

Report on GANGES RIVER DOLPHIN (*Platanistagangeticagangetica* Roxburgh, 1801) POPULATION CENSUS SURVEY IN BRAHMAPUTRA RIVER SYSTEM

Introduction:

The south Asian River dolphin is a freshwater river dolphin found in India, Bangladesh, Nepal and Pakistan which is split into two subspecies-The Ganges River dolphin and Indus River Dolphin (*Platanistagangetica minor*). The Ganges River Dolphin is found primarily in the Ganges and Brahmaputra River and their tributaries in India, Bangladesh and Nepal. The Ganges River dolphins are completely blind and do not have a crystalline eye lens. They echolocate for navigation and hunting.

The Total population of Ganges River Dolphin is estimated to be around 2000 and they inhabit the Ganges-Brahmaputra-Meghna and Karnaphuli-Sanguriver.



It is also known as Susu because of the sound it produces when breathing. The Total population of Ganges River Dolphin is estimated to be around 2000 Dolphin (*Platanistagangeticagangetica* Roxburgh, 1801).

They have been poached over for their oil. The habitat degradation due to declining flow, heavy siltation and construction of barrages causing physical barrier for this migratory species is also one of the reasons behind decline of their numbers.

Unique features of Ganges River dolphin:

Body: Sturdy but flexible body with large flippers and low a triangular dorsal fin. Weighs upto 150 kg.

Color: Calves are chocolate brown at birth and adults are greyish brown.

Head: Head melon shaped with a long thin snout armed with as many as 130 sharp teeth. A slit like blowhole on the top of the head, acting as a nostril. From teeth long and sharp, lower jaw longer than the upper jaw.



Skin: Smooth and hairless.

Size: Female is larger than male. Maximum size of female- 2.67m and male – 2.12m.

Habitat: Prefers deep waters, In and around the confluence of two or more rivers. Shares its habitat with crocodiles, freshwater turtles and wetland birds.

Feeding habits: Normally chases surface dwelling fishes and grovels mud dwelling fishes in shallow water with the help of their long snout.

Breeding: Female attains sexual maturity at length 1.5 m.an age of 10-12 years, male matures earlier. The gestation period is 9-11 months and a female gives birth to only calf, once in 2-3 year. Calves wean from mother at the age of 1 year.

List of the Pre-Identified and Priority Terminals / Ghats / Landing Points for development of ferry services in Assam

Ferry Line From - to		Service	Priority Module Report
South Ghat	North Ghat		
Guwahati Division			
LachitGhat	North Guwahati	Passenger	1 Module 4
SonaramGhat	Rajaduar	Passenger	1 Module 4
Uzan Bazar Ghat	Umananda Island	Passenger	1 Module 4
Nagarbera (upstream)	Nagarbera (upstream)	Passenger	3 Module 3
Nagarbera (downstream)	Nagarbera (downstream)	Passenger	3 Module 3
Jaleshwar	Dhubri	Passengers, RoRo	2 Module 3
Medartary / South Salmara	Dhubri	Passengers, RoRo	2 Module 3
Fakirganj	Dhubri	Passengers, RoRo	2 Module 3
Jorhat Division			
Neamati	Kamalabari	Passengers + RoRo service Majuli island	1 Module 4
Neamati	Aphalamukh (Afalamukh)	Passengers + RoRo service Majuli island	1 Module 4
Silchar Division			
Gandhighat	Dudhpatil (Doodpatil), 3 sites	Passenger	1 Module 4
Beranga	Gangapur/ Kanakpur	Passenger	1 Module 4

METHODOLOGY FOR DOLPHIN SURVEY IN Brahmaputra River System

This methodology for Ganges Riverdolphin census is adopted after detail review of various survey techniques used in wildlife census in general and in particular the cetacean survey techniques across the world. The methodology for Ganges River Dolphin population census follows the Line Transect Survey technique incorporated with few modifications for its suitability in Brahmaputra and its inherent geo-morphological characteristics. This widely excepted method has been adopted for Ganges River dolphin population census in the Brahmaputra River System.

STRAIGHT LINE TRANSECT SURVEYS;

The straight line transect survey provides a good baseline for data collection. There are 11 nos. of Transect for Census stretch over a length from Silcher to Guwahati in the state of Assam. The Dolphin Census was carried out from 26th March to 29th March 2019

Internationally accepted methodology are as mentioned;

Line Transect Survey Method. Most applied methodology is Line transect or distance sampling methodology and in Brahmaputra River System we are using the same methodology. Generally research group survey through all the transects in Brahmaputra river system to minimize the error by missing or duplication of counts. This method has been

adopted from Chilika Lagoon and used also in Bangladesh in 2005 by Brian D. Smith (IUCN member Cetacean Specialist Group) & admired by Former ZSI, Director Dr. P. Dhandapani.

Observation & Discussion;

There have been two teams formed to cover the stretch under Guwahati, Jorhat and Silchar division. For recording the dolphin sighted spot, the GARMIN E-Trex GPS have been used.



During the survey four nos. Dolphins were sighted near Ummanada Ghat. It was worth mentioned that near to the Neamati Ghat seven nos. of Dolphins have been sighted and also near to the Aphalamukh (Aphalamukh) four nos. of Ganges River Dolphins during the survey which also includes sub-adult species, which establish that the Ganges River Dolphin breed in the Brahmaputra River. Along the Fakirganj to South Salmara twelve nos of Dolphins were spotted, along Dhubri to Jaleswar two nos and also along the Dhubri to Down & up stream seven nos. of Dolphins spotted. Along Jaleswar to Fakirganj there was no sighting of Ganges Dolphins during the survey. In the Dhubri section there have dolphin spotted during the Survey. There have been no sighting of dolphins in the Silchar section, as described by the local stakeholders that there was no Dolphin sighted for last four to five years and also in the Nagarbera area the local people informed that during the monsoon season the dolphins have been sighted in this part of the river and during non-monsoon period as river became narrow and shallow there is no dolphin sighting. There have been 36 nos of Dolphin sighted during the Line Transact survey. The activities that had been observed during the survey was fishing.

Table: 1: Ganges Dolphins sighting location in Brahmaputra River, Assam

Sl. No.	Site Name	Longitude	Latitude	Nos. of Dolphin Sighted
1	Fakirganj to South Salmara	90.01815	25.93688	12
2	Dhubri to Jaleswar	90.16838	26.06830	2
3	Dhubri to Ghat up & Down	89.99935	26.01740	2
4	Dhubri to Ghat up & Down	89.98971	26.00464	2
5	Dhubri to Ghat up & Down	90.00199	26.01741	3
6	Neamati to KamalabariGhat	94.23043	26.86408	7
7	Neamati to AphalamukhGhat	94.29839	26.91219	4
8	JoloporeeGhat to Umananda	91.74617	26.19768	4
9	Total			36

Conservation:

The (Indian Government has notified the Ganges River Dolphin (*Platanistagangeticagangetica* Roxburgh 1801) as India's "National Aquatic Animal. Ganga River Dolphins (*Platanistagangeticagangetica* Roxburgh, 1801), is included in the Schedule I of the Indian Wildlife (Protection) Act 1972 banning their killing, transport and sale of products. The penalties for violation of the law are imprisonment for a term which shall be not be less than three years but which may extend upto seven years be less. India also bans the use of dolphins and other cetaceans for public entrainment and forbids them from being held captive.

Ganges River Dolphin is placed under "Endangered Category" in the IUCN Red List. Thus, the species requires increased conservation and management priorities. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) prohibits or Forbids any form of commercial International Trade by the listing of the Ganges River Dolphins on Appendix II.

Dolphin approach rules:

- 1) Do not use a speedboat (engine) as the sound will harass dolphins and you will definitely not see any dolphin
- 2) Ask the boatman to maintain a steady, slow speed and keep parallel to the dolphins with a minimum distance of 30 m as a general rule while your engine is on
- 3) Do not suddenly change your boat speed or try to chase a dolphin
- 4) Do never cut a dolphin's swimming path or move in between individuals
- 5) Do not try to feed or swim with a dolphin