

## The Herpetofauna of Nallamala Hills, Eastern Ghats, India: An Annotated Checklist, With Remarks on Nomenclature, Taxonomy, Habitat Use, Adaptive Types and Biogeography

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**Abstract.**— We present an inventory of the herpetofauna of the Nallamala Hills, Eastern Ghats, south-eastern India. The fauna, as currently known, includes 20 species of amphibians belonging to 14 genera in six families and 64 species of reptiles belonging to 42 genera in 15 families. Divided in habitat types, the herpetofauna can be classified into species tolerant of disturbed habitats; exclusively scrub species (and for reptiles, from rocky biotopes); scrub and bordering agricultural fields; and exclusively mesic forest species. For one species, lack of ecological information precludes its allocation to a specific habitat category. Significant diversity of squamates (including gekkonids, scincids, and colubrids) are known from these ranges, several of which endemic or largely restricted to scrub forests of Peninsular India. Mesic forests remain poorly explored, and support hitherto undescribed species among the herpetofauna. Adaptations seen amongst the herpetofauna of the Nallamala Hills include a diversity of dietary and habitat types, including, among amphibians, ant specialists; predators of small vertebrates; folivores; fossorial; terrestrial; aquatic or aquatic-margin; and arboreal forms. Amongst reptiles, adaptive types includes ant- and worm-eaters; predator of crop pests; predator of small or medium-sized vertebrate prey; egg-predators; fish-eaters; frog- and toad-eaters; and one near-exclusive snake-eater. In terms of habitat usage, reptiles exceed amphibians in species richness, on account of their greater capacity of surviving in relatively arid regions.

The Eastern Ghats contributes significantly to both species richness and endemism of the Indian region, including representatives of endemic genera and species. Nonetheless, these hills continue to receive less attention for conservation compared to the relatively better-known Western Ghats.

**Keywords.**— Amphibians, reptiles, biodiversity, ecology, Nallamala Hills, Eastern Ghats, India.

### Introduction

Nallamala Hills (14° 26' – 16° 31' N and 78° 30' – 80° 10' E) are a group of low hill ranges with an average altitude of ca. 500 m in the central Eastern Ghats complex in the state of Andhra Pradesh, south-eastern India (Fig. 1). From the Palnad Basin in the north to the Tirupati Basin in the south, the Nallamala Hills runs for a distance of ca. 430 km with an average width of 30 km (Anon, 1965; Srinivasulu and Nagulu, 2002). An unbroken chain of rugged hills with precipitous cliffs covering an area of ca. 7,640 km<sup>2</sup>, it encompasses six districts (Nalgonda, Mahbubnagar, Kurnool, Cuddapah, Prakasam and Guntur) in Andhra Pradesh State. Running parallel to it in the south-eastern side is the Balapalli and Palakonda Ranges, while on the western side, towards the north, are the Erramala Range. The vegetation is typically of the southern tropical dry deciduous and southern tropical moist deciduous forest types intermingled with scrub (Champion and Seth, 1968), although the Nallamalals show representatives of many

vegetation types known from the Eastern Ghats, including dry deciduous, moist deciduous, dry evergreen, riverine and scrub forest (see R. K. Rao, 1998; R. S. Rao, 1998). Dry deciduous forests are dominant. Common species found here include *Antidesma acidum*, *Canthium parviflorum*, *Cerisoides turgida*, *Cissus pallida*, *Cochlospermum religiosum*, *Colebrookea oppositifolia*, *Dalbergia lanceolaris*, *Dalbergia paniculatum*, *Diospyros melanoxylon*, *Ehretia laevis*, *Lagerstroemia parviflora*, *Pterocarpus marsupium*, *Syzygium alternifolium*, and *Tamilnadia uliginosa*. A forest type with *Boswellia serrata* and *Chloroxylon swietenia* as the dominant species occurs near Chalama, a *Terminalia coriacea* and *Anogeisus latifolia* type occur in eastern Nallamala, a *Phoenix* type with *Phoenix loureivie* as the dominant species forming a pure stand on rocky substrata occur between Ramannapenta and Gundla Brahmeshwaram Metta Wildlife Sanctuary (GBM). Moist deciduous forests are restricted to sheltered sites with high rainfall such as GBM, upper Ahobilam and Iskagundam; common species include: *Careya arborea*,