

ARIGNAR ANNA ZOOLOGICAL PARK 2021

ZOO NEWSLETTER



VOL 2 : EDITION : 12

www.aazp.in

DIRECTOR'S CORNER

Arignar Anna Zoological Park, in the month of May confronted a very big challenge. The Lions housed in AAZP have been infected with SARS-COVID 19. With continuous due care and robust treatment protocol by the Zoo Veterinarians and Zoo administration (24 X7), the Lions have completely recovered. Honourable Chief Minister of Tamilnadu, Thiru.M.K.Stalin and Hon'ble Forest Minister of Tamilnadu, Thiru K. Ramachandran visited the Zoo to assess the health of Lions, treatment procedure being followed and to oversee the biosecurity measures being followed in the Zoo. All Staff of AAZP were vaccinated against COVID 19.

The zoo records with pride the birth of baby Chimpanzee, Slender loris, Mouse deer, Swamp deer, etc as a testimony to scientific management initiatives undertaken in the zoo during these unprecedented times. Animal enrichment has been provided in various animal enclosures to promote expression of species-appropriate behavioural and mental activities in an under stimulating environment. Even during the lockdown period, AAZP has excelled in conservation education by connecting with people virtually and conducted several conservation education and awareness programmes such as virtual zoo outreach, zoo ambassador, species ambassador programmes and specific theme based webinar's.



CONTENT

- Challenges of COVID -19 management in Asiatic Lions
- Important Visits
- Expert discussion on conservation breeding of LTM, Nilgiri langur and Nilgiri Tahr in AAZP
- Vaccination drive in zoo
- Recent newborns
- Enrichment for zoo animals
- Improvements to rest sheds

Veterinary Corner

- Retained Spectacle in a King Cobra & Indian Rock Python
- Ligament injury in Slender loris
- Hand rearing of Rescued Tiger cubs

Zoo school Corner

- Inauguration of Species ambassador programme
- Virtual Zoo Ambassador -Summer camp
- International Day of Biological Diversity
- National Endangered Species Day
- Virtual Zoo In-house training – FRO trainees
- Zoo outreach programme
- Other events

EDITOR

DR. R.KANCHANA IFS

Deputy Director, AAZP

ARTICLES

Dr. A. Thayasekhar

Dr.K.Sridhar

Dr.R.Silambarasan

Dr. A. Manimozhi

Dr.M.Sekar

Mr. G.Kamaraj

COMPILATION & ARTICLES

Ms. P.Shankari

V.Karuna Priya IFS

Additional Principal Chief

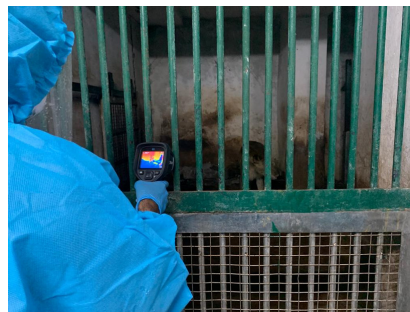
Conservator of Forests & Director



CHALLENGES OF COVID 19 MANAGEMENT IN ASIATIC LIONS

Arignar Anna Zoological Park is one of the largest zoos in South East Asia with an area of around 602 Hectares. The Zoo had 13 lions in its display. In the last week of May 2021, two Lions housed at Lion safari became ill with respiratory signs. Soon symptomatic treatment was initiated immediately. In the afternoon, three more Lions were affected which were housed adjacent to the previously affected animals. Based on the pattern of morbidity and prevailing pandemic, COVID-19 was tentatively diagnosed, samples were collected from all the Lions and sent to CZA recommended laboratories.

Soon a treatment protocol was devised in collaboration with TANUVAS experts. Three more Lions developed respiratory illness after a week of the first incidence and one lioness succumbed within 24 hours of exhibiting respiratory signs. Patient approach, evaluation and monitoring were very challenging as diagnostic imaging of the thorax, SpO₂ monitoring, physical examination etc. had limitations. As the lions needed to be injected regularly, bringing them to squeeze cage (a device used to physically restrain animals) also became difficult. Since the animals refused to move to the squeeze cage, injections were given using dart syringe. In severely affected sick animals, nebulization and oxygen therapy was given.



The temperatures of the lions were monitored using an advanced thermal imaging camera from a distance without causing disturbance and stress. In spite of the intensive treatment protocol and monitoring, two lions succumbed out of the ten lions affected. In the remaining 8 lions, two Lions housed at the Lion exhibit were asymptomatic. On genome sequencing of the virus, it was found to be the 'Delta Variant' which is the highly transmissible and a major cause for the second wave of COVID-19. Six lions had moderate to severe respiratory illness and four had renal affections also. The four severely sick lions were not feeding continuously for more than 5 days. They were managed with regular fluid therapy and a platter trial diet with meat and variety of soups (chicken, mutton, rabbit and beef) to encourage them to feed. By regular intensive treatment and round-the-clock monitoring with innovative approach of the zoo veterinary team, the animals recovered. They were sampled again after 45 days for COVID-19, all the lions tested negative for COVID-19 and have recuperated and carrying out their normal activity.

IMPORTANT VISITS



On June 6th, 2021, The Hon'ble Chief Minister of Tamil Nadu paid a visit to Arignar Anna Zoological Park to assess the action taken regarding Covid-19 outbreaks among Asiatic lions. Hon'ble Chief Minister of Tamil Nadu who is the Chairman of Zoo Authority of Tamil Nadu urged the Zoo officials to give the best treatment for the affected Lions and reviewed the health status of other lions housed in zoo. Hon'ble State Rural Industries Minister Thiru. T.M Anbarasan, Principal Secretary, Environment, Forests and Climate Change Tmt. Supriya Sahu IAS along with Principal Chief Conservator of Forests PCCF (HOD) Thiru. S. Yuvaraj IFS, PCCF & CWLW Thiru. Syed Muzammil Abbas IFS, Special Secretary Dr. Shekhar Kumar Niraj IFS and Zoo officials accompanied the Chief Minister during the visit.



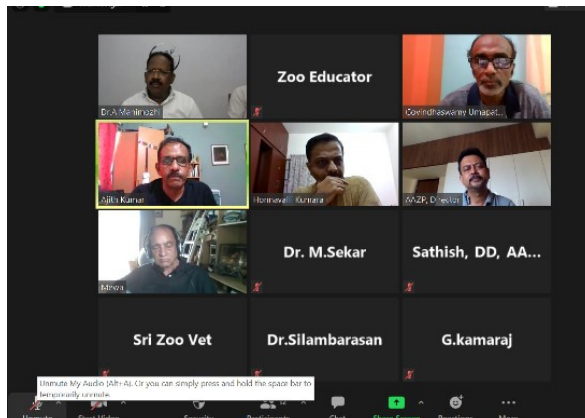
Visit of Hon'ble Forest Minister of Tamil Nadu on 14.06.2021

Hon'ble Forest Minister of Tamil Nadu, Thiru. K. Ramachandran visited the Arignar Anna Zoological Park, Vandalur on 14.06.2021 to get an update on the condition of the COVID-affected Asiatic Lions of the zoo. He reviewed the measures adopted by the zoo management to prevent the spread of the infection and the health status of the lions infected with COVID

APCCF & Director, AAZP Thiru. Debasis Jana IFS briefed the minister about the various measures taken by the zoo authorities to control the spread of COVID-19 including thermal scanning, social distancing, UV irradiation of feed, complete vaccination of zoo staff, sanitization of animal enclosures, mandatory PPE provided to animal keepers and staff.

Hon'ble Forest Minister K. Ramachandran acknowledged his pleasure regarding the safety precautions taken by the Zoo administration and ordered the veterinary team to do everything that is necessary to improve the health of the affected lions. During this visit, the Principal Chief Conservator of Forests (HOD) Thiru S. Yuvaraj, IFS, Principal Chief Conservator of Forests and Chief Wildlife Warden Thiru Syed Muzammil Abbas IFS, APCCF & Director Debasis Jana, IFS. and Deputy Director Thiru Naga Sathish Gidijala, IFS have accompanied the Forest Minister.

EXPERT DISCUSSION ON CONSERVATION BREEDING OF LTM, NILGIRI LANGUR AND NILGIRI TAHR IN AAZP



Central Zoo Authority (CZA) has identified Arignar Anna Zoological Park has a species coordinating zoo for conservation breeding of endangered species such Lion-tailed Macaque, Nilgiri Langur, and Nilgiri Tahr.

On 14.5.2021 a detailed discussion was conducted with the field experts, discussing on the pros and cons of the conservation breeding programme and captive management of coordinating species .

During the discussion, Conservation breeding of Lion tailed Macaque and the forward plan to soft release into the wild, upkeep and optimum management of Nilgiri langur and acquisition of Nilgiri tahr was discussed in detailed with a panel of senior scientists comprising Dr. Mewa Singh Professor, University of Mysore, Dr. Ajith Kumar Affiliated Senior Scientist Centre for wildlife studies, Bengaluru Dr. G. Umashankar, Senior Principal Scientist LaCONES, CCMB, Hyderabad Dr. H.N. Kumara Principal Scientist SACON, Coimbatore and action plan for the expected outcome was charted out.

VACCINATION DRIVE IN ZOO

Even during the pandemic, animal keepers and zoo staff were in the forefront and looked after upkeep and health of animals. zoo staff provided the safety, care, and protection of zoo animals. On 11.5.2021 and 29.5.2021, AAZP, Vandalur conducted two batches of immunization drives for zoo workers and their family members to protect them from COVID-19. By the end of August, all AAZP employees were vaccinated with two doses of COVID 19 vaccine.



RECENT NEWBORNS



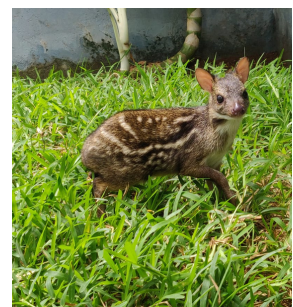
Slender Loris



Chimpanzee

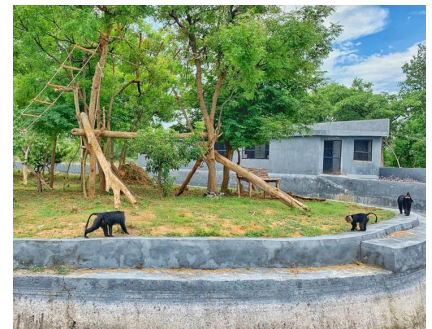
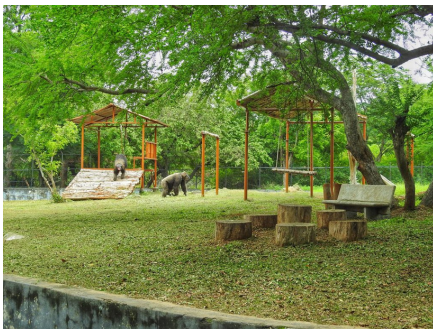
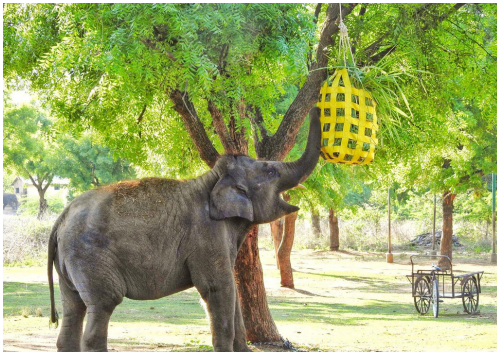


Swamp Deer



Mouse Deer

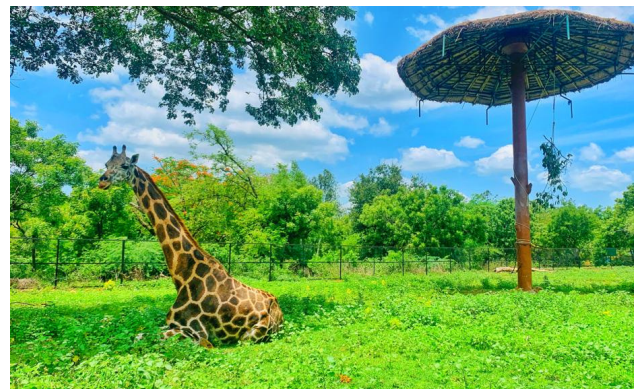
ENRICHMENT FOR ZOO ANIMALS



Animals in captive conditions do not have the freedom to perform instinctive behaviours that they usually display in the wild, this leads to stress. In order to remove the stress, environmental enrichment can be placed in enclosures, which allow animals to display a higher proportion of their behaviour repertoire. Enclosure enrichment is defined as "Provision of stimuli which promotes the expression of species-appropriate behavioural and mental activities in an under stimulating environment".

Enclosure enrichments are management interventions that are made to help captive animals display natural behaviour patterns. Animal housed in natural enclosures that allow species-typical behaviours live longer and are less susceptible to disease. In AAZP, enrichment was provided in Elephant, Chimpanzee, Palm civet cat, Lion tailed macaque, Nilgiri langur, Bird and Deer enclosures for providing a more complex environment that gives animals greater choice and control over their environment to reduce aberrant behaviour and alleviate stress.

IMPROVEMENT TO REST SHEDS



Renault- Nissan Technology and Business Centre India Private Ltd had provided financial support for 20 numbers of rest sheds to zoo animals

VETERINARY CORNER

RETAINED SPECTACLE IN KING COBRA & INDIAN ROCK PYTHON



King Cobra

Retained Spectacle or eye cap is a common ophthalmic condition noticed in snakes and a few other reptiles and this condition happens in association with dysecdysis. As a result, an opacity of the eye cap develops and its intensity increases if not resolved and a higher degree of opacification of the eye cap might lead to blindness, eventually causing the death of the individual out of starvation in wild. However, in captivity, the condition can be intervened at the appropriate stage and resolved. Even though constant monitoring of environmental condition with adequate provision of physiological needs is undertaken, noticing this condition is not very uncommon when the adverse weather conditions exist for a prolonged periods.

Retained eye cap is noticed in one of the King cobra and Indian Rock Python housed at AAZP, After observing for a week, the animal was moved into an enclosure with adequate sunlight exposure and supplemented with Vitamin A and Biotin and was monitored constantly. Regular feed intake, basking in the sunlight and no loss in body condition were observed during this period. On 12th day the retained Spectacle disappeared spontaneously. In this case, no intensive handling of the highly venomous snakes was done for the manual removal and treatment of retained spectacle. The condition was resolved by supplements and micro-environment alteration through scientific approach and monitoring.



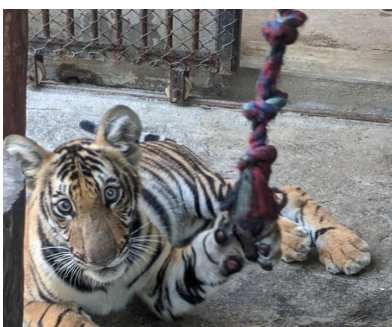
Indian Rock Python

LIGAMENT INJURY IN SLENDER LORIS

Subadult Slender loris in exhibit had a ligament injury in the hind leg. Degree of injury was diagnosed with help of digital radiograph. Digital radiograph is an advanced diagnostic tool available in our Zoo veterinary hospital. Slender loris had been given analgesic, antibiotic and vitamin supplements for more than 2 weeks. After which it had recuperated and now able to walk normally.



HAND REARING OF RESCUED TIGER CUBS



In the month of November 2020 in Singara forest near Masinakudi, Two male tiger cubs were reported being found in a bush in the routine combing process of the surrounding region of a dead lactating Tigress. Immediately, Forest veterinarian along with Zoo veterinary assistant surgeon (Dr.K.Sridhar) rushed to the spot to rescue the cubs. Both cubs were shifted to FVD Theppakadu temporarily and were kept under observation of vets. The cubs were groomed with dry warm cotton to mimic the natural grooming of mother tiger. As the cubs were shivering, they were insulated using a blanket and kept in a cardboard box. Attempts were made to feed them with goat milk drop by drops and after 6-8 hours of struggle, they learned to drink from the feeding bottle. Sufficient ambient temperature was maintained with the 60 watts tungsten filament bulb.

Once both cubs got accustomed to bottle feeding, they were transported to the intensive neonatal care unit of Arignar Anna Zoological Park. The cubs were fed with proven milk replacer formulated for Tiger cubs. The health status and growth was monitored 24x7. One cub which was not as active as the other, succumbed within one month, in spite of aggressive treatment and measures provided. The other one survived and all prophylactic measures like vaccination, deworming and ectoparasite control were carried out. It had grown into a majestic Tiger. After a long phase of rehabilitation, Bodhi is 9 months now and was shifted to a transit cage. In the future, being a wild gene, he will be involved in conservation breeding to avoid inbreeding in captivity.

ZOOSCHOOL CORNER


INAUGURATION OF SPECIES AMBASSADOR PROGRAMME

The first session of the Species Ambassador programme was launched at Zooschool of Arignar Anna Zoological Park, with 'Slender loris' as the species under focus. This is a first-of-its-kind species conservation effort spearheaded by an Indian zoo.

The first session on Slender Loris, one of the least known primates endemic to the south Indian region, was held on 31.7.2021 and on 1.8.2021, and recorded sessions are available on the AAZP YouTube channel bit.ly/aazp-youtube. APCCF & Director AAZP Thiru. Debasis Jana IFS launched the Species Ambassador programme. He released an e-booklet about the Slender Loris. The eminent speakers for the session were Dr. H. N. Kumara, Principal Scientist, SACON and Ms. Smitha D Gnanaolivu, Principal Investigator & Independent Researcher. They shared their research findings, significant scientific facts, myths and threats faced by the species. Valedictory note was presented by Deputy Director, AAZP. The session was organized and presented by Zoo Educator, AAZP. The participants were given "Species Ambassador" certificate. Special grade badges will be awarded to the participants based on their evidence based action towards conservation of Slender Loris.


Difference between Mysore and Malabar Grey Slender Loris

Mysore Grey Slender Loris	Malabar Grey Slender Loris
<ul style="list-style-type: none">Circumocular patches :<ul style="list-style-type: none">Relatively less dark patchThin rim (more whitish band between the ear lobe and eye)Head-body-length 22.3 - 26.3 cmWeight 226.8 - 346.6 gFoot length 45 - 57.5 mmBases of ventral hair usually without, seldom with a tiny grey base.	<ul style="list-style-type: none">Circumocular patches :<ul style="list-style-type: none">The dark patchThick and wide (up to below the ear lobe)Head-body-length 18 - 22 cmWeight < 170 gFoot length 44-45 mmThroat hair buff or reddish throughout (hair bases coloured like tips), ventral colour buff or dirty white:



Habitat

- Continuous canopy
- Little human presence
- Lots of insects
- Darkness in the night
- Sleeping sites (vine tangles, holes)



Virtual Zoo Ambassador

Register Now to get your Child to Explore Wild Species and learn its importance for the Environment Sustainability

7th to 11th June 2021
4PM to 5PM
10 to 20 Years

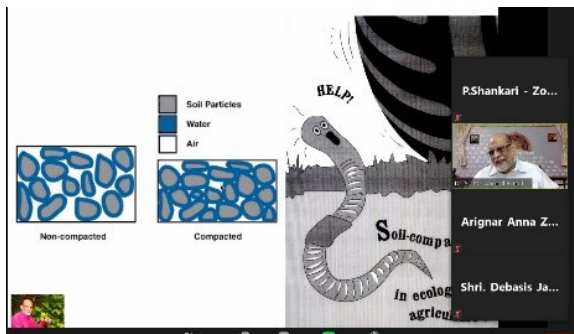
Register at aazp.in/5-day-programme
www.aazp.in |   



VIRTUAL ZOO AMBASSADOR SUMMER CAMP

Arignar Anna Zoological Park, Zooschool organized 5-day virtual zoo ambassador programme for school students from 7th to 11th June, from 4.00 to 5.00 pm. 471 Students from all over India registered and eagerly participated in this programme. Session on wildlife conservation, mammals, birds, reptiles and butterflies was conducted and assignment activity was given at the end of every session. The programme has received overwhelming response from the participants and the parents.

INTERNATIONAL DAY OF BIOLOGICAL DIVERSITY



On the special occasion of "International Day of Biological Diversity" 2021 which was celebrated under the theme "we're part of the solution". AAZP organized an engaging and thought-provoking session by Dr. Sultan Ahmed Ismail, an eminent Ecologist and Soil Biologist. The session emphasized environmental issues by focusing on an individual's role and action towards biodiversity conservation protection.

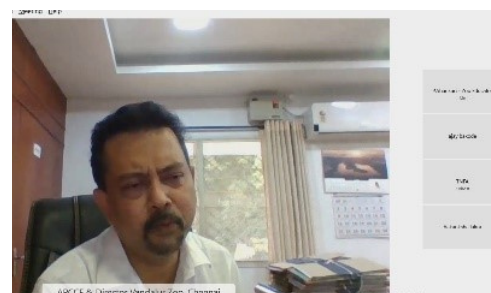
NATIONAL ENDANGERED SPECIES DAY

National Endangered Species Day is observed every year on the third Friday in May, which this year fell on May 21st. The goal of the day is to increase global awareness about endangered species and to highlight national conservation efforts to protect endangered species and their ecosystems. Over 100 Government school students from various districts of Tamil Nadu attended an exclusive awareness workshop about endangered species and need to conserve them for posterity.

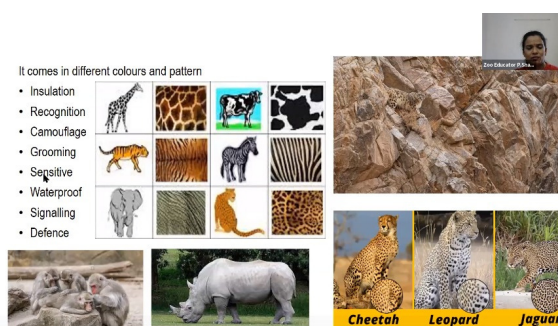


VIRTUAL ZOO IN-HOUSE TRAINING – FRO TRAINEES

Virtual in-house training for Forest Range Officers trainees was conducted on 17.5.2021. Veterinary care and practice session was handled by Dr. Sridhar Veterinary Assistant Surgeon, Conservation breeding and animal enrichment by Dr. A. Manimozhi Biologist, Conservation Education by Ms. P. Shankari Zoo Educator. In the training session, FRO trainees learnt about various activities of the Zoo.



ZOO OUTREACH PROGRAMME



The Park organised a zoo outreach programme for Government school children in English and Tamil to make the lockdown and summer vacation more meaningful. Students from several districts of Tamil Nadu were actively engaged in the lecture series, which was organised to instill values of conservation and increase awareness about wildlife, ecosystem and their interdependence.

OTHER EVENTS



In-house harvesting of greens, jamun, guava .etc



Upgraded Vandalur Zoo mobile Application



Health support training session for Zoo staff organised by Global hospital-Kelambakkam



CPCL donated 20 dustbins & vacuum cleaner as part of CSR activity



International Tiger Day 2021 - In-house Zoo Keepers training



World Snake Day 2021 - In-house Zoo Keepers training



**Arignar Anna Zoological Park
Vandalur, Chennai -600 048**



044 -29542301



support@aazp.in



www.aazp.in



To
