Beloved Colombian hippos pose environmental dilemma

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Credit: Florida International University

At dusk, the street lights flicker on around a city park, located not far from the Magdalena River in Colombia. An enormous figure emerges from the shadows. It lumbers forward, stopping to graze on the grass. The scene verges on surreal: A hippopotamus—in South America.

This is not the only one. An estimated 50 hippos, which are native to Africa, have made Colombia their home. That number is likely to grow. More hippos could mean more problems, especially for the Magdalena River—Colombia's largest and most important river system. Traveling almost the entire length of the country, the river supports the livelihoods of more than half of Colombia's population.

In the first ever study of its kind, Florida International University (FIU) Assistant Professor Elizabeth Anderson and an international research team warn this number could skyrocket to anywhere between 400—800 hippos by 2050.

"The ecological impact grows as the number of hippos grows," Anderson said.

The hippos in Colombia have long fascinated people around the world. They are the descendants of four hippos imported by drug trafficker Pablo Escobar for his private collection of exotic animals. After he was killed in a 1993 shootout with Colombian national police, all of the animals were seized and taken to zoos. Except the hippos. Weighing thousands of pounds, they proved too difficult to transport. Abandoned, they spread along the Magdalena River and multiplied.

To understand the impact the hippos could have in Colombia, the researchers looked at how they interact and shape the environment in Africa. Spending the majority of their time in the water, hippos only venture onto land when they are hungry. When they do, they tend to eat a lot of grass. Then, they digest it. One hippos can produce up to 13

pounds of waste each day, which alters the nutrient levels of the river. This has a domino effect on other species and can even result in massive fish kills.

Despite the damage they can do, the researchers discovered that people in the region are hesitant about removing the hippos. After it was reported several hippos were damaging crops and scaring fisherman and cattle owners, the Colombian government brought in specialists to hunt the hippos. There was public outcry when a male hippo, known locally as "Pepe" was killed. Animal rights activists took the government to court, resulting in a ban on killing hippos as a means of population control.

"This is an example of a completely *social* control on what kind of management strategy is feasible," said Anderson. "In this study, we wanted to reiterate how the human and social dimensions of introduced species are equally important as the ecological implications—and sometimes have a bigger impact on management decisions."

While the question of what to do about the wild hippos in Colombia is complicated—logistically and socially—this study offers considerations for future research and management decisions.

Amanda Subalusky, former FIU research associate and lead author on the study, warns time is of the essence. In 30 years, there could be hundreds more hippos. And by then it may be too late to do anything.

The research was recently published in *Oryx* and supported by grants from the National Geographic Society and the National Science Foundation.

Provided by Florida International University