

Conservation efforts for giant South American river turtles have protected 147,000 females

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Charapa (*Podocnemis expansa*) turtles sunning. Credit: Mauricio

By analyzing records in countries of the Amazon and Orinoco basins—which include Brazil, Venezuela, Colombia, Bolivia, Peru and

Ecuador—a paper published today in *Oryx—The International Journal of Conservation*, categorized 85 past and present initiatives or projects that work to preserve the South American River Turtle, or charapa (*Podocnemis expansa*), a critically endangered species. These projects are protecting more than 147,000 female turtles across the basin, an unprecedented figure.

The paper "On the future of the giant South American river turtle, *Podocnemis expansa*" was drafted by 29 Latin American researchers and scientists, including WCS's German Forero Medina, Camila R. Ferrara, and Camila K. Fagundes, Ruben Cueva, and Brian D. Horne. The collaboration stems from a 2014 workshop held in Balbina, Brazil in which park rangers, indigenous people, and conservationists from the six countries provided information on their work to protect the charapa. The efforts discussed in that continental meeting and subsequent study reveal the serious commitment of public and private entities to conserve the [species](#).

The charapa is considered the largest river turtle in South America. It inhabits the tributaries of the Amazon and Orinoco river basins, and is an important cultural symbol for many communities in the region. It also has great ecological importance for ecosystems, as it helps transport fruits and seeds along the rivers and serves as prey for birds, catfish, foxes, jaguars, alligators, and water dogs. In the twentieth century, hundreds of thousands of [turtles](#) spawned on beaches throughout the continent.

Despite their local importance and past abundance, turtle populations are still threatened by the hunting and collection of adults and juveniles, looting of nests, the illegal trafficking of hatchlings to be used as pets, and the use of inappropriate fishing gear which can harm or kill individuals. In addition, broader degradation of their habitat is contributing to their decline.

Germán Forero, Scientific Director with WCS Colombia and lead author, called for the creation of a protection network for the charapa—a regional monitoring program that would link technical information and lessons learned among all the projects in the six countries. He noted the importance of communities in this future network.

"The participation of local communities that live with the charapa is essential to protecting them," said Forero. "They live side by side with the turtles and are interested in controlling or preventing the commercialization of eggs or meat to ensure the ongoing sustainability of the species as a food source and important part of their culture."

Camila Ferrara, co-author and researcher with WCS Brazil, added that the formation of this network would be extraordinary, because it would allow stakeholders to design and assess methodologies for management and conservation of the species, from its gestation and protection of nesting beaches to population monitoring.

In Brazil, the charapa is not considered critically endangered, but a near-threatened species. Ferrara explains that although Brazil is home to important populations of the species, the turtle is still the second most consumed vertebrate group in the Amazon, surpassing even some fish. Therefore, she believes that the network should focus their efforts on strengthening environmental education in Brazil to ensure the sustainability of the reptile's consumption.

Ferrara said: "We are seeing positive results as work progresses, as communities are expressing greater interest in working with turtles. We have seen a decrease in the consumption of eggs, an important achievement that we must replicate throughout the continent."

The paper highlights the importance of the monitoring conducted by the

Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), which provides the only way to assess the trends of populations over time and thus is valuable information for decision-making on the species.



An adult charapa or Giant South American river turtle. Credit: Mauricio

In Colombia, initiatives are working to protect at least two large populations, one in the Caquetá River in the Amazon basin and another in the Meta River in the Orinoco basin. In both areas, local communities are committed to protecting the nesting females at beaches, and these programs are expected to receive continued support over time.

Going forward, the proposed network plans to develop a platform that can serve as an observatory of the species, tracking population trends across the basin over time to prioritize intervention sites and ensure the long term conservation of the species.

This paper reviews a diversity of initiatives that seek to recover these [turtle populations](#). Rick Hudson, President of the Turtle Survival Alliance (TSA), believes that interest in protecting the charapa in South America comes at an opportune moment, as there are still robust populations of river turtles to protect; this is not the case in Asia, where many of turtle species have gone extinct.

Hudson said: "The lesson is clear: protect the habitat and large nesting aggregations of river turtles now and avoid crisis management in the future. This paper makes a strong case for improving levels of protection while there is still time."

More information: German Forero-Medina et al, On the future of the giant South American river turtle *Podocnemis expansa*, *Oryx* (2019).
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