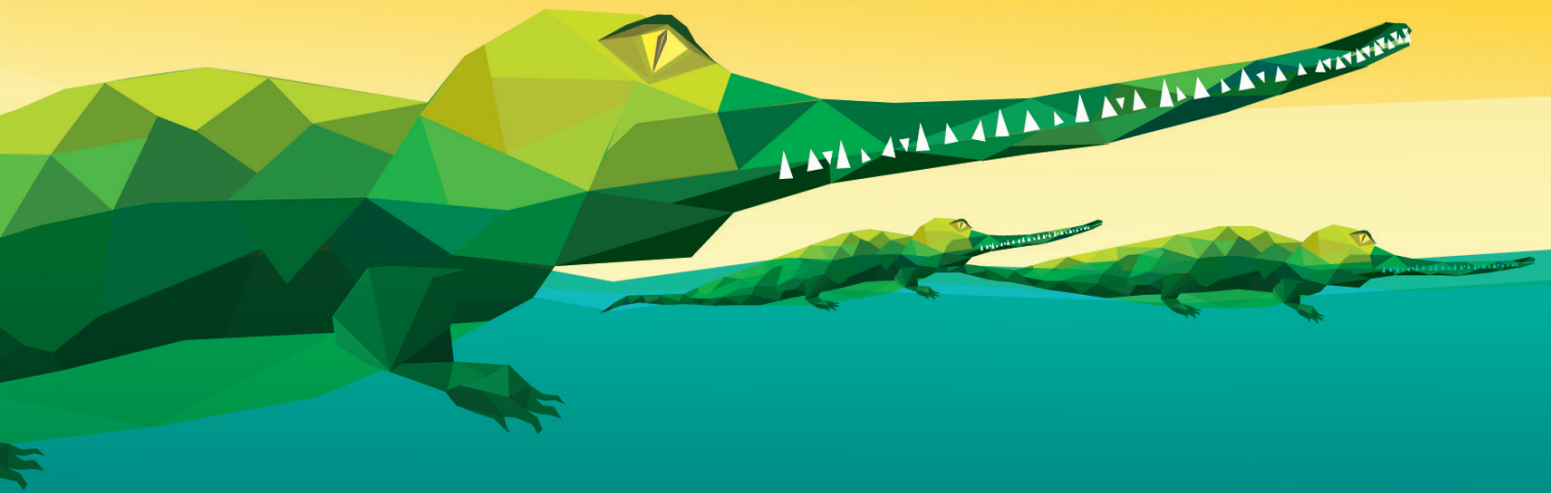




The Tale of Gharials





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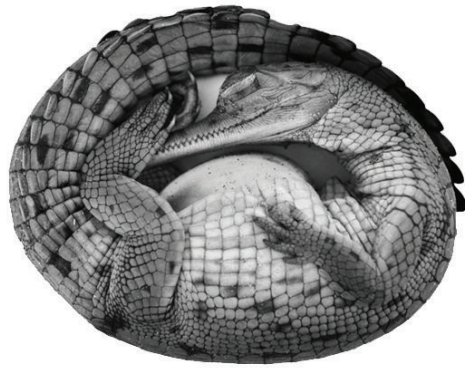
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One Species Caring For Another





Knowing Gharials

They are endemic to the Indian subcontinent.

They are one of the three crocodylian species found in India.

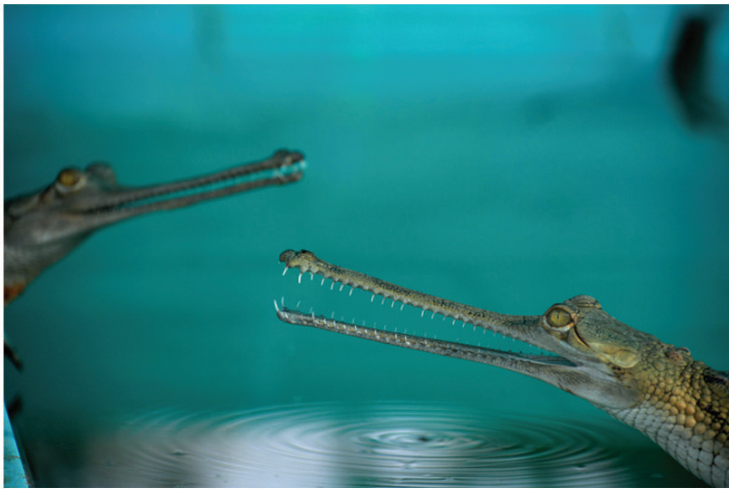
They are habitat specialists. Their optimal habitat are freshwater fast flowing river systems and they use sandy river banks and mid river sandbars for basking and nesting.

They are one of the largest crocodylian species in the world

They are diet specialists, piscivore, feeding on fishes.

They are species with sexual dimorphism in adults and males have nasal appendage on their snout.





Crocodylian Species in India

There are three species of crocodiles in India; Salt water crocodile (*Crocodylus porosus*), Mugger crocodile (*Crocodylus palustris*) and Gharial (*Gavialis gangeticus*). The three species have a major difference in their habitat and distribution. Salt water crocodile are found in the coastal regions of India for example in The Sunderbans and Bhitarkanika wildlife sanctuary. Mugger crocodile have a wider distribution across India and largely inhabits various types of water bodies such as rivers, lakes, wetlands, swamps etc. Gharial is a habitat specialist generally found in freshwater running river ecosystems such as Chambal, Girwa and Gandak. Mugger overlaps Gharial habitat range throughout india and are sympatric species



Mugger crocodile (*Crocodylus palustris*)



They are generally hole nesting species. Lay eggs mostly during the dry months (march to april) of the year. They are seen co habiting alongside gharials. They have short incubation periods, lasting 55 to 75 days. They are known to dig burrows to shelter from extreme high or low temperatures. Are know to cover long distant overland treks.

Vulnerable (IUCN Red List)

Gharial (*Gavialis gangeticus*)

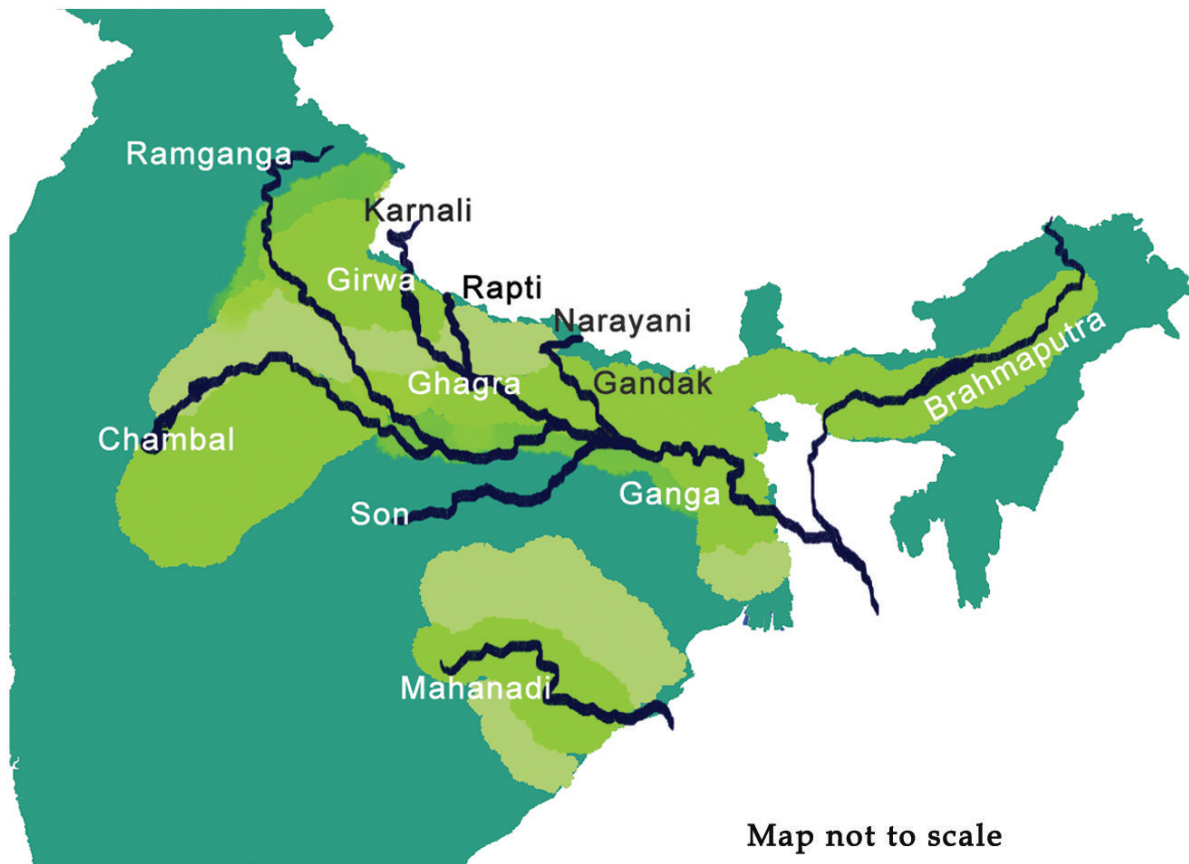


They are river dwelling crocodiles. They share certain similar traits and habitat locations with the Mugger crocodiles. Identifying features are the long slender body and the presence of long bulbous snout in case of adult males. The females can lay upto 40 eggs in a single breeding season. Endangered due to human activities.

Critically endangered
(IUCN Red List)



Location



Chambal region; single, largest and the most populous location, comes under the area of National Chambal Sanctuary

Katerniaghat, second largest site containing wild gharial population, part of Dudhwa National Park located on the Indo-Nepal border in Bahraich district of Uttar Pradesh.

Chitwan region, bounded by Narayani and East Tapti rivers, Chitwan National Park in Nepal.

Gandak region, occupying the areas between Gandak river and Tribeni dam in Valmiki Tiger Reserve.

Areas of the Kalagarh Reservoir, in Corbett National park.

Near the Babai river, protected by Bardia National Park



Habitat



Gharial nest in seasonally exposed mid river sandbars and sand banks along slow moving sections of large to medium sized rivers.



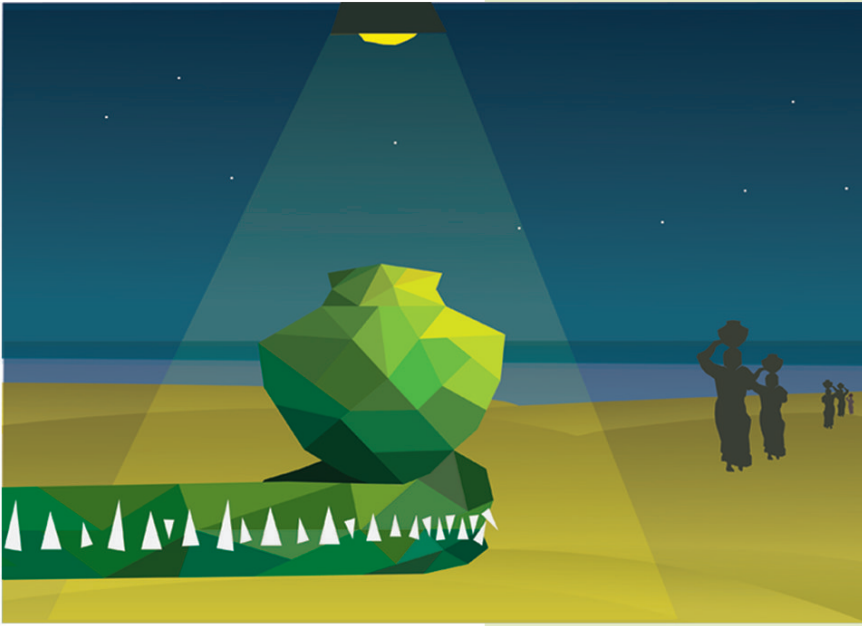
The optimal nesting sites are the steep sandy slopes located near the deep water pools.



Gharials congregate for mating and nesting during the dry season (February to April) in these seasonal rivers.

Their ideal location is the riverside sand banks and mounds, that are mostly close to the rivers.





The most common identifying feature remains the Ghara or the pot shaped bulbous snout.

This pot shaped snout becomes only visible in the adult male members of the gharial community.



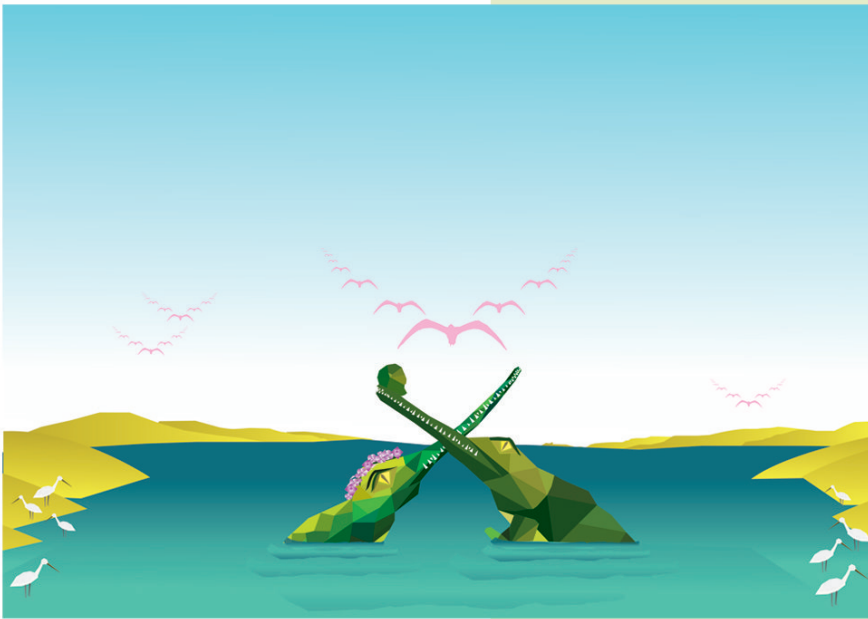
Courting or choosing of the ideal partner is a significant phenomena.

Gharials come in contact with each other for mating and nesting mostly in the dry seasons.



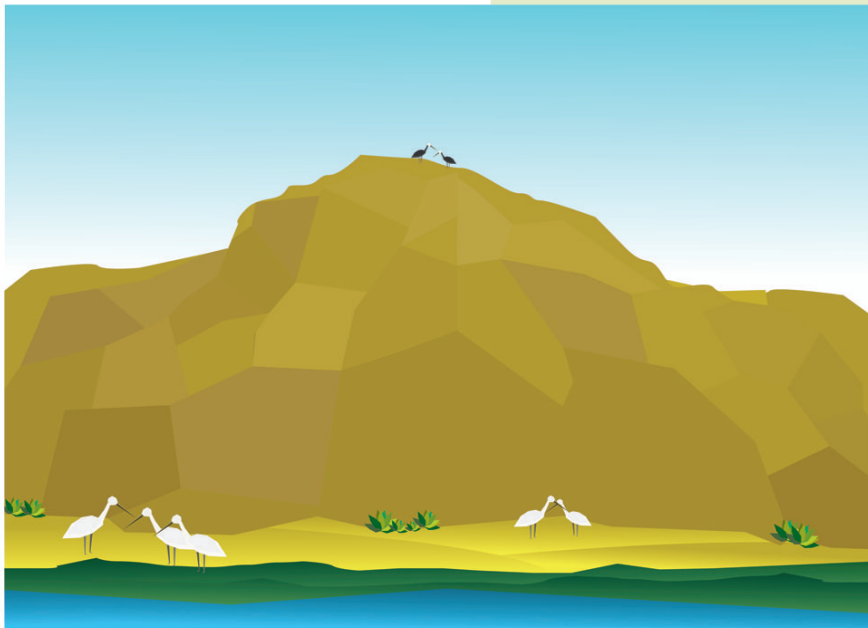
Each male gharial tries to defend his territory and harem from other intruding male gharials nearby.





Courting is followed by successful mating of a male and female gharial in water.

This takes place ideally between the months of February and early March



Holes are dug in elevated portions of the sandy banks near the rivers.

The incubation period generally lasts for over two months.



A female can lay over forty eggs which are often clustered together.

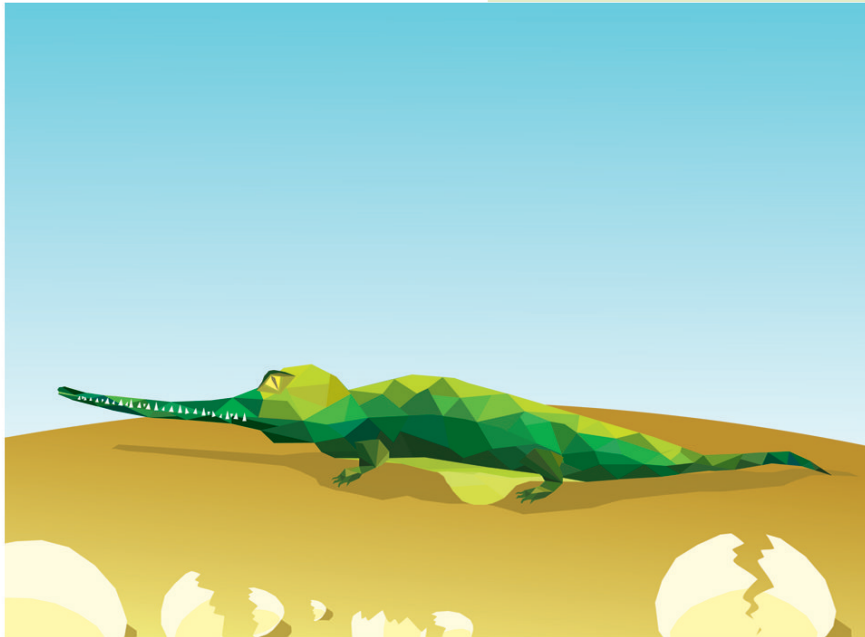
Hatching generally takes place in the months of late May through mid June.





A hatchling upon birth has a protruded belly that budes outwards.

Extensive care of the young hatchlings are taken by the adult members especially the males ones.



The hatchlings are not directly carried off to the waters.

Males guard the new born hatchlings for predators for several days.



Hatchlings from multiple nests assemble together and stay in a group called Creches.

Their numbers may vary from a few hundred to a thousand.





Once the level of the water rises in the rivers due to the monsoon rains, the young clusters of new born crocodiles break up into smaller groups and disperse into mini aquatic shoreline ecosystems. Once reaching maturity and turning into full grown adults, they move into larger and open river systems.

The journey is yet not over. Apart from surviving the cold bleak winter seasons they are also vulnerable from natural as well as artificial threats induced from human activities.





Threats

The most severe form of threats comes from the alterations made to the natural habitat of the gharials often by human activities.

Large scale modification of the environment such as making dams, barrages and hydroelectric projects leads to loss and destruction of habitat areas. Decrease or changes in flow of amount of water in the rivers is an important concern.

Illegal sand mining and quarrying near these river systems often reduces the potential nesting and basking sites of the gharials.

It also leads to contamination of water or blockage of smaller streams and tributaries.

The other threats include predators such as wild animals and birds who often attack the young hatchlings and the unhatched eggs.

Agriculture and Aquaculture leads to changes in both the habitat as well as the movement pattern of the Gharials.



Conservation

The concern for the decreasing population of the Gharials have led to the introduction of various in- situ as well as ex-situ conservation projects.

Focus on strengthening the declining gharial population in different regions

The ex-situ conservation efforts consists of grow and release of captive reared juveniles under Project Crocodile.

Multiple breeding centres and banks were opened, wild habitats were put under protection and various community drives were held to aware the local population and help in conservation.

These efforts in the recent years have show considerable stabilization of the decreasing gharial population.

The conservation effort along with the government is taken forward by various international as well as regional organizations whose actions have led to the wider dispersal of awareness and knowledge of such threatened species.

For more information visit

<https://www.iucnredlist.org/species/8966/12939997>

https://www.facebook.com/conservingthegharials/?ref=br_rs

