THE POPULATION STATUS OF THE MEKONG IRRAWADDY DOLPHIN

CURRENT HOME RANGE IN CAMBODIA

180km stretch of the Mekong River between Kratie and Stung Treng provinces

HABITATS

They are found in three river systems: the Mahakam in Indonesia, Ayeyarwady in Myanmar and the Mekong River in Cambodia and southern part of the Lao PDR

They are also found in two inland fresh water lakes, Songkla in Thailand and Chilika in India.

The Mekong Irrawaddy dolphin is one of the five river dolphin species left in the world.

THE CURRENT MEKONG DOLPHIN POPULATION IS ESTIMATED AT

95% confidence interval 78-102

Scientists suggest that the population remains stabilised for the last 3 years.

POPULATION TREND

- 25 dolphins documented in the 2017 report were not photographed during the 2020 survey.
- First highest recruitment rate of 4.22% ever documented across all surveys in the past decade.
- The dolphins have been observed during the 2020 survey to inhabit only three deep pools of Kampi, Koh Kaun Sat and Cheu Teal. Historically, the dolphins used to be distributed across all nine deep pools.
MARK-RESIGHT METHODOLOGY

STUDY AREA

180km stretch of the Mekong River

From Kratie town to the Khone waterfall at the international border between Stung Treng province in Cambodia and Champassak province in the Lao PDR.

FIELD SURVEY

10 super surveys

Conducted between 2017 and 2020. The surveys were conducted between nine and eleven days during the dry season (February to April), when the water level was low. One super survey included one upriver survey and one downriver survey.

ANALYTICAL METHODS

Zero-truncated Poisson-log normal estimator (ZPNE)

For estimation of Mekong dolphin abundance in Mark-resight models, a robust design called ZPNE was used.

Each super survey provided a total number of identifiable (marked) and unidentifiable (unmarked) dolphins.

PHOTO IDENTIFICATION

Dataset of dorsal fins

When dolphins were sighted, their dorsal fins photographed for individual identification.

The dataset of dorsal fins of dolphins from each super survey was screened, cropped and only the clear, focused and close to 90-degree angle photos were used for identification.
MAJOR THREATS
- Gill net entanglement
- Illegal fishing practices (electrofishing, poisonous bait and dynamite fishing)
- Change of water flow due to upstream dams and climate change
- Overfishing
- COVID-19
The river guards' effective enforcement of the law on fisheries and relevant legislations has significantly contributed to protected area management and the protection of the Irrawaddy dolphins through increasing the number of patrolling days from 15 in 2016 to 22 days/month from 2017 to 2020.

**RECOMMENDATIONS**

01 Continue robust monitoring of the Mekong River dolphin population. This is the longest running freshwater monitoring programme for river dolphins and provides critical data for effective conservation management.

02 Improve the management of the Stung Treng Ramsar site to increase fish stock enhancement for both dolphin prey and sustainable consumption of local community members.

03 Improve the effectiveness of law enforcement to respond to the increase of anthropogenic activities that put more pressure on the Mekong River and fisheries biodiversity, especially dolphin.

04 Improve the current coordination and collaboration with Lao PDR officials to protect the trans-boundary dolphin and fisheries biodiversity. This will improve a connectivity of corridor between Stung Treng Ramsar site in Cambodia and Siphandone in Champassak province, Laos.

05 Ensure the Mekong River in Cambodia remains a free flowing river. Any large scale infrastructure development projects such as dams are not compatible with the survival of dolphins and other migratory aquatic species including the Mekong Giant Catfish.

06 Consider provision of medium and large scale livelihoods to local people so that pressure can be reduced on the Mekong River;

07 Conduct a scientific study to find out why dolphins do not use some of the water deep pools where they used to inhabit. This study is important to better understanding the changing of hydrological and biological characteristic of dolphin habitats.
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