



**The IUCN Species
Survival Commission**

QUARTERLY REPORT
SEPTEMBER 2023



Bengal monitor (*Varanus bengalensis*) NT.
Photo © Vivek Dhiman on pexels.com

Combating Wildlife Exploitation: SSC Workshops Foster Awareness in India's Biodiversity Hotspot

The unsustainable utilization and exploitation of natural resources, especially wildlife, pose a significant threat to global biodiversity. This issue is particularly pronounced in densely populated countries endowed with rich biodiversity, such as India. In response to this pressing concern, the SSC Monitor Lizard Specialist Group took proactive steps to address the challenge through two awareness-building workshops. These workshops, conducted in collaboration with the Srichandrapur Prabhat Rabi Seba Sangha and the Green Plateau Organization, focused on wildlife exploitation and conservation.

Shreya Bhattacharya^{1,8}, Kumar Nishant², Aritri Chatterjee³, Rabi Das⁴, Santanu Mahato^{3,5,6}, Mark Auliya^{1,7} and André Koch^{1,7}

1- IUCN SSC Monitor Lizard Specialist Group

2- Centre for Journalism and Mass Communication, Visva Bharati University, Shantiniketan, West Bengal 731235, India

3- Green Plateau Organization, Hatirampur, Bankura, West Bengal 722121, India

4- Srichandrapur Prabhat Rabi Seba Sangha, Birbhum, West Bengal 731236, India

5- Salim Ali Centre for Ornithology and Natural History, Anaikatty Post, Coimbatore 641108, Tamil Nadu, India

6- Biopsychology Laboratory, Institution of Excellence, University of Mysore, Mysuru 570006, Karnataka, India

7- Museum Koenig, Leibniz Institute for the Analysis of Biodiversity Change, Adenauerallee 160, 53113 Bonn, Germany

8- Corresponding author: bshreya93@gmail.com

On 9 June 2023, a series of enlightening workshops unfolded in Srichandrapur Village, situated in the Birbhum district of West Bengal, India. The choice of this location was strategic, given the region's high biodiversity and the prevalence of wildlife-related challenges. Their primary objective was to instill a widespread awareness among the Santhal tribal villagers regarding the critical importance of biodiversity and wildlife conservation.

Background of the Awareness Workshops: Exploitation of local wildlife by the traditional Santhal tribes of West Bengal

India is the seventh largest country by area, the second-most populous as well as one of the 17 mega diversity countries of the world (Shi *et al.* 2005). However, this tremendous species richness is threatened by around 1.4 billion inhabitants, which is roughly 16% of the global human population (Prasad *et al.* 2002). Consequently, there is an enormous anthropogenic pressure on the various habitats and wildlife species, for instance, through degradation of wetlands and exploitation of local wildlife for bushmeat consumption or the illegal trade of its products (Prasad *et al.* 2002, Sahajpal *et al.* 2009, Bhupathy *et al.* 2013).

The Santhals are one of the ancient and the most widely spread tribes of India, inhabiting several parts of the country including West Bengal (Guha and Ismail 2015, Ghosh-Jerath *et al.* 2016). They are known to commonly utilize various wildlife species such as monitor lizards, jungle cats, jackals, pigeons, storks, among many others for various purposes such as bushmeat, traditional medicines, and witchcraft (Ghosh *et al.* 2013). Valuable habitats and their wildlife are severely threatened due to the rapid increase in modernization, followed by the conversion of forested lands and the destruction of wetlands (Eigenbrod *et al.* 2008, Scanes 2017). Moreover, a presumed unsustainable use of local wildlife by the Santhal tribal villagers may result in a sharp decline and fragmentation of populations in these regions.

The Santhal awareness workshops are the extension of the SSC Monitor Lizard Specialist Group Project *Local Utilization of Wildlife Species, especially Monitor Lizards, in Santhal tribal villages of Birbhum, West Bengal, India*. During 2021-2022, the SSC Monitor Lizard Specialist Group conducted a study on the documentation and perception of local wildlife utilizations in five Santhal tribal villages, namely Ghoshal Danga, Bishnubati Adivasi Para, Bandlo Danga, Panchaban Pur, and Ballabpur Danga in the Birbhum district of West Bengal, through documentation and semi-structured questionnaire surveys. The results of this initial study, which are yet to be published, demonstrated various examples of the local and medicinal use of wild animals. The Santhals are also known to have an annual traditional hunting festival called "Sakrat" in Santhali language, where the men form groups, carry their weapons and hunt together in nearby forest fragments. From our findings, the Santhals hunt any wild animals that they encounter such as palm squirrels, civets, hares, wild boars, birds -- such as pigeons, kingfishers, owls, and doves -- jungle cats, and especially monitor lizards.

Among the four species of monitor lizards that are native to India, i.e., the bengal monitor (*V. bengalensis*), the yellow monitor (*V. flavescens*), the common water monitor (*V. salvator*), and the desert monitor (*V. griseus*) (Koch *et al.* 2013), the former two were recorded among the local use in these tribal villages. All four species are nationally protected in Schedule 1, Part II of the Wildlife (Protection) Act of India, 1972; the yellow monitor is evaluated

“Endangered”, the bengal monitor, “Near Threatened”, while the global population trends of both species are “decreasing” according to their IUCN Red List assessments (Sharma *et al.* 2018, Das *et al.* 2021, Cota *et al.* 2021). Moreover, body parts of monitor lizards are involved in illegal trade activities, for example, “Hatha Jodi” (i.e., the genitalia of monitor lizards called hemipenes) traded as “plant roots”, which are used in astrology and witchcraft in various parts of the country (Bhattacharya and Koch 2018, D’Cruze *et al.* 2018, Sharma *et al.* 2019).

Objectives of the Awareness Workshops

The main aim of our workshops was to inform and educate tribal villagers about the importance of wildlife conservation and its habitats and to make them aware of the effects of unsustainable use of biodiversity, thus highlighting the consequences for local human populations. In the following, the specific targets are listed:

1. To explain the importance of the village ecosystems, such as the various surrounding wetlands (e.g., marsh, permanent and temporary water bodies), monsoon forests, and forest fringes for the preservation of local biodiversity.
2. To provide a clear picture about the ecological role of monitor lizards as large reptilian predators and scavengers (e.g., their trophic niche occupation) and why they need to be conserved.
3. To encourage and motivate the children and youth to be responsible and to question current exploitation levels for domestic use and hunting festivals of wildlife species in their area.
4. To discuss the reasons and perceptions of utilizing wildlife species for food and/or medicines as well as possible mitigative measures to avoid such situations in the future.

Methodology of the Workshops

Two workshops were conducted with Santhal villagers: one for the children between 3 and 15 years old during the morning and another for all the adult tribal villagers in the evening of 9 June 2023. Srichandrapur was chosen as the venue, since it is located in the middle of the five tribal villages, and hence it was easier for the villagers to attend the workshops. Flex banners were printed in both English and Bengali, so that the villagers could get an idea about the topic. A day before the event, all five villages were visited by us and the inhabitants were personally invited to attend the workshops. The Santhals are usually shy and not comfortable interacting with strangers, but since we have worked in these villages for the past two years, it was easier to arouse their curiosity and convince them to take part.



Figure 1: Workshop flex banners in English and Bengali.

The evening workshop began with opening speeches from the Santhal tribal village leaders, who explained the importance and the theme of the event in Santhali language to the audience. The Santhals of Birbhum speak in their traditional language (Majhi 2001, Guha and Ismail 2015), but can also understand the regional Bengali language (SB, personal observation). The workshops consisted of two sessions: (1) the presentation and the (2) interaction session.

- 1. Presentation Session:** A power point presentation of 45 minutes was shown in both workshops, which initially consisted of images from the five villages in order to engage the audience for a better understanding and attention. Then, the importance and concept of “wildlife conservation” was introduced to the Santhal villagers. Various images of habitats (see above) including agro ecosystems harboured by local wildlife species, such as monitor lizards, were shown. The differences between farmed and wild species were explained and the effects of hunting festivals on the wild populations were also described in the presentations. Images that show examples of the domestic use of *Varanus spp.* from the villages such as “monitor oil”, “dried skin”, as well as of other species such as tortoise/turtle shells were also presented. In addition, images of local weapons used by the hunters, such as bow and arrow, catapult, spears, and death traps were shown. These images were used to explain the unsustainable domestic use of wildlife and its detrimental impact on ecosystems and the consequences for humans such as the transmission of zoonotic diseases. Examples of zoonoses include the worldwide pandemic COVID-19 and Rabies which were familiar to the villagers.
- 2. Interaction Session:** After the presentation session, the Santhal tribal villagers, including the hunters were asked to express their opinions and views about our workshop as well as about the concept of unsustainable domestic use of wildlife.



Figure 2: The workshop presentation is given by the first author.



Figure 3: Santhal tribal children and women with the workshop banner.

Outcomes and Experiences of the workshops

According to the Santhals, it was for the first time that such wildlife awareness workshops have taken place in these remote tribal villages. Fifty children attended the morning workshop session and around 100 tribal villagers participated in the evening workshop despite extreme temperatures of 40 degree Celsius. The children were excited to learn about the habitats and ecology of wildlife around them. In the beginning of the morning workshop session, the children were asked how many of them regularly consume “torhor” (i.e., monitor lizard in Santhali language) to which most of them said “yes”. It was surprising to get to know that they considered having monitor lizard meat as often as having chicken meat. At the end of the presentation session, the children were asked if they would still like to consume monitor lizard meat and participate in hunting festivals, to which most of them answered “no”.

All the tribal villagers who attended the evening workshop stayed until the end of the session. One of the interesting outcomes was conveyed during the interaction session, when a hunter named Shitol, who previously showed his weapons, such as bow and arrow, catapult and explained several hunting methods of the local wildlife species, spoke about the importance of conservation of monitor lizards. This might be a small step, but definitely an achievement to encourage the introverted, shy Santhal tribal villagers to share their thoughts and views as well as to motivate them to conserve and protect the wildlife species in the catchment area of their villages. At the end of the workshop, the villagers wanted us to show them a movie on the projector screen. It was exciting for them to watch the workshop presentation on the big screen for the first time. Though, it was unplanned, we did not want to disappoint the villagers and played the documentary movie “The Elephant Whisperers” by Kartika Gonsalves, which described an emotional bond between two orphaned elephants and a tribal couple who were given the responsibility to raise the calves by the forest department of Madumalai Wildlife Sanctuary in the Tamil Nadu state of India. The documentary addressed the very important issue of coexistence between humans and wildlife.



Figure 4: Shitol, the former Santhali hunter addressing the audience about conserving local wildlife species such as monitor lizards and his picture from 2021 proudly describing the use of his bow and arrow.



Figure 5: A boy with *V. flavescens* kills from the outskirts of West Bengal. Photograph by Tanmoy Ghosh.

Conclusions and Outlook

The overall workshop sessions can be considered as successful in spreading awareness among the tribal villagers from the five villages. It is noteworthy to mention in this context that unlike previous workshops conducted for college and school students in India and elsewhere (Dookia 2009, Nates *et al.* 2012, Bhattacharya *et al.* 2019), the traditional tribes such as the Santhals need special attention and care when issues like local wildlife utilization are addressed. This is due to the fact that Santhals have utilized wildlife around them since ages and this tradition is deeply rooted in their cultural practices (Aditya and Chatterjee 2001, Ghosh *et al.* 2013). It is crucial to make them aware and understand about the consequences of this domestic use of wildlife, and accordingly motivate them to question such traditional practices against the background of the perceived decline of many species. Hence, awareness workshops and interactions with the tribal villagers should be conducted on a regular basis in these villages, also to generate responsible action in dealing with their environment. The trust placed in us here should desirably open a door to the citizen science approach, so that hunters with knowledge of the local wildlife species (such as monitor lizards, jungle cats, and jackals among others) can record and monitor their movements and might serve as nature guides to local tourists in exchange of some monetary incentives. This way, the hunters can be motivated to protect native wildlife, take notice of declines in specific species and populations, and manage local use practices appropriately.



Figure 6: Tribal children after the workshop.

Acknowledgements

We would like to thank all the volunteers from the Srichandrapur village for helping us organize the workshops. The first author would like to thank especially Urvashi Goswami and Souradeep Bhattacharya for supporting and sponsoring the workshops.

References

- » Aditya, A. K., & Chatterjee, P. (2001). Tribal life in association with animals. *Santhal Worldview*, 30-36.
- » Bhattacharya, S., & Koch, A. (2018). Hatha Jodi: An illegal trade of misused scientific facts or blindfolded myths and beliefs? *Biawak- Journal for Varanid Biology and Husbandry*, 12(2), 97-99.
- » Bhattacharya, S., S.Z. Zia, S. Mahato, R.K. Gangwar, N. Singh, M. Auliya, & A. Koch. 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 of Varanid Biology and Husbandry*, 13(2): 94-100.
- » Bhupathy, S., Kumar, S.R., Thirumalainathan, P., Paramanandham, J. & Lemba, C., 2013. Wildlife exploitation: a market survey in Nagaland, North-eastern India. *Tropical Conservation Science*, 6(2): 241-253.
- » Cota, M., Stuart, B.L., Grismer, L., Quah, E., Panitvong, N., Neang, T., Nguyen, N.S., Wogan, G., Lwin, K., Srinivasulu, C., Srinivasulu, B., Vijayakumar, S.P., Ramesh, M., Ganesan, S.R., Madala, M., Sreekar, R., Rao, D.-Q., Thakur, S., Mohapatra, P. & Vyas, R. (2021). *Varanus bengalensis*. *The IUCN Red List of Threatened Species 2021*: e.T164579A1058949.
- » D'Cruze, N., Singh, B., Mookerjee, A., Macdonald, D., Hunter, K., Brassey, C., Rowntree, J., Megson, S., Megson, D., Fox, G., Louies, J., Sharath, R. K (2018). What's in a name? Wildlife traders evade authorities using code words. *Oryx*, 52: 13-13. doi:10.1017/S0030605317001788
- » Das, A., Hasan, M.K., Bhattarai, S., Wangyal, J. & Mohapatra, P. (2021). *Varanus flavescens*. *The IUCN Red List of Threatened Species 2021*: e.T22872A127899602.
- » Dookia, S. (2009). Conservation of Indian gazelle or chinkara through community support in Thar Desert of Rajasthan, India. *Report submitted to The Rufford Small Grants, UK*.
- » Eigenbrod, F., S.J. Hecnar & L. Fahrig. (2008). Accessible habitat: An improved measure of the effects of habitat loss and roads on wildlife populations. *Landscape Ecology* 23(2): 159-168.
- » Ghosh, T. N., Singhamahapatra, R., & Mandal, F. B. (2013). Traditional use of animals among Santhals of Bankura district. *International Journal of Latest Research in Science and Technology*, 2(6), 95-96
- » Ghosh-Jerath, S., Singh, A., Magsumbol, M.S., Lyngdoh, T., Kamboj, P. and Goldberg, G., (2016). Contribution of indigenous foods towards nutrient intakes and nutritional status of women in the Santhal tribal community of Jharkhand, India. *Public health nutrition*, 19(12):2256-2267.
- » Guha, S., & Ismail, M.D. (2015). Socio-cultural changes of tribes and their impacts on environment with special reference to Santhal in West Bengal. *Global Journal of Interdisciplinary Social Sciences*, 4(3):148-156.
- » Koch, A., Ziegler, T., Böhme, W., Arida, E., & Auliya, M. (2013). Pressing problems: distribution, threats, and conservation status of the monitor lizards (Varanidae: *Varanus spp.*) of Southeast Asia and the Indo-Australian archipelago. *Herpetological Conservation and Biology*, 8(Monograph 3), 1-62.
- » Majhi, C. P. (2001). Santhal language and culture. *Santhal Worldview*. New Delhi: *Indira Gandhi National Centre for the Arts*, 89-99.
- » Mittermeier, R. A. 1997. Megadiversity: Earth's biologically wealthiest nations. *Agrupacion Sierra Madre*.
- » Nates, J., Campos, C., & Lindemann-Matthies, P. (2012). The Impact of a Short Conservation Education Workshop on Argentinean Students' Knowledge about and Attitudes towards Species. *Eurasia Journal of Mathematics, Science and Technology Education*, 8(4), 257-267
- » Prasad, S.N., Ramachandra, T.V., Ahalya, N., Sengupta, T., Kumar, A., Tiwari, A.K., Vijayan, V.S. & Vijayan, L., 2002. Conservation of wetlands of India – a Review. *Tropical Ecology*, 43(1): 173-186.
- » Sahajpal, V., Goyal, S.P., Singh, K. & Thakur, V., 2009. Dealing wildlife offences in India: role of the hair as physical evidence. *International Journal of Trichology*, 1(1): 18.
- » Scanes, C. G. (2018). Human activity and habitat loss: destruction, fragmentation, and degradation. *Animals and human society. Academic Press Chapter 19: 451-482*.
- » Sharma, C.P., Kumar, A., Vipin., Sharma, V., Singh, B., Kumar, G. C., & Gupta, S. K. (2019). Online selling of wildlife part with spurious name: a serious challenge for wildlife crime enforcement. *International Journal of Legal Medicine*, 133(1), 65-69.
- » Sharma, R.K., Goyal, A.K., Saini, J., Sharma, M.B. (2018). The species in crisis: *Varanus bengalensis*. *Species*, 19:68-7.
- » Shi, H., Singh, A., Kant, S., Zhu, Z., & Waller, E. (2005). Integrating Habitat Status, Human Population Pressure, and Protection Status into Biodiversity Conservation Priority Setting. *Conservation Biology*, 19(4), 1273-1285.



Bengal monitor (*Varanus bengalensis*) NT.
Photo © Hemachandra Basnayaka on pexels.com