



MATT VAUGHAN

The Gharial (*Gavialis gangeticus*) is a critically endangered species endemic to the Indian Subcontinent.

Gharial Reproduction and Mortality

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Photographs by the author except where noted.



In April of this year, 26 female Gharials (*Gavialis gangeticus*) laid eggs on an island in the Girwa River in the Katerniaghat Wildlife Sanctuary. In addition, a few Mugger Crocodiles (*Crocodylus palustris*) nested there. As in previous years, Mr. Ramesh Pandey, Divisional Forestry Officer at the sanctuary, facilitated nesting by providing a soft and secure sand bar. In March, grasses on the island were cleared and the sand softened by digging. Trial nesting by female Gharials was observed dur-

ing the last week of March. Actual nesting began on 1 April and hatchlings emerged in June. Two years ago, only 6–8 nests were located. This year about 1000 hatchlings were counted at one location along the river.

The Katerniaghat Wildlife Sanctuary is a secure refuge and the best hope for protecting Gharials from extinction. About 800 Gharials hatch each year. However, this year, monsoon rains during the last week of June led to flooding of the Girwa River,



Gharial nesting site on an island in the Girwa River in the Katerniaghat Wildlife Sanctuary, India.



Gharial hatchlings in the Katerniaghat Wildlife Sanctuary are vulnerable to monsoon flooding, necessitating the development of a conservation strategy to address this threat in future years.

and nearly all of the hatchlings were swept away. Additional protective measures will have to be developed in order to prevent a recurrence in future years.

Early this year, more than 100 Gharials died in the Chambal River Wildlife Sanctuary. Investigators have ruled out the possibility of any infection or parasite as the cause of the deaths. Dead Gharials were diagnosed with kidney damage and failure, significant gout within the body cavities and around internal organs (visceral gout), and gout within the joints (articular gout). A toxin is suspected of causing the kidney damage

and failure, although neither a toxin nor a potential source has been identified. Further investigations will focus on fish inhabiting the river, as well as industrial and other human activities in the region. For more information, see www.gharials.org.

The recently established Katerniaghat Foundation is working for conservation of Gharials and other wildlife species in the sanctuary. These include Bengal Tigers, Leopards, Asian Elephants, Indian Rhinoceros, deer, pythons, Gangetic Dolphins, various turtles, and many species of resident and migratory birds.



An adult Gharial patrolling a sandy area where hatchlings are basking.



Early this year, more than 100 Gharials died of unknown causes in the Chambal River Wildlife Sanctuary.

Gharial Conservation Alliance

an international organization committed to conserving gharials

