



Purple Martin SCIENTIST SPOTLIGHT



Jonathan Branco

Where are you from and where do you go to school?

I am from Brazil and recently graduated from the University of São Paulo.

What degree are you pursuing?

This research granted me a degree of masters in ecology.

What about Purple Martins led you to be interested in conducting research on them?

They have a great potential for ecological studies, being migratory birds that occupy many different regions in both North and South America. They are also a species of concern since they have been declining for the past decades. Additionally, the fact that landowners have been building artificial nests for a long time and gathered a large amount of information about this species is of great benefit for research. The extent of data that exists for this species is not common in other species and shows how important the contribution of the community can be for science.

What is the title of your research project?

Effects of Mercury Contamination on Weight, Fat, and Corticosterone of Purple Martins (*Progne subis*).

Briefly describe your research study.

We analyzed mercury contamination in feathers that grew while Purple Martins were in the Amazon Basin, a region that is known to have high mercury concentrations. We then evaluated for correlations with the concentration of important hormones for migration and the bird's weight and fat reserves. We found evidence that mercury may negatively affect the ability of Purple Martins to accumulate fat, which could reduce survivorship rates.

How will your study further Purple Martin conservation?

Understanding the threats to their survival can elucidate where conservation efforts need to be focused on.



Jonathan Branco preparing the filters for extracting hormones from feathers.

Millions of Purple Martins migrate yearly to the Amazon. We may see major negative effects on their population in the next decades if the current trend of increasing contamination in the region continues.

Are you planning to continue with Purple Martins or is the research going to continue or be expanded in the future?

There are plans to expand on this research. I might not be involved in the next steps, but there are certainly a lot more questions to be answered.

What do you hope the impact of your research will be?

I hope this research will add to the discussions about the impacts of anthropogenic actions in the Amazon. For many years, both Brazilian and international scientists have been urging for stricter environmental regulations in the region.

What do you see as the greatest conservation concern for the Purple Martin?

In my view, for the Purple Martins that migrate to the Amazon, the main concern is the conservation of this region. Habitats in North America are certainly important for this species, but it is in the Amazon that we have seen the biggest changes in past decades and more so in recent years.

The Purple Martin Conservation Association's Research and Conservation Grants are offered for the purpose of promoting and facilitating research on, and conservation of, Purple Martins. The PMCA offers annual research grants to students, professionals and individuals engaged in Purple Martin research. For grant application and further information visit purplemartin.org.