# IUCN SSC Monitor Lizard Specialist Group



# 2019 Report





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#### **Co-Chairs**

Mark Auliya (1) André Koch (2)

# **Red List Authority Coordinator**

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#### Location/Affiliation

(1) Department of Conservation Biology, Helmholtz Centre for Environmental Research GmbH – UFZ, 04318 Leipzig, Germany (2) Zoologisches Forschungsmuseum Alexander Koenig, Adenauerallee 160, 53113 Bonn, Germany

# **Number of members**

50



# **Mission statement**

Knowledge of the conservation status of monitor lizards (*Varanus* spp.) is essential for the formulation of appropriate conservation measures that would also support the protection of demarcated ecosystems. In gaining this knowledge, it is fundamental to work hand in hand with national authorities and local communities. In addition, it is important to raise awareness among the local people about the ecological function and conservation status of monitor lizards in their distribution ranges, where they are often exploited for various purposes such as traditional medicine, human consumption, and superstitious practices.

# Projected impact for the 2017-2020 quadrennium

By the end of 2020, we wish to have greatly improved networking with Monitor Lizard Specialist Group (MLSG) members to reach the following goals, as a baseline for achieving the resulting impacts:

Goal 1: compile a species reference and image database including information on the distribution, natural history traits, population status and threats of single species. Impact 1: development of more efficient and accurate communication and sharing of current data on the species among group members.

Goal 2: nomination of new members to the group, particularly from range states in Africa and Asia. Impact 2: enrichment of knowledge and refinement of, e.g., national assessments.

Goal 3: continuing investigation of the taxonomic status of several species/species groups with unresolved diversity. Impact 3: establishment of regional species management plans, e.g., based on Evolutionary Significant Units (ESUs).

Goal 4: initiation of field studies, particularly on species from insular Southeast Asia and New Guinea, due to uncertainties regarding population densities and conservation status of wild populations, in cooperation with local students and scientists. Impact 4: rising public awareness for the species group, and reduction in current uncertainties to improve assessments of the conservation status of *Varanus* species.

Goal 5: establishment of collaborations with scientific/management authorities to improve current management schemes to maintain the viability of species/populations. Impact 5: improvement and implementation of conservation measures together with authorities of range states that harbour *Varanus* species.

Goal 6: based on collaborative projects, the inclusion of non-detriment findings (NDFs) and evaluation of other mechanism tools to assess the threat status of a species, e.g., environmental vulnerability scores and refining population viability analyses (PVAs). Impact 6: see impact 4 (reduction of uncertainties).

Brochure of the awareness workshops conducted in West Bengal in 2019 Photo: Shreya Bhattacharya



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The participants of a workshop at Bamnia Vivekananda Vidyapeeth High School Photo: Shreya Bhattacharya

#### Targets for the 2017-2020 quadrennium

#### Assess

Red List: completion of all assessments and updating earlier assessments (e.g. *Varanus komodoensis*).

Research activities: (1) support research in monitor lizards, especially early-career researchers from range states; (2) production of scientific publications about biology and taxonomy as well as exploitation and threats of monitor lizards.

# Plan

Dr. André Koch, Co-chair, IUCN-SSC-MLSG, Germany

Dr. Mark Auliva, Co-chair, IUCN-SSC-MLSG, German

Technical advice: support CITES authorities, customs officers and other organisations entrusted with law enforcement and conservation of monitor lizards worldwide by providing expert knowledge from our Specialist Group.

#### Network

Membership: growth of the Specialist Group by invitation of new members.

Scientific meetings: organisation of the Second MLSG Meeting.

#### Communicate

Capacity building: raising awareness among the local population for conservation concerns of monitor lizards in their home range countries. Communication: (1) production of an identification guide for customs and authorities of all monitor lizard species involved in the pet and leather trade; (2) provide essential information about all monitor lizard species via our homepage.

# **Activities and results 2019**

#### Assess

# Red List

i. Approximately 2/3 of all species were assessed, including the review and partial reassessment of 19 *Varanus* spp. native to



Shreya Bhattacharya during the presentation of an awareness workshop Photo: Shreya Bhattacharya

Indonesia. During the IUCN SSC Leaders' Meeting in 2019, the MLSG mission and current status of all assessments was presented as a poster and discussed with the IUCN Global Species Programme; completion and updating of all Red List assessments has been delayed due to Red List Authority Daniel Bennett's serious illness. (KSR #1, 2)

# Research activities

- i. We critically commented on research proposals by Saeed Hosseinian about *V. griseus* in Iran and by Tom Jameson about conservation of Southeast Asian monitor lizards. (KSR #12)
- ii. At least five publications have been initiated in 2019 or earlier. This includes the viability and taxonomy of New Guinea tree monitor lizards against the background of their international exploitation, the analysis of the complex trade dynamics of West African monitor lizards as well as the taxonomy, distribution and conservation status of mangrove monitors on Pacific islands. The following papers have been published: Rahman, K.M. and Rakhimov, I.I. (2019). Activity Patterns and Feeding Ecology of the Semi-Aquatic Varanus flavescens (Reptilia: Varanidae). Russian Journal of Herpetology 26(2):91-97. Koch, A. and Eidenmüller, B. (2019). Is the New Guinea Emerald Tree Monitor Lizard (Varanus prasinus) native to Mainland Australia? Biawak-Journal for Varanid Biology and Husbandry, 13(1):32-42. Weijola, V., et al. (2019). A molecular phylogeny for the Pacific monitor lizards (Varanus subgenus Euprepiosaurus) reveals a recent and rapid radiation with high levels of cryptic diversity. Zoological Journal of the Linnean Society 186(4):1053-1066. (KSR #32)

#### Plan

# Technical advice

i. MLSG members (scientific authorities) contributed to consultations regarding trade issues of *Varanus salvator* in Malaysia. Both Co-Chairs provided input for James Liu, a reptile trade consultant with the United Nations helping to synthesise trade data on selected species of monitor lizards. (KSR #26)

#### Network

#### Documents review

i. One translation of a Russian article into English was supported; see Zima, Y.A. (2019). On the Toxicity of the Bite of the Caspian Desert Monitor Lizard (*Varanus griseus caspius*). *Biawak–Journal for Varanid Biology and Husbandry* 13(2):115–118.

# Membership

i. In 2019, we invited Shreya Bhattacharya from India and Yulia Zima from Kazakhstan to join the MLSG.

#### Synergy

i. Five letters of recommendation were issued by the MLSG Co-Chairs for grant applications of research projects as well as for education purposes and a job application of early-career MLSG members: Saeed Hosseinian, Mijanur Rahman, Tom Jameson, Shreya Bhattacharya, and Daniel Bennett and Valter Weijola.

# Communicate

#### Capacity building

i. Several awareness-raising workshops were jointly organised by MLSG member Shreya Bhattacharya, the Environment, Agriculture and Education Society (EAES) and the Co-Chairs of the MLSG in five districts of West Bengal, India,

from 29 July to 2 August 2019. The main objective of the workshops was to create widespread awareness among the local youth regarding the conservation, utilisation and illegal trade of wildlife, with a special focus on monitor lizards in India. In total, more than 1,000 students aged between 12 and 24 participated in the workshops. A summary of the workshops has been published; see Bhattacharya, S., et al. (2019). Report on the Awareness Workshops "Perceptions of Wildlife Conservation of Today's Youth in West Bengal, India, with a Focus on Monitor Lizards". Biawak-Journal for Varanid Biology and Husbandry 13(2):94-100. Analysis of the workshops' results will be published elsewhere and we hope to continue these efforts in 2020. (KSR #28, 37)

#### Communication

- i. Identification guide for customs and authorities of all monitor lizard species involved in the pet trade: the final draft (200 pages) for all 81 monitor lizard species recognised in early 2019 was submitted to the German Federal Agency for Nature Conservation in August 2019. Since that time, publication is pending and scheduled for 2020. (KSR #28)
- **ii.** A homepage (http://varanus.org) about all monitor lizard species was created by our Red List Authority Daniel Bennett in 2018, but due to his severe illness, maintenance was hampered. Unfortunately, the homepage was hacked in 2019 and is therefore no longer available. (KSR #28)

Daniel Bennett during field work in Ghana with a juvenile savannah monitor (*Varanus exanthematicus*); ca. July 2018 Photo: Anonymous





Foraging activity of an adult yellow monitor (*Varanus flavescens*) in Chalan Beel area of Natore district, Bangladesh; 16 August 2016 Photo: Mijanur Rahman (as part of his PhD).

# Acknowledgements

We would especially like to thank the late Daniel Bennett, who was the first Red List Authority of our MLSG. We much appreciated his accuracy and care in reviewing the Red List species' assessments. His death leaves a very big gap in our community. We also owe a big thank you to Phil Bowles and Neil Cox from the IUCN Global Species Programme. Furthermore, we thank Mona van Schingen and Ulrich Schepp (scientific authorities Germany) and Gerald Benyr (scientific authority Austria). Special thanks are due to Shreya Bhattacharya who kindly involved the Co-Chairs in the successful capacity building measures conducted in West Bengal, India, which were kindly supported by the Environment, Agriculture and Education Society (EAES).

# **Activities and results 2019**

Components of Species Conservation Cycle: 4/5

Assess	3
Plan	1
Network	3
Communicate	3

Main KSRs addressed: 1, 2, 12, 26, 28, 32, 37

KSR: Key Species Result