## ZOO OUTREACH ORGANISATION

### ACTIVITY REPORT 2024-2025



Zoo Outreach Organisation (Zooreach) proudly marks 40 years of dedicated wildlife conservation, having grown from its founding in 1985 by the Department of Environment, Government of India, into a pioneering force in biodiversity conservation across South Asia. Over four decades, Zooreach has assessed over 10,000 species, published 4,000 scientific papers, reached more than 1 million people through conservation education, and conducted over 200 hands-on training workshops.

Dr. Sanjay Molur has been given the prestigious George Rabb Award in honour of Dr George Rabb, Chair of SSC from 1989 to 1996, for outstanding innovation and creativity in species conservation in the context of the Species survival commission of the IUCN at the IUCN leaders meet in Abu Dhabi, Oct'2024





# LANDSCAPES, SPECIES, AND LIVELIHOODS

#### **PURPOSE**

The Himalayan Restoration Project restores the extremely neglected, poorly-known, deteriorated broad-leaf oak, and pine forest habitat in Chamba, western Himalaya. This is a long term project in partnership with local communities in 28 villages who are interested in growing native vegetation on their non-arable farmland to support local wildlife such as langurs, black bears, macaques, and porcupines and reduce crop raiding and mitigate climate crisis. Himalayan Restoration Project was formally inaugurated on the World Forestry Day on 21 March 2024 where we had a restoration drive with the participation of high school students in a government school under the National Social Service scheme.

#### **ACTIVITIES**

- 1.5 ha of degraded forest land restored with 1500+ saplings of 10 native species.
- 5000+ saplings of 13 native species germinated for 2025 restoration (Quercus leucotrichophora, Prunus cerasoides, Juglansregia, Melia azedarach, Grewia optiva, Cedrus deodara, Aesculus indica, Morus serrata, Populus ciliata, Pyrus pashia, Punica granatum, Sapindus mukorossi) in the community led nursery.
- We have educated 700+ students & youth on coexistence & restoration. 100+ students joined the group in restoration.
- We have trained 100+ indigenous women on eco-based adaptations and ecologically sustainable livelihood options. Women have been trained in nursery management, para taxonomy, plant identification, and germination skills.
- We have hired 3 local & indigenous community members as local ambassadors to help in various aspects of the project.
- The team has also been working on understanding the distribution and population of Himalayan black bears in the region with the forest department and upskilling the rangers on the same.









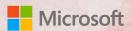


















F. C. Sondhi & Co. (India) Pvt. Ltc







# ACTION FOR THE UNIQUE & THREATENED WG FRESHWATER FISHES OF INDIA

#### **OBJECTIVES**

- To build strong communications and engagement between local stakeholders, and for the general public to put freshwater fish conservation on the map.
- 1. Denise and her friends conservation: Sahyadria denisonii or Miss Kerala, the world-famous ornamental fish in the aquarium trade is distributed in 9 west-flowing rivers of Kerala and southern tip of Karnataka. The project envisages to identify suitable stretches for conservation, build community networks, public participation, education & outreach, and establish community conservation reserves
- 2. Subterranean fish research: The proposed project will use an integrated framework based on science and knowledge, outreach, education and communication to secure the future of the enigmatic and ancient taxa.
   Dr. Rajeev Raghavan of the Kerala University of Fisheries and Ocean Studies (KUFOS) leads the team.

#### **ACTIVITIES**

#### A. Research and Field Activities:

- Completed systematic field surveys in west-flowing rivers from 8°N to 13°N to understand micro-level distribution of Redline Torpedo Barb/Denise
- Conducted surveys across 16 villages in wetlands and paddy fields across Kerala and Karnataka to determine micro-level distribution of subterranean fishes
- Collected 72 subterranean fish samples (Horaglanis, Kryptoglanis, Rakthamichthys, Pangio) from multiple districts including Trivandrum, Kollam, Kottayam, Ernakulam, and Pathanamthitta
- Developed and standardized eDNA extraction and analysis methods for subterranean fishes
- Designed species-specific primers for identification of subterranean fishes



#### B. Community Engagement and Conservation:

- Organized local networks in key areas (Bharathapuzha River) for Denison's Barb conservation
- Established initial contact with village heads and point persons for community surveys for Denison's Barb conservation
- Initiated identification of critical riverine stretches in Bharathapuzha, Chalakudy and Periyar Rivers for potential community conservation reserves
- Started groundwork for establishing community conservation reserves in Bharathapuzha River
- Conducted perception studies and community surveys
- Engaged with village Panchayats and local government offices for long-term monitoring and conservation of subterranean fishes
- Carried out focus-group discussions and established personal relationships with local fishers and communities for Denise and subterranean fish conservation

#### C. Education and Outreach:

- Development of online manual for conservation action for 'Denison's Barb (Denise) and friends' is in progress
- Design and development of educational packets and materials for both Denison's Barb and subterranean fish species is ongoing
- Conducted awareness and educational programs in schools, particularly in Government Higher Secondary Schools in Poonoor and Medical College campus, Kozhikode
- Engaged with local communities in more than 10 villages through educational initiatives









#### WETLAND RESTORATION

#### **OBJECTIVES**

Zoo Outreach Organisation, with support from BOSCH, is working on a wetland restoration project in Coimbatore. We're focusing on the Nallusamy Checkdam and Sambrani Kuttai in Keeranatham. Our goal is to bring these urban wetlands back to life and help people understand why they're important.

#### **ACTIVITIES**

- In Phase 1, we studied the plants and animals living in the area and talked to local people about the wetlands.
- In Phase 2, we established a native plant nursery for Coimbatore plains, featuring over 5,250 individuals across 40 native species. These plants will be used to restore the area in the future.
- Comprehensive biodiversity surveys documented more than 260 species across three seasons, while road-kill monitoring identified approximately 50 impacted species.
- The project successfully trained 39 local stakeholders and reached over 1,840 Bosch employees through field immersions and online sessions, creating a robust foundation for sustainable wetland restoration.
- Educational materials including 24 species identification cards and YouTube videos have been developed to ensure long-term community engagement in native species conservation.
- Our project brings together scientists, local community members, and BOSCH volunteers.

**Sponsor:** Bosch Global Software Technologies Pvt. Ltd.

Local NGO partners: RAAC, Kowsiga Neerkarangal, Recompose Recyclers.





















### Conservation SEED GRANTS

#### **OBJECTIVES**

The Zooreach Conservation Seed Grants Program aims to empower grassroots conservation efforts and protect India's rich biodiversity by providing financial support, technical assistance, and capacity-building opportunities to young conservationists working on neglected species and ecosystems.

#### **ACTIVITIES**

- Provided funding to 10 young conservationists across India
- Supported local biodiversity inventories and ecological assessments
- Facilitated species checklists creation and behavior documentation
- Mentored grantees in scientific writing and publication
- Conducted rigorous evaluation and monitoring to ensure accountability and transparency
- Built a framework for long-term conservation career development

10 rising conservation leaders – including doctoral scholars – have been directly empowered by the grant and are now creating ripple effects in their fields across India.



Conservation work is making waves across 4 states, 1 union territory, and one of the richest Biodiversity Hotspots on the planet.



200+ species of flora, fauna, and funga spanning 15+ species groups and 10+ ecosystems are being actively conserved through handson, grassroots efforts.

140+ hours have been spent by the ZCSG team to upskill the Grantees in Research & Publication Ethics, IUCN Red Listing, Conservation Translocation, and Conservation Education.



Over 800+ community members, students, women, and indigenous groups have been engaged through impactful conservation outreach and workshops.



Creating a global footprint with 30+ blogs, 5+ research papers, and 2+ articles slated for publication in international conservation journals.

60+ groups, 500+ taxa, and 20+ ecosystems have been observed apart from the conserved species.



#### **IMPACTS**

- 10 rising conservation leaders including doctoral scholars have been directly empowered by the program to create meaningful conservation effects in their fields across India
- 200+ species of flora, fauna, and fungi spanning 15+ species groups have been documented and actively conserved through hands-on, grassroots efforts
- Over 5000 community members, students, women, and indigenous groups have been engaged through impactful conservation outreach and workshops
- Creating a global footprint with 30+ blogs, 5+ research papers, and 2+ articles slated for publication in international journals
- 60+ groups, 400+ taxa, and 20+ ecosystems have been observed apart from the conserved species
- Conservation work is making waves across 4 states, 1 union territory, and one
  of the remotest biodiversity hotspots on the planet
- 140+ hours have been spent by the ZCSG team to upskill the Grantees in themes ranging from SMART Goals, IUCN Red Listing, Conservation Translocation, and Conservation Education





BOSCH

A CSR Initiative by

### **SOUTH ASIAN INVERTEBRATE** SPECIALIST GROUP





- Completed data collation for the Red List Assessments & Conservation Action Plan (CAP) via literature review and meetups with experts
- Established network of Tarantula experts in India
- Successfully conducted Red List workshop in June 2025, currently in final review process
- Assessment results to be submitted to IUCN for review.



#### **ACTIVITIES**

- Planning invertebrate taxonomy training workshop for Nilgiris landscape
- ICINSA network and SAsISG members expansion
- SAsISG social media page launch
- Covered Press release for Tiger Beetles in 8 states (Link)



#### **EDUCATION**

- Kodaikanal education trip for mid school graders (2-4) February 2025)
- Organised Tiger Beetle talk by David Pearson for World Tiger Beetle Day Celebration and Kick-off
- Created and posted invertebrate contents on Facebook and Instagram for South Asian Invertebrate Specialist Group



Sponsor: The Mohamed bin Zayed Species Conservation Fund. Re:wild.











## Zooreach completes a year as a MAHE research centre

Zoo Outreach Organisation Trust is a Research Centre affiliated with the Manipal Academy of Higher Education (MAHE) since January 2024. In the past one year four students are enrolled for PhD in 'Conservation Action'.

The vision of the organization's doctoral program is to empower the youth to strengthen their actions in conservation through science-backed research. The program is in its initial stages, and we have two eminent conservationists/ researchers accepting students and spear-heading the program—Dr Sanjay Molur and Dr. Bhargavi Srinivasulu.

- Trisa Bhattacharjee (registered on 15 April 2024) is working on 'Shifting Timelines: Asian Elephants in Human Settlements in and around Sathyamangalam Tiger Reserve'.
- Sushanth S (registered on 15 October 2024) is working on 'Species composition and status of vegetation, herpetofauna, birds, and mammals in the habitat mosaics of Nelliyampathy Hills, Kerala'.
- Asha Jyothi (registered on 15 October 2024) is working on 'Factors Impacting the Species Composition and Abundance of Araneofauna in Undisturbed and Disturbed Ecosystems: Implications of Habitat Management Interventions'.
- Asad Gopi (registered on 15 October 2024) is working on 'Distribution and Movement
   Ecology of Indian Flying Fox Pteropus medius in the Urban and Semi-Urban Ecosystems
   of Greater Hyderabad, Telangana State'.

If you are a self-motivated conservationist with a desire to work on a unique conservation project proposal on your mind and are looking forward to pursuing a PhD on the same, please mail us your details (CV, compelling write up on your interest, ideas of working on the aspect, funding) at phdcoordinator@zooreach.org.



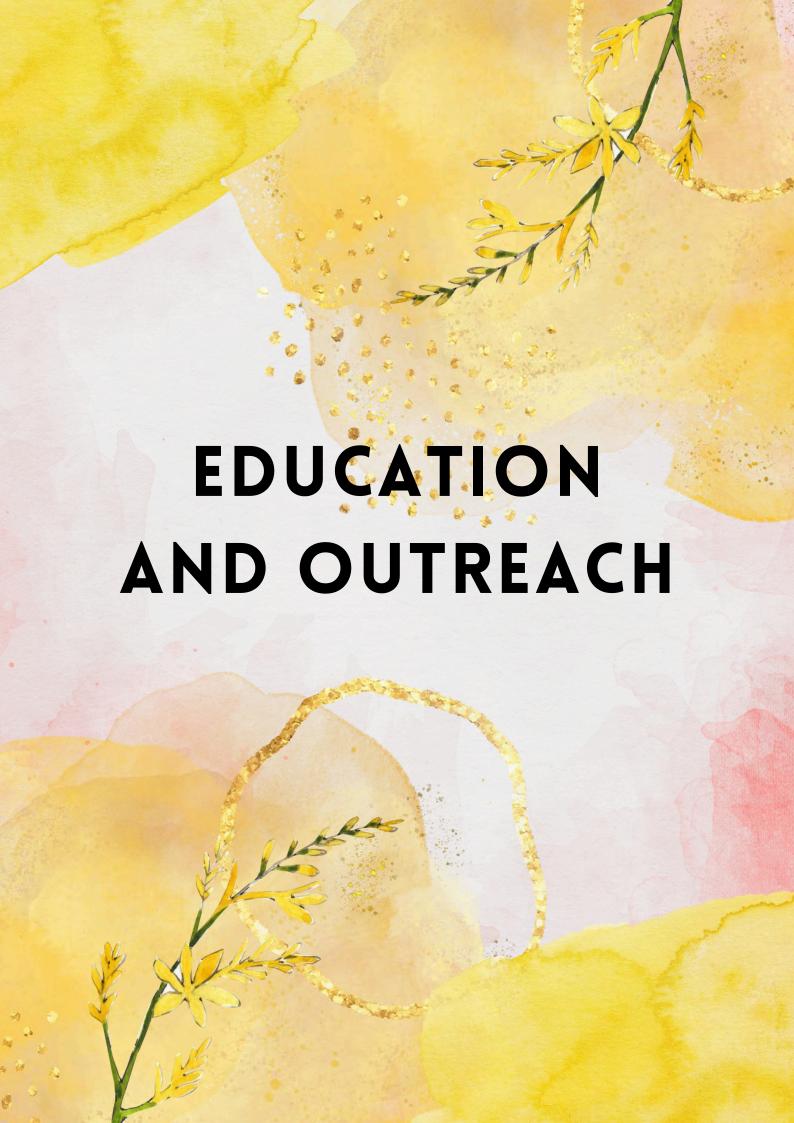


## BUILDING EVIDENCE FOR CONSERVATION GLOBALLY!



#### THE JOURNAL OF THREATENED TAXA

The Journal of Threatened Taxa (JoTT) is an open access and print, peer reviewed monthly (not including special edition, supplementary and monographs), rapid, international journal for conservation and taxonamy. JoTT is a platform for quick and timely publication of research findings, reviews and other aspects of science related to conservation and taxonomy including subject areas like ecology, behavior, physiology, methodology, veterinary, diseases, management, and models among others. JoTT encourages professional and amateur upcoming scientists from around the world to publish. The journal provides assistance and mentors first time writers, or writers of non-native English language countries in presenting science to the world. Wildlife Information Liaison Development publishes JoTT, and Zoo Outreach Organisation hosts and supports the journal.



## HUMAN ELEPHANT COEXISTENCE (HECX)

# AMPLIFYING ASIAN ELEPHANT CONSERVATION THROUGH CAPACITY BUILDING AND SENSITIZATION PROGRAMS IN TAMIL NADU, INDIA

**Project Goal:** Ensured long-term survival of Asian Elephant populations by minimizing negative human-elephant interactions in Tamil Nadu.

**Focus Areas:** Sathyamangalam Tiger Reserve (STR) and Srivilliputhur Megamalai Tiger Reserve (SMTR).

#### **Activities Conducted:**

- 2 capacity-building trainings for forest frontline staff
- 2 sensitization programs for journalists

#### **Reach and Impact:**

- Trained 58 forest staff (anti-poaching watchers, forest guards, foresters, rangers)
- Engaged 59 journalists in responsible reporting practices

#### **Key Outcomes:**

- Enhanced forest staff knowledge on elephant behavior and HENI mitigation methods
- Promoted factual media reporting to reduce community tensions
- Improved awareness of safety protocols in Human-Elephant Negative Interaction-prone areas
- Strengthened multi-stakeholder approach to elephant conservation



Sponsor: U.S. Fjsh and Wildlife Service.

### HUMAN WILDLIFE CONFLICT AWARENESS PROGRAMMES

To educate communities living near forest fringe areas to avoid conflict and promote peaceful coexistence with wildlife.

- Ninety-five (95) Human Wildlife Conflict street plays in the THADAM villages of nine forest divisions of Tamil Nadu
- Reached approximately 20,000 community people

**Sponsor:** amil Nadu Biodiversity and Greening Project for Climate Change (TBGPCC), TNFD









#### HUMAN ELEPHANT COEXISTENCE HECX AWARENESS THROUGH STREET PLAYS IN DHARMAPURI FOREST CIRCLE

To educate communities living near elephant habitat in Dharmapuri Forest Circle to improve attitudes towards elephants, avoid confrontation and conflict, and promote Human Elephant Coexistence to school children.

- Ten (10) street plays & 6 school awareness programmes
- Reached approximately 3,000 community members, 600 students & 60 teachers

**Sponsor:** Asian Elephant Support.















CONSERVATION OF CRITICALLY ENDANGERED HAMMERHEAD SHARKS OF INDIA VIA PARTICIPATORY SCIENCE

#### **OBJECTIVE**

To train fisheries students on hammerhead shark monitoring, support data collection, and establish a network of marine conservation students across coastal states.

#### **ACTIVITIES**

Completed training workshops for 4 colleges

 Conducted theoretical sessions on shark status, identification, and conservation

- Implemented practical sessions at fishing harbors
- Training on using 1OCEAN Citizen Science website (<u>Planning invertebrate taxonomy</u> <u>training workshop for Nilgiris landscape</u>
- <u>Established internship tie-up with one college</u>

Sponsor: Wildlife Conservation Trust (WCT-BEES Grant)



### MONITORING OF CRINUM MALABARICUM IN ITS TYPE LOCALITY

To establish long-term monitoring for Crinum malabaricum and assess populations in Periye, Cheemeni, and Aravanchal.

- Conducted plant counts along 1 km stream stretch with 20 college students
- Documented canopy cover, associate species, water depth, and Crinum density
- Completed population assessment



# RAM HATTIKUDUR ADVANCED TRAINING IN CONSERVATION (RHATC)

Theme: Grassland Ecosystem Conservation

Fellows: 10 participants from diverse backgrounds across India

Mission: Bridging conservation theory with practical implementation

#### **Curriculum Delivered:**

- Conservation fundamentals and specialized ecosystem knowledge
- · Practical conservation skills and field techniques
- Scientific methodology and research ethics
- · Grant writing and project management
- · Communication and education strategies

#### Field Experiences:

- Achankulam Lake (bird watching, lake restoration)
- Rainforest Retreat (grassland ecology, organic farming)
- Tumkur (inselbergs and rocky outcrops)
- Mysore Zoo (ex-situ conservation)
- · Pollachi (firefly conservation)
- SACON, Valparai (research methodology, human-elephant coexistence)

#### **Expert Interactions:**

- 60+ mentors and resource people
- 32+ conservation organisations
- Specialized workshops on Red Listing, translocation, and wildlife policy

#### Mentorship Program:

- Two-week field experience at Devihasol, Ratnagiri
- Five specialized projects on rocky outcrop conservation

#### **Tangible Outputs:**

- Educational materials published in Zoo's Print
- Conservation campaign designs
- Research proposals on grassland conservation
- School outreach session at Vidya Vanam School
- All trained fellows have now begun working in the conservation field.

The 2024-2025 RHATC program successfully equipped ten conservation leaders with knowledge, skills, and networks needed to implement effective grassland conservation initiatives across India. The program's unique combination of theory, field experience, and mentorship ensured graduates are ready to address complex conservation challenges.

**Sponsor: Mansukhani Family, Coromandel International Limited, & Sanjay Manohar** Family & Friends,





























#### **MAGIC OF THE OCEAN**

#### **OBJECTIVE**

Empowering Ocean Literacy through an Interactive E-learning Platform

#### **ACTIVITIES**

- Developed, conducted and analysed perception surveys (Coimbatore, Rameswaram, and Kerala).
- Created content/education modules mapped to the 7 Principles of Ocean Literacy and subjects.
- Designed website, illustrations, games, videos, origami activities, story telling scripts, and podcasts for the platform.
- Conducted outreach to schools for collaborations.
- Participated in the Show and Tell webinar and submitted platform mockup.

#### RESULTS

- The platform is in the final stage of content and media integration.
- Engaged 49+ educators.
- Enhanced inclusion of ocean biodiversity and sustainability into school curricula.



## CLIMATE MITIGATION THROUGH ECOLOGY-BASED LEARNING

#### **OBJECTIVE**

Equip rural educators to lead nature-centric climate action at Rameshwaram

#### **ACTIVITIES**

- Developed and translated the educator's manual "Seaside Classrooms" and student packets.
- Conducted a 3-day Teacher Training Workshop for 20 educators of government schools.
- Hosted "Reverse the Red" exhibitions in 7 schools.

#### **RESULTS**

- Trained 20 educators, reached over 400 students.
- Increased local awareness and education quality about ocean in climateimpacted coastal schools.
- Laid the foundation for school-based ocean literacy.

**Sponsor:** Amazon



## EMPOWERING STUDENTS & WOMEN IN SEAGRASS CONSERVATION

#### **OBJECTIVE**

Build community stewardship through education on the seagrass ecosystem

#### **ACTIVITIES**

- Developed bilingual educator guide "Seagrass Stories".
- Conducted perception studies with 30 students and 11 SHG women.
- Organised Rameswaram workshop in March 2025.
- Campaigns for World Seagrass Day.

#### **RESULTS**

- Strengthened SHG women's participation in understanding seagrass & seaweed.
- Enhanced ocean literacy across generations and genders.
- Contributed to the visual and scientific documentation of local seagrass.

ocean conservation trust

**Sponsor:** Ocean Conservation Trust

























## ART FOR CONSERVATION AND CLIMATE CRISIS

Art is an extremely powerful medium that has been used very effectively in the past to communicate social and environmental issues. Understanding this, Zooreach launched the Art for Conservation (A4C) project on 1 September 2023 with support from the U.S. Consulate General, Chennai to communicate the interconnected global problems of climate crisis and species loss that is destabilising human lives everywhere! The initiative successfully mobilized artists as powerful advocates for environmental action across southern India. Through strategic workshops, exhibitions, and community engagement from September 2023 to September 2024, this innovative program created meaningful dialogue about pressing conservation issues through artistic expression.

#### **Key Impacts:**

- Trained 33 Artists: Equipped emerging artists with specialized techniques in storytelling, illustrative art, and theatre through immersive workshops led by 7 expert artists from India and the USA
- The two-day culminating exhibition at Cluster Media College attracted diverse audiences including students, educators, conservationists, and community members
- Through Digital Outreach: Published artworks and stories in open-access conservation publications, extending the project's impact beyond physical attendance
- Catalyzed Youth Participation: Over 200 school children participated in drawing competitions exploring themes from ocean biodiversity to human-elephant relationships
- Featured 25 Diverse Artworks: Exhibition showcased compelling artistic interpretations of human-wildlife interactions and conservation challenges
- Inspired Long-term Engagement: Multiple participating artists have integrated their newfound skills into ongoing conservation projects, including one who now works at a government wildlife interpretation center
- Established New Conservation Networks: Created lasting connections between artists, scientists, indigenous community members, and conservation organizations for continued collaboration

The project demonstrated that art can be a powerful medium for transcending boundaries and communicating complex environmental issues in an accessible, emotionally engaging manner—providing a foundation for continued action on conservation and climate change mitigation in India.

















# REVIVING AND STRENGTHENING JOINT FOREST MANAGEMENT FOR THE PROMOTION & LIVELIHOODS

#### **PURPOSE**

- The project is to restore the tiger habitat in the Srivilliputhur-Megamalai Tiger
  Reserve (SMTR) in Virudhunagar districts of Tamil Nadu state, India. The goal of
  the project is to support the newly declared Srivilliputhur-Megamalai Tiger
  Reserve (SMTR) by carrying out activities that will help assist the department in
  strengthening the activities to achieve its goal.
- The main target groups of this project are 50+ village communities around the proposed Tiger Reserve in Virudhunagar district and the forest personnel.

#### **ACTIVITIES**

- Completed the survey of villages around SMTR
- Took initiatives to revive Joint Forest Management JFM committees
- Conducted various Focal meeting to find the socio-economic status of the tribal settlements around SMTR and understood the status of the forest dependency, livelihood requirements
- purchased and issued field equipment such as camera traps, smartphones to use
   M-STrIPES, village economic status
- developed education programs to conduct a Trainers training programme
- initiated public awareness programs.
- Village Forest Committee formation involving the women, preparation of draft
   MoU with the villagers and the Forest Department
- Conducted exposure tour for 30 panchayat Presidents to understand various eco-development projects happening in the nearby Protected Areas, created linkages with the members of the Eco-Development committee and to gain support for the initiates at SMTR villages
- Conducted teachers training program for selected 30 teachers from SMTR ranges with the support of the Tamil Nadu Department of Education and planned awareness programs for their audiences in & around SMTR.

Sponsor: U.S. Fjsh and Wildlife Service.













## ZOO'S PRINT

12

623

183

issues published

pages published

publications

Zoo's Print publishes simple natural history observations with the intention of putting out facts for the general public to understand and for scientists to build hypotheses and test them out.

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