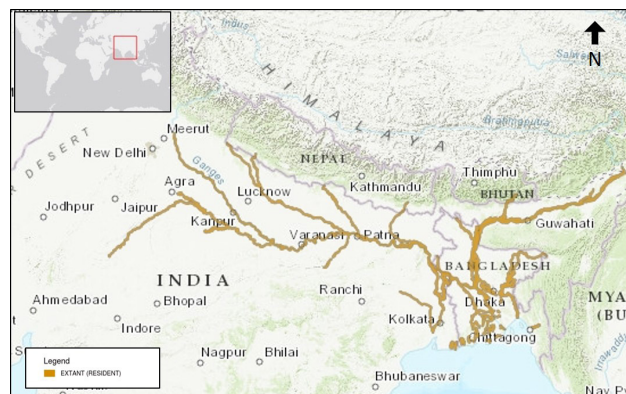


Impact of the COVID-19 lockdown on the conservation of the Ganges River Dolphin in India

The Ganges River Dolphin *Platanista gangetica* is an endangered freshwater species distributed across the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems in India, Bangladesh, and Nepal. The dolphin lives in one of the world's most densely populated areas. It is threatened primarily by the water development projects, bycatch, poaching, and chemical pollution in the rivers (Braulik & Smith 2019). Despite surviving for 20–30 million years (Hamilton et al. 2001; de Muizon et al. 2018), now the distribution range and population of these dolphins have been declining significantly (Braulik & Smith 2019). The smaller subpopulations of the dolphin have already been extirpated from many of the smaller tributaries and upstream areas, resulting in a historical and



Existing range of distribution of the Ganges River Dolphin. Source of Map: Braulik & Smith (2019)

ongoing range decline (Braulik et al. 2021). The continuing decline in both range and abundance of this species is significant evidence of the continuing degradation of the rivers to meet the demand of the ever-increasing human population and the paucity of proper conservation management of this species.



The long-term survival of the Ganges River Dolphins depends on the symbiosis of the species with the fisher community, hence it needs to be conserved and promoted in post anthropause world. © Mohd Shahnawaz Khan/WWF-India

The anthropause (as termed by Rutz et al. 2020) caused due to COVID-19 lockdown halted the degradation of habitats by bringing a noticeable improvement in the quality of air, cleaner rivers, less noise pollution, and undisturbed natural habitats (Bulbulia et al. 2020; Rutz et al. 2020). Improved habitat quality and better connectivity among the habitat patches due to the least anthropogenic disturbances allow the wild animals to roam around and they start visiting the areas which were previously avoided by them due to anthropogenic disturbances. Similarly, the reports of dolphin sightings in the stretches of rivers where they were usually not present had started surfacing in the news and articles. Furthermore, a similar pattern of dolphin dispersion has also been observed in about 225 km stretch of Upper Ganga River in Hastinapur Wildlife Sanctuary and Narora Ramsar site. This great anthropause has given an opportunity to endangered species like the Ganges River Dolphin to increase their 'Darwinian Fitness' by exploiting the undisturbed new habitat patches for foraging, reproduction, and mating (Rutz et al. 2020).

Unfortunately, there was also a flip side of this anthropause. As the river watch by riparian communities, law enforcement, and patrolling by concerned government department declined during the lockdown, there was an increase in illegal killing of wildlife (Aditya et al. 2021).

The incidences of crime against the dolphins also increased the carcasses being found in river Ganga at Hastinapur Wildlife Sanctuary and Narora Ramsar Site (Uttar Pradesh), in the Barh subdivision of Patna (Bihar), at Hoogly and Rupnarayan River confluence (West Bengal), and in Govari River in Kendrapada (Odisha) (Rawat 2021). Further, the brutal killings of the dolphins by the goons in the Sharda minor canal in Pratapgarh District (Uttar Pradesh) and in Hooghly River between Kolkata and Burdwan (West Bengal) during lockdown have shown the lack of awareness and compassion among masses for the national aquatic animal of India (Rawat 2021). Therefore, sensitization of people to develop a sense of stewardship for the dolphins and other associated fauna is the need of the hour. Development of the citizen network for dolphin conservation is also needed, these citizens can be trained and linked to the concerned local forest departments. They can report the dolphin occurrence, changes in habitat and threats over time to the concerned forest departments.

The pandemic emphasized the interdependences of people and ecosystems (Smith et al. 2021). Humans cannot survive without a balanced ecosystem, so do the GRD, hence the GRD shares the risk and future with us. Furthermore, the overexploitation of its fisheries through unsustainable

and unethical fishing practices cause the irreplaceable decline of prey base for GRDs and on the other hand, it also endangered the livelihood of the fisher community.

Also, the pollutant coming into the rivers through industries, agriculture, and sewage are degrading the rivers which are the lifelines for humans and the dolphins. The halt in anthropogenic disturbances during the lockdown has shown a light of hope and demonstrated the ecosystem we share with the Ganges River Dolphins still has its resilience and can bounce back and its creatures can flourish as of old times if we limit our unnecessary pressure on the ecosystem post anthropause also.

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