

IUCN SSC Viper Specialist Group



2019 Report



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Co-Chairs

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Location/Affiliation

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Number of members

172

Social networks

Facebook: Viper Specialist Group



Mission statement

The Viper Specialist Group (VSG) is a platform from which conservation biologists can work to increase our scientific understanding of viper biology and can implement conservation actions to prevent declines and extinctions.

Projected impact for the 2017-2020 quadrennium

By the end of 2020, we will have strengthened the organisation and effectiveness of the Viper Specialist Group in order to have a more meaningful impact on the conservation of vipers globally. We will do that by supporting the individual activities of the members, increasing the membership, repositioning the VSG officers, continuing to publish the VSG newsletter, launching a new website, reactivating the presence of the VSG on social media, continuing to support Red List assessment activities, participating more in academic meetings to network with academic institutions, zoos, NGOs and other actors interested in the conservation of vipers, continuing to explore the possibilities to purchase land for the conservation of vipers, and publishing scientific and divulgative work on vipers, among other things.

Targets for the 2017-2020 quadrennium

Assess

Red List: (1) complete Red List assessments for as many species of vipers in the world as possible; (2) complete assessments for European and North Asian vipers; (3) consider the assessment of *Montivipera kuhrangica* (Kuhrang Mountain Viper) for the IUCN Red List.

Research activities: (1) identify priority sites for the conservation of vipers; (2) identify Black-headed Bushmaster (*Lachesis melanocephala*) distribution in relation to human presence; (3) promote the creation of areas for the conservation of vipers in each region; (4) update the distribution maps for vipers in the Western Hemisphere; (5) obtain missing ecological information for poorly known viper species in Mesoamerica; (6) project the impact of climate change on selected species of vipers in Mesoamerica.

Plan

Planning: (1) define regional priority species for European and North Asian vipers; (2) develop a Viper Action Plan with specific actionable items; (3) complete and publish the VSG Strategic Plan; (4) complete conservation action plans for at least 50% of VSG regions.

Policy: (1) support the proposal to include the Spider-Tail Viper (*Pseudocerastes urarachnoides*) in CITES Appendices in Iran; (2) support the in-country Memorandum of Understanding regarding the harvesting of vipers in Iran.

Act

Conservation actions: define regional priority species for European and North Asian vipers.



Network

Document review: identify knowledge gaps in species assessments.

Membership: increase representativeness in membership.

Synergy: develop effective partnerships between zoos and the VSG.

Communicate

Communication: (1) create a webpage about the VSG with taxonomic updates to make this information more widely available; (2) continue to publish the Viper Specialist Group newsletter; (3) restructure the editorial board of the newsletter; (4) create outreach materials for living with vipers that can be customised by region; (5) increase the efficiency and amount of internal and external communication; (6) implement subpages for each region in the VSG website.

Scientific meetings: (1) determine how to develop and implement focal species initiatives; (2) hold regular virtual meetings among the Regional Coordinators; (3) hold at least one in-person meeting with most of the Regional Coordinators in this quadrennium.

Activities and results 2019

Assess

Red List

i. Phil Bowles and Neil Cox are nearing the completion of Red List assessments of all reptile species. We were contacted by them to review 109 assessments. Steve Spear and Jesús Sigala took up the review task with the help of Jelka and several European VSG members, Marcio, Bryan, Anita and Mahmood. There were some assessments that proceeded without much change, but we are planning to do re-assessment in the near future for vipers in many regions. (KSR #1)

Research activities

i. Two priority sites for the conservation of vipers were considered, one in South Africa and another in Mesoamerica; however, only the South African one was proposed, and it received support from the Rainforest Fund. We will continue working on this target in the near future. (KSR #22)

ii. We continued identifying bushmaster occurrences in relation to human presence that will be informed in a 2020 detection dog survey. Five new bushmaster observations through local contacts were added to the database. (KSR #43)

iii. Updating of distribution maps for vipers in the Western Hemisphere was carried out, but the products are still not published because they are maps. We still have to find the best possible repository for them. (KSR #12)

iv. Several poorly known species were targeted for ecological research in Mesoamerica and one species, *Cerrophidion tzotzilorum* (Tzotzil Montane Pit Viper), was monitored exhaustively in 2019. (KSR #12)

v. We started examining the impact of climate change on selected species of vipers in Mesoamerica, considering taxa of restricted distribution in México and Central America. So far, we have finished with two species, *Crotalus armstrongi* and *Ophryacus undulatus*. (KSR #32, 38)



Vipera ammodytes, the Nose-horned Viper or Sand Viper (IUCN-Least Concern), is a species that inhabits Europe and the Middle East that has a peculiar horn in the snout
Photo: Eric Centenero Alcalá



Cerrophidion tzotzilorum, the Tzotzil Montane Pit Viper (IUCN-Least Concern), is a terrestrial and stout species endemic to southern Mexico
Photo: Eric Centenero Alcalá

Plan

Planning

i. Definition of regional priority species for European and North Asian vipers: The first result is the outcome of the questionnaire shared among regional VSG members to propose priority species. The second result will be visible in 2020 but started in 2019, as an initiative of regional members to carry out an updated analysis on the phylogeny of Eurasian vipers. The study is open access in *Amphibia-Reptilia* in 2020; this will be followed by the Red List reassessments of Eurasian vipers and update of their priority status. (KSR #15)

ii. Several species were targeted to develop a Viper Action Plan; one species, *Cerrophidion tzotzilorum*, was monitored exhaustively in 2019. (KSR #31)

iii. Completion and publication of the VSG Strategic Plan is being outlined. (KSR #31)

Policy

i. Advice was given for the MoU for harvesting of vipers in Iran, but no official document was generated. (KSR #27)

Act

Conservation actions

i. One area in South Africa was created for the conservation of vipers with support from the Rainforest Fund. In Europe and North Asia, viper conservation areas should be discussed after getting consensus on priority areas for vipers, which also requires the updating of taxonomic status of viper taxa within the region. (KSR #22, 43)



Bothriechis bicolor, the Guatemalan Palm-pit Viper (IUCN-Least Concern), is an arboreal species that inhabits forests in Mesoamerica
Photo: Eric Centenero Alcalá

ii. On the basis of a questionnaire shared among regional members, eight priority areas for European and North Asian viper are proposed, but could be subjected to further changes, when the process of updating taxonomy of Eurasian viper progresses. (KSR #22)

Network

Membership

i. In 2019, we did not advance in the process of increasing representativeness in membership, but we are in the midst of restructuring the membership of our group and will tackle it in 2020. Plans for rearrangement were outlined, with the inclusion of committees to undertake needed activities.

Synergy

i. One new partnership was developed with Universeum, in Sweden. In addition to this, our Deputy Chair attended the Association of Zoos and Aquariums (AZA) Herp Taxon Advisory Group (TAG) meeting to initiate discussions regarding the Viper Specialist Group. (KSR #29)

Communicate

Communication

i. A website was created and paid for two years in GoDaddy.com, but there were problems with the renewal, so we are moving to publishing our website elsewhere. (KSR #28)

ii. There was not much response to our call for items for the *Viper Specialist Group Newsletter*, but we will call again in 2020. (KSR #28)

iii. We attempted to reorganize the *Viper Specialist Group Newsletter*, but it was considered too time consuming and we will attempt to reactivate it again in 2020. (KSR #28)

iv. We did not move from planning to creation of outreach materials related to living with vipers, but we will be working in 2020 on similar material that could accomplish what we wanted for this target. (KSR #28)

v. We are transitioning in the leadership of the group, and we hope to be more effective in increasing efficiency of communication. (KSR #28)

vi. We created seven region subpages on the website published through GoDaddy.com. We will strive to continue this in the new version that we are preparing. (KSR #28)

Scientific meetings

i. One virtual meeting was held in 2019 among the Regional Coordinators, in which leadership renovation was achieved.

ii. Different steering committee members have been present in local meetings, but we have not yet agreed on an in-person meeting with most of the Regional Coordinators this quadrennium.

Acknowledgements

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Summary of activities 2019

Components of Species Conservation Cycle: 5/5

Assess	6	
Plan	4	
Act	2	
Network	2	
Communicate	8	

Main KSRs addressed: 1, 2, 12, 15, 22, 27, 28, 29, 31, 32, 38, 43

KSR: Key Species Result