

Arulagam

Annual Report
2020 - 2021



OUR DRIVING FORCE



Mr. Karthika Rajkumar
President



Ms. Suryabala Rammohan
Vice President



Mr. Bharathidasan S
Secretary



Mr. Melkis Joseph Raja
Joint Secretary



Mr. Amirthalingam. A
Treasurer

Advisors



Prof. Dr.
Poornachandran K
Sahitya academy
awardee



Mr. Devaprakash M,
entrepreneur



Mr. Arumugam R
Zoologist



Mr. Kalairajan M
Forest officer, Retired

About Us

Arulagam is a non-profit organisation based in Tamil Nadu, actively engaged in the conservation of the fauna, flora and ecosystem. Arulagam was founded in the memory and honour of our friend Mr. Arul Moli in 2002, after his demise. Our work is deeply inspired by the life of Mr. Arul Moli, an ardent nature lover and poet who believed in the importance and the immediate need for the conservation of the flora and fauna. We at Arulagam believe that every organization, from the smallest to the largest, has its own significance and they are dependent on each other for sustenance.

VISION

To create an environmentally conscious society that protects the flora and fauna for the benefit of nature and future generations.

MISSION

Conservation of nature with people's active participation through field-based action, research, education and advocacy efforts to ensure sustainable development.

SUSTAINABLE DEVELOPMENT GOALS

Arulagam is an organisation that puts all efforts towards the well-being of society and nature. We believe that every living being on the planet has equal rights. The United Nations General Assembly established the Sustainable Development Goals in 2015 with the intention of achieving them by 2030. We also adhere to the following goals in order to guarantee a sustainable future for all living beings:



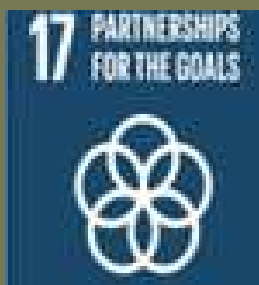
Arulagam has motivated Farmers Producers Organization (FPO) and provided training on how to convert locally available materials to value added products. We do promote sustainable farming through trainings.



Evening coaching programmes for tribal children are held during the COVID epidemic to promote life skills education and personality development



Through our nursery and outreach activities we are able to conserve and propagate 100+ indigenous tree species; Arulagam gives special attention to conserve threatened vultures, *Elvira* rat, chameleon, hedgehog, bat and Asian Elephant



We have partnered with like-minded organizations to protect wildlife and preserve rare flora; encouraging sustainable farming practices, and provide livelihood opportunities for the needy people.

Our Projects

'Arulagam' is delighted to present its intended and implemented project activities for the year 2020-21. 'Arulagam' implemented the need based projects and adopted community driven development approaches towards an integrated development with a sustainable and sound environment. Annual planning meeting convened with the participation of the board of directors, staff team and representatives of the community.

Area covered

35 villages

12 taluks

8 districts

2 States

2 tiger reserves

Beneficiaries

1800

Species Conservation

Vulture



Elvira Rat



Asian Elephant



Madras Hedgehog



Indian Chameleon



Other Activity

Nursery & Afforestation



Tribal Welfare

Promotion of Sustainable farming

Highlights for the year

- Local communities were enabled to act as protectors: 11 New gramasabhas started in The Nilgiris for claiming the Forest Rights Act.



- Quick compensation process for cattle depredation by carnivores was taken forward in Mudumalai Tiger Reserve area by joining hands with Mariamma Charitable Trust.
- Farmers Producer organisation started by partnering with Amirtaboomi Women's collective farm initiated Covid relief materials were distributed worth Rupees 1500 in 12 tribal hamlets. In total 790 families benefited.

➤ Pandemic and Wildlife

'Arulagam' utilised every challenge as a positive action in the Pandemic situation.

Bats and ant eaters were targeted for the cause of Covid19. 'Arulagam', immediately intervened and wrote a popular article and also brought this issue to the director, Indian Council of Medical and Research (ICMR)in.

The importance of vulture species was highlighted by writing an article, ' Vulture and Corona'.

➤ Tribal children education is ensured by the functioning of 25 Tuition centres.

➤ For ensuring the improved availability of safe food to vultures, an arrangement was made with the 'Gosala'. Interestingly a juvenile Egyptian vulture visited the carcass.

- A Conservation Action Plan was developed for the threatened ``Madras Hedgehog'' and initiatives taken to establish a Community Reserve. It is the first of its kind.
- **IPEN General Assembly**
Mr.S.Bharathidasan, Secretary of 'Arulagam' has been selected as General Assembly member in International Pollutants Elimination Network (IPEN)
- 'Arulagam' observed International Lead Pollution Prevention Week (ILPPW) with the support of the International Pollutants Elimination Network (IPEN). Based on our campaign we were able to achieve following field level changes

➤ Ms. Innocent Divya, I.A.S., district Collector, The Nilgiris district, directed the government officials that the use of lead-free paints would be included in the norms while calling for Government tenders in this district. Further she instructed the District Engineer, Department of Environment, The Nilgiris, to check all the retail paint shops to ensure that only the permissible limit of lead content in paints are in stock.



Where have the sanitary workers gone?

Nature's most efficient scavengers are on the brim of extinction. We have almost lost 99% of three vulture species in India. According to the common concept, they are just scavenging birds that feed on dead carcasses, but they are actually preventing the spread of different pathogens and infectious organisms that thrive on dead carcasses. It is well acknowledged that the painkiller diclofenac is to blame for the decrease in numbers. It is a drug that is used in veterinary treatment. The drug immediately affects the vultures' kidneys when they feed on the carcasses of animals treated with diclofenac, and they die of visceral gout. And vultures are indirectly affected by poison bait and reduced food availability.



Awareness programs to general public

Target audience

Cattle herders, pharmacists, and veterinarians are sensitised about the dangers of veterinary drugs like diclofenac, aceclofenac, flunixin, ketoprofen, and nimesulides.

Informative campaigns were conducted in places where vulture populations were found. Campaigns are usually conducted on occasions where local people gather. Hoardings depicting the importance of protection of vultures were placed in tourist-attracting areas like Kodanadu View Point and selfie with vultures board is displayed at botanical garden of the Nilgiris.

On and off we are getting feedback from the awareness board. Yearly, 30 calls are received about the sighting of Vultures in their vicinity.

Vulture Safe Zones are designated areas near vulture nesting and reproduction sites. Local stakeholders sensitized about the importance of vultures in our environment and how they help to reduce the risk of diseases spreading from dead animal corpses.

People are taught how drugs like diclofenac can kill vultures and reduce their population. Results of the poison bait and reduced food availability discussed with the targeted

Celebration of International Vulture Awareness Day



To mark International Vulture Awareness Day (IVAD), a wall painting with slogan on Vulture Conservation - "Vultures- Heroes of the Ecosystem", was declared open by **Mr. L.C.S. Srikanth, Deputy Director, MTR** to the public at the Vazhaithottam check post, and told that area is the important breeding area for vulture and hence the awareness board was erected here to sensitize the people. A series of webinars focused on the importance of vulture conservation were held in both English and Tamil.



Restoring the habitat of vulture - Tree plantation

In alliance with the 150th birthday of Mahatma Gandhi 150 *Terminalia arjuna* trees were planted. These trees are natural habitat of vulture where they used to nest.

150 *Terminalia arjuna* trees were planted to commemorate Mahatma Gandhi's 150th birthday. Vultures used to nest in these trees in their natural habitat.



The events for Wildlife Week were held in accordance with Mahatma Gandhi's clean India initiative. A tree-planting campaign was held on the Segur riverbanks in Mudumalai Tiger Reserve on 2nd October. According to studies, there has been a significant drop in the number of *Terminalia arjuna* trees due to a variety of unknown factors. Volunteers from Government Arts College, Udhagamandalam, planted many plants on the riverbed. Mr. K. K. Kaushal, Additional Principal Chief Conservator of Forests and Field Director, Mudumalai Tiger Reserve (MTR), planted the first sapling in the presence of Mr. L.C.S. Srikanth, MTR's Deputy Director, Mr. S. Murali, Segur Ranger, Dr. B. Ramakrishnan, Assistant Professor, Government Arts College, Udhagamandalam, and members of the 'Arulagam'.

Vulture and Corona

An article titled, 'Vulture and corona' was published by S. Bharthidasan, Secretary of Arulagam.

Please read further from Arulagam website



<https://www.arulagam.org/publications/articles/149-korona-noyt-torriyum-paru-kalukukalum>

Selfie with Vulture

Vulture are birds surrounded by several myths. The scavenging nature of Vulture is negatively portrayed. A selfie with a vulture cutout was set up in Udagamandalam in order to erase the negative image of the vulture. The portrait was exhibited by Ms. Nirmala Vidyadharan, retired headmaster of Govt. high School, and the tourists were motivated to take a selfie by replacing the vulture's face with their own. This initiative drew a large number of tourists, and the majority of them loved taking selfies. Sharing these selfies on social media can help to reduce the stigma associated with vulture behaviour, as well as develop a bond with the bird.



Why *Elvira* Rat?

Elvira rat are creatures that can only be found in Tamil Nadu's Eastern Ghats, and they are endangered rodent species. They are members of the Muridae family. The *Elvira* rat is the only mammal from Tamil Nadu state on the IUCN red list. *Elvira* rat is classified as Critically Endangered mammal by the IUCN. They can be found in both rocky and dry deciduous forests.



In 2022 ?, Arulagam collaborated with Dr. Brawin and his team to undertake a field investigation at Yercadu. They used the survey to look into Elvira Rat existence. The goal of this investigation at Yercadu was to determine the number of Elvira rats in the area. A total of 432 people were interviewed, and 156 mammals and 26 rocky habitats were found. This activity is supported by Zoological Society of London.

Are the Tuskers safe?

Life of the largest land mammal of the Asian continent is at stake. Asian elephants are listed as Endangered species by the International Union for Conservation of Nature. They are known for being extremely sociable. Arulagam aspires to create a society in which animals and humans may coexist peacefully, with all living beings having equal access to soil, water, and land. Our goal is to create an environment where humans and elephants can coexist. A three-day workshop was held in Purulia, West Bengal, by Arulagam and LIFE Trust -India. The program was held in partnership with the West Bengal Forest Department from March 11 to 13, 2022. The program was sponsored by Asian Elephant support.



Our goal was to dispel widespread misconceptions about elephant behaviour and habitat among the general public. The common people have a variety of beliefs that have developed over time. The training taught them how to coexist with elephants without damaging their habitat and helped them understand elephant behaviour patterns. A total of 35 people from various villages attended the workshop. These individuals can serve as messengers, spreading the message of human-elephant coexistence.



Conserving Madras Hedgehogs

The first Madras Hedgehogs were identified in 1851. Hedgehogs are extremely unusual to see, with only a few sightings since then. Arulagam intends to establish community reserves to conserve Madras Hedgehogs. Arulagam is planning a survey to determine the presence of hedgehogs in their natural habitat, as well as educational programmes to encourage communities to conserve their habitat and increase the number of hedgehogs. To ensure the mission's success, an action plan is being developed.



**Detailed reports may be read at
Arulagam website.**

[https://www.arulagam.org/images/Hedgehog%20conservation%20report.
pdf](https://www.arulagam.org/images/Hedgehog%20conservation%20report.pdf)

Celebrating World Environment Day

Deforestation had led to the loss of habitat for several birds, insects and many animals. Kumarguru College of Technology in Coimbatore, with the assistance of Arulagam, has established a nursery in honour of World Environment Day, which was inaugurated by Mr. Sankar Vanavarayar. The nursery intends to grow 2 lakh saplings from 65 different plant species. Arulagam aims to restore habitat for a range of animals, such as birds, butterflies, and bees, through such projects and collaborations. It also promotes tree-planting culture and fulfills the ambitions of tree-planting enthusiasts.



Tale of incredible camouflagers

'Arulagam' noticed dead chameleons on the side of the road while conducting field research for a vulture study. Our team conducted an inquiry to determine the cause of such an unusual event.. We realised that chameleons are shrouded in a slew of mythology. The locals believed that the chameleons changed their colour by sucking blood. They are considered venomous creatures, and it is thought that their bite can affect the colour of the victim's body. A total of 400 villagers were educated as a result of awareness events held in two villages. The participants are taught about the true nature of chameleons, as well as their capacity to change colours. The villagers pledged to safeguard these camouflagers at the end of the session.

பச்சோந்திகளை எங்களுக்கு மிகவும் பிடிக்கும்

- உடலை விட நளமாக இருக்கும் அதன் நாகு
- பூச்சியைப் பிடிக்கும் இலாவகம்
- கிளைகளில் நகர்வதற்குத் தோதாக அமையப்பெற்ற கால்கள்
- நடக்கும் நடையழகு
- நிறம் மாறும் வல்லமை
- 360 பாகையில் சுழற்றும் கண்கள் ஆகா - அதனைப் பார்க்கப் பார்க்க ஆனந்தம் பொங்குமே!!

நாம் செய்யக் கூடாதது

- அதனைக் கட்சிமாறும் அரசியல்வாதியோடு ஒப்பிடுவது
- மூடநம்பிக்கை காரணமாக அடித்துக் கொல்வது
- இது கடித்தால் விசம் எனத் தவறாக நம்புவது

பச்சோந்தியும் பச்சிளங்குழந்தையும் ஒன்றுதான். அவற்றை வாழவிடுவோம் சூழல் சமநிலை பேணுவோம் பச்சோந்தி குறித்து அறிந்தவற்றை நமது நண்பர்களுக்கும் கூறுவோம்.



Logos: S, Junglescapes, SEWR, EAST, தமிழ்நாடு பழங்குடி மக்கள் சங்கம், இந்தியை இடத்தைப் பொருளகம், கவித்யு



Tribal development projects

Tribals in Nilgiri's

Our goal is to enrich the tribals in achieving socioeconomic independence. We associate with district administration and implements the Forest Rights Act of 2006. We prioritise providing them with quality education and economic development.



Ten tuition centres in Gudalur, four in Coonoor, five in Kothagiri, and six in Pandalur Taluk have been conducted to empower indigenous tribes.

To improve the lives of tribals, 'Arulagam' established 'GramaSabhas' in four new locations (in addition to the ten already established) in Gudalur and Pandalur Taluks, two new locations in Kotagiri, four new locations in Coonoor, and one new location in Ooty. These 'GramaSabhas' can provide as a place for people to voice their issues and discover answers to problems. For the tribes' economic development, self-help groups are being formed.



Income generation and empowerment of women in agriculture sector

Arulagam makes it possible for the women those who are working in agriculture sector to live a dignified life. We train them how to turn agricultural products into value-added goods.

Pickle-making training

Locally available ingredients such as mango, chilli and drumsticks are transformed into pickles, powders, and other products. Two villages are engaged in the process, and the women sell their product at a 50% profit in their own and surrounding communities.

Millet preparation

Millets are used to make biscuits, cookies, ragi malt, and pappadum. Local products are used to make organic products. These items have the potential to earn them a happy living. Samraj Nagar now has organic stores. Above activities are supported by the Thousand Currents.



Relief efforts and public awareness campaigns on Covid 19

During the second wave of the Covid pandemic, Arulagam partnered with Amritabhoomi Center to carry out relief work. We provided 200 families with food packages and one-month rationing assistance. We also distributed kitchen garden seed packets containing vegetable seeds to promote the kitchen garden as a means of ensuring rural families' self-sufficiency throughout the epidemic.



Campaign against lead in paints

The amount of lead that can be used in paints is limited under the EPA Act. The quantity of lead in paint is remains significant even after the law came into force in November 2017. Toxics Link performed a nationwide survey on lead-based paints. Unfortunately, the use of lead in paints is more prevalent in Tamil Nadu. 'Arulagam' collaborated with the International Pollutants Elimination Network (IPEN) to raise public awareness about the negative consequences of excessive lead in paint. The campaign began on October 28th and finished on October 31st, on Arul's Memorial Day. Local paint shops were inspected for lead content paint under the orders of Ms. Innocent Divya, I.A.S., and were compelled to remove highly lead concentrated paints contained the lead content above the legal range. This activity is supported by the IPEN. Please read the full report in our website.



Conclusion

Arulagam has been working for the well-being of rare, endemic, endangered and threatened species on the planet for the past twenty years. We intend to increase our efforts next year and want to reach out to people all around the South India with positive messages. Every year, we hope to expand our family. We believe that by combining our efforts, we will be able to live in a better world.

Interim relief restrains farmers from turning predators

EXPRESS NEWS SERVICE
@Coimbatore

IN an attempt to pacify farmers whose cattle got killed in wild animal attack in the buffer zone of Mudumalai Tiger Reserve MTR, WWF (World Wildlife Fund) with the help of The Mariamma Charitable Trust, and Arulagam, an NGO working in the field of vulture conservation, handing over financial assistance to cattle owners as interim relief.

In the last one year, 50 farmers in the Nilgiris district benefitted from the initiative. A farmer would get ₹5,000 for each cow lost and ₹1,500 for a goat. The money, experts believe, would help farmers tide over the initial crisis. Also, the procedure to avail compensation from the forest department is lengthy; one has to obtain certification from VAO and NOC from veterinarian. Shortage of funds with the forest department sometimes delays is-

sue of compensation.

D Boominathan, landscape co-ordinator, WWF-India Western Ghats Nilgiris Landscape Programme said, "The initiative helped mitigate the anguish of farmers who lost cattle to wild animals. The farmers started poisoning the carcass and left it in the open to kill wild animals such as tiger and leopard. Though the practice by farmers is an offence, the farm-

ers are doing it as retaliation attempt against the big cats. However in most such cases, vultures died after feeding on poison-laced carcass."

The Mariamma Charitable Trust has been financially helping farmers since 2007 in Karnataka and wanted to expand the model to Tamil Nadu. "We have been working together for over four years. As many as 113 farmers were given interim relief in

Bandipur and Nagarhole tiger reserve, and 50 of them in MTR within a year," he added.

S Bharathidasan secretary of Arulgam "In the last nine months, 50 incidents of tiger and leopard attack on cows and goats were reported in Bokkapuram, Siriyur, Moyar, Anaikatti, Vazhaithottam in Mudumalai Tiger Reserve. Besides helping them financially, we are also planning to help them get compensation for farmers from the forest depart-

ment by arranging for certification from VAO and NOC from Veterinarian."

"Since 2007, we have given total interim relief to 1,519 farmers in Karnataka and Tamil Nadu. I started free medical clinic to get more interaction with the farmers in 2000 in Karnataka. We are also working to control domestic animal births and controlling disease among domestic animals," said Sunita Dhairyam, founder of Mariamma Charitable Trust.



NGOs come up with immediate relief for livestock losses

This is to avoid retaliatory poisoning by farmers who lost their livestock in the attacks by carnivores

WILSON THOMAS
UDHAGAMANDALAM

The recent killings of a tigress and five dholes (Asiatic wild dogs) within the limits of the Mudumalai Tiger Reserve (MTR) were the latest instances of retaliatory poisoning by farmers who lost their livestock in the attacks by carnivores.

Since such killings and the delay in getting the compensation could trigger farmers to resort to retaliatory poisoning, Karnataka-based Mariamma Charitable Trust has now joined hands with the Nilgiris-based *Arulagam*, which is into vulture conservation, and the Forest Department to offer immediate compensation to farmers for the losses.

With the joint effort of the

two NGOs, the Deputy Director of MTR (buffer zone) L.C.S. Srikanth recently handed over compensation of ₹ 5,000 each to five persons who had lost their cows in the attacks of carnivores recently.

"Mariamma Charitable Trust has been offering compensation to farmers for livestock losses in villages around the Bandipur Tiger Reserve. Now the Trust has agreed to provide a similar compensation package in MTR in coordination with *Arulagam*," said S. Manikandan, a biologist with *Arulagam*.

Vulture expert B. Ramakrishnan said that retaliatory poisoning can be fatal for carnivores like tiger, leopard, dholes and different

species of vultures that scavenger carcasses.

"Out of nine vulture species in India, four namely White-backed vulture, Long-billed vulture, Egyptian vulture and Red-headed vulture are residents in places like the Moyar valley in the Nilgiris. Three species namely Eurasian griffon vulture, Himalayan griffon vulture and Cinereous vulture also visit the Nilgiris," said Mr. Ramakrishnan.

According to him, the immediate financial relief of ₹ 5,000 will help win the confidence in the farmers though the amount is not sufficient for the loss.

Mr. Srikanth said that poisoning was the reason for the deaths of the five dholes and a tigress reported in

MTR in September and November this year.

"Incidents of carnivores such as tigers and leopards killing cattle usually occur in forest boundaries or inside the forest where people animals for grazing," he said.

The maximum amount offered by the Forest Department for the loss of a cow is ₹ 30,000 for which the owner of the animal has to submit an application along with the post-mortem report and a letter from the forest range officer.

"The amount can be sanctioned in a week if enough money is available with the Department under the compensation package.

Now we have around 20 applications pending," said Mr. Srikanth.

NGOs help Forest Dept. provide compensation to herders

STAFF REPORTER
UDHAGAMANDALAM

To discourage herders from poisoning cattle killed by carnivores in the buffer zone of the Mudumalai Tiger Reserve (MTR), conservation NGO Arulagam with the help of Mariamma Foundation in Bandipur and the Tamil Nadu Forest Department is providing immediate monetary compensation to cattle owners.

Recently, seven herders in Vazhaithottam, Mavanallah, Anaikatti, Achakarai and Bokkapuram received compensation amounting to ₹5,000 per person for the cattle they lost to predators over the last month.

In the past, cattle killed by carnivores have been poisoned by herders, killing not just carnivores, but other wildlife.

In MTR last year, a tiger as well as five Asiatic wild dogs (dhole) were killed in suspected poisoning incidents, while vultures too have died in previous years from consuming poisoned carcasses.



Forest Department official hands over a cheque to one of the herders whose cattle was taken by a carnivore.

Top officials of the Department, including Deputy Director of MTR (Buffer Zone), P. Arunkumar, local rangers and members of Arulagam were present at the event to hand over the compensation.

S. Manigandan, research scholar at Arulagam, told *The Hindu* that the initiative will not only help protect carnivores such as tigers and leopards, but also scavengers like the critically-endangered species of vultures that inhabit the Sigur, as well as other wildlife such as

striped hyenas and dholes. "Arulagam is also working towards increasing the compensation amount awarded to the herders. The initiative has been ongoing since last year to provide timely compensation to cattle owners," said Mr. Manigandan.

Field Director of MTR, D. Venkatesh, said that such efforts, along with the Forest Department's own compensation package of ₹30,000 for cattle preyed on by carnivores, will lead to fewer instances of retaliation by the local public against wildlife. The compensation provided by the Forest Department will be given to the herders separate from the initiative by Arulagam, officials said.

"When a cattle is killed by a predator, we usually request the owners to hand over the cattle to us so we can leave it inside a reserve forest for scavengers. The Forest Department hopes that such initiatives can help wildlife and also involve local communities in their protection," he said.

பாறுக் கழுகைக் கண்டா வரச்சொல்லுங்க!

■ ச. பாஜிதாசன் ■

இயிர்ணங்கள் அழகு இயற்கை பாற திமயு என்று கிருவி. முடியு. மலித்கலின் அழிசுபயநாயல் உயிரினங்களின் அழிவு 1,000 மடங்கு வேகத்தில் கையி சோய்க்கொண்டுகிறு என்பதுமுத்தில் அறையும் உண்மை. அழிவுக்கு அட்புருக்கும் உயிரினங்களின் தகவல் நூல் உலகெங்கும் 16,306 வகை உயிரினங்கள் மறையில் தெருப்பைக் கட்டக்கொண்டு ஹழன் சாவா என்று போறாக்கொண்டு இருக்கின்றன என்பது. இடப்பயல் நாள்தோறும் நீண்டுக்கொண்டே செல்கிறது.

இந்தப் பட்டியல் 40 ஆண்டுகளுக்கு முன்புபற பட்டியெழுப்பெய்தும் எனக்கூடிய பறவையல் இருக்க பாறுக் கழுகுக்கும் இடம்பெற்றுவிட்டன. பாறு, சிறுமினத்தில் நாள்தோறும் வெளியுறும் பாறு கழுகுக்கும்துப் பாறு தெருவையல் பாறு தெருவையல் பாறு ஆகியன அற்றுப்போகுத் திவையுறன்றாக நுபுகின் அமைப்பு தெரிவித்தனது.

ஒர் உயிரினம் இவ்வாயல் போனால் ஏற்படும் பாதிப்பு கணக்கில்லாக்கறது. ஆனால், அமை உடனே நம்மால் உணர் முடியது நம் கவனத்திற்கும் வரது. காரணம், இவைய இருந்தாலும் இவ்வாயலட்டையும் நமது அப்படைத் தேவையக்கோ பட்டு வரப்புகோ வேறுபாடு வெரிய பாதிப்பு ஏதும் உடனடியாக ஏற்படப்போவதில்லை. அதுமால், நம் கவனயலிற்றி வரப்புகோவருக்கிறோம்!

ஆனால், எல்லா உயிரினங்களும் ஏதேனும் ஒரு வகையில் ஒன்றோடொன்று எவ்வைய உயிரினங்கோடு பிணைக்கப்பட்டுள்ளன. முயலக்க கட்டுமிப் பாறுகையல் தாமய்கைப் (Global Wildlife Conservator) சேர்த்த உயிரினங்கள் நாயின் மர்டு தகவலயல், முன்போடு ஒற்றுப்போய்க்கட்டணக் கருதப்பட்டுள்ள 25 உயிரினம் கணையலக்கிமுதல் வட்டபாறத் தேருகல் மேட்டை முருக்கி

விட்டபட்டுள்ளது. இதில் 10 பாறுபட்டிகள், 3 ஊர்வன, 3 பறவையல், 2 நீர்நில வயுயல், 3 கிரிவாய், நமது ஒரு பூச்சி வகை, இறால் வகை, படித உயிரி, சேறு ஆகியன இடம்பெற்றுள்ளன. திராடெனார் சேர்த்த பட்டியலில் இந்தியாவைச் சேர்த்த இவ்வகைக் கண்டயல் கட்டு ஆதரவயல் இடம்பெற்றுள்ளன.

திவையுறையில் பாறு

இன்றும் 50 ஆண்டுகள் கழித்துப் பாறுக் கழுகுபறந்த தேறு இத்தேயோ பாறுல் பூட்ட-வேண்டிய திவைய வரது என்று நம்மோம். அந்த திவைய வாயல் இருக்க இந்திய அரசு ஹழன்னாடு திட்டம் வகுத்தல் செய்கப்பாட்ட தெருக்கியின்பது. ஆசிய அமெரிக்கன செய்கிட்டயல் சேய் - கய்க்கர் (Saving Asia's Vultures from Extinction) என்ஹி அமைப்பால் முன்செருக்கப்பட்டுள்ளது. நம் வீட்டில், ஊரில் உள்ள வயதான பெரியவர்களிடம் பாறு எனப்படும் பிணத்தின்மீக் கழுகைப் பாறத்தவ்வா எனக் கேட்டுப் பாறுதல், திவையல் செல்லக்கட்டு.

எனக்கு ஒரு திமயுல் திவையுக்கு வந்தது. எனக்குப் பந்த வயதானபோது வீட்டில் எருகை ஒன்றை வளர்த்துக்கொண்டேன். அதன் கெய்கைப் தேரடி எருகையினக் கெய்கையோல் பரிநாக இருக்கும். அந்த எருகை இறந்தபோது ஆயிரோத்தில் கொண்டுபோய்க் கூத்தினோம். அதன் தோவையல் வெரியவல் ஒவ்வல் கிழித்து எடுத்துக்கொண்டிருந்தேன். நான் அருகிலிருந்து பாற்த்துக்கொண்டிருந்தபோது, வளரிலிருந்து முகவயல் ஒவ்வொன்றாகத் தகவலிடுவதில் உயத்தின் அருகே வந்து அமர்ந்தன. அருகே முன் அபுறவையகளை நான் பாறத்ததில்லை. அமை என் உயர்த்திரு இருத்தது அச்சுத்த ஏற்படுத்தியது. வீட்டுக்கு

94 வந்தது. வீட்டு, அப்பாயிட் கேட்டு, அதுக் கெய்கைத் தெரிந்து கொண்டேன். முகவையகை தேருக்குதலில் ஆரவம் ஏற்பட்டபோது 1991 மே மாதத்தில் திவையுறையில் உள்ள தேயல் தெருநிர்வையகைகைக் கத்தியும் அமைத்திருந்த குத்தியுறையில் ஏற்புறைய 15 பாறுக் கழுகுகள் அமர்ந்திருந்தனவ் பாற்த்தேன். 1994 நவம்பர் மத்தியமில் பாறு ஒன்றை மதுரைக்கு அருகிலுள்ள திருப்பாவத்தில் பாற்த்து வாய்க்க வீட்டது. அறத்துப்பின் 1996 நவம்பர் மத்திய பிரதேசத்திலுள்ள பண்டா புகின் கப்பயல் செர்த்திருத்தபோது வயர் 30 பாறுக் கழுகுகள் இறந்தபட்டிகள் உயர்க்கத்த திவையுறையுறையில் அருகிலிருந்து இவ்வயல் பாறத்தில் ஒப்பெடுத்துக்கொண்டும் இருந்தன. அன்று



மலுசை முகப் பாறு

பாவையல் ஒரு ஆயாச்சியாள் வேவளாந்த. 'காட்டுயிர்' ச. முகமது அலி, முகவய ஆரவல் அமை ஆகியோர் உடன்பா 'கென்' ஆறறால் பாறக்க செர்த்திருத்தபோது எதிர் நுதலிலிருந்து குத்துபாவையல் பாறுக்கழுகுக் கூட்டம் தங்கியிருந்தது என் மனக்கண் முன் திவையுறது. அதுவே கவா சி அமை பின்னர் இவ்வகைப் பறவையல் நான் பாறக்கமல்வன.

ஆசியம் தந்த திமயு

முதலாண்டுகளுக்கு முன் திமய் பாவையலக் கிழக்கு மனத்திராடும் வேறு மனத்திராடும் சேர்த்தும் பாவையல் செருக்கியல் முகவையகை தேருக்குத்திராடாக ச. சத்திரமேகையல் சென்ரேன். முகவயல் ஏதும் வளர்த்தல் முருக்கின்றவன என அம்மயபோது அயர்வாந்து பாற்த்துபடியே மேதபாக நட்டிருக்கின்றோம். அப்போது வளரல் பளர்பாற எதே ஒன்று வடிகுத்துத் திவையல் தெருக்கிட்டது. தெருவதேருக்கியைத் திருக் உற்றுதேருக்கியபோது முகவயல் உயிர்த்து. அம், பாறுக்கழுகுதான். என்னத தெருக்கியோம். அமயுயின் என்னய்க்கை 105-எதத்திராட்டி விடயில் திவையுற்தேன். ஏனெனில் 12 ஆண்டுகள் கழித்து அப்போதுதான் இடப் பறவையுறந்ததல் பின்னும் பாற்த்தும் வாய்க்க கிட்டது. தமியுமல் முருவதும் வளறு முயாத பறவையினம் இப்பகுதியில் தெருபட்டைக் கண்ணுற இருக்கியுறதான் இவ்வியைதவகை காகக் காய்க்கையாற்ற என்வளத்த துறையது.

இந்தத் துறையுறையில் தமிழகத்தில் கழுகுப் பாறு, கழுகு மேட்டை கழுகு மணம் என என்செய்யுற கழுகு பெயர்த்த காய்க்கயல் கண்கோ இடய்க்கோ இருக்கின்றவையே தமய்க்கையல் மயமம் செய்து பாறு இவையுறவையல் தெருப்பெய்கின்றவன என்று பாற்த்தபட்டுதேன். எங்குமே தெருட்டயில்கை, திருக்கழுகுத்தந்தல் முனரி நமும்படையகை உண்ணயுற மருசன் முகப் பாறு என் அன்று என்பது குறித்துத் தெரிந்துகொண்ட செருபோதுமருசன் முகப்பாறுமருசன் ஒருவர் கையிலிருந்து உணவைய உண்பதுபோன்ற ஒவ்வல் மட்டுமே எஞ்சியிருந்தது.

தற்போதைய திவையல் உலகமேலும் பெருங்கழுகு இளத்தில் 23 சிறுபிணங்கள் உள்ளன. இந்தியாவில் ஒன்பது வகையல் தமிழகத்தில் சென்ருதுகுப் பாறு கழுகுக்கும்துப் பாறு ஆகிய நாள்கு சிறுபிணங்களும் கண்டப்படுகின்றன. இவ்வியைநதில் ஏறக்குறைய 99 எதயில் அழிந்துவிட்டது. தமிழகத்தில் கண்டப்படும் 4 வகையிலே அழிவாயத்திலும் அழிப்போகும் தருபாயில் இருந்துகருகின்றன.

இவைய இருந்த விவர்க்குமைய மட்டுமே உள்ளனக்கூடியவையல் தேயல் கண்ட காரணம், கணயல் விவர்க்குமைய உண்டு மயர்ந்துகருக்கும் பிரி விவர்க்குமையல் தேயல் பாவையல் கருக்கின்றன. இதனால், அமைப்பால் தேயல் ஆற்றாக்கல், வெறுதேயல் ரெயிர் உள்சிட்டையகூட்டப் பாவையல் கருக்கப்படுகின்றன. இவைய கட்டிபன் காரணம் பளர்பாற என் அமைக்கப்படுகின்றன.

அழிவுக்குக் காரணம்?

பாடுகளுக்குச் செருத்திய வயிற்றுவாணி மருத்துவம், இந்த விவர்க்குமையின் மீது தெருக்கிட்டும் தந்தகன், இவையுறக்குறைய ஆகியவைய இவற்றின் அழிவுக்குப் பெரிதும் காரணயல் அமைத்துக்கருகின்றன. இவற்றின் அழிவுக்கு முகவையல் காரணம் பாடுகளுக்குச் செருத்திய உட்கோளினாக் வயிற்றுவாணி மருத்துவம், மத்திய அரசு அம்மருத்திகை காரணம் பாவையல்புறத்துத் தகவல்பெய்து ஆயிரும் இடயுறத்து மட்டுமின்றி அசிக்கோளினாக், கிட்டோளினாக், மருத்திச்சின், திருசுமையட்ட ஆகிய மருத்துவரும் இந்த செருந்த பாறுபய ஏற்படுத்துகின்றன என அமர்ச்சி முகவயல் தெரிவிக்கின்றன. தமிழாடு அரசு கிட்டோளினாக் மருத்திகை காரணயல் பாவையல்புறத்து விவக்கி முன்னோடியாகத் திமய்கிறது.

மாடு தெருவல் காய்க்ககைத்தந்தாசேயே போகிறது. பாறுக் கழுகு திம்கிறது என்ஹி அமர்ச்சியல் வேண்டாம். தற்போது வட்கோளினாக் மருத்திருக்குப் பிணக்கக் கெடு மய்க்கும் மருத்துவன் வெய்தத் தகவல்கட்ட வகுவதகைத் தகவல்கல் வலுக்கின்றன. என்வே அறவையல் முருக்கையித்து மறுபி மருத்துவமுறையகைமயம் இத்திடம் கண்டதகை. ஆயாச்சி மயம் ஸ்ரீஆர்த்து பாறுமயான மருத்துவம் மீர்த்துதந்தான் கெய்க்ககைம் மருத்துவம் மட்டுமே பாவையுற்த்த வேண்டிடு.

இவ்வகையாக இந்த காரணம் கணயல் கெடு மய்க்கும் எந்த மருத்தும் செருத்திட்டாற காரணம் கணயல் மருத்தகைம் கருக்கு ஒருக்குத்தயயம் காரணம் கருக்கு இவையகிட்டோடுமில்லை. முகக்கட்டபாகக் காரணம் கருக்கு காரணம் காரணம் தெரு தெருக்கியுறவையல்

முன்பு தமிழகம் முழுவதும் வளர்த்த இத்த முகவையினம் தற்போது தமயிரி உயிர்க்கோளத்தில் மட்டுமே தெருப்படுகிறது. எனவே, தமயிரிவல் தெருவகையில் ஒன்றாக விவர்க்கு பாறுக் கழுகுகளை ஆயி விடாமல் கட்டிமே.

உட்டுறையாள், எருத்தாள், பாறுக் கழுகு பாறுகையல் செருக்கட்டபாள் தெருக்கிட்ட காரணம் காரணம் காரணம்

விடைபெறத் தொடங்குகிறதா கரோனா?

■ முகமது ஹுசைன் ■
திவையலில் நமால் கரோனா கவலால் முதல்

பாதுகாக்கும் தடுப்பூசி

நவம் வாடு
navaam@hindutamil.com

விவாக நடைமுறையிலிருக்கும் தடுப்பூசிகளை மேட்டுத்தல்கினை புகியவரை சட்டப்போராள்

Carcasses from goshala for Mudumalai's scavengers

Study-based conservation effort to ensure availability of safe food for endangered vultures

ROHAN PREMKUMAR
UDHAGAMANDALAM

To increase the availability of food for vultures in the Mudumalai Tiger Reserve (MTR), the Forest Department is allowing dead cattle from a *goshala* (cow shelter) located nearby to be left for the scavengers. The *goshala* is located in Mavanallah, in the MTR buffer zone.

The decision was taken after conducting a thorough study, along with field inspections. Medical records and veterinarians from the Animal Husbandry Department confirmed that the *goshala* was not using Non-Steroidal Anti Inflammatory Drugs (NSAID) that are harmful to wildlife, including vultures. Mudumalai is home to three



Carcasses from one *goshala* will be left for scavengers, forest department officials said. •SPECIAL ARRANGEMENT

critically endangered, and one endangered, species of vultures.

B. Ramakrishnan, assistant professor, Department of Zoology and Wildlife Biology at the Government Arts College, Udhagamandalam, justified the decision.

"Consent was given only

after visits to the *goshala* over a period of many months by researchers and Forest Department officials, after the perusal of their medical records, [and of] lists of drugs used to treat cattle, and after consultations with local veterinarians who treat the cattle there," he said.

"The breeding success of vultures can vary due to a number of factors, with the most important being food availability," Mr.

Ramakrishnan said. A pair of mating vultures may even abandon their nest due to a lack of food, he pointed out.

"It is for this reason that this initiative may prove to be extremely important," said S. Bharathidasan, secretary of Arulagam, a conservation NGO which has been working on vulture conservation in the Sigur plateau.

According to him, each month, two or three of the cattle at the *goshala* die of natural causes. Only those cattle that die of old age and natural causes will be left to the scavengers.

"The *goshala* is incredibly

well-run and has maintained meticulous records for its cattle, which made this effort even possible," said Mr. Bharathidasan.

The carcasses will be left inside the huge property of the *goshala* itself, which is away from human habitation and has a regular movement of forest staff, said S. Manigandan, a research scholar studying vultures from the Government Arts College in Udhagamandalam.

The breeding season for vultures starts from November and extends to March.

MTR Field Director K.K. Kaushal said other species such as wild boar, dhole and the striped hyena, would also benefit from the initiative.

THE HINDU
WEDNESDAY, DECEMBER 2, 2020

Sigur turns a hotspot for migratory vultures

The sighting of Eurasian griffon marks the third different migratory species of vulture recorded in the region this year

ROHAN PREMKUMAR
UDHAGAMANDALAM

Soaring high among the clouds, a kettle of white-rumped vultures and red-headed vultures, residents of the Sigur plateau, circle over the carcass of a dead animal. On closer inspection, research scholar, S. Manikandan, studying the vultures spots a bird noticeably different from the other vultures. "I immediately started taking pictures and later confirmed it to be a Eurasian griffon (*Gyps fulvus*)," said Mr. Manikandan.

The sighting of the Eurasian griffon, a winter migrant to the Sigur plateau, marks the third different migratory species of vulture recorded in the region this year.

S. Bharathidasan, secretary of Arulagam, a conservation NGO working on protecting vultures, said that apart from the Eurasian grif-



A cinereous vulture (*Aegypius monachus*) sighted in the Sigur plateau. •SPECIAL ARRANGEMENT

fon, conservationists have also spotted the Himalayan griffon vulture (*Gyps himalayensis*), as well as the cinereous vulture (*Aegypius monachus*), in the Sigur plateau.

"We were on a routine trip to the Sigur to document the vultures in the region when we spotted the Eurasian griffon, which is being recorded for the second time in the region since 2017," said Mr. Manikandan, a research scholar studying vultures at the Government Arts College in Udhagamandalam.

Previously, a Eurasian griffon was recorded near Masinagudi by D. Gajamohanraj in 2017.

Vultures such as the Eurasian griffon and the Himalayan griffon, particularly juveniles, are known to travel thousands of km during the winter before heading back to their home range during the summer, said B. Ramakrishnan, assistant professor at the department of zoology and wildlife biology at the Government Arts College in Udhagamandalam.

"This behavioural trait is seen particularly among juveniles, who travel to different parts of Southern India during the winter, possibly to take advantage of the ideal climate and availability of food in the region," said Mr. Ramakrishnan.

Interestingly, despite the presence of other vulture species in the region, including the red-headed vulture (*Sarcogyps calvus*) and the white-rumped vulture (*Gyps bengalensis*), the winter migrants seemingly have little to no conflict with the local resident vulture populations, said Mr. Bharathidasan and B. Ramakrishnan.

Captive vultures

Conservation methods could take advantage of this behaviour to reintroduce captive vultures back into the wild, opined Mr. Bharathidasan. "Around four years ago, a cinereous vulture was rescued in Kanyakumari and is currently being kept in captivity. Efforts could be taken to reintroduce the individual back into the wild, as there are plans to set up a vulture rescue, rehabilitation and breeding centre in Mudumalai, and could be an ideal learning and training process for future conservation and rehabilitation efforts," said Mr. Bharathidasan. "The presence of so many vulture species in a single limited landscape is an indicator that the Sigur is a hotspot for vultures and needs continued protection," said Mr. Ramakrishnan.

Partners in collaborations

Home Rule Globally

Habitat Trust

Disney Conservation Fund

Coodu Society

Rufford Foundation

Swan Trust

Cultural Survival

Psyco Trust

Asian Elephant Support

Thousand Currents

Centre for the Study of the Americas–CENSA

Rudolf Steiner Foundation Inc.,

Edward D Jones and Co.

Van Tien Hoven Foundation

The Zoological Society of London

Asoc Lurbide EL Camino DELA

International Pollutants Elimination Network (IPEN)

Kumaraguru College of Technology

Care Earth Trust

Shanthi Social Service Society

Suguna Foundation

RECEIPTS AND PAYMENTS FOR THE YEAR 2020-21

Receipts Particular	Income Cost (₹)	Payments Particular	Expenditure Particular (₹)
Grants from doners	1,44,94,134	Programme expenses	24,05,988
Donation	17,34,983	Nursery activity	11,69,912
Member's subscription	3,000	Administrative expenses	3,90,893
Bank interest	2,65,808	Capital expenses	53,010
Total	1,64,97,925		40,19,803

(Balance amount will be carried forward to ongoing project. Detailed audit report can be availed by requesting, Auditor : John Peter Raj)

Arulagam is registered Under Tamil Nadu Societies
Registration act 1975, Regn No; 156/02 ,
Regd u/s 12A, 80G of the IT Act;
Regd under FCRA to accept foreign donations

CONTACT US

Arulagam,
Poonthalir Nursery Garden,
Ellappalayam,
Coimbatore- 641697
mail: arulagamgreen@gmail.com
Contact Number : 0422-4346772
Mobile Number : 9843211772

<https://www.arulagam.org/>

<https://www.instagram.com/arulagam/>

<https://twitter.com/arulagam1>

<https://www.facebook.com/Arulagamgreen/>

