

**CAMPA- Dolphin Progress Report (FY- 2022-23)**



**Title of the project:** Development of conservation action plan for River Dolphins

**Funding Source:** CAMPA-MoEFCC

**Investigators:** Prof. Qamar Qureshi, Dr. Vishnupriya Kolipakam, Dr. S. A. Hussain, Dr. Bitapi Sinha, Dr. Ruchi Badola

**Researchers:** Dr. Abdul Wakid, Dr. Shovana Ray, Dr. Vineet Singh, Dr. Sunny Deori, Merin Jacob, Gargi Roy Chowdhury, Kanad Roy, Abhishek B., Ayan Dutt, Anurag Rokade, Bhavna Pant, Sneha Mane, Gautam, Dr, Shailza Negi, Saswati Mahanta, Vijay Pratap, Shatam Ojha, Athul A.

**Date of initiation:** 1<sup>st</sup> April 2016

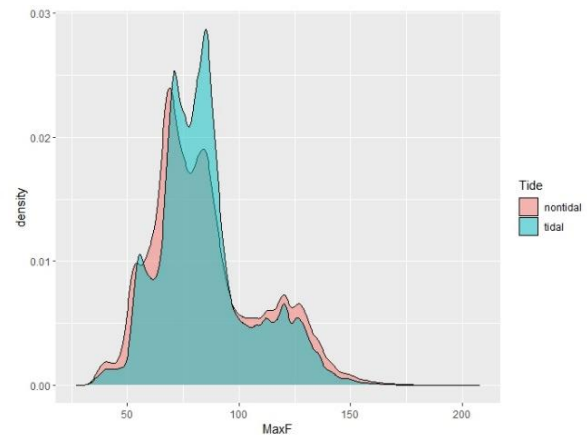
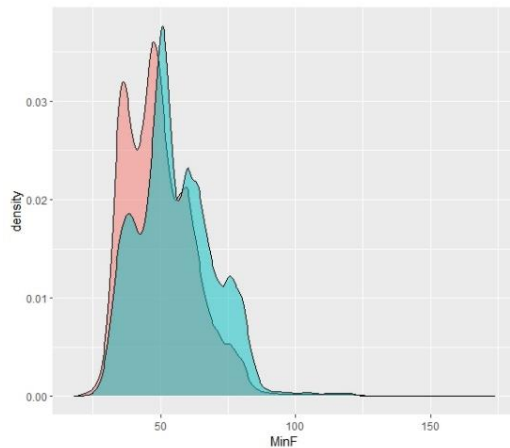
**Date of completion:** Ongoing

## Objectives:

1. To develop monitoring protocol for dolphins.
2. Status of associated river fauna like Gharial, Otter, Turtles and Fishes.
3. Quality assessment of river habitat in terms of water quality, anthropogenic pressure and landscape surrounding riverscape.
4. Evaluate the current status of invasive species in riverscape.
5. Involve stakeholders to develop a network which will assist in dolphin

## Progress during the year:

- 1. Intensive site study:** River dolphin acoustic experiments were conducted along 3 districts at the bank of River Hooghly in West Bengal. The data was collected using CPOD, a hydrophone (Passive acoustic monitoring device) that recorded the dolphins' echolocation clicks. The study compared the frequency range of echolocation clicks (MaxF, MinF, Frange, Figure 1) between the two groups. Ambient was recorded using a C57 hydrophone deployed at these sites in absence of any other anthropogenic noise such as vessel movement, construction etc.



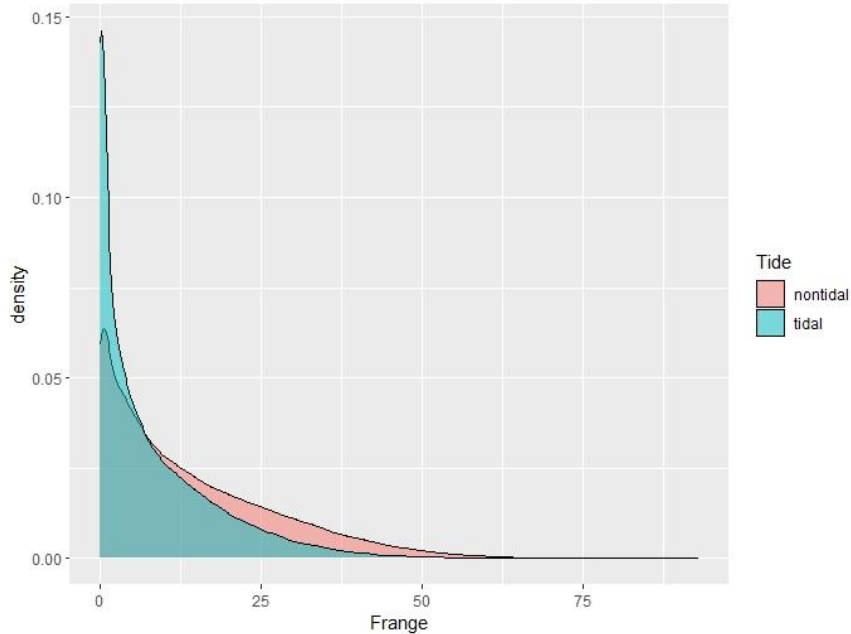


Figure 1 showing density plot of Minimum frequency (MinF, top left), Maximum frequency (MaxF, top right) and frequency range (Frange, bottom) for the two different groups of Ganges dolphin residing in tidal (teal) and non-tidal (peach) locations.

## 2. Socioeconomic surveys and awareness programs in West Bengal

- Socioeconomic survey with emphasis on ghost net management was conducted in fishing villages from 8 districts of West Bengal (N= 507, Figure 2). Aim of this survey was to record the cost involved in preparation of fishing nets, disposal methods, potential for recycling and feasibility of buy back policies.



*Figure 2. While interrogating about ghost net status among the fishermen of West Bengal*

- Across 5 districts of West Bengal river related folk art forms explored and artists were interviewed (N=40, Figure 3). Handicrafts developed by rural artisans were collected for river dolphin conservation related outreach programmes.



*Figure 3. Interaction with folk artists of West Bengal*

- In schools across 3 districts of West Bengal, interactive games were arranged for students (N=167, Figure 4). These games were designed for imparting Ganges river dolphin conservation message to the students using models and fun activities.



*Figure 4. School Programs in three districts of West Bengal*

- Fisheries scheme awareness workshops were organized in collaboration with local fishing cooperatives and State fisheries department at 3 districts (N=200, Figure 5).



*Figure 5. During Fishery scheme awareness workshop in West Bengal.*

- National Dolphin day was celebrated at Kolkata and Farakka in West Bengal and in Kalahgaon, Bihar. Awareness walk, plays and quiz show were organised at local schools. School students residing near the river ghats participated in the event (N=260, Figure 6).



*Figure 6. Quiz competition during Dolphin Day celebration in West Bengal*

- Environment day was celebrated on 5 June 2022 across 2 field sites of West Bengal (N=200). Activities like plogging, awareness announcement and rally, street play were organised at Farakka and Kolkata (Figure 7).



*Figure 7. World environment day (5<sup>th</sup> Jun, 2022), celebrated in West Bengal*

### **3. Socio- economic surveys and awareness campaigns in Assam**

- Study on folk art culture among the riverine communities was conducted to understand the importance of river dolphins in cultural history of Assam (Figure 8).



*Figure 8. Interaction with the mask makers of Majuli Island, Assam*

- **World environment day (5<sup>th</sup> Jun 2022) celebration at Assam:**

We conducted two awareness events on dolphin and river ecosystem conservation on the occasion of World Environment Day 2022 – one at Chunari and another at Jugighopa (Figure 9). We did Poster presentation, followed by a drama performance on dolphins and river ecosystem conservation were conducted. About 500 people including students participated in these awareness events.







*Figure 9. World Environment Day activities in Assam*

- **Student art competition:** We conducted student art competition in Sankardev Sishu Niketon (Kukurmara, in the bank of Kulsi River), where 40+ students participated in different topics related to dolphin and river ecosystem conservation. All participants were given awards (Figure 10).



Figure 10. Student Art competition in Kukurmara

#### 4. Dolphin mortality monitoring in Assam

In 2022-23, we recorded 7 dolphin deaths in different parts of Assam as follows (Figure 11, 12):

Date of death	Place of death	River	Number	Age class
20-05-2022	Morisapathar	Pahumara	1	Adult
04-08-2022	Hiloikhunda	Brahmaputra	1	Calf
25-09-2022	Bihpuria	Dikrong River	1	Adult
06-10-2022	Thelamara	Brahmaputra	1	Adult

05-12-2022	Kashoshila	Brahmaputra	1	Adult
02-03-2023	Bherbheri	Kulsi	1	Adult
05-03-2023	Bherbheri	Kulsi	1	New born
<b>Total</b>			<b>7</b>	



*Figure 11. Dolphin carcass recovered from Pahumara river*



*Figure 12. Dolphin carcass recovered from Dikrong River*

##### **5. Rescue and release of Net stranded dolphin:**

On 4<sup>th</sup> February, 2023 CAMPA Dolphin team in association with the North Kamrup Forest Division (Assam) safely rescued and released a net stranded dolphin from a Berjal (Figure 13). This dolphin was stranded for more than 2 months in the Berjal.

CAMPA Dolphin team worked closely with the fishermen team including the lease holder to keep the dolphin safe and release it safely.



*Figure 13. The Berjal, where the dolphin was stranded for 2 months; CAMPA Dolphin team with fishermen*

## **6. Assisting different Forest Divisions of Assam Forest Department:**

- During this Reported period, we assisted the Divisional Forest Officers of Kamrup West Forest Division, Guwahati Wildlife Division, Dibru-Saikhowa National Park, Kaziranga National Park, and Biswanath Wildlife Division for various activities and inputs in context to dolphin conservation of their respective Divisions.
- Project Scientist Dr. Abdul Wakid accompanied Union Finance Minister (state) during his trip to the 6<sup>th</sup> addition of Kaziranga National Park in March, 2023 to see the dolphins. WII assisted Assam Forest Department in submitting the APO for 2022-23 including a 5-years project under Project Dolphin, which the CWLW-Assam submitted to MoEFCC for funding.
- CAMPA Dolphin team also assisted the Divisional Forest Officer of Kamrup West Forest Division to investigate on the mortality of dolphin in Chayyagaon stream (Figure 14).



*Figure 14. Joint dolphin monitoring survey in Chayyagaon River with Kamrup West Forest Division*

**7. Talk show on Air India Radio on the occasion of Dolphin Day (5th October, 2022)**

A talk show was organized by All India Radio on the occasion of Dolphin Day where Prof. Qamar Qureshi and Dr. Vishnu Priya Kolipakam alongwith other researchers delivered the talk (Figure 15). The talk was about Dolphins and conservation issues related to Dolphins and their habitats.



Figure 13. Talk Show on All India Radio on Dolphin Day, 2022

**Budget Break Up for the Financial year 2023-24**

Head	Particulars	Per year	Recurring	Non-recurring
Staff Engagement	Staff Salary (Project Scientist 2+ Project Associate 5+ Project Fellow 10+ Office assistant 1)	₹11,570,790		
	Field assistant salary	₹2,940,000		
	<b>Total staff engagement cost</b>	<b>₹14,510,790</b>	<b>₹14,510,790</b>	
Research	River survey (Two boats one from Assam and one from West Bengal and vehicle hiring)	₹5,200,000	₹5,200,000	
	Instrument	₹1,000,000		₹1,000,000
	Research and Genetic (equipment part cost and sample analysis charges, RS- GIS lab and technical services)	₹5,000,000		₹5,000,000
	Travel and Daily allowance	₹1,500,000	₹1,500,000	
	Field station and office rental and maintenance charges	₹900,000	₹900,000	
	<b>Total research cost</b>	<b>₹13,600,000</b>	<b>₹7,600,000</b>	<b>₹6,000,000</b>

Capacity Building and Awareness	Creation of Dolphin Sanrakshak network for Incentive based conservation (Payment to network members for survey and communication, use of pingers & reflectors, dolphin oil alteration)	₹2,000,000	₹1,000,000	₹1,000,000
	Publicity materials (Movie, radio spots, posters, handouts, theatre group, materials for educational institutions, media collaborators, & stakeholder meetings)	₹800,000	₹800,000	
	Workshop and training of forest staff, students and other stakeholders	₹600,000	₹600,000	
	Rescue and Veterinary facility (infrastructure, equipment, labour, transport, medicine & equipment/ infrastructure maintenance)	₹1,000,000		₹1,000,000
	Documentation, publication and communication of results	₹500,000		₹500,000
	<b>Total Capacity Building and Awareness</b>	<b>₹4,900,000</b>	<b>₹2,400,000</b>	<b>₹2,500,000</b>
Miscellaneous		₹1,000,000	₹1,000,000	
<b>Total</b>		<b>₹34,010,790</b>	<b>₹25,510,790</b>	<b>₹8,500,000</b>