti.

85. Saw-scaled Viper *Echis carinatus* (Schneider, 1801)

Material: SACON/VR-57a–c three from Anaikatti, SACON/VR-57d one from Srivilliputhur, SACON/VR-57e one from Chinnamanur.

86. Hump-nosed Pitviper *Hypnale hypnale* (Merrem, 1820)

Material: SACON/VR-58a–c three from Meghamalai, SACON/VR-58d one from Anamalai, SACON/VR-58e

one from Nilgiris.

87. Horse-shoe Pitviper *Trimeresurus strigatus* Gray, 1842

Material: SACON/VR-59 one from Ooty (damaged).

Comment: This endemic species occurs in upper Nilgiris (Bhupathy & Nixon 2011).

88. Bamboo Pitviper *Trimeresurus gramineus* (Shaw, 1802)

Material: SACON/VR-60a–b two from Anaikatti, SACON/VR-60c one from Meghamalai.

89. Large-scaled Pitviper *Trimeresurus macrolepis* Beddome, 1862

Material: SACON/VR-61a–b two from Meghamalai, SACON/VR-61c–d two from Anamalai.

Comment: This species is endemic to southern Western Ghats (Chandramouli & Ganesh 2010).

Elapidae

90. Indian Krait *Bungarus caeruleus* (Schneider, 1801)

Material: SACON/VR-62a–b two from Anaikatti, SACON/VR-62c one from Chinnamanur.

91. Spectacled Cobra *Naja naja* (Linnaeus, 1758)

Material: SACON/VR-63a–b two from Anaikatti.

92. Five-striped Coral Snake *Calliophis nigrescens pentalineatus* Beddome, 1871

Material: SACON/VR-64a one from Anamalai, SACON/VR-64b one from Meghamalai, SACON/VR-64c one from Agasthyamalai.

Comments: This taxon is endemic to parts of southern Western Ghats (Chandramouli & Ganesh 2010).

Pareidae

93. Perrotet's Wood Snake *Xylophis perroteti* (Duméril, Bibron & Duméril, 1854)

Material: SACON/VR-65a–c three from Ooty.

Comments: This endemic species is found to upper Nilgiris (Bhupathy & Nixon 2011).

Natricinae

94. Checkered Keelback *Fowlea piscator* (Schneider, 1799)

Material: SACON/VR-66a–b two from Anamalai, SACON/VR-66c one from unknown locality, SACON/VR-66d from Agasthyamalai (with a complete collar mark).

Comments: Generic allocation follows Purkayastha et al. (2018).

95. Olive Keelback *Atretium schistosum* (Daudin, 1803)

Material: SACON/VR-67a–b two from Anaikatti

96. Green Keelback *Rhabdophis plumbicolor* (Cantor, 1839)

Material: SACON/VR-68a–c three from Anaikatti, SACON/VR-68d–e two from Ooty, SACON/VR-68f one from Meghamalai.

Comments: Takeuchi et al. (2018) reconstructed a phylogeny of Asian keelbacks and effected this genus transfer.

97. Striped Keelback *Amphiesma stolatum* (Linnaeus, 1758)

Material: SACON/VR-69a–b two from Meghamalai.

Comments: Guo et al. (2014) split the genus *Amphiesma* into many genera, and this genus is now retained solely for *A. stolatum*.

98. Beddome's Keelback *Hebius beddomei* (Günther, 1864)

Material: SACON/VR-70a–c three from Nilgiris, SACON/VR-70d–e two from Top Slip, SACON/VR-70f–h three from Meghamalai, SACON/VR-70i one from Agasthyamalai.

Comments: Guo et al. (2014) effected this provisional genus transfer to *Hebius*. This Western Ghats-endemic species has not yet been represented in molecular phylogeny.

99. Hill Keelback *Hebius monticola* (Jerdon, 1853)

Material: SACON/VR-71a one from Top Slip, SACON/VR-71b–c two from Meghamalai.

Comments: Guo et al. (2014) effected this provisional genus transfer to *Hebius*. This Western Ghats-endemic species has not yet been represented in molecular phylogeny.

Colubridae

100. Indian Cat Snake *Boiga trigonata* (Schneider, 1802)

Material: SACON/VR-72a one from Anaikatti, SACON/VR-72b one from Srivilliputhur

101. Collared Cat Snake *Boiga nuchalis* (Günther, 1875)

Material: SACON/VR-73a–b two from Meghamalai, SACON/VR-73c one from Anamalai, SACON/VR-73b one from Ooty.

Comments: This species is endemic to hills of southwestern India and is absent in the northern ranges including the Himalaya (Ganesh et al. 2020a).

102. Yellow-green Cat Snake *Boiga flaviviridis* Vogel & Ganesh, 2013

Material: SACON/VR-74a–b two from Anaikatti, SACON/VR-74c one from Tirunelveli, SACON/VR-74d–e two from Chinnamanur.

Comments: Chaitanya et al. (2019) referred this

population from Meghamalai as '*B. beddomei*' but they belong to *B. flaviviridis* (see Vogel & Ganesh 2013).

103. Thakeray's Cat Snake *Boiga cf. thackerayi* Giri, Deepak, Captain, Pawar & Tillak, 2019

Material: SACON/VR-75a one from Meghamalai, SACON/VR-75b one from Anamalai.

Comments: Recently, a new species was described from northern Western Ghats (Giri et al. 2019). This and nearby population is under taxonomic revision (Ganesh et al. 2020a).

104. Common Vine Snake *Ahaetulla cf. nasuta* (Lacepede, 1789)

Material: SACON/VR-76a one from Top Slip, SACON/VR-76b one from Meghamalai.

Comments: This species is in need of a taxonomic revision (Mallik et al. 2019).

105. Brown Vine Snake *Ahaetulla cf. pulverulenta* (Duméril, Bibron & Duméril, 1854)

Material: SACON/VR-77 one from Meghamalai.

Comments: This species is in need of a taxonomic revision (Mallik et al. 2019).

106. Variable Vine Snake *Ahaetulla cf. anomala* (Annandale, 1906)

Material: SACON/VR-78a–b two from Anaikatti.

Comments: Many Indian congeners are undergoing a revision (Mallik et al. 2019). This taxon was recently revived and redescribed (Mohapatra et al. 2017).

107. Günther's Vine Snake *Ahaetulla dispar* (Günther, 1864)

Material: SACON/VR-79a one from Meghamalai, SACON/VR-79b one from Anamalai.

Comments: Endemic to Southern Western Ghats (Chandramouli & Ganesh 2010).

108. Perrotet's Vine Snake *Ahaetulla perrotetii* (Duméril, Bibron & Duméril, 1854)

Material: SACON/VR-80 one from Ooty.

Comments: Endemic to upper Nilgiris. Detailed information on biology and taxonomy of this species was recently presented by Ganesh & Chandramouli (2011).

109. Giri's Bronzeback *Dendrelaphis girii* Vogel & van Rooijen, 2011

Material: SACON/VR-81 one from Meghamalai.

Comments: This Western Ghats-endemic species was recently described as a vicar of *D. bifrenalis* from Sri Lanka (Vogel & Van Rooijen 2011).

110. Indian Bronzeback *Dendrelaphis tristis* (Daudin, 1803)

Material: SACON/VR-82a–b two from Anaikatti, SACON/VR-82c one from Chinnamanur.

111. Rat Snake *Ptyas mucosa* (Linnaeus, 1758)
Material: SACON/VR-83 one from Meghamalai.
112. Indian Trinket Snake *Coelognathus helena helena* (Daudin, 1803)
Material: SACON/VR-84a–b two from Anaikatti
113. Montane Trinket Snake *Coelognathus helena monticollaris* (Schulz, 1992)
Material: SACON/VR-85a–c three from Anaikatti, SACON/VR-85d one from Anamalai, SACON/VR-85e–g three from Meghamalai.
Comments: These populations resemble the southern Western Ghats morphotype as postulated by Mohapatra et al. (2016).
114. Banded Racer *Argyrogena fasciolata* (Shaw, 1802)
Material: SACON/VR-86a–c three from Anaikatti.
Comments: The distribution of this species in southern India was recently clarified (Janani et al. 2019) and there is a need to further assess the status of this taxon.
115. Indian Reed Snake *Liopeltis calamaria* (Günther, 1858)
Material: SACON/VR-87a–b two from Araku hills, SACON/VR-87c–e three from Anaikatti, SACON/VR-87f–g two from Anamalai, SACON/VR-87h one from Agasthyamalai.
Comments: This species was recently redescribed, including its constituent subspecies (Amarasinghe et al. 2020). The status of the Western Ghats populations are again being worked upon (in prep.).
116. Banded Kukri *Oligodon arnensis* (Shaw, 1802)
Material: SACON/VR-88a–b two from Anaikatti.
117. Black-spotted Kukri *Oligodon cf. venustus* (Jerdon, 1853)
Material: SACON/VR-89 one from Meghamalai
118. Streaked Kukri Snake *Oligodon taeniolatus* (Jerdon, 1853)
Material: SACON/VR-90a–d four from Anaikatti, SACON/VR-90e–g three from Srivilliputhur, SACON/VR-90h–i two from Araku Hills, SACON/VR-90j–k two from Anamalai, SACON/VR-90l one from Ooty.
119. Black-headed Snake *Sibynophis subpunctatus* (Duméril, Bibron & Duméril, 1854)
Material: SACON/VR-91a–c three from Anaikatti, SACON/VR-91d–e two from Srivilliputhur, SACON/VR-91f–g two from Chinnamanur.
120. Indian Bridal Snake *Dryocalamus nympha* (Daudin, 1803)
Material: SACON/VR-92a–b two from Anaikatti, SACON/VR-92a one from Tirunelveli
121. Unidentified Wolf Snake *Lycodon* sp.

Material: SACON/VR-93 from Anaikatti, damaged specimen.

Comments: The taxonomic status of this population is currently under study (in prep.).

122. Common Wolf Snake *Lycodon aulicus* (Linnaeus, 1758)

Material: SACON/VR-94a–c three from Anaikatti, SACON/VR-94d one from Anamalai.

Comments: This species was recently re-characterized by Ganesh & Vogel (2018).

123. Slender Wolf Snake *Lycodon anamallensis* Günther, 1864

Material: SACON/VR-95a–b two from Anaikatti, SACON/VR-95c one from Chinnamanur.

Comments: Ganesh & Vogel (2018) clarified the taxonomy and nomenclature of this taxon and synonymized the Sri Lankan taxon *L. osmanhilli* under this nomen.

124. Barred Wolf Snake *Lycodon striatus* (Shaw, 1802)

Material: SACON/VR-96 one from Chinnamanur

125. Travancore Wolf Snake *Lycodon travancoricus* (Beddome, 1870)

Material: SACON/VR-97 one from Meghamalai.

Comments: This species has sometimes been confused with other sympatric congeners and was recently redescribed to clarify the status (Ganesh et al. 2020b).

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