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TESTUDINES AND CROCODYLIANS

(AN ANNOTATED BIBLIOGRAPHY AND A CHECKLIST
OF THE HERPETOFAUNA OF SRI LANKA)

VOLUME 1



Anslem de Silva, Nayana Pradeep Daundasekara and Suranjan Karunaratna

2021

TESTUDINES AND CROCODILIANS

(AN ANNOTATED BIBLIOGRAPHY
AND A CHECKLIST OF THE HERPETOFAUNA OF SRI LANKA)

Volume 1

**Anslem de Silva, Nayana Pradeep Daundasekara and
Suranjan Karunarathna**

2021

Technical credits

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DEDICATION



Figure 1.

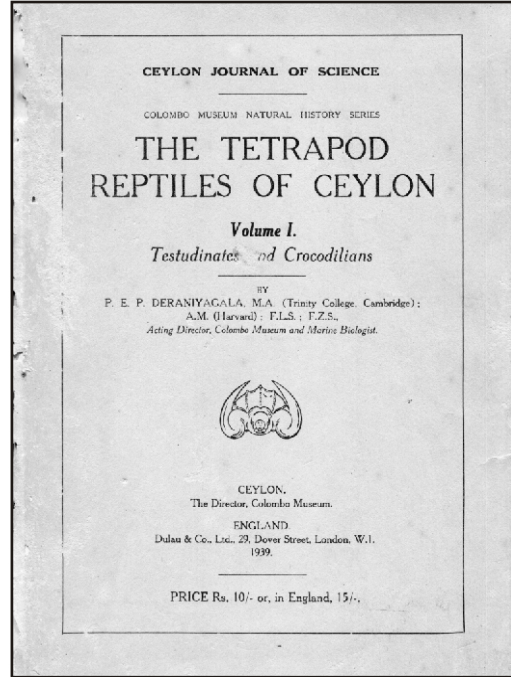


Figure 2.

Fig.1. Paulus Edward Pieris Deraniyagala (1900-1973)

(Photograph of Deraniyagala in the field)

The pioneer crocodylian researcher of South Asia,
and for his outstanding contributions on chelonians of Sri Lanka

Fig.2. Facsimile of the title page of *Tetrapod Reptiles of Ceylon*
Volume 1

CHAPTER 3

CHECKLIST AND BRIEF ACCOUNTS OF TESTUDINES OF SRI LANKA

FAMILY:GEOEMYDIDAE. *Idibu Kulaya* (Sinhala)

Genus: *Melanochelys* Gray, 1869 *Ibi Ganaya* (Sinhala)

Species:

1. *Melanochelys trijuga parkeri* (Deraniyagala, 1939) Parker's Black Turtle (English); *Parkerge Gal Ibba* (Sinhala). **Endemic**

DESCRIPTION

Body medium sized (45 cm); Carapace hard and bears three pronounced keels. Head seldom ornamented with orange or red blotches (Fig. 4); carapace black; plastron black with yellow border (Fig. 5). Plastron concave in males and flat in females. Toes webbed, with long, pointed nails.

DISTRIBUTION

Wilpattu, Polonnaruwa, Maduruoya, Amaduwa, Nikaweratiya, Nochiyagama, Marichcukate, Distribution, frangmented in the island up to 250 m above sea level. See map (Fig. 7).

HABITAT AND HABITS

Found in lakes, marshes, streams and paddy-field drains in the dry zone lowlands (from 10 to 250 m above mean sea level). It is a freshwater-dwelling, nocturnal species that can be seen basking outside water bodies during day. At dusk or night it may be encountered far away from water, occasionally crossing roads for foraging. When captured, it struggles and may scratch the captor with its pointed nails. During extreme droughts, it aestivates in forests under leaf litter. It feeds on aquatic invertebrates, fish, grasses, water hyacinths and fruits, and also scavenges on a variety of dead animals. Oviparous, with females laying an average of five hard-shelled eggs in a pit that she digs in close proximity to water. At Wilpattu National Park the three fresh water terrapin species can be seen occasionally congregating together (Fig. 6).

PLATE 1



Fig. 4. *Melanochelys trijuga parkeri*
(Photograph Anslem)



Fig. 5. *Melanochelys trijuga parkeri* (Ventral aspect)
(Photograph Anslem)



Fig. 6. *Melanochelys t. parkeri*, *M. t. thermalis* and *Lissemys ceylonensis*
(Photograph Linda Susan Hodges)

PLATE 2

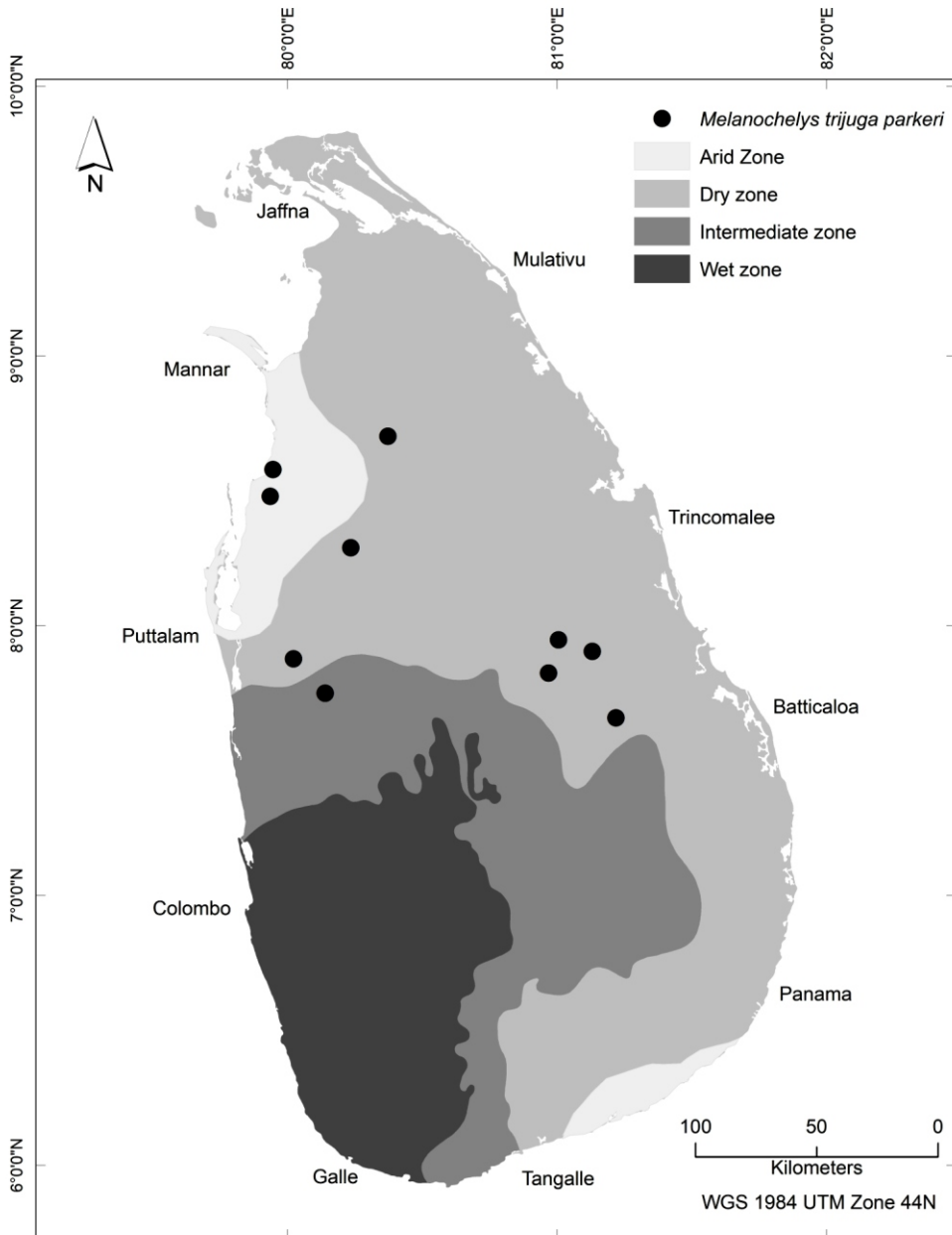


Fig. 7. Distribution of *Melanochelys trijuga parkeri*
(Drawn by: Buddhika Madurapperuma and Chamila Banneheka)

PLATE 3



Fig. 8. *Melanochelys trijuga thermalis*
(Photograph Suranjan)



Fig. 9. Head ornamentation of *M. t. thermalis*
(Photograph Anslem)



Fig. 10. Albino *Melanochelys trijuga thermalis*
(Photograph Anslem)

PLATE 5



Fig. 12. *Caretta caretta*
(Photograph : Bringso)



Fig. 13. *Caretta caretta*
(Photograph: Anslem)

PLATE 6

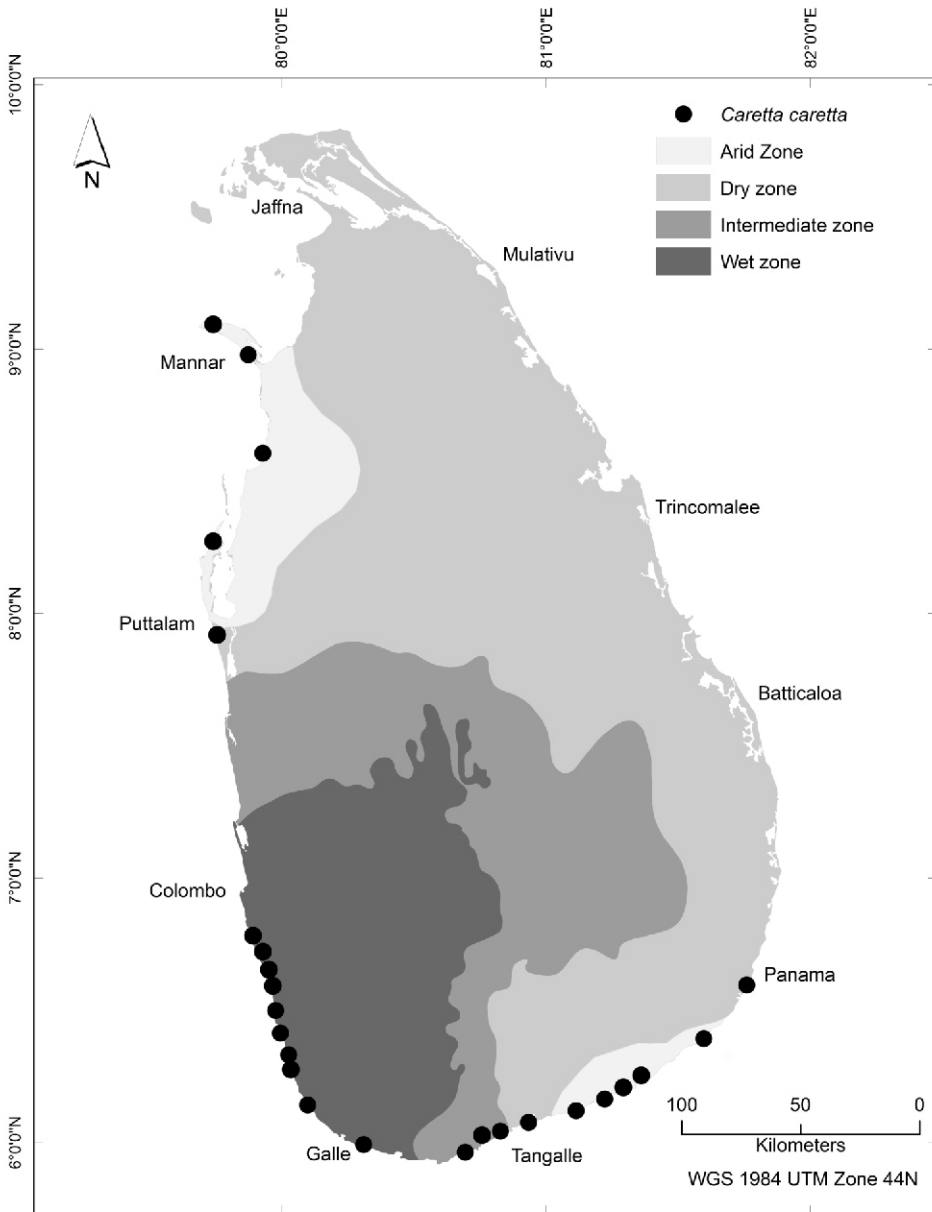


Fig. 14. Distribution of *Caretta caretta*
(Drawn by: Buddhika Madurapperuma and Chamila Banneheka)

PLATE 7



Fig. 15. *Chelonia mydas*
(Photograph: Anslem)



Fig. 16. Semi Albino *Chelonia mydas*
(Photograph: Anslem)

PLATE 8

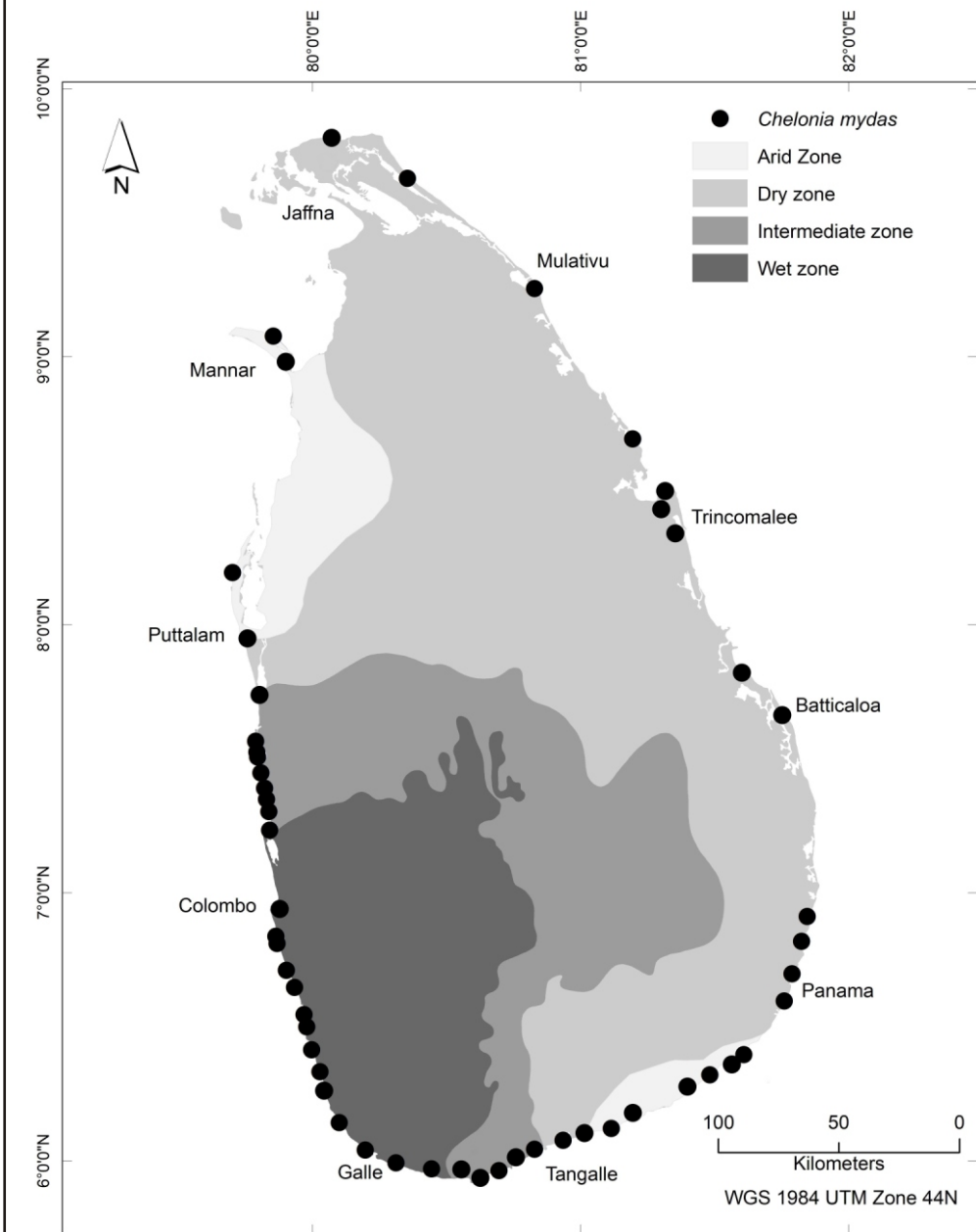


Fig. 17. Distribution of *Chelonia mydas*
(Drawn by: Buddhika Madurapperuma and Chamila Banneheka)

PLATE 9



Fig. 18. *Eretmochelys imbricata*
(Photograph: Anslem)

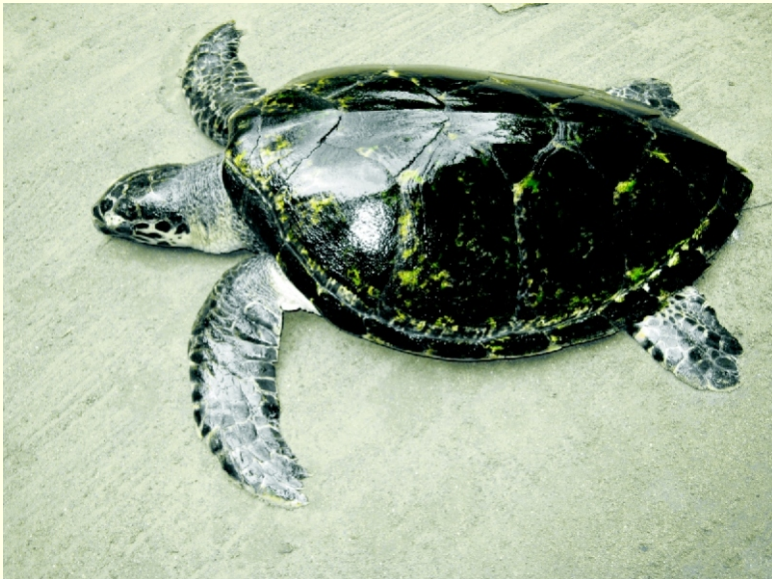


Fig. 19. *Eretmochelys imbricata*
(Photograph: Anslem)

PLATE 10

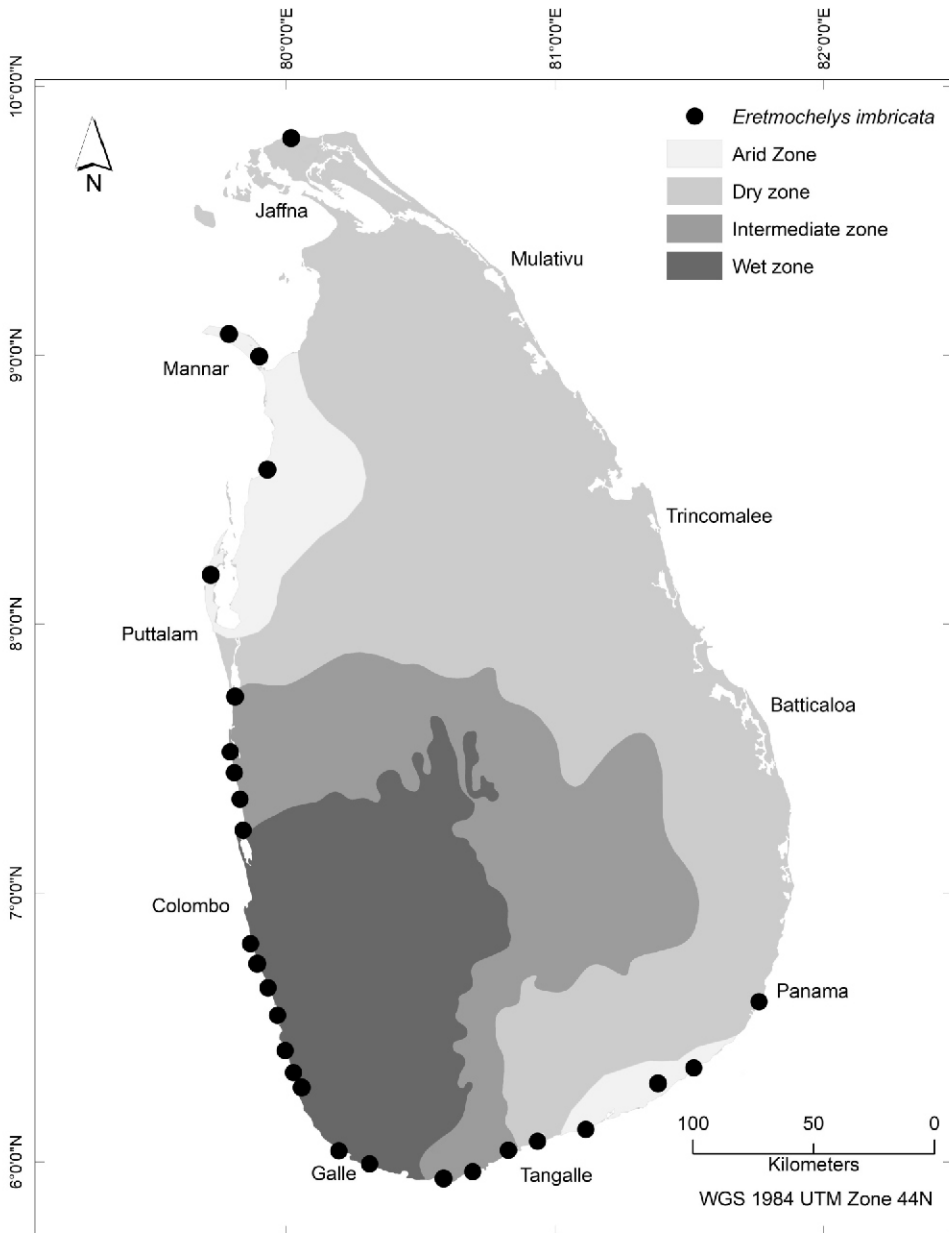


Fig. 20. Distribution of *Eretmochelys imbricata*
(Drawn by: Buddhika Madurapperuma and Chamila Banneheka)

2. *Crocodylus porosus* Schneider 1801.

Saltwater or Estuarine Crocodile (English); *Gata Kimbula* (= knobbed skin) (Sinhala); *Semmukku Muthalei* (= copper colour crocodile) (Tamil).

DESCRIPTION

The Saltwater Crocodile is one of the largest in the genus, with males reaching a maximum length of seven meters. The snout is narrow when compared to the Mugger. The distinct external feature is their warty scales of the neck resembling a jackfruit (*Atrocarpus sp.*) (Figs. 41, 42) due to a lack of post-occipital scale rows.

DISTRIBUTION

It inhabits mainly the east, west, and south coast of the country. They are mostly found in tributaries of rivers (e.g. Nilwala river in Matara), marshes (e.g. Muthrajawela Marsh), and lagoons with brackish water fringed with some mangroves (Bolgoda, Panadura, Lunawa, Negombo lagoons all in the western province near Colombo) (Fig. 44). Residents of Colombo and suburbs have come across the occasional 'salty' that strays into streams close to their homes, including the famous salty that used to bask on the banks of Wellawatta canal next to an international school. The school children were so taken up with it they named it 'Burtrum', a teacher from the school which they disliked (Fig. 42).

HABITAT AND HABITS

Crocodylus porosus, though popularly known as the 'salty', Saltwater Crocodile or Estuarine Crocodile, in reality lives in freshwater tidal rivers, man-made streams, estuaries, brackish lagoons, marshes and prefer freshwater habitats in Sri Lanka. Salties as a rule are solitary animals; especially adult males which dominate their territory and will not hesitate even to kill any other invading crocodile. The female build a mound nest and deposit the eggs which she guards (Fig. 43).

PLATE 23



Fig. 42. *Crocodylus porosus* (Hatchling)
(Photograph: Anslem)



Fig. 43. *Crocodylus porosus*
(Photograph: Mike Anthonisz)



Fig. 44. *Crocodylus porosus* (Nest guarding female)
(Photograph: Madura de Silva)

PLATE 24

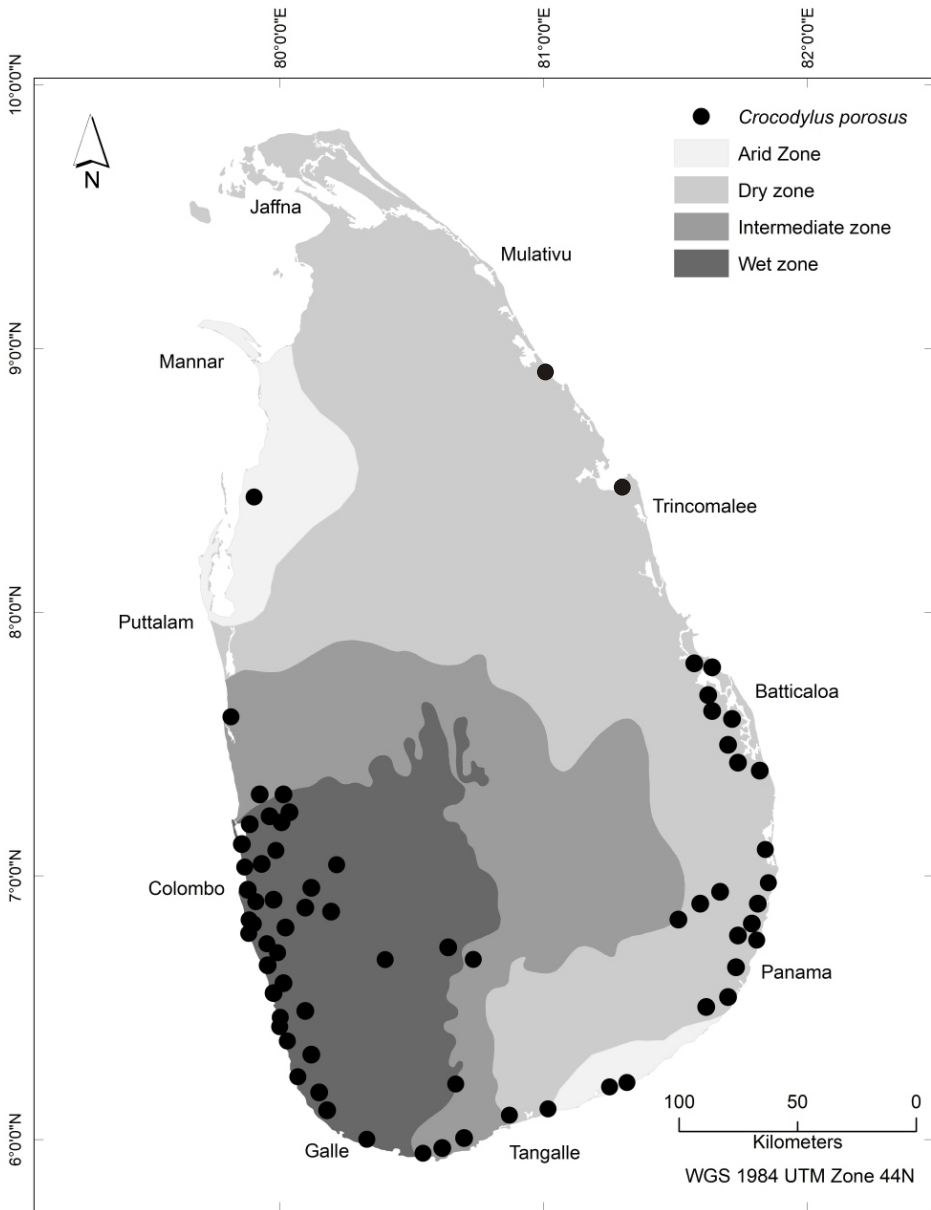


Fig. 45. Distribution of *Crocodylus porosus*
(Drawn by: Buddhika Madurapperuma and Chamila Banneheka)

SYSTEMATIC INDEX

The reference is given by the serial number of the Author Index.

Crocodylus palustris Lesson, 1831.
Mugger or Marsh Crocodile (English); *Hala Kimbula, Ala Kimbula* (Sinhala);
Kulathi Muthalei (Tamil).

001, 003, 013, 018, 024, 025, 030, 031, 034, 035, 040, 041, 042, 043, 048, 049, 051, 055, 060, 062, 064, 065, 066, 067, 073, 075, 078, 079, 080, 083, 084, 085, 089, 090, 091, 092, 094, 096, 098, 100, 101, 102, 104, 105, 112, 114, 115, 119, 120, 124, 128, 129, 130, 131, 132, 133, 134, 135, 137, 139, 148, 149, 150, 152, 154, 157, 158, 162, 163, 164, 165, 166, 169, 172, 173, 177, 178, 179, 184, 188, 192, 193, 196, 199, 200, 202, 203, 204, 205, 206, 217, 218, 219, 220, 221, 223, 228, 229, 231, 232, 233, 234, 235, 236, 238, 242, 244, 245, 255, 258, 260, 262, 263, 266, 268, 269, 270, 271, 274, 278, 279, 280, 281, 284

Crocodylus porosus Schneider 1801.
Saltwater or Estuarine Crocodile (English); *Gata Kimbula* (Sinhala); *Semmukku Muthalei* (Tamil).

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Ansem de Silva

MSc, DSc. (Hon. Cau. University of Peradeniya)

Has contributed to nearly 500 publications on the herpetology of Sri Lanka. He has received the President's Award for Scientific Publications four times and is the recipient of the IUCN's highest award for Conservation Merit, the Sir Peter Scott Award in 2019. He is the current Chairman of the Crocodile Specialist Group of the IUCN Species Survival Commission for South Asia and Iran.



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B.Sc. Agriculture (University of Peradeniya),
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Has started Herpetological work from his childhood by joining the Youth Exploration Society of Sri Lanka (YES) and Amphibia and Reptile Research Organization of Sri Lanka (ARROS), he is also member of IUCN/SSC Amphibian Specialist Group of Sri Lanka. He has published 40 research papers on Herpetology. He was a resource person in Global Red List Assessment for Amphibians and Reptiles of Sri Lanka. Presently, he works as a resource person in Department of Education, Central Province, Sri Lanka.



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Has published more than 160 research publications on the reptiles and amphibians of Sri Lanka. Also promotes science base conservation awareness on the importance of biodiversity and its conservation. His scientific exploration of biodiversity began with the Young Zoologists' Association of Sri Lanka (YZA) in early 2000, and he served as president of YZA in 2007. He is also a member of the IUCN, Species Survival Commission Amphibian, Crocodile, and Monitor Lizard Specialist Groups.

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