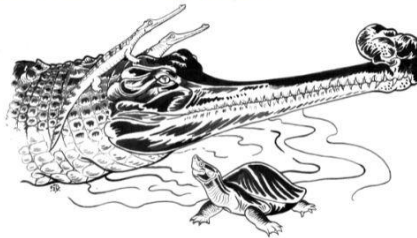


Madras Crocodile Bank Trust Centre for Herpetology

ANNUAL REPORT 2023-2024



Drawings by Samuel Dillon, MCBT volunteer in 2022



From the Managing Trustee

There were several defining activities at the Croc Bank this year, but perhaps the most exciting was the progress made in our snakebite mitigation project: many significant meetings with policy makers at the state and central level, more international linkages, and some steps forward with the development of the venom cooperative. The snakebite education presentations, carried out with our local partners in nine states, were well attended, and the "Prevention is the Best Option" message was well received.

Our new film 'Beauty of Snakes' raises awareness about snakes and addresses common questions about them. It features snakes that are often found near human habitations. Currently produced in Hindi and English, more languages will follow and it will be a part of our outreach programs in several states of India. We also participated in the launch events for the National Action Plan for Prevention and Control of Snakebite, organized by the Ministry of Health and Family Welfare, Government of India. Ganeswar, our snakebite mitigation Project Leader, was an invited speaker, representing MCBT at both events, where our organization's work received significant recognition. Additionally, Ganeswar attended five stakeholder meetings as MCBT is a Core Committee member of the action plan. MCBT also collaborated with the National Health Mission, Tamil Nadu to organize a comprehensive training program for ASHA workers and nurses from Primary Healthcare Centres. This initiative aimed to give them the skills they needed to administer life-saving antivenom effectively. The program reached over 450 medical facilities and impacted more than 50,000 staff members.

The snakebite mitigation project is one of many of the Croc Bank's activities. Almost fifty years after it was started in 1976 by a group of idealistic conservationists, its focus continues to be conservation, research and education related to herpetology. The initial impetus was an effort to save India's dwindling crocodylian populations from extinction. At that time the gharial was particularly endangered, with about 300 left in the wild. The mugger and saltwater crocodile were in better shape but hunting and habitat depletion were serious threats for them as well. Today, after almost five decades of reptile research and grassroots education and awareness building, the Croc Bank is recognized as a world leader in the field of frontline conservation of species and habitats. Its infrastructure and programs include the Croc Bank, a reptile zoo on the East Coast Road south of Chennai, and field stations and study sites reaching as far afield as the Chambal River. The zoo receives about 4.5 lakh visitors annually, making it a popular tourist attraction.

In keeping with our original goal, several hundred crocodiles were sent to other states for restocking in wild habitats. However, the release of captive bred mugger or marsh crocodiles into the wild, is no longer happening, because of shrinking wilderness and the lack of suitable habitats. The Croc Bank's mandate has also extended to crocodylians from other countries. Of the world's 26 species, 15 are housed at the Croc Bank currently. Of these, 4 are listed as Critically Endangered by the IUCN, and 3 as Vulnerable.

Originally designed to be a living repository of crocodylians for genetic safekeeping, the Croc Bank is now no longer confined to crocodile conservation. In 1993, the Trustees of the Croc Bank decided to expand its mandate and reach, and become a Centre for Herpetology. Its work now

includes the conservation of all reptiles, i.e. snakes, chelonians and lizards as well. The need for chelonian conservation has grown in recent years and MCBT now breeds several threatened species including two that are listed as Critically Endangered by IUCN. Field work, namely surveys and ecological studies, are a part of its activities.

Over the years, the Croc Bank has developed into a world-renowned conservation NGO with strong community and government support at the local and national level. Apart from its commitment to research and conservation of herpetofauna, it is a recognized resource for environment education and interpretation. Its strength has been to maintain a relatively small but effective operation that is dynamic in action and prolific in results. An example of this is the field station it started in the Andaman Islands, ANET (Andaman and Nicobar Environment Team), which is now being very ably run by Dakshin Foundation.

In 1976, it was obvious that there was an urgent need for herpetological surveys and conservation action in the then little-known and neglected Andaman and Nicobar archipelago. ANET was conceived and started, and has since carried out extensive work on saltwater crocodiles, marine turtles, marine ecosystems, herpetofauna biogeography and many other biological studies. In addition, ANET has also been involved in the broader ecological and social spheres, including projects on natural resource utilization, sustainable development and protected areas management. As one of the oldest and most known and trusted NGOs in the Islands, ANET played a pivotal humanitarian role after the 2004 tsunami devastated the region, including getting relief supplies to desperate victims. Today, although still active in the herpetological arena, ANET carries out a broad range of environmental work including marine and terrestrial components. It remains one of the few environmental research bases in the archipelago and voices ecological concerns on many local committees which advise the government on development policies and assessments. Its education and awareness building work includes programs and presentations for local and mainland schools, colleges and other institutions and groups on the amazing ecology of these islands and the need to conserve it.

For a few years, Dakshin Foundation partnered with the Croc Bank in the administration and development of ANET. In 2019, the roles were reversed, and Dakshin agreed to take over the field station's administration completely, with MCBT playing an advisory and supporting role. The evolution and history of ANET is a good example of how much can be done when organisations come together to work for the common cause; in this case, Dakshin Foundation and Madras Crocodile Bank Trust.

Another MCBT field station is the Agumbe Rainforest Research Station (ARRS). Situated in Agumbe in the Western Ghats, it was set up by Rom Whitaker in 2005, its focus being the biology and conservation of the king cobra. Agumbe is one of the world's primary refuges of the "king". Other iconic herpetofauna in this biodiversity hotspot includes the draco or flying lizard, pit vipers and several species of endangered amphibians.

A black panther has been seen a couple of times, on one of the pathways that adjoins the ARRS campus. Research projects range from frogs to pit vipers, and of course the king cobra. ARRS is also the “call centre” for king cobra rescues and there are frequent summons from farms and households in the district, which have now become increasingly tolerant to this occasional visitor, thanks to the public education work being done by ARRS staff. The snake is removed and relocated, and the family/community is given moral support and confidence because superstitions and erroneous fears are negated, and scientific information provided. This has been named the most successful snake rescue services in the country, because it deals with one of the most threatened (and potentially dangerous) species of snake in the world.

2000 kms north of MCBT on the mighty Chambal River, is the base of the Gharial Ecology Project, one of the most long-term and in-depth crocodile studies in the world. Using sophisticated data collection techniques including telemetry, the study is tracking the home ranges and observing the habits of this critically endangered animal. Local inhabitants are being trained in this technology, and the need for conserving the species. Interesting and surprising data and information has emerged about the natural history of the gharial, such as the extensive riverine range of adults and the protection of hatchlings by adult males.

MCBT’s education programs include school camps and family activities, as well as hands-on zoo experiences for youngsters such as Zoo Keeper for a Day. There are also presentations in rural schools and this year again, the Croc Bank conducted programs on snakebite and its treatment at schools, colleges, NGOs, government departments and tourist groups. Education is the key to long term sustainable conservation. We devote a large part of our time and resources towards educating people of all ages and backgrounds on the importance of conserving reptiles and natural ecosystems. Workshops and training programs are also tailor- made and carried out for other zoos, schools, colleges, conservation agencies and government departments on topics related to reptile conservation, husbandry and management. These include groups from other countries as well, since we hold important husbandry experience and expertise for species in those regions (eg the Siamese crocodile).

We could not do what we do, without the help we receive from innumerable well-wishers. This includes our wonderful group of trustees, who donate their time, energy and expertise to MCBT in spite of their own busy lives. There are so many others as well. The names of this community of Croc Bank friends is extensive and we are extremely grateful to all of them.

Every year brings special events and memories, and here are some from '23-'24, in alphabetical (first name) order:

Memorable Days '23 – '24

Ajay Giri- I was invited to speak at a conference for snake rescuers.. but at the same time, I wanted to be in Agumbe then, for the hatching of a king cobra nest we were monitoring. The hatchlings were very considerate, and hatched well before the conference date! A memorable day.

Angeline Samuel- The best day of 2023-2024 was when the snakes were introduced into their new homes with their own interior décor and UV at the renovated snake room.

Dr. Bhushan- The day I operated on the Asian water monitor hatchling and the outcome was successful.

Gnaneswar Ch- My best day was when I went to Africa for the first time, and saw a mamba in the wild. When I spotted the mamba on a tree, I felt the excitement that I used to feel when I saw them on TV 10 years ago. It was a day full of surprises from stumbling into Nile Crocs to brewing my coffee by the beach.

Indira Naidu- My best days at the Croc Bank are when I get to see free-ranging common snakes. It's a thrilling experience, and sharing it with others makes the day even more memorable.

Jailabdeen A- On June 10th, during gharial hatching season, I reached the Khera nesting site around 5:15 am and began a drone survey. I noticed two Egyptian vultures trying to eat an unfertilized gharial egg and was able to record it: the first-ever evidence of an Egyptian vulture feeding on a gharial egg. The first vulture picked up the egg in its beak and smashed it on the sand to break the calcification layer. After several attempts, it broke the egg and began feeding. Meanwhile, the second vulture chased away the crows that were trying to grab some of their meal.

Dr. Nikhil Whitaker - Best day was when our single remaining water monitor egg hatched, despite having been consigned to be a late embryonic death.

Pramila Rajan- The day I finally received the king cobra antivenom after tons of paperwork and months of arguing with customs officials for clearance.

Rithan Bopanna - Spotting the oriental dwarf kingfisher at ARRS, was a long-term wish come true.

Dr. Ruchika- The day I diagnosed the Pentastomids and successfully treated saw scaled vipers to prevent mortality.

Senthil T- The day we successful caught and transferred a Gharial and I felt proud of our team because it was done so smoothly.

Timple M - My best day was when I took pictures of a *Batagur baska* during their regular check-up and noticed how cheerful their permanent smile looked!

Zai Whitaker - When I saw a father and son admiring and photographing our hand-painted *Birds of the Croc Bank* board. I stopped and chatted with them, to learn they have a blog which features special, wonderful things they come across on their weekend trips out of Chennai.

Trustees- MCBT (2023-2024)

Ashish Gupta	Samit Sawhny
M.M. Venkatachalam	Kamini Sundaram
Meera Anna Oommen	Nikhil Whitaker

Ex Officio Trustees:

Rom (Romulus) Whitaker (Founder)

Zai (Zahida) Whitaker (Founder)

Personnel- April 2023 to March 2024

Office and Administration

Managing Trustee	Zai Whitaker
Director	Pramila Rajan
Curator	Dr Nikhil Whitaker
Assistant Curator	Angeline Samuel
Zoo Manager	T Senthil
Education Officer	Steffi John (Till August'23)
Education Officer	Timple Madhumitha (From September'23)
Assistant Education Officer	K G Rithan Bopanna (From August'23)
Veterinarian	Dr Ruchika Lakshmanan
Junior Veterinarian	Dr Tiruvarur Vikram (Till June'23)
Junior Veterinarian	Dr Bhushan Krishnamurthy B (From August'23)
Conservation Officer	Ganesh Muthiah (Till July'23)
Project Leader, Snakebite Mitigation	Gnaneswar Ch
Project Coordinator, Snakebite Mitigation	Indira S Naidu (From September'23)
Managing Editor (part-time)	Princia Dsouza (From April'23)
ARRS- Field Director	Ajay V Giri
Gharial Ecology Project- PI	Dr J.W. Lang
Gharial Ecology Project -Coordinator	Jailabdeen A

Accounts, Husbandry and Maintenance

M. Mohan	Accountant
M. Pavithra	Assistant Accountant
V. Gangadurai	Chief Reptile Keeper (Retired on 5 th June)
S. Nagarathinam	Chief Reptile Keeper
L. Gunasekaran	Maintenance Supervisor
V. Mohanasundaram	Curatorial Research Assistant
T. Mohan	Supervisor, Entrance and Pen watchers
C. Purushothuman	Senior Office Assistant
N. Selvamani	Ticket Checker
R. Gnanamurthy	Ticket Checker
E. Amutha	Enclosure Maintenance and Housekeeping
V. Yuvarani	Enclosure Maintenance
J. Shanthi	Chelonian Keeper
S. Janakiraman	Animal Keeper
G. Gowri Shankar	Animal Keeper
P. Boopalan	Assistant Animal Keeper
N. Pushparani	Croc Shop Operator
G. Ashok Somai Magar	Chief Cook
A. Kumari	Maintenance and Cook
S. Mohan	Cleaning and Maintenance Assistant
K. Elumalai	Maintenance Assistant
M. Ramu	Driver
Tek Bahadur Somai Magar	Security Guard
Budibal Somai Magar	Security Guard
Krishna Bahadur Somai Magar	Security Guard

Curatorial Updates

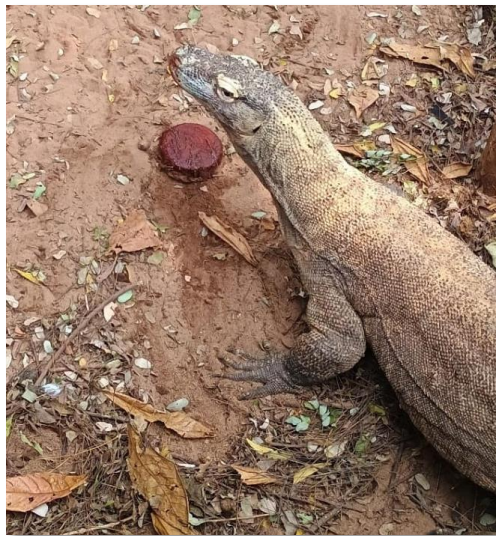
Development

- The biochemical and microbiological parameters of water from various enclosures at MCBT were tested through an external agency; this will now be an established protocol to ensure that our animals are housed in optimal conditions.
- Merin Jogi, a PhD research student from the University of Copenhagen, completed part of her thesis, “3D modelling of turtle shells as a monitoring tool for environmental stress in Indian freshwater turtles.” She has shared some of her results with us.
- Purchases under the Coromandel grant 23-24:
 - a. A Hobo-Ware shuttle station was purchased, allowing our (non-Bluetooth connectivity) loggers to be offloaded at the site rather than returned to the office.
 - b. The UV filter for Turtle Haven was serviced, and the new UV tubes will give a life of 16,000 hrs. versus the older model, which gave 9,000 hrs. A small removable plug allows us to collect water samples for analysis.
 - c. 5 RCOM ReptiProMax 90 incubators were purchased and used for reptile egg incubation.
 - d. Grumbach incubators BSR 160 and 300 TD7, specially designed for reptile egg incubation, were purchased; the incubators were upgraded by installing a water tank to maintain the desired humidity. This is the first installation of reptile incubators by a renowned German company in India.
 - e. A new tool to monitor egg development, “Egg Buddy”, was purchased from a UK-based company. This machine records the foetal heart rate and aids in checking egg viability.
 - f. We have also received an Egg Candler, a concentrated high-intensity light device that helps view the progression of egg development, blood vessels, and the embryo.
 - g. An Onset HOBO station for continuous temperature and humidity recording has been purchased. The data collected would enable an in-depth understanding of the effect of climatic parameters on animal biology.
 - h. UVA, B bulbs, and tube lights were purchased from Exoterra and Osram.
 - i. A 500 litre/-20 0C freezer was purchased for storing feed and biological samples for long periods.

Animals and Enclosures

- The snake room renovation has been completed under the grant from Coromandel 23-24: new snake enclosures are made of water and mould-resistant material with mesh for good ventilation and artificial UV bulbs, set up with plants and logs to mimic natural habitats. The room will also have the facilities of smoke detectors and monitoring CCTV cameras.

- Temperature monitoring and edging were done for three pens with natural ponds: 8, 10, and 13.
- Diet modification: The diets of herbivores and omnivores were modified to suit growing juveniles and adults, with the inclusion of new varieties of vegetables/fruit.
- On the advice of Adam Radovanovic, our three Komodo dragons were provided enrichment with chicken pieces inside taped cardboard boxes. They were also given frozen blood popsicles in peak summer, fish sludge and snakeskin to stimulate their hunting senses. Thanks to Matthew Shackleton's advice, mild exercises have been initiated to keep their joints healthy.



Yummy blood popsicles for Komodos

Captive Breeding

S.No.	SPECIES	REMARKS
1.	Red-crowned roof turtle	Four juveniles hatched in March
2.	Three-striped roof turtle	Seven juveniles hatched in February
3.	Trinket snake	Two hatchlings in October
4.	Asian water monitor	One hatched in December
5.	Yellow anaconda	A total of 15 juveniles from two pairs
6.	Siamese crocodile	Four hatchlings in July
7.	Nile crocodile	4 hatchlings in August
8.	Saltwater crocodile	Seven hatchlings in July
7.	Gharial	Three hatchlings in May
8.	Northern River Terrapin	16 hatchlings in April



*Batagur dhongoka hatchling
showing egg tooth*



*Successful procedure saves the water
monitor hatchling*

Zoo transfers and visits

- Mysore Zoo officials visited the Croc Bank in May for a tour and queries for the curator and vet.
- The curator visited Voorhees College, Vellore, and Government Arts College, Nandanam, and presented on the conservation of reptiles in India.
- Range Forest Officer trainees of Karnataka Forests Academy visited the Croc Bank. The curator briefed them about reptile care and management.
- Indira Gandhi National Forest Academy, Dehradun, visited Croc Bank. The curator showed them enclosures and briefed them about conservation and research practices for different reptile species.
- Tata Steel Zoological Park, Jamshedpur, and Shri Venkateshwara Zoo, Tirupathi—Permissions are pending for muggers and yellow anacondas.
- At the request of the Tamil Nadu Forest Department, the curator and veterinarian visited Amaravathi crocodile farm near Coimbatore to advise on husbandry and management.
- The last mugger transfer to GZRRC was conducted on 18 July 2023, and a pair of adult saltwater crocodiles, yellow anacondas, an adult gharial female, and river terrapins were also given.

VETERINARY UPDATES

The vet facilities improved significantly this year, in terms of capacity building, procuring equipment, and expanding the inventory, thanks to funders, other zoos, vet colleges and others.

- Dr. Bhushan Krishnamoorthy joined MCBT as junior veterinarian, and is part of the team undertaking lab maintenance, diagnostics, and husbandry activities.
- Automated Orthopaedic Bone equipment (bone saw/driller) was purchased from Stryker (an internationally renowned surgical equipment company) to facilitate necropsies and reptilian orthopaedic procedures.



Stryker Bone Saw & Driller

- A Nikon DSLR camera D7500 with two lenses, (i.e., telephoto and micro lenses) was purchased to document details of treatments and post-mortems. It has enabled us to gather better evidence regarding disruptions in animal health in situ and get quality photos during necropsies.
- An autoclave machine was purchased to upgrade the sterilization protocol of surgical equipment related to biosecurity, for procedures.

Diagnostics:

- Animal samples are being screened on a daily basis. Around 300 samples were reviewed each quarter and this helped us to keep a check on the overall health status of our animals.
- Additionally, Olympus Microscope has agreed to give a higher version camera as a replacement to the one we have, for better diagnostic value and research publication.
- Various diagnostic essentials and new kits (differential stains, corticosterone kits) were purchased to achieve the highest standards of field diagnosis. These were standardized.
- We collaborated with Elango and Veterinary Health Diagnostics for molecular diagnosis for parameters like – *Chlamydia spp.*, *Mycoplasma spp.*, *Aeromonas spp.*, *Cryptosporidium spp.*, *Citrobacter spp.* These diseases are specific to reptiles and these labs allow accurate diagnosis.

Clinical:

- Commercial critical care formulas and diets were added to our inventory to feed critically ill animals. Reptile Critical Care feed formulas like Mazuri and Oxbow from the USA help regulate nourishment for better growth and development of reptiles.
- Nebulizer machines have become an essential component of veterinary medicine and were procured to help animals recover from respiratory diseases.
- New vendors across Tamil Nadu have collaborated for a regular supply of medicines and supplements to keep up with our clinical needs.
- Laparoscopy and endoscopy have been started for our reptiles, along with anaesthesia standardization. A team from Karl Storz Co, which specializes in laparoscopy and endoscopy equipment, visited MCBT to guide us through the procedures.
- Allometric scaling is an advanced procedure for drug dosing especially while medicating the feed and water. This has been incorporated in our practice.
- Major treatments and procedures performed during '23-'24:
 - i. Saw- scaled vipers, for pentastomid infections (endoparasites).
 - ii. The Komodo dragons were administered joint supplements (Condro Vet) resulting in significant improvement in their gait. Their progress is being constantly monitored, recorded, and assessed with the help of Dr. Matthew Shackleton.
 - iii. An Asian water monitor hatchling was born with a retained yolk sac which got infected and was surgically removed. The animal is healthy.
 - iv. Dwarf caiman hatchlings had a few mortalities due to pneumonia and were treated with antibiotics, anti-stressors in water, and placement of UV bulbs. No further mortalities were observed.
 - v. A spectacled caiman underwent X-rays for diagnosing osteomyelitis /steatitis as it frequently self-mutilates its tail. With the diagnosis, we concluded it was due to stress and enrichment procedures were advised to counteract it.
 - vi. The green anacondas underwent a pregnancy diagnosis using x-rays and ultrasound which revealed presence of enlarged uteri sacs that could indicate pregnancy. Forthcoming tests will confirm this.

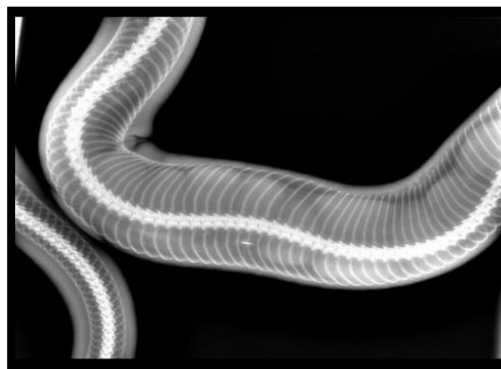


Figure 4: Green anaconda X-ray

- vii. *Batagur kachuga* were diagnosed with shell rot and were treated.
- viii. Mortality in mugger hatchlings was diagnosed as visceral gout, for which their diet was modified and vitamin supplements administered.

Professional Development

Senior Vet Ruchika Lakshmanan, attended the “Capacity Building Workshop for Zoo Veterinarians” in Bhopal from 16 to 18 October 23. She was awarded the “Best Promising Wildlife Veterinarian” at the conference.

Maintenance Updates

- Upgrading of maintenance procedures and staff training: staff toilet facilities, pen watchers, electricians, plumbers and support staff
- Equipment purchase, repair, upgrading: security cameras, fire extinguishers
- Repair, renovation: Round House, kitchen, damaged pen walls, fencing, outside walls of curator and snakebite rooms painted, park gate repaired, incubator lab wiring, water pumps
- Construction: snake room, snake boxes, pens 21 and 22 fencing, water tank support
- Signage: touched-up, boards repaired, new selfie wall (vet lab wall), Asian monitor enclosure wall mural, pen 8 signage



Another “selfie wall”

- Visitor facilities: renovation of toilets; new Café; new water purifier, new trash bins, donation boxes.



Attractive trash bins are helpful

- Tree Cutting: 5 risky trees removed
- Dredging: pens 8, 10, 13
- Storm/cyclone repairs: nursery angles and net changed; plus 2-3 days continuous clearing, branch cutting etc



Post-cyclone damage repair

- Waste: Improved systems for disposal and cartage of waste
- Noise mitigation: meetings with Sheraton and Blue Bay hotels, along with Director.

EDUCATION UPDATES

World Days

- World Snake Day (16th July, 2023): A snake walk was organized with the Irular. A snake talk was given at the zoo to raise awareness about snakes and their conservation.
- World Lizard Day (14th August, 2023): A quiz competition- Quizard, was organized in partnership with the X Quiz It team. The participants were super enthusiastic!
- Big Cats Campaign (CZA): Information about big cats conservation in India, pledges and photo frames were displayed for CZA's Unite for Big Cats campaign in the first two weeks of September.
- Wildlife Week (2nd October -8th October, 2023): Wildlife Week was celebrated with the following activities.
 - Beach clean-up drive: Volunteers and staff collected plastic waste and other litter from the beach area.
 - Photo contest: Visitors took pictures of the reptiles at MCBT that highlight their peculiar features.
 - Wildlife Week talks: Talks about reptiles and their conservation were given. The importance of Wildlife Week and how one can be a part of conservation activities were discussed.



- Snake walk: A walk with the Irular was organized to create awareness about snake conservation and snakebite mitigation. A special note on the Wildlife Protection Act and how Indian species are facing various threats was given.
- Reptile Awareness Day (21st October, 2023): Quiz questions about reptiles were posted on social media pages.
- World Wildlife Day (March 3rd, 2024): A message was posted on social media.

Programs

Programs like Be a Zookeeper, Reptile Encounters, Reptales, Reptile 101, Zoo & Me, snake walks and guided tours were conducted. Program protocols were revised in August 2023 after which reptiles can be shown to small groups of people (less than 20) when zoo management activities (such as basking/enclosure cleaning) occur. There were 84 programs, with a total of 2232 participants.



2023		
PROGRAM	DATE	NO.
Reptile 101- Vrithi Montessori	Apr 6th	18+3
Reptile Encounter	Apr 8th	14
Guided Tour	Apr 14th	2
Guided Tour	Apr 16th	8
Snake Walk	Apr 16th	13
Guided tour	Apr 21st	2
Be a Zookeeper	Apr 23rd	17
Birthday party- Dhruva	Apr 30	21
X Quiz it (Virtual)	May 5th & 12th	110
Reptile Encounter- Mom & kids	May 11th	27
Be a Zookeeper	May 14th	18
X Quiz it- Winner Reptile encounter	May 20th	4
Be a Zookeeper	May 21st	17
Guided tour	May 23rd	6
Guided tour	May 31st	2
Be a Zookeeper	Jun 4th	2
Reptile encounter- Sompongwittaya Jatingpra, Thailand School	Jun 23rd	30
X Quiz it – Flipper (Virtual)	Jun 25th	10
Reptile Encounter	Jun 30th	4
Guided tour	July 1st	10

Guided tour & snakebite session- Pugdundee Naturalists	July 4th	26
Reptile Encounter- Dr. Shilpa	July 8th	105+15
Birthday party- Divya	July 9th	14+10
Guided tour- WWF CEO	July 13th	2
Guided tour	July 13th	6
Guided tour	July 15th	2
Snake walk	July 16th	21
Guided tour- TVS	July 18th	21
Guided tour- TVS	July 20th	21
Guided tour- Smaug Adopters	July 21st	9
Guided tour- Sub Collector	July 21st	2
Reptile Encounter- Chellammal Vidhyalaya	July 22nd	120+13
Reptile Encounter- Horizon International Academy	July 28th	72+10
Snake walk	July 30th	15
Reptile Encounter- Vruksha	Aug 4th & 5th	15+4
Reptile Encounter- Vruksha	Aug 11th & 12th	14+3
Reptile Encounter	Aug 15th	33
Guided tour for Asst PCCF	Aug 17th	5
Reptile Encounter	Aug 22nd	80+7
Guided tour for Ford CSR head	Aug 27th	5
Guided tour & activities	Aug 30th	14
Guided tour	Aug 30th	15
Ford Volunteering Program (GCM)	Sep 11th	54
Guided tour	Sep 15th	3
Guided tour	Sep 17th	6+3
XQuiz It- Quizard (Virtual)	Sep 24th	8
Guided tour	Sep 30th	4
Snake walk	Oct 8th	9
Birthday Reptile Encounter- Saijal	Oct 14th	5
Reptales- Happy Miles	Oct 14th	38+3
Reptales- AISC	Oct 17th	18+5
Guided tour for Tirupathi zoo vets	Oct 17th	3
Reptales- Akshara Vidyaasharam	Oct 20th	39+3
Reptales- IPS Bengaluru (The Modern Classroom)	Oct 20th	101+10
Guided tour	Oct 21st	3
Guided tour	Oct 22nd	4
Guided tour	Oct 27th	2
Reptales- Ramya & family	Nov 7th	4
Reptales- Arsha Vidya Mandir	Nov 9th	29+5

Guided tour	Nov 16th	4
Reptales- School of India, Bangalore	Nov 18th	45+5
Reptile encounter- Christwood School	Nov 21st and 22nd	116
Reptales- Aroha Montessori	Dec 13th	23
Guided tour	Dec 29th	3
Reptales- Sri Siksha Kendra International School	Jan 5th	48+4
Reptales- Lower Elementary Life Hub	Jan 10th	15
Reptales- National Public School	Jan 13th	11+1
Guided tour	Jan 16th	2
Reptales- Happymiles	Jan 23rd	57+2
Guided tour	Jan 26th	3
Guided tour	Feb 8th	5
Ford Famtastic	Feb 17th	
Zoo & Me- UWC batch 1	Feb 19th	172+19
Guided tour	Feb 25th	4
Zoo & Me- UWC batch 2	Feb 26th	282+31
Guided tour	Feb 29th	3
Reptales- International Village School	Mar 1st	30+5
Reptales- JNC- Bangalore	Mar 2nd	33+3
Reptales- Akshar Arbol International School, T'nagar	Mar 8th	29+3
Reptiles 101- Vrithi Montessori School	Mar 26th	12+2
Reptales- Union Christian Matric. Higher Sec. School	Mar 27th	53+9

Night Safari

Night safaris were conducted till July 2023 (552 participants) and are on hold from August 2023.

VR Centre

The VR centre continues to operate with 15 VR headsets and 3 movies from Wild Immersion, France. Programs were held on 128 days. Each is ticketed at 40 rupees per viewing.

Adoption

There were 84 new adoptions and renewals by individuals and organizations. These included on-display enclosures and off-display reptiles. Several adopters also visited to see “their” reptiles.

Collaborations

MCBT collaborated with X Quiz It and conducted 3 quizzes- Quhissss, Flipper, and Quizard about snakes, chelonians, and lizards respectively. Youtube channels Dad’s Life, Katta Erumbu, and Thanthi TV, shot videos and interviews at the Croc Bank.

Social media

The total number of followers on Instagram increased from 18.3k to 21k. There are 79k followers on Facebook. Pictures and videos were posted regularly on social media platforms.

FORD Project 2023-2024

The “Reptile Awareness through VR” project enabled us to conduct awareness programs for 1000+ school students with a funding of Rs.8,00,000 from Ford.

A total of 1057 students and accompanying staff participated in the awareness programs for 2023-2024. 90.45% of the students who filled out the pre-session and post-session surveys showed an improved understanding of reptiles. The remaining funds from the Ford project were used for printing posters for the participating schools, and six banners for MCBT.



50+ Ford employees and their family members volunteered for park cleaning on 11th September for their Global Caring Month activity. showed the VR movies for the Fam’tastic event at Ford’s office on 17th February, 2024.

Volunteers

19 volunteers enrolled and did different projects and activities.



No	NAME	BATCH	PROJECT
1	Tanya Vyas	30/04/23 to 13/05/23	Basking behaviour of turtles in Pen 24
2	Aneesha Sreekanth	30/04/23 to 13/05/23	Obs. of dive duration of gharial
3	Sampriti Das	30/04/23 to 29/05/23	Travancore Tortoise obs.
4	Amaan Lopez	03/05/23 to 29/05/23	Obs. of dive duration of gharial
5	Sasthika	09/06/23 to 23/06/23	Museum work
6	Aditya Ramamurthy	09/06/23 to 11/06/23	Left due to health issues
7	Vyaas Shankar	09/06/23 to 08/07/23	Komodo dragon behaviour
8	Neradhi Prakash	19/07/23 to 02/08/23	Travancore tortoise obs.
9	Raeya Jaggarow	19/07/23 to 02/08/23	Museum work
10	Vaishali Balachandran	07/10/23 to 16/10/23	Observed Veterinary department
11	Sushmita Prabhu	07/10/23 to 21/10/23	Museum work
12	Sharon Preeth	07/10/23 to 21/10/23	Nest defence in Morelet's crocodile
13	Mano Lakshmi Prabha	06/11/23 to 30/11/23	Travancore feeding behaviour
14	Ira Gujjal	06/11/23 to 30/11/23	Dive duration in gharial
15	Vrinda Borkar	26/12/23 to 08/01/24	Basking pattern in turtles
16	Ruchi Latkar	26/12/23 to 08/01/24	Dive duration in gharial
17	Kalyani Ayyagari	26/12/23 to 08/01/24	Travancore feeding behaviour
18	Varrsha Sridharan	04/02/24 to 18/02/24	Dive duration in gharial
19	Antony Selvakumar	16/03/24 to 02/04/24	Nest defence in muggers

Docents

The docent program resumed in July 2023. The docent group, including the new docents who were recently selected, visit MCBT on weekends and volunteered.

No.	NAME
1	Kaushik Shelat
2	Dr. Raj Kumar Jayapal
3	Sheethal Preethi
4	Mohammed Fehmaan
5	Sai Shankar
6	Darshan Gerald
7	Saravanan A (old docent)
8	Gayathri R
9	Masiha Shabeer

Snake Conservation & Snakebite Mitigation Updates



Work funded by USV Pvt Ltd

Beauty of Snakes- a film about the beauty and sensory abilities of snakes

The filming for this project took place from 26th November 2023 to 9th April 2024. The film aims to portray the ecological significance of snakes, and also addresses common queries about them. Snakes filmed were common species found near human habitats. The film has been produced in English and Hindi, and will be dubbed in several regional languages.

Snake Rescue Training Workshops

We conducted four snake rescuer training workshops targeting local snake rescuers and Forest Department personnel. The workshops were held in three states: Andhra Pradesh, Maharashtra (Alibag and Pune), and Odisha. These two-day workshops covered standard operating protocols, safe handling techniques, and reporting guidelines. We distributed snake rescue kits to 158 beneficiaries across four workshops, made possible by support from local organizations and trainers like Mr. Ajay Giri and Mr. Ajinkya S.

Outreach Program & Pre-Assessment Survey

The nationwide outreach program began with meetings with local partners in Andhra Pradesh and Maharashtra to finalize regions for the programs. The outreach will start with local communities, followed by government schools when they reopen in June-July. A trial pre-assessment survey in Andhra Pradesh helped evaluate participants' knowledge and refine survey questions, building on previous educational efforts in the state.

Government Engagement (Conferences, Meetings)

NAPSE Launch and stakeholder meetings

We attended the endorsement and launch events for the National Action Plan for Prevention and Control of Snakebite organized by the MoHFW, GoI. Ganeswar Ch, Project Leader, presented as an invited speaker at both events. MCBT's work was highlighted in this first-of-its-kind event. In addition to this, Ganeswar was also part of 5 more stakeholder meetings as MCBT is a Core Committee member of the action plan. The team's pictures and information have also been included in material about the Plan.

ISCICS meetings and World Health Organisation visits

MCBT and its snakebite team continues to extend its guidance and support to ISCICS (Irula Snake Catchers' Industrial Cooperative Society) on developing a new serpentarium. A few successful discussions led to the Tamil Nadu govt allotting a provision for the development of the cooperative. Moreover, we facilitated visits from WHO International and MoHFW to ISCICS to discuss venom quality regulations.

Additionally, team members visited the Premium Serums Antivenom manufacturing unit to learn about their practices. They also discussed addressing the communication gaps between the antivenom manufacturers and ISCICS.

MSF consultation

Medicines Sans Frontiers invited Indira and Ganeswar for a stakeholders meeting about NAPSE. The role of activists and NGOs in this action plan was discussed.

Film for the National Centre for Disease Control

The snakebite team helped the National Centre for Disease Control to film an awareness video that would be circulated to all the health departments of the country. The film focussed on prevention, first-aid and identification. It received a lot of attention from the government and was tweeted by the official page of the Ministry of Health & Family Welfare as well.

Art installation and archival digitization

The team worked with researchers from the French Institute of Pondicherry to digitalize MCBT's archives. Some of these pictures were later used for an art installation about the indigenous snake-catching practice of the Irular. This installation showcased a unique perspective on using art for science communication.

Human-Wildlife Conflict

Ganeswar presented at the HWC conference at Oxford about the need to spotlight human-snake conflict. This and other presentations, helped to encourage the committee to uplist snakes to the priority category.

Ooty Literary Festival

The OLF aimed to raise reptile awareness among students, spanning eight schools and engaging over 500 students. MCBT's snakebite team facilitated the participation of Irular members Kali and Alumalu, who shared inspirational stories to captivate and educate the attending students.

Student Conference on Conservation Sciences, Bangalore

MCBT was showcased at a stall at the SCCS, and its snakebite work highlighted. Its representatives took part in the Who's Who in Conservation program.

Global Snakebite Initiative, USA.

MCBT continues to expand its collaboration with GSI. Rom Whitaker visited California and gave multiple talks at fundraisers, highlighting our snakebite mitigation work. Under the GSI grant, we conducted various initiatives to celebrate International Snakebite Awareness Day on September 19th. These included conducting outreach activities in a few states, a rescuer training workshop for the Andhra Pradesh Forest Department, and painting some public walls with snakebite information. Subsequently, GSI invited Gnaneswar to Kenya for the East African Snakebite Conference as a resource person and he helped a few educators design their outreach programs.



Outreach Program for Panchayat Union School, Tamil Nadu - Interactive session

TVS Co. training

A two-day training workshop was conducted for staff members of TVS , split into batches of 20, totalling 40 participants. The workshop focused on imparting essential snake rescue techniques, including identification, prevention strategies, mock drills, and hands-on experience for security personnel.



Snake Rescuer Training Workshop - Nasarapur, Maharashtra.

[Article for Indiaspora](#)

[Undark Article](#)

[The Hindu](#)

[Adoption of preventive measures](#) - A research paper

*Agumbe Rainforest Research Station (ARRS) Updates
(field station in the Western Ghats)*

Snake Rescues

Snake Species	Rescued/Monitored
King cobra	131
King cobra hatchlings	50
King cobra pair monitored	5
Spectacled cobra	65
Krait	1
Russell's viper	2
Python	23
Python pair monitored	1
Rat snake	11
Montane trinket snake	1



King cobra was sighted inside a kitchen...



A krait and cobra entangled in fish nets.

After every rescue or observation of a king cobra in the conflict area, we interact with the community and collect data from the property owner and spectators. We also conduct onsite awareness (the do's and don'ts in case they come across snakes).

Education and Outreach

Some of the larger groups that attended ARRS' education and awareness programs:

29/06/2023: BSc final year students from S.R.Nagappa Shetty Memorial National College of Applied Sciences, Shivamogga

16/07/2023: On the occasion of *World Snake Day 2023*, ARRS interacted with students of Thirthahalli College at ARRS premises. This was organised by the Megravalli forest department. ARRS was also invited to give a talk to the officers of the Koppa wildlife division.

03/08/2023: Arivu School, Mysore conducted an educational trip for their students. They visited ARRS to explore the monsoon, and understand the wonders of Agumbe's wildlife and our conservation efforts.

06/08/2023: At the Snake Rescuers Conference in Latur, Maharashtra, ARRS was invited to give a talk about the ethical and scientific mitigation of human-snake conflicts. There was a huge audience of state-wide snake rescuers from Maharashtra.

14/09/2023: The Mangalore CCF along with the DCF and RFO visited ARRS, and we detailed ARRS' research and conservation work.

04/ and 06/ 10/2023: On the occasion of *World Wildlife Week 2023*, the Karnataka Forest Department (KFD), Chikmagalur organised workshops in Mutthodi and Kerekatte, and the Anti Naxal Force for the officers and community. ARRS was invited to give talks regarding snake ecology, snake research, snakebite mitigation and precautionary measures. After the program, educational materials were distributed.

21/10/2023: On the occasion of *Reptile Awareness Day 2023*, KFD - Bhadra Wildlife Division organised a program for MSc and PhD students and the officers in Kuvempu University. ARRS was invited to give a talk regarding snake ecology, snake research, snakebite mitigation and precautionary measures. After the program informative educational materials were distributed.

11/11/2023: The forest department of Agumbe wildlife division conducted a one day workshop for Aradi school students, for which ARRS was invited to give a talk.

19/09/2023: On the occasion of Ganesha chaturthi festival (which also happened to be *International Snakebite Awareness Day 2023*), the Keluru grampanchayat conducted a program for the local community and invited ARRS to conduct an awareness program regarding snakes and snakebite mitigation.

18/10/2023: 55 trainees of the Indian Forest Service visited ARRS. We told them about the research and conservation work done by ARRS.

On 20/11/2023: Forest department officials of Karkala and Kudremukha conducted an awareness program for students of Christ King PU College in Karkala. They invited ARRS to give a talk about our research and conservation work.

On 14/12/2023: 65 students and staff from the department of Life Sciences, Jain (Deemed to be) University, Bangalore visited ARRS and were given a presentation.

22/12/2023: ARRS conducted two sessions on snakebite mitigation at Jnana Jyothi School, Murnad, which were attended by around 175 students and staff.

23/12/2023: 2-hour session at Maruthi School, Murnad, focusing on snakebite mitigation, for over 200 students and staff.

29/12/2023: The Lions Club, Rotary Club and KFD-Koppa conducted a program where they invited ARRS to speak about snakes and snakebite mitigation, and interact with the local community.

11/01/2024: Forest department recruits visited the ARRS rescue team in the field, to understand human-snake conflict mitigation and onsite awareness.

28/01/2024: ARRS conducted a workshop about plant base sampling for 24 students of St. Aloysius College, Mangalore. They were also told about ARRS research and conservation work.

01/02/2024: Two sessions at SMS School, Arameri, for grades 8 and 9, focused on the topic *Snakes - the Most Neglected Creatures.* Over 120 students and staff attended.

17/02/2024 and 18/02/2024: Our team conducted the Campus Bird Count which is a collaborative event of Bird Count India and eBird, which lasted for two days. During the event, we recorded a total of 117 species of birds, with the participation of around 18-20 members. We are eagerly awaiting the announcement of our ranking in India for this event.

02/03/24: A group of students and staff from the Manipal Academy of Higher Education's Geopolitics and International Relations Department paid a visit to ARRS to learn more about wildlife and ongoing research at ARRS. 04/03/24 and 05/03/24, MCBT conducted a Snake Rescuer Training Workshop at Phansad Wildlife Sanctuary in Alibag, Maharashtra. Led by Ajay Giri, Field Director of ARRS and an expert in safe handling, the workshop lasted two days and had 30 participants from the Forest Department, and some snake rescuers.

14/03/24: ARRS hosted the field visit of students from the department Zoology, Mangalore University. They were at ARRS to explore the biodiversity of the field station and understand its ongoing research.

23/03/24: Mudigere forest department officials invited ARRS to conduct a capacity building workshop for their staff (50 members) and local snake rescuers in Mudigere.

24/03/24: ARRS hosted an educational field visit from St. Mary's International School, Chikmagalur. 21 participants and faculty visited.

Educational materials such as books, pamphlets and posters on snake identification and basic first-aid were distributed with each program.



Two king cobra nests were monitored for about 90 days. On 29th July, 18 hatchlings were collected from one nest and on the 31st, 32 hatchlings were collected from the second nest. Forest department officials, police, professional snake rescuers, a journalist and local community members were present. It was a great opportunity for ARRS to conduct an onsite awareness program regarding king cobra breeding biology. All the hatchlings were released into the wild in the presence of forest department officials.

News from the Gharial Ecology Updates (January – December 2023)

Project Overview

The Gharial Ecology Project (GEP) is currently in its 17th field season (2024), having commenced in 2008 in response to the significant mortality event of gharial (*Gavialis gangeticus*) during the winter of 2007-08. Its initiatives are facilitated through collaborations with the State Forest Departments of Uttar Pradesh, Madhya Pradesh, and Rajasthan, as well as the Ministry of Environment, Forests, and Climate Change, Government of India, who provide the necessary permits.

The current objectives of the GEP encompass three key goals:

1. To conduct a comprehensive assessment of gharials within the National Chambal Sanctuary (NCS).
2. To identify and preserve the critical riverine habitats which is essential for the species' survival.
3. To mitigate the threats and challenges that pose risks to the continued existence of the species.

Gharials, classified as Critically Endangered (=CR), possess a global population of approximately 650-700 mature adults, out of which over 550 reside within the confines of the NCS. The execution of project activities is carried out by a compact core team consisting of 3-4 Indian biologists/naturalists, with additional guidance provided by Professor Jeffrey W. Lang, our Senior Scientific Advisor.

Gharial population survey:

In early 2023, our estimation of the total gharial population in the NCS was 1702 individuals, consisting of 172 males, 617 females, 555 subadults, 257 juveniles, and 108 yearlings. The upstream vs. downstream distribution is similar to that observed in previous recent surveys. Roughly 405 gharial inhabit the upstream habitats, with a preponderance of adults and subadults (31 males; 207 females, 114 subadults), vs. smaller size classes (53) consisting of juveniles (39) and yearlings (14). In the downstream, the 1304 gharial counted consist of 141 males, 410 females, 441 subadults, and 218 juveniles and 94 yearlings.

Gharial hatching success:

This year, we recorded 451 gharial nests throughout ~425 kms of National Chambal Sanctuary. 385 nests hatched successfully while the remaining were lost to natural predation and temperature changes. We had counted 9554 hatchlings during our post hatch survey.

Monsoon movement:

Through our radiotelemetry study, this year monsoon movement revealed the movement of adult gharials not only downstream to Yamuna-Chambal Confluence but also females moved upstream to Chambal-Mej confluence in Rajasthan close to Kota. We kept close monitoring on all our tagged animal's movement through our field trackers and satellite tags. We have calculated the movement of a tagged female from Dangbasai upstream from Dhoplur, Rajasthan to Yamuna-Chambal confluence and moved up in Yamuna, ~380-400kms and returned to Dangbasai after monsoon.

Research Publication:

We are in the process of publishing our research data in the international scientific peer reviewed journals. We have published the population genetics of Chambal gharial with collaboration of Dr. Karthikeyan Vasudevan's lab, CCMB-LaCONES. Our main findings through this research are in finding microsatellite markers that capture the genetic diversity of Chambal gharials and identify the genetic bottleneck that happened recently in the population. Our research publication in novel acoustic communication study in adult male gharial is submitted and under review. There are two more manuscripts in the pipeline for publications later this upcoming year.

Catch-Tag operation:

In October 2023, we have tagged 16 hatchlings that survived after the monsoon flood between Barecha and Shason. We were tracking all 16 until end of January and actively tracking 12 hatchlings till date. About 50% of the hatchlings are showed no movements and the remaining 50% showed an average movement of ~ 4-6 kms.



Sawai Madhopur Field base:

We had established a new field base in Sawai Madhopur to extend our research focus to the way upstream of the National Chambal Sanctuary. This new field base is helping us to access our upstream study area within an hour travel. It also provides us a chance to collaborate with the already established Ranthambhore Tiger Reserve research community.



Papers and Media

Papers:

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- Whitaker, N. 2023. Studies on the Marsh (Mugger) crocodile (*Crocodylus palustris*) on the Cauvery River in Tamil Nadu. In: *Proceedings of the 2nd Annual Research Conference*, (A.Udhayan, Nihar Ranjan, M.G. Ganesan, A. Manimozhi, K. Sankar, A. Pradeep, D. Vasanthakumari, M. Gabriel Paulraj, and T.T. Shameer, Eds.), 16-17 February 2023, hosted by Advanced Institute for Wildlife Conservation (Research, Training, & Education), Tamil Nadu Forest Department, Vandalur, Chennai. 47 – 56
- Three short articles were submitted for the CZA Compendium and Yearbook
 - Notes on False Nesting and Inter-relations of Predation of Eggs by Crows of the Travancore tortoise (*Indotestudo travancorica*) in Captivity at the Madras Crocodile Bank Trust/Centre for Herpetology.
 - Reproduction in Water Monitor, *Varanus salvator*, with notes on treatment of external yolk sac in juveniles
 - Husbandry and Veterinary Protocols for Reptiles in Captivity.
- Desai, Brinky & Bhowmik, Tathagata & Srinivasan, Rohith & Whitaker, Nikhil & Ghosal, Ratna. (2024). Monitoring the stress physiology of free-ranging mugger crocodiles (*Crocodylus palustris*) across diverse habitats within Central Gujarat, India. *Conservation physiology*. 12. coae035. 10.1093/conphys/coae035.
- GS Bhat, M Nayak, MS Bhat and Ajay V Giri (2023). [Drop size and rain rate characteristics of Indian monsoon rainwater](#). *Journal of Earth System Science*, Springer. 132, Article number: 24 (2023).
- Joel Correa, Ajay V Giri, Vijay Kumar and Vivek Hasyagar. 2023. First evidential record of predation by an Ornate Flying Snake, *Chrysopelea ornata* (Shaw 1802), on an insectivorous bat in the central Western Ghats, Karnataka, India. [Reptiles & Amphibians](#). Vol. 30 No. 1.

News:

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- Women in the Wild (one chapter). Zai Whitaker
- Snakes, Drugs, and Rock and Roll: My Early Years. Harper Collins. Janaki Lenin & Romulus Whitaker
- The Rumbling Island (republished). Puffin Books. ed Zai Whitaker
- Cobra in my Kitchen (republished). Hachette. Zai Whitaker
- Salim Ali for Children. Hachette. Zai Whitaker
- Termite Fry. Bloomsbury. Zai Whitaker
- Scaling Up. Bloomsbury. Zai Whitaker
- The Young Earth Lovers' Book of Nature (contributions). Hachette. Zai Whitaker

Films:



05/05/2023, ARRS was featured in India Today's special programme on King Cobras "The Return of The King".

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ಹಾವು! ಹೌಹಾರಬೇಡಿ

ಪ್ರಕೃತಿ ಸಮತೋಲನಕ್ಕಾಗಿ ಹಾವುಗಳ ಸಂರಕ್ಷಣೆ ಅದೃಶ್ಯತೆಯಾಗಲಿ

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ನಿಸರ್ಗಫೋಟೋ ಅಥವಾ ನಿಸರ್ಗಫೋಟೋ

ಇಂದು ವಿಶ್ವ ಹಾವುಗಳ ದಿನ

ನಾಲ್ಕು ಪೀಳಿಗೆಯ ಹಾವುಗಳನ್ನು ಆರಾಧಿಸಲಾಗುತ್ತಿತ್ತು. ಇಂದಿನ ದಿನವನ್ನು ಹಾವುಗಳ ದಿನವೆಂದು ಕರೆಯಲಾಗುತ್ತದೆ. ಹಾವುಗಳ ಸಂರಕ್ಷಣೆ ಮತ್ತು ಅಧ್ಯಯನವು ಅತ್ಯಂತ ಮುಖ್ಯವಾಗಿದೆ. ಹಾವುಗಳ ಸಂರಕ್ಷಣೆ ಮತ್ತು ಅಧ್ಯಯನವು ಅತ್ಯಂತ ಮುಖ್ಯವಾಗಿದೆ. ಹಾವುಗಳ ಸಂರಕ್ಷಣೆ ಮತ್ತು ಅಧ್ಯಯನವು ಅತ್ಯಂತ ಮುಖ್ಯವಾಗಿದೆ.



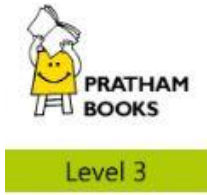
ನಾಗರಾಜಾಜ್ ಚಿತ್ರ: ನಾಗರಾಜ್ ಚಿತ್ರಾ

ನಾಗರಾಜಾಜ್ ಚಿತ್ರ: ನಾಗರಾಜ್ ಚಿತ್ರಾ

ನಾಗರಾಜಾಜ್ ಚಿತ್ರ: ನಾಗರಾಜ್ ಚಿತ್ರಾ

ನಾಗರಾಜಾಜ್ ಚಿತ್ರ: ನಾಗರಾಜ್ ಚಿತ್ರಾ

17/07/2023: On the occasion of “World Snake Day” this article got published in *Vijay Karnataka*.



Ajay of Agumbe and the Signal Snake

Author: Zai Whitaker
Illustrator: Rajiv Eipe

<https://storyweaver.org.in/en/stories/609071-ajay-of-agumbe-and-the-signal-snake?fbclid=IwAR3DPuvPuNRrRI9FKuNMfTe9nuu1qsKgh1kE6gyVIZmQstxALfPv1JQApOY>

INCOME AND EXPENDITURE STATEMENT 2023-2024

Income

Ticket Sales	2,97,21,330
Research Grants	1,76,63,532
Donations & Rent	7,85,828
Environment Education	28,60,051
Adopt an Animal	20,26,411
Bank Interest	57,50,854
Croc Shop sales	14,35,656
Croc Café sales	19,11,723
Other Income	9,44,275
ARRS	39,26,312
Total	6,70,25,972

Expenses

Salary and Wages	1,63,22,218
Reptile Feed Costs	32,80,451
Maintenance and Upkeep	1,13,50,812
Research	1,17,20,491
Environmental Education Expenses	10,61,026
ARRS	31,75,363
Croc Shop Expenses	11,00,604
Croc Café Expenses	16,74,872
Administrative Expenses	12,94,893
Capital Assets	84,07,982
Total	5,93,88,712

Visitation to Madras Crocodile Bank 2023-2024

Sl.No	Month	Total no of visitors
1	April 2023	30,922
2	May 2023	44,721
3	June 2023	23,163
4	July 2023	23,847
5	August 2023	25,238
6	September 2023	23,039
7	October 2023	32,697
8	November 2023	16,413
9	December 2023	32,996
10	January 2024	35,206
11	February 2024	22,693
12	March 2024	22,687
	Total	3,33,622

DONOR LIST 2023-2024

Sl.no	Organisation	Project	Amount (Rs.)
1	Ford Motors Pvt Ltd	Virtual zoo program	8,00,000.00
2	Astral foundation	Gharial Ecological Project	20,00,000.00
3	Jeffrey W Lang	Gharial Ecological Project	4,05,000.00
4	Arvind Vithal Gandhi Foundation	Let Snakes Live	26,50,000.00
5	Coromandel International ltd	Implementation of Projects by MCBT	1,00,00,000.00
6	Kamini Sundaram	General Donation	1,00,000.00
7	Bhagyashree Shreekant Deshpande	ARRS Maintenance	10,00,000.00
8	Transweigh (International) Pvt Ltd	ARRS Maintenance	9,00,000.00
9	Arvind Vithal Gandhi Foundation	ARRS Maintenance	9,58,207.00
10	Tigerpark Berlin	Gharial Ecological Project	2,23,548.00
11	Prague zoo	Gharial Ecological Project	16,45,897.00
12	Global Snakebite Initiative	Snakebite mitigation	2,08,017.00
13	UK online giving foundation	Snakebite mitigation (Google)	1,81,118.00