



Biodiversity Chronicle

Quarterly e-Newsletter

West Bengal Biodiversity Board



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First Year Fourth Issue October-December 2025

Mission LiFE



Two programmes were organised on Mission LiFE at Sidho Kanho Birsu University, Purulia and Murshidabad University, Berhampur. LiFE themes were discussed: followed by oath-taking by the students.



DNO Meeting

A meeting with District Nodal Officers (DNOs) on Biodiversity matter was held on 29th August, 2025 at Board's office. The ongoing conservation activities and future action plan, to be implemented at grass root level were discussed.



Avoy Pukur - an endeavour of indigenous fish restoration



The vast riverine plains with various aquatic ecosystems of West Bengal are home to nurture diversified fish faunal components. These resources not only provide the economic services, but also have an



immense role in nutritional and health security of the community. There has been gradual erosion of indigenous fishes due to several anthropogenic activities since few decades, as reflected in the

People's Biodiversity Register (PBR), the document prepared at grass root level of the state involving local people. Thus, there is an urgent need to conserve such precious resources for future generations.

'Avoy Pukur' is such an endeavour where indigenous local fishes are being restored maintaining the natural conditions of heterogenous aquatic vegetation, covering 25% to 30% of the total area of the water body. The vegetation constitutes different growth forms of aquatic plants like submerged, floating, emergent and helophytes (growing at the edge of land-water interface). The diversity of

different aquatic plants not only makes conducive habitats of various indigenous fishes but also has the capacity to uptake excess nutrients from the water, aiding in bio-remediation and keep the water body free from pollution.



The 'Avoy Pukur' may be treated as fish sanctuary maintaining diversified gene pools of indigenous fishes and other

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Sacred Groves: The Biodiversity Treasure Troves

While moving along the connecting paths of the villages, your eyes may spot the dome shaped green patches like the small 'islands' dotted in the vast agricultural fields. If you have few steps close to these 'islands', you will be able to discover the amazing treasure of nature with cohesion of close canopied age-old trees, entangled climbers and dense undergrowth to shape a special



architecture that nurtures the wide diversity of life forms. These wild patches are indeed the forest remnants conserved through the long tradition of socio-religious ethos and thus to

be considered as 'Sacred Groves' with many vernaculars like 'Devi than', 'Thakur than', 'Pirer than', 'Jahar than', etc. Sacred Groves are the reservoir of magnificent gene pool, even with the habitats

of threatened species which have been protected mostly through strong taboos of the locals, since the early civilization. In spite of the immense ecological and socio-cultural values, several anthropogenic activities, in many cases, destroy the sacred nature of the groves and thus be gradually eroded. Deep compassion to the tradition, would be able to minimize the threats and safe-guard these biodiversity treasure troves.

Chairman's Desk

Human civilization today stands at a turning point, where modern technology and artificial intelligence promise revolutionary progress. From healthcare to education, from agriculture to space exploration, these innovations offer solutions that were unimaginable decades ago. Alongside this progress lies a profound challenge: the conservation of Nature, particularly biodiversity.

Technology can analyse data, predict climate patterns, and even design conservation strategies, but it cannot recreate the delicate web of life—the forests, rivers, animals, and microorganisms that sustain us. Thus uninterrupted blind use of technology and consumerism can accelerate deforestation, pollution, species extinction, and climate change.

The key lies not in rejecting technology, but in reshaping human behaviour. Technology must be guided by wisdom, ethics and compassion for nature. Artificial intelligence should be harnessed for harmless purposes like protecting ecosystems, developing sustainable farming, reducing waste, monitoring endangered species, and educating people about the value of biodiversity. At the same time, individuals and communities must learn moderation, respect for natural limits, and responsibility towards all forms of life.

For the next generation, the choice is clear: progress must not compromise at the cost of the planet. By blending high technology with ecological sensitivity, humanity can ensure a future where innovation and biodiversity flourish side by side.

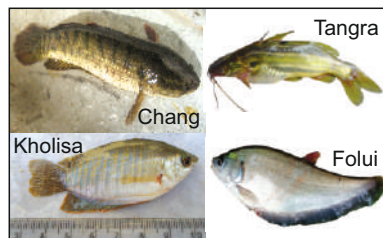
“Let AI be our tool, but Nature our teacher. Only then can tomorrow's children inherit both wisdom and life.”

Dr. Himadri Sekhar Debnath

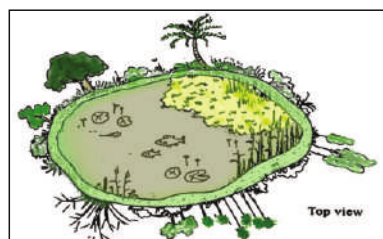


...Avoy Pukur- Indigenous Fish Restoration

aquatic species. Presently this conservation programme is being implemented in Govt. owned

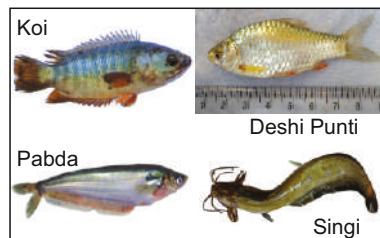


water bodies with the involvement of local people. Moreover, Department of Fisheries, Govt. of West Bengal is also developing model 'Avoy Pukur' in different ecological regions of the state



following the guidelines of the West Bengal Biodiversity Board, with the objectives to disseminate the fish genetic resources and develop capacity building on the promotion of aqua-culture with indigenous fishes. The prioritized species for such conservation program are mostly either locally

extinct or less abundant in spite of their high market demand like *Chang, Shol, Shal, Latha, Nados,*



Punti (4 species), *Pankal* (2 species), *Gute, Kholsa* (2 species), *Bogo, Bam, Koi, Magur, Shingi, Gule, Tangra* (2 species), *Pabda, Raikhar, Bata, Thikre Bata, Pod Koi, Chala, Kuche, Bele* etc.



The 'Avoy Pukur' programme may also be adopted in the water bodies of educational institutes and other organizations towards nature-based conservation education activity. Concerted efforts of all concerned would be able to retrieve the past glory of aquatic resources of the state.

Extended Programme to Commemorate the International Day for Biological Diversity in Districts



A seminar on 'Harmony with Nature and Sustainable Development' was organized jointly by Tamralipta Mahavidyalaya and the Board at Tamluk, Purba Medinipur. Students, teachers and members from Biodiversity Management Committee were participated on 30th August, 2025.

The Board and Sidho Kanho Birsa University jointly organised the seminar on 'Biodiversity Conservation through Sustainable Practices and Community Engagement' on 4th September, 2025 at Purulia. Participation of the young minds of college and university students made it vibrant.

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Editor's Column

Kolkata faces an acute shortage of urban green space— only 1.8 sq. m per capita, far below the WHO-recommended 9 sq.m. Rapid urbanisation has led to the degradation of the city's green cover, adversely affecting its ecological balance and liveability.



To address this concern, a comprehensive greening initiative is proposed to enhance ecological stability, climate resilience, and urban well-being. The initiative will include:

- Avenue plantations along major roads;
- Median plantations on road dividers;
- Vertical wall plantations on suitable structures;
- Institutional plantations within campuses; and
- Embankment plantations along waterways.

Selection of appropriate species for each segment and ensuring proper maintenance will be crucial for the success of these initiatives.

To promote public awareness about the importance of urban greenery, Arboretums and Nature Interpretation Centres may also be developed as educational and recreational spaces.

Several government initiatives already support greening efforts in urban areas, including the Green City Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), and Nagar Van Yojana. Furthermore, the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 provides a robust legal framework for the protection and restoration of green spaces.

Adoption of geo-tagging and digital mapping tools will ensure transparency, accountability, and effective monitoring of implementation.

In addition to government funding, Corporate Social Responsibility (CSR) and Corporate Environment Responsibility (CER) resources may be judiciously utilized to support these greening efforts.

With coordinated action by all stakeholders—government agencies, institutions, and citizens—the urban green scenario of the state can be significantly transformed.

Festive greetings to all!

Mr. R.P. Badana, IFS
Member Secretary



Activity Based Students' Awareness

Conservation of Traditional Varieties of Vegetables through Kitchen Gardens in Schools

The conservation of traditional varieties of vegetables has gained significant importance in recent years due to increasing threats from climate change, monoculture farming practices, over-dependence on hybrid seeds, and soil degradation resulting from conventional agricultural methods. In this context, the establishment of kitchen gardens in school campuses across West Bengal has emerged as a sustainable and participatory approach that integrates biodiversity conservation with education, nutrition, and environmental awareness.



Traditional vegetable varieties are naturally adapted to local climatic and soil conditions. They are often more resilient to pests and diseases and can be cultivated using organic, sustainable methods. In addition to being environment-friendly, these varieties frequently offer higher nutritional value and superior taste compared to commercial hybrids. However, the viability of many of these traditional cultivars is increasingly threatened due to the dominance of conventional chemical-based agriculture systems.



Schools, as vital agents of education and social change, are uniquely positioned to promote



this conservation effort. Kitchen gardens within school campuses serve multiple purposes: they act as living laboratories for students to gain hands-on experience with sustainable agriculture, promote the conservation of indigenous vegetable varieties, and supplement mid-day meals with fresh, pesticide-free produce. The vegetables commonly grown include spinach, amaranthus, tomato, okra, cabbage, green chili, pumpkin, bottle gourd, cucumber, bitter gourd, ridge gourd, pointed gourd, beans, and others.

The seeds used in these gardens are sourced from local farmers, agriculture departments, markets, student families, and seed banks. The West Bengal Biodiversity Board has provided technical guidance on organic farming practices and seed preservation techniques to ensure the long-term sustainability of these efforts.

Workshops and awareness programmes are being conducted regularly to sensitize students to the importance of conserving traditional vegetable varieties. These events have seen active participation from students, Biodiversity Management Committees, District Inspectors of Schools, and officials from departments of Agriculture, Horticulture and P&RD, as well as NGOs and other stakeholders. In many areas, school kitchen gardens have evolved into demonstration

centres, encouraging inter-generational knowledge sharing and active involvement from parents and local farmers.

As of now, kitchen gardens have been successfully established in 22 schools across the state. For the financial year 2025–26, the initiative is being scaled up to 44 schools, along with its implementation in 41 Anganwadi Centres under the Directorate of ICDS, Government of West Bengal.

Despite the positive outcomes, certain challenges remain. These include limited space in urban schools, scarcity of resources, and the need for capacity building and structured planning to ensure long-term

sustainability. Addressing these issues through the creation of model gardens, distribution of local seed kits, and development of region-specific manuals in local languages will be key to scaling up the initiative.

Integrating this initiative with academic curricula, student competitions, and local cultural events can further enhance its impact.

The school kitchen garden initiative is a simple yet impactful model that not only supports conservation of traditional vegetable varieties and agrobiodiversity, but also fosters



ecological awareness, strengthens food and nutritional security, and empowers the younger generation to become environmentally conscious citizens and stewards of a sustainable tomorrow.

Publication of the Board



Interested persons are requested to enquire :

West Bengal Biodiversity Board

Contact No.: 033 2335 2731 / Email: biodiversity.wbbb@gmail.com

Baneswar Shib Dighi : Biodiversity Heritage Site

Baneswar Shib dighi is an ancient water body adjacent to Baneswar Shib temple, located in Coochbehar-II Block under Cooch Behar district. Raja Nripendra Narayan, the then king of Coochbehar, facilitated the digging of this pond with an area of 1.65 acre. The king had brought a turtle species *Nilssonina nigricans* (Black soft-shell turtle) from Tripura and reared in this waterbody. Since a long time ago, this



‘Purana’, this animal is the incarnation of Vishnu as ‘Kurma Avatar’ and revered as God. Thus, no one commits any offence against the ‘Mohan’.

The Black Soft Shell Turtle is extinct in wild, as per IUCN (International Union for Conservation of Nature and Natural Resources) and listed under Appendix-I of CITES (Convention of International Trade for



species has been surviving in the pond with its viable population. This species is not only restricted within this ‘dighi’, it has also been spread to nearby low land areas, especially during breeding time. This turtle, locally named as ‘Mohan’, is being respected and worshipped. According to



Endangered Species of wild flora and fauna) in which, the trade of this species is completely prohibited. ‘Mohan’ is a Heritage species and Baneswar Shib dighi is nurturing this precious animal.

After the declaration of Biodiversity Heritage Site (BHS), the BHS management Committee has been formed and preparing the management plan emphasising the following:



- Health Security of ‘Mohan’
- Safe corridor of ‘Mohan’
- Awareness among pilgrims and tourists
- Habitat conservation of ‘Mohan’

Administration has already taken some steps towards implementation of these management plans.

...Extended IBD Prog.

Another seminar was jointly organized by Murshidabad University and the Board at Berhampore, Murshidabad on 8th September, 2025. Students of the university and colleges participated in that programme on ‘Nature and Sustainability: A unified vision’.



Two Nature Study programmes for the school students were organized at Fulia, Nadia on 21st August, 2025, jointly by the Board and Nadia Sejuti Bidhyashram and Kamarhati Water Works, North 24 Pgs. on 28th August, 2025, jointly by the Board and Environment Safe Organisation.



Kola Bou and Naba Patrika in Bengal's Durga Puja

Dr. Himadri Sekhar Debnath

In Bengal's Durga Puja, one of the most fascinating rituals is the worship of the Kola Bou or “Banana Bride.” The Kola Bou is actually a tender banana plant, draped in a red-bordered sari like a newly-wed Bengali woman. She is placed beside Lord Ganesha on the puja altar. While popularly seen as Ganesha's consort, in essence the Kola Bou is revered as a representation of Mother Nature—the nourishing, life-giving force of the earth. Her presence in the Puja reflects the deep agrarian roots of Bengal, where fertility, harvest, and the cycles of nature were always tied to worship.

The Kola Bou is part of the Naba Patrika ritual, meaning ‘nine leaves’ or ‘nine plants.’ These nine plants are bundled together, wrapped in a white sari with a red border, and bathed ceremonially in the sacred waters of the Ganges or other holy river. Collectively, they embody the goddess Durga in her vegetative, life-sustaining form. The nine plants are:



(Kochu), Turmeric (Halud), Jayanti (a plant sacred to Shiva), Wood-apple (Bel), Pomegranate (Dalim), Ashoka, Arum (Maan Kochu / Dwarf Arum), Rice Paddy (Dhan).

Together, they symbolize fertility, prosperity, health, and protection.

The ceremonial bath, known as Kola Bou Snan, is performed early on Maha-Banana (Kola), Colocasia saptami morning. Priests carry

the Naba Patrika to the riverbank with chants and conch-shell sounds. After the ritual bath, the plants are adorned with sindoor, flowers and garments, then placed beside Ganesha on the Puja dais.

This age-old ritual also conveys a subtle ecological message: honouring these diverse plants reminds us of the need to protect biodiversity. In today's world of deforestation and climate change, the Naba Patrika teaches that safeguarding plants, crops, and ecosystems is central to sustaining life, just as it was for our ancestors.