

THE GIANT ARMADILLO PROJECT 2000-2020: NOVELS ON THE ECOLOGY OF A RARE SPECIES

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RESUMO

The giant armadillo is the largest living armadillo in South America, very rare and scarce through its range due habitat conversion and hunting, classified as Endangered by IUCN and listed under the category 1 by CITES. The goal of this presentation is to summarize the novels on the giant armadillo's ecology that we found since we start study the species back in 2000 in the Peruvian Amazon. For this, we review our field reports and publications. In 2000, at Cocha Cashu Biological Station, deep inside of the Manu National Park, we started to record tracks and burrows of the giant-armadillo in areas used by the short-eared dog (*Atelocynus microtis*). This led us to find a seasonal movement of the giant armadillo from the areas prone to flooding to the highlands, just before its burrow was flooded. As soon as we realized that the short-eared dog was consistently using the giant armadillo burrows on the same days the giant-armadillos were using them, we started to use cameras in front of the burrows and document other species. In 2003 we expanded the research to the Los Amigos Biological Station. We captured two individuals of the giant-armadillo in 2004, and based on the failure of other researchers in keep a transmitter on the species, we fixed for the first time a transmitter it on its carapace, a technique that was then adopted by other researchers. In 2012 we were invited to expand our research with the giant armadillo to the Bajo Urubamba region in Cusco, and 2016 to the Cordillera Azul National Park. As soon as we found that the giant-armadillo burrows are distributed in a particular way in the landscape, and suspecting the giant armadillos were selecting the soil for geophagy, we compared the chemistry and structure of soils collected both inside and outside of *P. maximus* burrows at two Los Amigos and Camisea. Soil analyses revealed that samples from inside burrows are richer in clay, calcium, magnesium and potassium than surface soils randomly taken outside of burrows. The results suggest that giant armadillos seek out and consume nutrient- and clay-rich soils on the Amazonian landscape, making nutritious soils available for other species not specialized to dig. We identify the tree species closer to the burrows, to find palm trees are the most common, with the hypothesis that this could influence the soil the giant armadillos are interested to dig. We took measurements and explored inside of the species burrows with a remote control video camera, and described the structure of the burrows. We basically found two kinds of burrows: short, where they spend short periods of time, and long, where they can live for longer periods. Because burrows dug by giant-armadillos are used by several other mammal species, including the

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rare short-eared dog (*Atelocynus microtis*), the local extinction of *Priodontes* may have cascading effects in the mammalian community by impoverishing fossorial habitat. The novels we found in our study lead us to another questions that we hope to reply soon.

PALAVRAS-CHAVE: Amazon, Giant Armadillo, Câmera trapping, *Priodontes maximus*, salt licks