

REPTILE DIVERSITY IN BERALIYA MUKALANA PROPOSED FOREST RESERVE, GALLE DISTRICT, SRI LANKA

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Abstract

Beraliya Mukalana Proposed Forest Reserve (BMPFR) is a fragmented lowland rainforest patch in Galle District, Sri Lanka. During our two-year survey we recorded a total of 66 species of reptile (28 Lizards, 36 Snakes and 2 Tortoises), which represents 31.4 % of the total Sri Lankan reptile fauna. Thirty-five of the species are endemic to Sri Lanka. Of the recorded 66 species, 1 species is Critically Endangered, 3 are Endangered, 6 are Vulnerable, 14 are Near-threatened and 4 are Data-deficient. This important forest area is threatened by harmful anthropogenic activities such as illegal logging, use of chemicals and land-fill. Environmental conservationists are urged to focus attention on this Wet-zone forest.

Key words: Endemics, species richness, threatened, ecology, conservation, wet-zone.

Introduction

Beraliya Mukalana Proposed Forest Reserve (BMPFR) is an important forest area in Galle District, in the south of Sri Lanka. It is controlled by the Department of Forest Conservation. To date the reptile fauna is unstudied but the results of our survey of the amphibians of the area have been previously published (Karunarathna et al., 2008). Our aim in this study was to focus attention on the reptile species richness and abundance of the area with a view to bringing the various threats these reptiles face to the attention of conservationists and relevant government and non-government organizations.

Study Area: The Beraliya Mukalana Proposed Forest Reserve (BMPFR) area belongs to Alpitiya and Niyagama secretariat divisions of Galle District in Sri Lanka (6°19'–6°20' N, 80°10'–80°11' E) (Somasekaran, 1988). The Beraliya Mukalana forest covers 4639 hectares and falls in the southwestern Wet-zone. The area has several small hills, Atuwagala Kanda being the highest at 162 m and the forest area is 400 feet above sea level (Karunarathna et al., 2008). The forest reserve receives the southwestern monsoon and annual rainfall is about 3660 mm. The average annual temperature is about 28 °C (Peries, 2003). The

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BMPFR vegetation can be categorized as lowland evergreen rainforest (Gunatillake & Gunatillake, 1990). The direct distance between the BMPFR and the Sinharaja forest is about ~25 km and the direct distance from the Kanneliya forest is ~ 50 km. The area supports a rich network of waterways which includes two waterfalls called "Andahelena Ella" and "Gerandi Ella" (Ella = fall). Among the number of small streams which start from the upper areas, Eliya Dola and Mada Dola (Dola = small stream) are the major tributaries that flow throughout the year.

The study area (BMPFR) has a rich floristic diversity and its composition provides good evidence for identifying it as a primary rainforest (Ashton et al., 1997). Remnants of Dipterocarpus forest occur in valleys and on their lower slopes, with D. zeylanicus and D. hispidus present in almost pure stands. Secondary forest and scrub occur where the original forest cover has been removed by shifting cultivation and in other places the forest has been replaced by rubber and tea plantations (Karunarathna et al., 2008). Mesua, Doona and Shorea forest, the climax vegetation over most of the reserve, covers the middle and upper slopes of the hills. Garcinia hermonii followed by *Xylopia championii* invariably dominate the understorey tree stratum, a range of species dominate the subcanopy and Mesua nagassarium usually predominates in the canopy layer. Several invasive plant species such as Lantana camara (Family: Verbenaceae), Tridax procumbens (Family: Asteraceae) and Clidemia hirta (Family: Melastomataceae) have been observed in disturbed areas in the forest margins. There is a monastery (Diwankara-lena temple) and many small caves are also present. Footpaths are found in and around BMPFR.

Materials and Methods

A total of 28 days (~10 hrs per day) were spent on fieldwork during the two year study period from February 2004 to January 2006. Normally we used visual encounter survey methods but additionally general area surveys, line transects (100m × 2m) and quadrate sampling methods (10m × 10m) were used. Different habitat types (home gardens, scrub jungles, paddy fields, rocky lands, near streams and natural forest) within the BMPFR were all surveyed. Surveys were conducted both day and night and torches (head-lamps) were used at night. All microhabitats such as water bodies, under rocks, logs and decaying vegetation, and trees and bushes up to 8 m, were thoroughly searched for the

presence of reptiles. All captured specimens were examined carefully and recorded before being released at their capture site without injury. No specimens were collected, transported or deposited. Road kills and data on animals killed by villagers were also used as additional sources of information.

The species were identified in the field using diagnostic keys given by Deraniyagala (1953, 1955), Das & de Silva (2005), De Silva (1980), Greer (1991), Whitaker & Captain (2004) and Wickramasinghe & Somaweera (2003). After the survey period some specimens were confirmed to species level using Bauer et al. (2010), Batuwita & Bahir (2005), Batuwita & Pethiyagoda (2007), Maduwage et al. (2009), Manamendra-Arachchi et al. (2007), Praschag et al. (2011), Rooijen & Vogel Somaweera (2006), Somaweera (2009),Somaweeera (2009), Vogel & David (2006), Vogel & Rooijen (2011) and Wickramasinghe et al. (2007). Basic environmental parameters were recorded for locations where specimens were collected. Threat criteria is given according to IUCNSL & MENR (2007).

Results and Discussion

During the present two-year survey we were able to record a total of 66 species (Table 1) of reptile representing 36 (n=221) species of serpentoid reptiles and 30 (n=672) species of tetrapod reptiles. These belong to 14 families and 42 genera and include 35 (*n*=456) (including unidentified species) endemic reptile species. The endemic and relict genera of snakes (Aspidura, Balanophis and Cercaspis) and of tetrapod reptiles (Lyriocephalus, Ceratophora, Lankascincus and Nessia) were found in BMPFR. Five unidentified species, all of which might be new to science, belonging to the genera Cnemaspis. Ramphotyphlops, **Typhlops** *Xenochrophis* were also recorded during the survey. According to IUCN-SL and MENR-SL (2007) criteria 1 (n=3) Critically Endangered, 3 (n=7)Endangered, 6 (*n*=42) Vulnerable, 14 (*n*=168) Near Threatened and 4 (n=23) Data deficient species were recorded.

These records show that at least 31.4% of Sri Lanka's extant reptiles are present in the BMPFR. There is also a significant representation of the country's endemic amphibian species (see Karunarathna et al., 2008). Species such as Ahaetulla pulverulenta, Boiga barnesii, B. forsteni, Chrysopelea ornata, Dendrelaphis schokari, Lycodon striatus, Oligodon calamarius, Balanophis ceylonensis, Bungarus ceylonicus, Rhinophis

tricoloratus, Ceratophora aspera, Cnemaspis Cyrtodactylus molligodai, cracens, Hemiphyllodatylus typus, Lepidodactylus lugubris, Europis madaraszi and Lankascincus dorsicatenatus were all recorded for the first time in BMPFR. One species of gecko (Cyrtodactylus cracens) and one species of Shield-tail snake (Rhinophis tricoloratus) previously only known from the Sinharaja World Heritage site are now also recorded from BMPFR. More than 40 % of the reptile species were recorded from within the well wooded home gardens that are dominated with native plant species.

The family with the largest number of species is Colubridae (19 sp.), followed by Gekkonidae (12 sp.), Scincidae (8 sp.), Agamidae and Natricidae (6 sp. each), Viperidae (4 sp.), Elapidae, Typhlophidae and Varanidae (2 sp. each) and Bataguridae, Cylindrophidae, Pythonidae, Trionychidae and Uropeltidae (1 sp. each). We believe the high diversity seen in this Wet-zone forest habitat is mainly due to the isolation of this forest and the availability of a number of microhabitats, including man-modified habitats that are favorable to reptiles. The leading number of endemic species (including unidentified species) is in Colubridae Gekkonidae (7 sp. each), Scincidae (6 sp.), Agamidae and Natricidae (4 sp. each), Viperidae (2 Cylindrophidae, Elapidae, Trionychidae, Typhlophidae and Uropeltidae (1 sp. each) respectively. In BMPFR the genus Lankascincus (fossorial skinks) are commonly found and 4 out of the 10 species recorded from Sri Lanka occur.

The agamid lizard, *Otocryptis wiegmanni* is a ground dwelling lizard that is only distributed in shady places near streams or wet areas in the BMPFR. We were able to observe some egg-laying behaviour for this species. Normally they laid 3 to 6 eggs at a single time after digging holes in sandy soil. During one night trip we observed a group (3 to 7 individuals) of the snake *Cercaspis carinatus* digging the soil (20 mm to 50 mm deep) and feeding on the eggs of *O. wiegmanni*. This shows that *C. carinatus* can behave as a group during feeding and also that the eggs of *O. wiegmanni* may be a favoured meal.

When considering the 66 species by their primary mode of living there are 29 (43.9%) terrestrial, 25 (37.9%) arboreal, 6 (9.1%) aquatic and 6 (9.1%) fossorial species. The leading number of terrestrial species is in Colubridae (10 sp.), Scincidae (7 sp.), Viperidae (3 sp.) and Agamidae, Elapidae and Natricidae (2 sp. each). The leading number of

arboreal species is in Gekkonidae (11 sp.), followed by Colubridae (9 sp.), Agamidae (4 sp.) and Viperidae (1 sp.) respectively.

The most uncommon tetrapod reptile species are *Lepidodactylus lugubris* (*n*=1), followed by Geckoella triedrus and Hemiphyllodatylus typus (n=2 each); the most uncommon snakes are Ahaetulla pulverulenta and Typhlops cf. lankaensis (*n*=1 each), followed by *Amphiesma stolata*, Balanophis cevlonensis. Boiga forsteni. Dendrelaphis bifrenalis, Lycodon striatus and Python molurus (n=2 each). Snakes were well represented in home gardens with some species hiding in the shaded and cool roofs of some village houses. At night time all snakes moved from the houses to the forest areas to forage. Most of the fossorial and semi-fossorial species of snake were recorded after the rainy season, particularly in the well-shaded canopy covered areas. Among serpentoid reptiles Aheatulla nasuta, Cercaspis carinatus, Hypnale hypnale, Lycodon aulicus, Ptyas mucosa and Xenocrophis cf. piscator are the most common and widespread species. In terms of tetrapod reptiles Calotes calotes, C. versicolor, Cnemaspis molligodai, C. silvula, Eutropis E. macularia, Gehyra carinata. mutilata, Hemidactylus parvimaculatus, Н. frenatus, Lankascincus fallax, L. gansi, L. greeri and Otocryptis wiegmanni were the most common and widespread.

In terms of the species abundance in each habitat type, the highest species abundance occurred in Natural forests 30.6 % (n=273), followed by Home gardens 26.4 % (n=236), Near streams 17.8 % (n=159), Rocky land areas 12.2 % (n=109) and the lowest species abundance occurred in Paddy fields 7.1 % (n=63) and Scrub jungles 5.9 % (n=53). The high species abundance in the Natural forest habitat may be due to the high amount of leaf litter, shaded forest patches, micro-habitats (e.g., tree holes, caves, tree bark, rock boulders, crevices, water holes, decaying logs, loose soil, and other small niches), favorable climatic conditions and also the abundant availability of food resources such as small vertebrates and invertebrates (e.g. frogs, geckos, skinks, lizards, small mammals, small birds, animal eggs, earthworms, ground insects etc.) on which to feed. The highest number of endemic species was found in Natural forest (29) followed by Near streams (24), Rocky land areas (15) and Home gardens (12). Scrub jungles (7) and Paddy fields (5) showed the lowest number of endemic species.

Threats and conservation concern

Several areas of the Beraliya Forest have been cleared for tea and rubber cultivation. Other areas have been adversely impacted by illegal logging. Every day the disturbances in this forest are increasing with many local visitors coming on picnics or trips. These people sometimes leave glass bottles, polythene bags and other assorted rubbish inside the forest. Many streams and watercourses in the forest have become contaminated with broken glass, polythene, clothes, garbage and soap. This forest area is also a base for local illegal alcohol producers. They utilise many streams to produce their alcohol and discard all the remaining poisonous residues of their products into the streams. These streams are also contaminated with the many pesticides and chemicals used for agriculture practices like paddy cultivation. Riverside vegetation has been cut back around the communities and invasive species have replaced natural habitats.

Many wet areas have been in-filled by the local people who have made many small road networks and because of this many habitats used by tadpoles have been destroyed. Due to mythical beliefs many people kill all the snakes they meet. In addition the villagers kill land monitors and other mammals for meat and water monitors for oil. Many of the boundary markers for the forest erected by the Forestry Department have been removed and inside the forest we have observed domestic cats and dogs chasing wild animals. Road kills are another major threat around this forest patch due to its high fragmentation.

Even though this forest patch is controlled by the Department of Forestry we have never seen any of their officials in or around the forest. There is a monastery inside the forest and the only pristine forest patch remaining survives around the monastery.

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Table 1: Reptiles checklist of the BMPFR (Abbreviation: E, Endemic species; CR, Critically endangered; EN, Endangered; VU, Vulnerable; NT, Near threatened; DD, Data deficient; TOC, Total Individual count and REA, relative abundance).

Sci	entific name and families	Common name and status	TOC	REA %
Fai	mily Pythonidae			
1	Python molurus	Indian python	2	0.22
Fai	mily Colubridae			
2	Ahaetulla nasuta	Green vine Snake	16	1.79
3	Ahaetulla pulverulenta	Brown vine Snake NT	1	0.11
4	Boiga barnesii	Barnes's cat Snake E/NT	3	0.34
5	Boiga ceylonensis	Sri Lankan cat Snake	3	0.34
6	Boiga forsteni	Forsten's cat Snake	2	0.22
7	Cercaspis carinatus	Sri Lanka wolf Snake E/VU	21	2.35
8	Chrysopelea ornata	Ornate flying Snake NT	3	0.34
9	Coelognathus helena	Trinket Snake	4	0.45

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10 Dendrelaphis caudalineolatus	Scientific name and families		Common name and status	TOC	REA %
12 Dendrelaphis schokari Common bronze Back E 9 1.01 13 Iycodon aulicus Common wolf Snake 10 1.12 4 Lycodon samahilli Flowery wolf Snake E 5 0.56 15 Lycodon striatus Barred wolf Snake 2 0.22 16 Oligodon armenis Common kukri Snake E 4 0.45 17 Oligodon admarius Templeton's kukri Snake E VO 3 0.34 19 Pryas mucosa Common rat Snake 17 1.90 20 Sibynophis subpunctatus Jordan's Poligodont 6 0.67 Family Cylindrophisa Common rat Snake 17 1.90 20 Sibynophis subpunctatus Sri Lanka pipe Snake E VNT 5 0.56 Family Cylindrophisa 21 Cylindrophisa subpunctatus Sri Lanka pipe Snake E VNT 5 0.56 Family Satisfactual Subpunctatus Sri Lanka pipe Snake E VNT 4 0.45 22 Arphiesna stolatum <t< th=""><th>10</th><th>Dendrelaphis caudolineolatus</th><th>Gunther's bronze Back VU</th><th>4</th><th>0.45</th></t<>	10	Dendrelaphis caudolineolatus	Gunther's bronze Back VU	4	0.45
13	11	Dendrelaphis bifrenalis	Boulenger's bronze Back ^E	2	0.22
14	12	Dendrelaphis schokari	Common bronze Back ^E	9	1.01
15	13	Lycodon aulicus	Common wolf Snake	10	1.12
16 Oligodon arubnisis Dumenii's kukri Snake 8 0.90 17 Oligodon arubniseatus Dumenii's kukri Snake 4 0.45 18 Oligodon calamarius Templeton's kukri Snake 17 1.90 19 Pryas mucosa Common rat Snake 17 1.90 20 Sibynophis subpunctatus Jordan's Poligodont 6 0.67	14	Lycodon osmanhilli	Flowery wolf Snake ^E	5	0.56
17 Oligodon sublineatus Dumeril's kukri Snake 4 0.45 18 Oligodon calamarius Templeton's kukri Snake 17 1.90 19 Pryas mucosa Common rat Snake 17 1.90 20 Sibynophis subpuncatus Jordan's Poligodont 6 0.67	15	Lycodon striatus	Barred wolf Snake	2	0.22
18 Oligodon calamarius Templeton's kukri Snake E / VU 3 0.34 19 Pryas mucosa Common rat Snake 17 1.90 20 Sibynophis subpunctatus Jordan's Poligodont 6 0.67 Family Cylindrophis maculatus Sri Lanka pipe Snake E / NT 5 0.56 Family Natricidae 22 Amphicsma stolatum Buff striped Keelback 2 0.22 23 Aspidura guentheri Ferguson's Roughside E / NT 4 0.45 24 Arteritum schistosum Olive Keelback 6 0.67 25 Balanophis ceylonensis Blossom Krait E / VU 2 0.22 26 Xenochrophis celpiscator Common checkered Keelback E 11 1.23 27 Xenochrophis celpiscator Common Cobra 5 0.56 Family Elapidae 2 Ceylon Krait E / NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Taphlophidae 5 0.56 <t< td=""><td>16</td><td>Oligodon arnensis</td><td>Common kukri Snake</td><td>8</td><td>0.90</td></t<>	16	Oligodon arnensis	Common kukri Snake	8	0.90
19 Ptyas mucosa Common rat Snake 17 1.90	17	Oligodon sublineatus	Dumeril's kukri Snake ^E	4	0.45
	18	Oligodon calamarius	Templeton's kukri Snake E / VU	3	0.34
Pamily Cylindrophidae	19	Ptyas mucosa	Common rat Snake	17	1.90
Sri Lanka pipe Snake F/NT S 0.56 Family Natricidae Sri Lanka pipe Snake F/NT Appliesma stolatum Buff striped Keelback 2 0.22 0.22 Amphiesma stolatum Gireguson's Roughside F/NT 4 0.45	20	Sibynophis subpunctatus	Jordan's Poligodont	6	0.67
Pamily Natricidae 22 Amphiesma stolatum 3 3 3 4 4 4 4 4 4 4	Fan	nily Cylindrophidae			
22 Amphiesma stolatum Buff striped Keelback 2 0.22 23 Aspidura guentheri Ferguson's Roughside E / NT 4 0.45 24 Atretium schistosum Olive Keelback 6 0.67 25 Balanophis ceylonensis Blossom Krait E / VU 2 0.22 26 Xenochrophis asperrimus Sri Lanka Checkered Keelback E 11 1.23 27 Xenochrophis fire piscator Common Checkered Keelback E 16 1.79 Family Elapidae Ceylon Krait E / NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78 31 Typhlops cf. lankaensis Blind Snake sp. E / DD 1 0.11 Family Uropeltidae 32 Rhinophis tricoloratus Deraniyagala's Shieldtail E / DD 4 0.45 Family Viperidae 33 Daboia russelli Russell's Viper 3<	21	Cylindrophis maculatus	Sri Lanka pipe Snake E / NT	5	0.56
23 Aspidura guentheri Ferguson's Roughside E /NT 4 0.45 24 Atretium schistosum Olive Keelback 6 0.67 25 Balanophis ceylonensis Blossom Kraît E /VU 2 0.22 26 Xenochrophis asperrimus Sri Lanka Checkered Keelback E 11 1.23 27 Xenochrophis cf, piscator Common checkered Keelback E 16 1.79 Family Elapidae Uspidae 28 Bungarus ceylonicus Ceylon Kraît E/NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78 31 Typholops cf. lankaensis Blind Snake sp. E/DD 1 0.11 Family Uropeltidae 32 Rhinophis tricoloratus Deraniyagala's Shieldtail E /DD 4 0.45 Family Viperidae 33 Dadoia russetii Russell's Viper (suspension Viper E 3 0.34 <	Fan	nily Natricidae			
24 Atretium schistosum Olive Keelback 6 0.67 25 Balanophis ceylonensis Blossom Krait E / VU 2 0.22 26 Xenochrophis asperrimus Sri Lanka Checkered Keelback E 11 1.23 27 Xenochrophis cf. piscator Common checkered Keelback E 16 1.79 Family Elapidae 28 Bungarus ceylonicus Ceylon Krait E/NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78 31 Typhlops cf. lankaensis Blind Snake sp. E/DD 1 0.11 Family Uropeltidae 32 Rhinophis tricoloratus Deraniyagala's Shieldtail E/DD 4 0.45 Family Viperidae 33 Daboia russelii Russell's Viper 3 0.34 4 Hypnale hypnale Merrem's hump-nosed Viper 16 1.79 35 Hypnale kypnal	22	Amphiesma stolatum	Buff striped Keelback	2	0.22
25 Balanophis ceylonensis Blossom Krait E /VU 2 0.22 26 Xenochrophis asperrimus Sri Lanka Checkered Keelback E 11 1.23 27 Xenochrophis cf. piscator Common checkered Keelback E 16 1.79 Family Elapidae 28 Bungarus ceylonicus Ceylon Krait E/NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78 31 Typhlops cf. lankaensis Blind Snake sp. E/DD 1 0.11 Family Uropeltidae 32 Rhinophis tricoloratus Deraniyagala's Shieldtail E/DD 4 0.45 Family Viperidae 33 Daboia russelii Russell's Viper 3 0.34 34 Hypnale hypnale Merrem's hump-nosed Viper 16 1.79 35 Hypnale zara Lowland hump-nosed Viper E 7 0.78 Family Trionychid	23	Aspidura guentheri	Ferguson's Roughside E / NT	4	0.45
26Xenochrophis asperrimusSri Lanka Checkered Keelback E111.2327Xenochrophis cf. piscatorCommon checkered Keelback E161.79Family Elapidae28Bungarus ceylonicusCeylon Krait E/NT30.3429Naja najaCommon Cobra50.56Family Typhlophidae30Ramphotyphlops cf. braminusBlind Snake sp. DD70.7831Typhlops cf. lankaensisBlind Snake sp. E/DD10.11Family Uropeltidae32Rhinophis tricoloratusDeraniyagala's Shieldtail E/DD40.45Family Viperidae33Daboia russeliiRussell's Viper30.3434Hypnale hypnaleMerrem's hump-nosed Viper161.7935Hypnale zaraLowland hump-nosed Viper E70.7836Trimeresurus trigonocephalusGreen pit Viper E40.45Family Bataguridae37Melanochelys trijugaBlack Turtle NT151.68Family Trionychidae38Lissemys ceylonensisSoft shell Turtle VIU80.90Family Agamidae39Calotes calotesGreen garden Lizard182.0240Calotes liolepisWhistling Lizard E/VU40.4541Calotes versicolorCommon garden Lizard252.8042Ceratophora asperaRough horn Lizard E/NT4 <td< td=""><td>24</td><td>Atretium schistosum</td><td>Olive Keelback</td><td>6</td><td>0.67</td></td<>	24	Atretium schistosum	Olive Keelback	6	0.67
Name	25	Balanophis ceylonensis	Blossom Krait E / VU	2	0.22
Pamily Elapidae 28 Bungarus ceylonicus Ceylon Krait E/NT 3 0.34	26	Xenochrophis asperrimus	Sri Lanka Checkered Keelback ^E	11	1.23
28 Bungarus ceylonicus Ceylon Krait E/NT 3 0.34 29 Naja naja Common Cobra 5 0.56 Family Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78 31 Typhlops cf. lankaensis Blind Snake sp. E/DD 1 0.11 Family Uropeltidae 32 Rhinophis tricoloratus Deraniyagala's Shieldtail E/DD 4 0.45 Family Viperidae 33 Daboia russelii Russell's Viper 3 0.34 34 Hypnale hypnale Merrem's hump-nosed Viper 16 1.79 35 Hypnale zara Lowland hump-nosed Viper E 7 0.78 36 Trimeresurus trigonocephalus Green pit Viper E 4 0.45 Family Bataguridae 37 Melanochelys trijuga Black Turtle NT 15 1.68 Family Trionychidae 38 Lissemys ceylonensis Soft shell Turtle E/VU 8 0.90	27	Xenochrophis cf. piscator	Common checkered Keelback ^E	16	1.79
Common Cobra 5 0.56 Family Typhlophidae	Fan	nily Elapidae			
Samily Typhlophidae 30 Ramphotyphlops cf. braminus Blind Snake sp. DD 7 0.78	28	Bungarus ceylonicus	Ceylon Krait E/NT	3	0.34
30Ramphotyphlops cf. braminusBlind Snake sp. DD70.7831Typhlops cf. lankaensisBlind Snake sp. E/DD10.11Family Uropeltidae32Rhinophis tricoloratusDeraniyagala's Shieldtail E / DD40.45Family Viperidae33Daboia russeliiRussell's Viper30.3434Hypnale hypnaleMerrem's hump-nosed Viper161.7935Hypnale zaraLowland hump-nosed Viper E70.7836Trimeresurus trigonocephalusGreen pit Viper E40.45Family Bataguridae37Melanochelys trijugaBlack Turtle NT151.68Family Trionychidae38Lissemys ceylonensisSoft shell Turtle E / VU80.90Family Agamidae39Calotes calotesGreen garden Lizard182.0240Calotes liolepisWhistling Lizard E / VU40.4541Calotes versicolorCommon garden Lizard252.8042Ceratophora asperaRough horn Lizard E / NT40.4543Lyriocephalus scutatusLyre head Lizard E / NT40.45	29	Naja naja	Common Cobra	5	0.56
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Merrem's hump-nosed Viper 16 1.79 35 Hypnale zara Lowland hump-nosed Viper E 7 0.78 36 Trimeresurus trigonocephalus Green pit Viper E 4 0.45 Family Bataguridae 37 Melanochelys trijuga Black Turtle NT 15 1.68 Family Trionychidae 38 Lissemys ceylonensis Soft shell Turtle E/VU 8 0.90 Family Agamidae 39 Calotes calotes Green garden Lizard 18 2.02 40 Calotes liolepis Whistling Lizard E/VU 4 0.45 41 Calotes versicolor Common garden Lizard 25 2.80 42 Ceratophora aspera Rough horn Lizard E/EN 4 0.45 43 Lyriocephalus scutatus Lizard E/NT 4 0.45	Fan	nily Viperidae			
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Green pit Viper E 4 0.45 Family Bataguridae 37 Melanochelys trijuga Black Turtle NT 38 Lissemys ceylonensis Soft shell Turtle E / VU 8 0.90 Family Agamidae 39 Calotes calotes Green garden Lizard 18 2.02 40 Calotes liolepis Whistling Lizard E / VU 41 Calotes versicolor Common garden Lizard 25 2.80 42 Ceratophora aspera Rough horn Lizard E / E/NT 43 Lyriocephalus scutatus Lyre head Lizard E / NT 44 0.45	34	Hypnale hypnale	Merrem's hump-nosed Viper	16	1.79
Family Bataguridae 37 Melanochelys trijuga Black Turtle NT 15 1.68 Family Trionychidae 38 Lissemys ceylonensis Soft shell Turtle E / VU 8 0.90 Family Agamidae 39 Calotes calotes Green garden Lizard 18 2.02 40 Calotes liolepis Whistling Lizard E / VU 4 0.45 41 Calotes versicolor Common garden Lizard 25 2.80 42 Ceratophora aspera Rough horn Lizard E / NT 4 0.45 43 Lyriocephalus scutatus	35	Hypnale zara	Lowland hump-nosed Viper E	7	0.78
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42 Ceratophora aspera Rough horn Lizard E/EN 4 0.45 43 Lyriocephalus scutatus Lyre head Lizard E/NT 4 0.45	40	Calotes liolepis	Whistling Lizard E / VU	4	0.45
43 Lyriocephalus scutatus Lyre head Lizard E /NT 4 0.45	41	Calotes versicolor	Common garden Lizard	25	2.80
C: I and an I and E /NT	42	Ceratophora aspera	•	4	0.45
44 Otocryptis wiegmanni Sri Lankan kangaroo Lizard E/NI 28 3.14	43	Lyriocephalus scutatus	Lyre head Lizard E /NT	4	0.45
	44	Otocryptis wiegmanni	Sri Lankan kangaroo Lizard E / NI	28	3.14

KARUNARATHNA & AMARASINGHE, 2012

Scientific name and families		Common name and status	TOC	REA %	
Fan	Family Gekkonidae				
45	Cnemaspis molligodai	Molligoda's day gecko E /NT	49	5.49	
46	Cnemaspis silvula	Forest day gecko ^E	32	3.58	
47	Cnemaspis cf. silvula	Day gecko sp. E?	44	4.93	
48	Cnemaspis cf. tropidogaster	Day gecko sp. E?	36	4.03	
49	Cyrtodactylus cracens	Narrow headed forest Gecko E/CR	3	0.34	
50	Geckoella triedrus	Spotted bowfinger Gecko E / NT	2	0.22	
51	Gehyra mutilata	Four claw Gecko	46	5.15	
52	Hemidactylus parvimaculatus	Spotted house Gecko	59	6.61	
53	Hemidactylus depressus	Kandyan Gecko ^E	14	1.57	
54	Hemidactylus frenatus	Common house Gecko	29	3.25	
55	Hemiphyllodactylus typus	Slender Gecko EN	2	0.22	
56	Lepidodactylus lugubris	Scaly finger Gecko EN	1	0.11	
Fan	nily Scincidae				
57	Eutropis carinata	Common Skink	48	5.38	
58	Europis macularia	Bronze green little Skink	58	6.49	
59	Europis madaraszi	Spotted Skink E / NT	16	1.79	
60	Lankascincus fallax	Common lanka Skink ^E	37	4.14	
61	Lankascincus dorsicatenatus	Catenated lanka Skink E / DD	11	1.23	
62	Lankascincus gansi	Gans's lanka Skink E / NT	26	2.91	
63	Lankascincus greeri	Greer's lanka Skink ^E	30	3.36	
64	Nessia burtonii	Three toe snake Skink E / NT	4	0.45	
Fan	nily Varanidae				
65	Varanus bengalensis	Land Monitor	11	1.23	
66	Varanus salvator	Water Monitor	8	0.90	

Plate 01



Fig. 1: Boiga forsteni



Fig. 2: Lycodon osmanhilli



Fig. 3: Oligodon sublineatus



Fig. 4: Trimeresurus trigonocephalus



Fig 5: Ceratophora aspera



Fig. 6: Otocryptis wiegmanni



Fig. 7: Cnemaspis silvula



Fig. 8: Lankascincus fallax