

ZOOPARQUE ITATIBA

Natureza do Futuro

Brazilian Merganser Captive Reproduction Project

Zooparque Itatiba

20/05/2018





History

In august, 2015, the **Natureza do Futuro** association was idealized and founded by the people of **Zooparque Itatiba**. This association has the purpose of raising funds for developing projects, aiming on the conservation of endangered species of fauna and flora, such as the environment itself and our natural resources, prioritizing the animal husbandry, reproduction and researches of species associated with Environment Education programs.

The most important Project that the **Natureza do Futuro** is part of is the Action Plan for the Conservation of the Brazilian Merganser (PAN Brazilian Merganser), this was made in 2006 by IBAMA (Brazilian Institute of Environment and Renewable Natural Resources) and ICMbio (Chico Mendes Institute for Biodiversity Conservation) to monitor and propose measures for the long term conservation of the species. After observing that the population wasn't increasing and after several discussions, ICMbio with MZUSP (Museum of Zoology University of Sao Paulo) and consultancies put in 2011 the **Brazilian Merganser Captive Reproduction Project** into practice with the intention to safeguard a strong genetic population in captivity to serve as a backup and to create reproduction groups to reproduce them, so that in the near future the adolescence offspring's can be reintroduced in their own nature habitat. Zooparque Itatiba joined this project in January of 2014, being the only zoo selected to participate the in this Action Plan.

Brazilian Merganser (*Mergus octosetaceus*)



The Brazilian Merganser (*Mergus octosetaceus*) is the only surviving species of Mergini (Order Anseriformes) in the Southern Hemisphere. It is a locally and globally endangered species and one of the most endangered waterfowl, with possibly fewer than 200 birds remaining in the wild. From 1940 to 1950 it had already been considered extinct. It inhabits rivers and streams of clear water, crossing subtropical and closed forest. To feed, it dives in search of fish and aquatic macro invertebrates. It is sedentary and monogamous - believed to remain paired for life on the same stretch of river. Nests are made during June to October, in tree holes and in holes of river banks. The female is the only one who incubates, taking up to two daily pauses in the incubation, while the male patrols the river or rests on rocks close to the nest. The offspring may vary up from 6 to 8 ducklings, unlike other mergansers; the male provides extensive parental care. The young, on the first days of life, are fed by the parents. By the 10th day, they already dive and fish by themselves. It is unknown where the ducklings go after leaving the parents.



The species is very selective with its habitat, and that's because they need fast-flowing rivers with extremely clean water, with forests surrounding them. Gathering these factors with deforestation, mining, pollution, silting, ecotourism such as the rafting and buoy-cross leads to the decline of Brazilian merganser population. Today there are records of its occurrence in regions nearby the State of Goiás, at the Chapada dos Veadeiros national park, at Minas Gerais inside the Serra da Canastra national park, at Rio Novo, at Tocantins State in Jalapão State park and at the State of Paraná

With the critical situation of these species and to safeguard the species Zooparque Itatiba managed to get a license from the government to collect eggs from nature, with the protocol that 4 eggs should be left in the nest. The eggs will be transported by specialized staff from Zooparque with mobile incubators to the main incubators in Zooparque Itatiba. Once the ducklings hatch, they will be placed in the nursery until 21 days. After 21 days the ducklings will be moved to an aviary where they can grow up until adolescents and then to the breeding aviaries to form a breeding group, forming up to 10 pairs.

Collection

In 2014, Zooparque Itatiba did its first expedition to collect eggs from the region of Patrocínio municipality, at Minas Gerais State.



Collecting the brazilian merganser eggs



Nest inspection before the collecting

These eggs were transferred to Zooparque Itatiba and incubated successfully



A duckling, collected at Pirapitinga river, Patrocínio municipality - MG



Measuring the duckling weight

With the need of increasing the population in captivity, Zooparque gathered a team for a second expedition in 2015 to collect more eggs in Patrocínio municipality and at Jalapão State park, at Tocantins State.

There were collected eight eggs, four in each area. The nest was 2.5 meters high and, after the camera inspection 4 eggs were taken, leaving the other 4 (from the same nest) in the nest, so the parents could take care of them.



Checking the Nest in Patrocínio-MG



Nest at Jalapão national park.



Checking of the egg



Eggs collection in Jalapãp national park

The eggs were transferred to Zooparque Itatiba in a portable incubator to be stored in the main incubator for waterfowls. On 08/03/2015 the first egg hatched around 6:30 a.m.



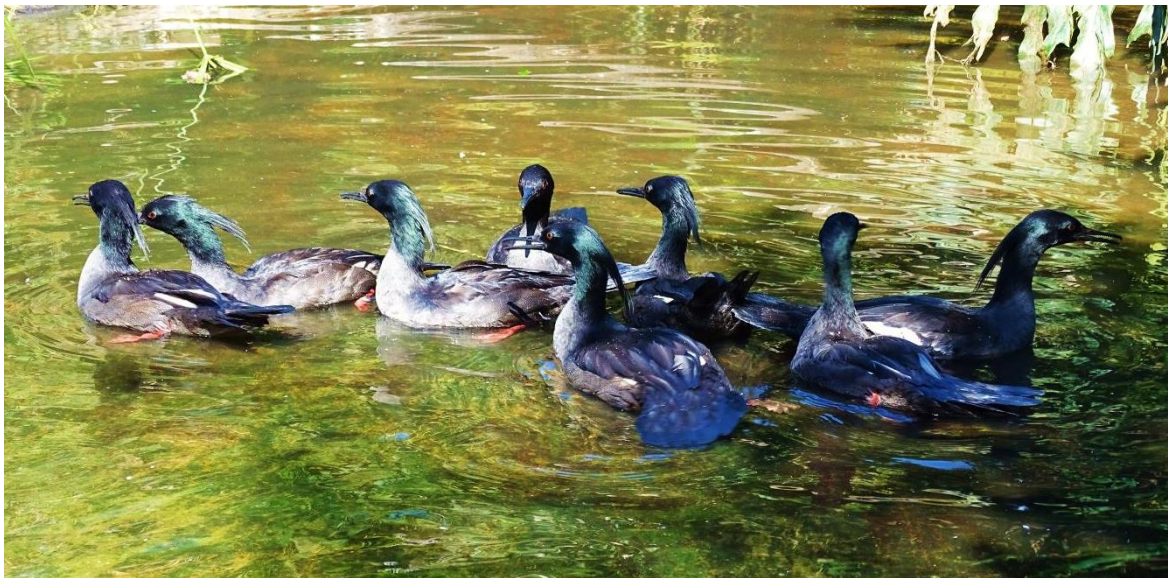
First duckling from Patrocínio



The ducklings with 2 days of age



The ducklings from Rio Novo, Jalapão national park, with 36 days of age.



The adults of Brazilian merganser from Patrocínio and Jalapão together.



Young individuals of Brazilian merganser.

The third expedition was made in 2017 at the region of Jalapão and Serra da Canastra national parks. Three eggs were collected from each place.

Path

The headquarters of the **Natureza do Futuro** association is at the Zooparque Itatiba, the only place where you can find these species in captivity, with the main goal to ensure their protection and keep them in the best conditions for reproduction. Raise parent reared ducklings for the reintroduction program.

The association keeps 10 couples and one female of Brazilian mergansers. There are a total of 12 enclosures in an área of 700m². Each couple has its own enclosure with less human contact possible. Every enclosure has an artificial lake with clean running water, nest boxes (like a tree hole), dense vegetation and 24/7 monitoring by security cameras. Also, they receive a special balanced diet and offer them fishes to stimulate the fishing habit.

World's first captive breeding

In august 2017, 5 ducklings were raised successfully from two breeding couple.



World's first captive ducklings born in the incubator



The ducklings from two different pairs, 22 and 32 days old



48 days of age

There is even a Blond/silver genetic mutation within the group, two females were born with these characteristic.



The blond/silver genetic mutation.



All 11 ducklings from 2017 together, 3 from Serra da Canastra, 3 from Jalapão and the 5 worlds first captive bred.



With the birth of these ducklings, a new project was needed, so more six enclosures were built with the help of our international sponsors, even better than the others. They have an area of 90m² each, double lake with a waterfall and running water.



New enclosures.

They are being monitored 24/7 by security cameras, for collecting all the unknown scientific data and for avoiding visual contact.



The monitoring.



An example of enclosure with a couple of brazilian merganser.



The adults from the 2017 birth in the new enclosure.





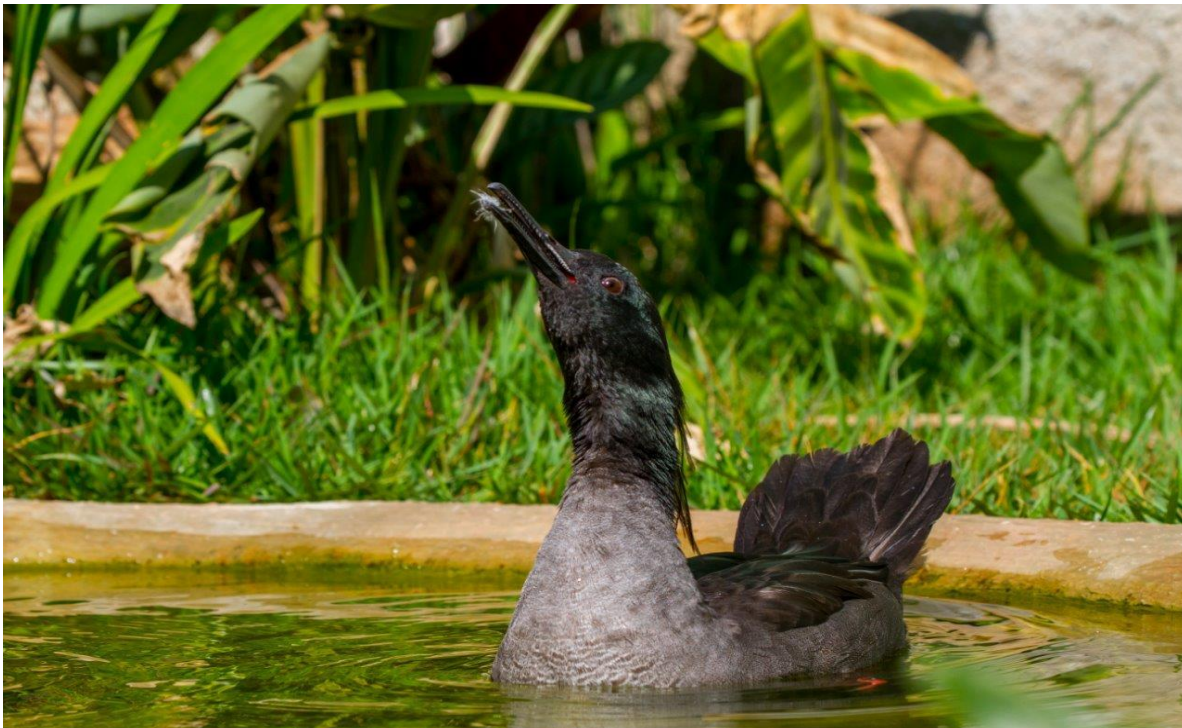
In 2018, the Brazilian merganser became the national ambassador of the Brazilian waters, for being a bio indicator that only occurs at well preserved and clean water.



Couple at the new enclosure.

The *Natureza do Futuro* association has a fundamental role to conservation of Brazilian merganser, because today it holds more than 10% of its world population. Gathering the new knowledge from their behavior studies, captive reproduction and working on the releasing program, the Brazilian merganser won more chances to survive in nature.

The idea of this Project was only possible by the sponsor's hands that believed and keep believing in this project, they are extremely important to keep us moving forward with our goal to recover the Brazilian merganser population and take it out from the critical endangered species list.



Male displaying



Our sponsors:



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