

P • R • O • J • E • T • O  
**PATO-MERGULHÃO**

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UPDATE – DECEMBER 2023



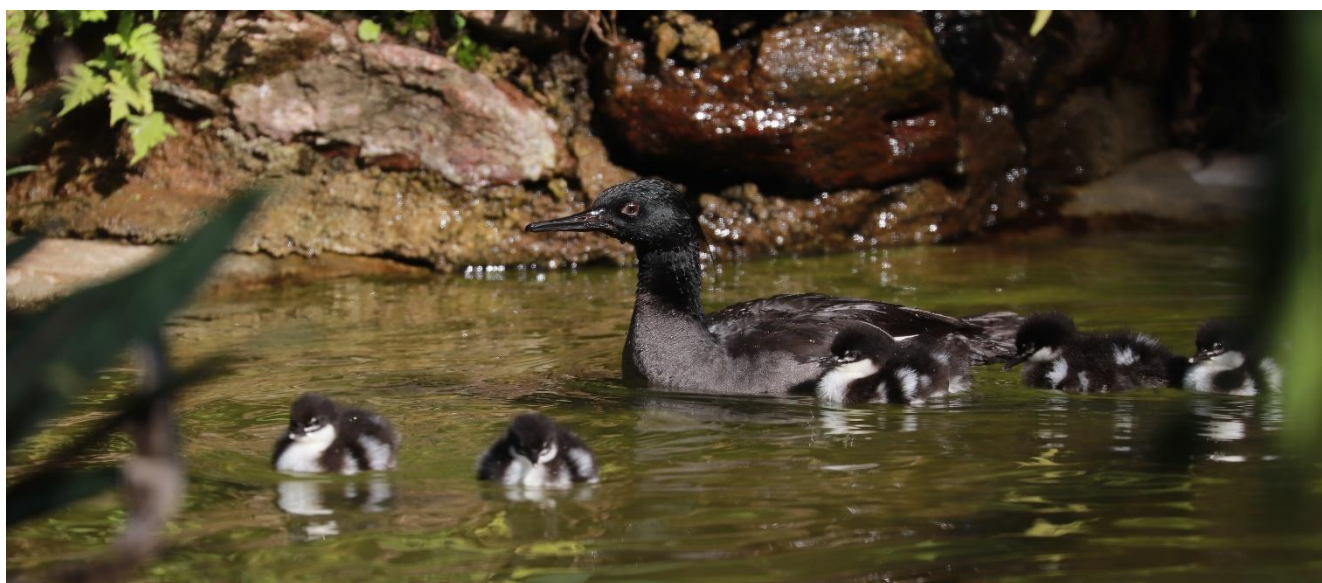




## Brazilian Merganser (*Mergus octosetaceus*)

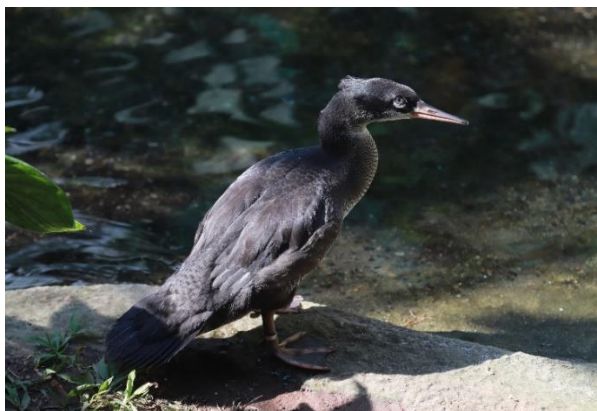
### Update December 2023

The year 2023 was very successful for the Brazilian Merganser Project and we'd like to send this update to our sponsor.



### Breeding season

In this year's breeding season, we parent raised 11 ducklings. The number of ducklings is inferior to last year's, for two different reasons; No more collecting of eggs in the wild and the temperature going up and down in no time from 15 until 35 degrees. However, the good news is that we formed new pairs before the breeding season and some of them already reproduced for the first time.



Offspring 2023.



Offspring 2023.



## Tracking the birds

Considering the importance of monitoring the birds in the wild, Zooparque Itatiba purchased 2 transmitters units of a Solar Power PTT that provides the animal location through the Argos satellite system. Once the devices arrived at the zoo, our team tested the devices to see if they were operating correctly. And after a couple of weeks testing in different areas, it was time to test it on our bird.

We attached on device on a male for a month that was in the exhibition enclosure. We chose this male because it's in an open enclosure, so there would be no interference in transmitting the signal.



*Attaching the transmitter on a captive Brazilian merganser for testing.*



*Captive Brazilian merganser using the transmitter.*

After the tests were finished, it was time to use it on the birds in the wild.





## Working in situ

Throughout the year of 2023, Zooparque focused its activities in the wild in monitoring Brazilian Mergansers in the region of Serra da Canastra National Park. The goal is to find the pairs, monitor them during breeding season and follow up the development of their offspring, so we could capture two of them to attach the transmitters.

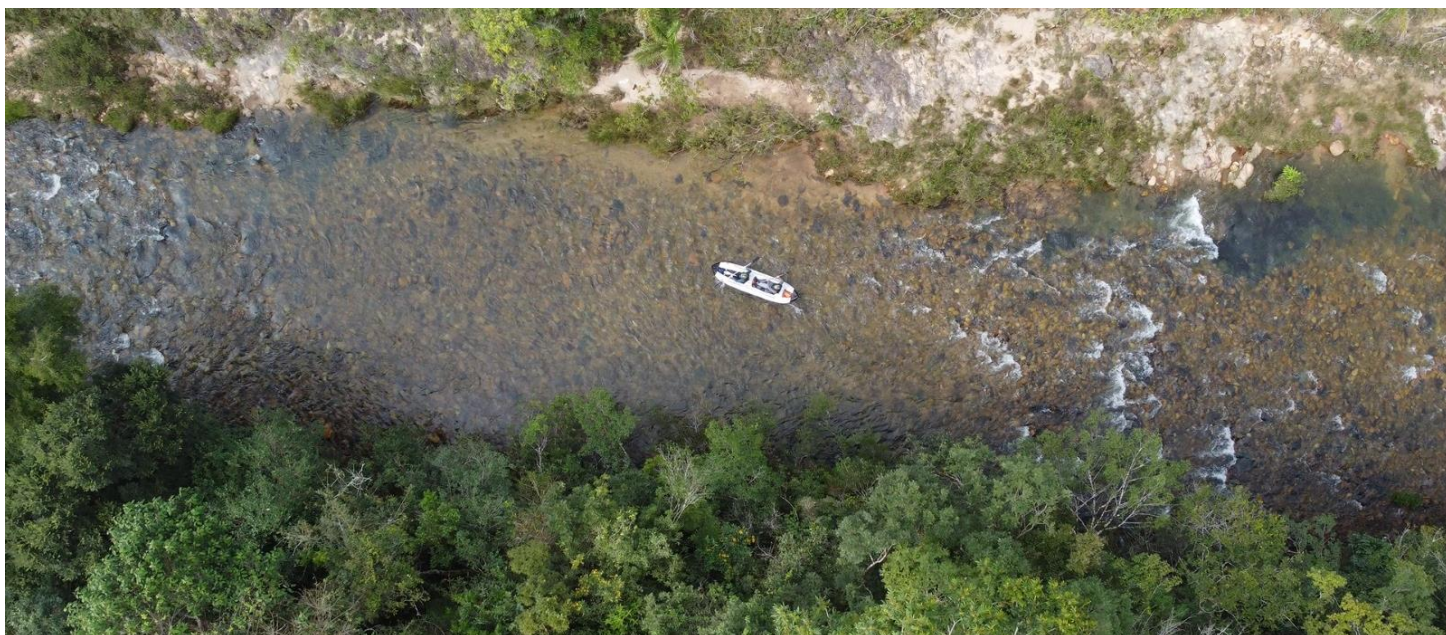
The work started in april, when the rainy season was finished. During the months of april, may and june, we monitored 5 different territories of the brazilian merganser along the São Francisco River. In this period, was possible to monitor new territories and breeding pairs of Brazilian mergansers in the wild. So we could do this work, Zooparque acquired two person kayak so the researchers in the field could search in areas where it wasn't possible to reach by foot.



*Image from the Serra da Canastra expedition.*

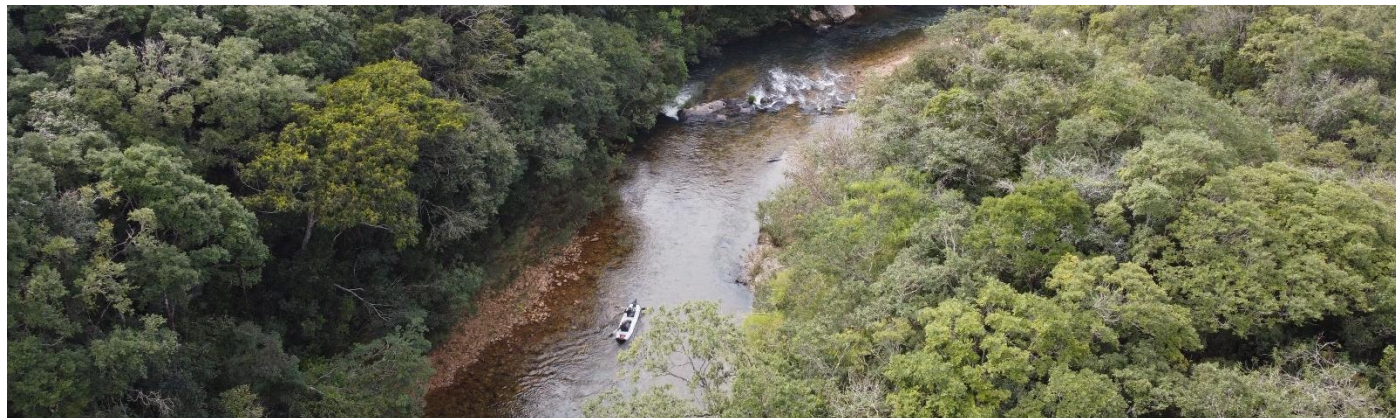


*Image from the Serra da Canastra expedition.*



*Image from the Serra da Canastra expedition.*





*Image from the Serra da Canastra expedition.*



*Team that worked in the Serra da Canastra expedition and monitored the birds.*

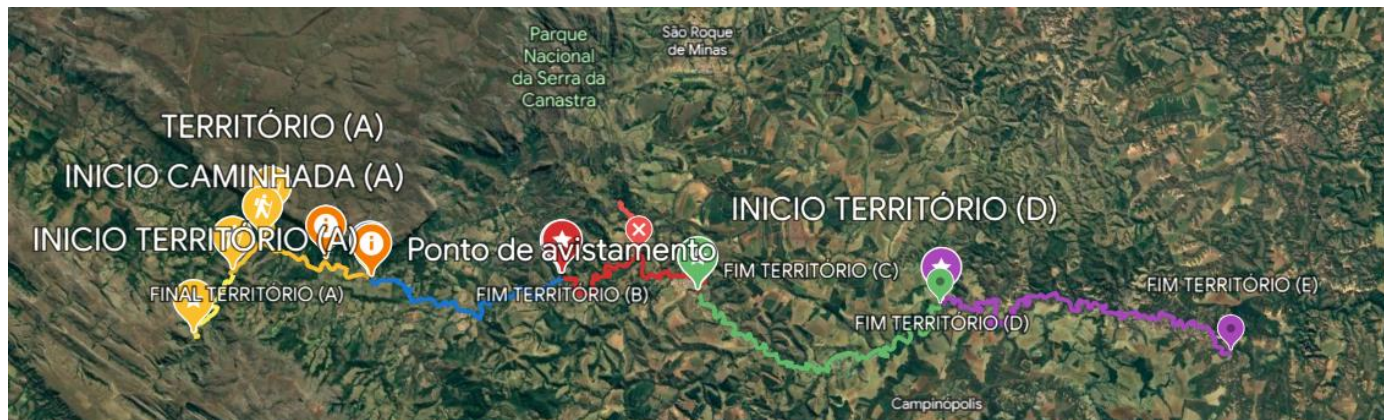


*Pair of adult mergansers in Serra da Canastra.*



*One single individual adult merganser in Serra da Canastra.*



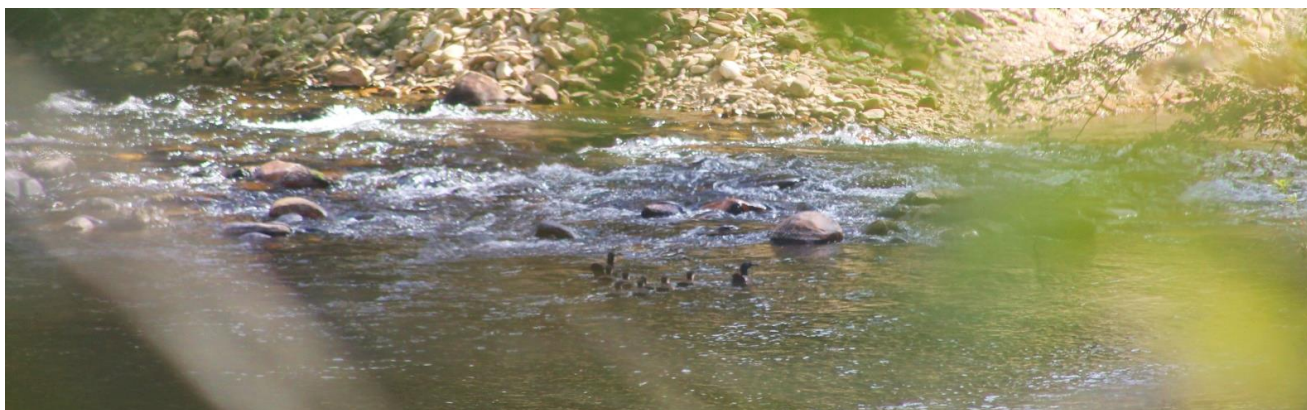


*The 5 territories that Zooparque monitored in Serra da Canastra (aprox. 70km).*



*The 5 territories that Zooparque monitored in Serra da Canastra (aprox. 70km).*

Even though we found 3 different pairs and one single individual, only one of the pair nested properly and showed up with 7 ducklings. During the period we monitored the family, it was possible to observe that they lost 2 ducklings in a couple of months and 5 juveniles were observed with their parents in October.



*First picture of the pair with 7 ducklings in the wild.*





In October, Zooparque assembled a team of experts to capture the bird in the wild. This group was formed by people that already work with the species at the zoo, therefore have experience in handling the birds and others that work with the mergansers in the wild and are familiar with the area where the capture would occur. In October 23<sup>th</sup> we had a successful opportunity to capture the birds in the wild.

Two males were captured and had the transmitters attached to their bodies. It was one young male and one adult male, its parent. To attach the device, we used the material that already has been tested in the zoo since 2021, using the correct measurements verified in captivity, which worked perfectly. We also took the opportunity to take measurements of the birds, so it would be possible to compare it with the ones we have of the captive birds. After the work was done, the birds were released and flew off to be monitored by us.



*Setting the mist net.*



*Attaching the transmitter on the bird.*



*Measuring the wild birds.*



*Weighing the wild birds.*





*Team that participated in the capture.*

## Collecting Argos data

The devices are working as expected and now it is possible to monitor the birds and see how they are moving in and outside their territory and most important, see the moment when the youngster will separate from their parents and where he is going.

Now it's time to collect all the data possible and analyze that information and learn more about the species. The information and the experience of the transmitter we will need for the reintroduction program!





*Location information collected by the transmitter using the Argos system.*

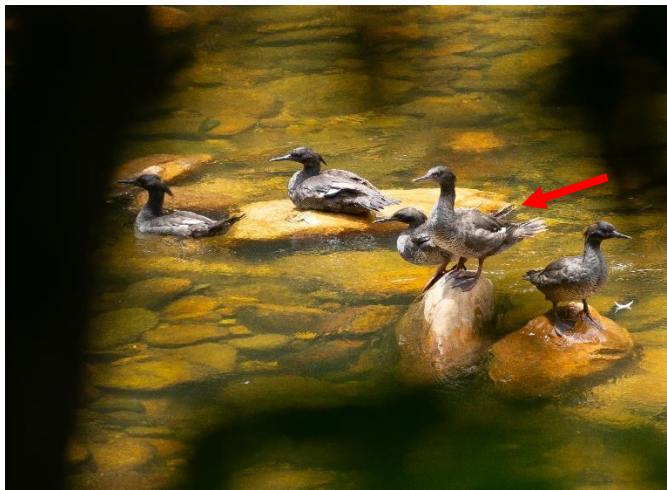


*Adult male using the transmitter.*





*Adult male using the transmitter.*



*Young male using the transmitter.*



*Family of mergansers with the two males using the transmitters.*





*Family of mergansers with the two males using the transmitters.*

## New institutions

Considering the importance of expanding the *ex situ* population, it's crucial that new institutions can integrate in the program and keep the captive mergansers under human care. Therefore, this year two new institutions became members of the Brazilian Merganser Conservation Program and studbook: Prague Zoo and Sylvan Heights Bird Park. These institutions are partners of Zooparque Itatiba and have been supporting the program and sponsoring the *ex situ* activities since the beginning. Both signed the agreements necessary and committed with it, and with that, they agreed that the birds belong to the project.

This October 5 pairs of Brazilian mergansers were sent to Prague Zoo. The animals arrived there well and where kept in indoor aviaries for quarantine. After an adaptation period, the mergansers will be paired up and transferred to their permanent aviaries, including one in exhibition. This is essential for the environmental education program of the institution and so more people can get to know this species and understand the importance of protecting it.



*Transport boxes shipped to Czech Republic.*



*Mergansers inside the boxes.*





*5 adult mergansers in the quarantine aviary.*



*5 adult mergansers in the quarantine aviary.*

## Next steps

For 2024, our goal is to track these two males in the wild using the information obtained by the transmitters, begin to understand how the juvenile mergansers migrate in the wild and work again in the Serra da Canastra region to monitor new territories and find more birds that we can work with.

In addition, is part of the National Action Plan (PAN) for the conservation of this species that we establish a pilot project for the reintroduction of the Brazilian merganser in the wild. For this, Zooparque will work together with other institutions in 2024 to elaborate this project so we can execute it in 2025.

## Conclusion

All the work done in 2023 for the *ex situ* conservation of the Brazilian Merganser was only possible with the support of all our sponsors, so Zooparque Itatiba would like to thank all of you, without you this project wouldn't be so successful.

Hope that we will be working together again next year.



# SPONSORS



# SUPPORT







THANK YOU  
VERY MUCH

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