

## Threats and conservation of birds of prey in Brazil

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Brazil has an incredible wealth of birds of prey, represented by 97 species with proven records (<http://avesderapinabrasil.com/lista.htm>). Unfortunately, some of these species are seriously



threatened with extinction due to several factors caused by human activities.

According to the latest Brazilian list of endangered birds published in 2014, eight species of raptors are threatened at the national level: *Leptodon forbesi* (white-collared kite) and *Urubitinga coronata* (Chaco eagle), classified as endangered *Amadonastur lacernulatus* (white-necked hawk), *Circus cinereus* (cinereous harrier), *Harpia harpyja* (harpy eagle) and *Morphnus guianensis* (crested eagle) in the Vulnerable category; as well as two subspecies of owls: *Strix huhula albomarginata* (black-banded owl)

and *Pulsatrix perspicillata pulsatrix* (spectacled owl), also classified as Vulnerable. There is also a species considered extinct in nature, *Glaucidium mooreorum* (Pernambuco piymy owl), endemic to the Atlantic Forest in the northeast.

At regional level the numbers are more frightening, about 30% of Brazil's raptors species are threatened in one or more state lists. Most are birds with high environmental sensitivity and low population densities, which require extensive conserved areas to survive, as is the case of *Spizaetus melanoleucus* (black-and-white hawk-eagle), *Spizaetus ornatus* (ornate hawk-eagle) and *Spizaetus tyrannus* (black hawk-eagle). Other species have highly specific habitats, and because of that they have disappeared from many regions of the country, such as *Buteogallus aequinoctialis* (rufous crab hawk), exclusive of mangroves.



Among the most emblematic threatened species, we can highlight the *H. harpyja* (harpy eagle). It is one of the largest and most powerful eagles in the world. In Brazil it can be found in the Amazon region and in some small parts of the Atlantic Forest in the southeast region. Due to its large size and diet, it is a frequent target of hunters and landowners, who often consider it a threat to domestic farmed animals or pets. In addition, it also suffers from the loss and fragmentation of its natural habitat. In addition, it suffers from the loss and fragmentation of its natural habitat. Another threatened bird of prey that stands out is the exclusively Brazilian *L. forbesi*, endemic to the Northeastern Atlantic Forest, found in forest formations in the States of Sergipe, Alagoas, Pernambuco, Paraíba and the extreme south of Rio Grande do Norte.



### **Main Threats**

The loss of habitats represents one of the biggest and most shocking threats to Brazil's raptors. More and more new natural spaces have been occupied by human activities, altering environments and demanding a plasticity to the disturbances that many species do not present, causing the disappearance in places originally inhabited by them. Agriculture, forestry, animal husbandry, selective logging and real estate speculation are the anthropogenic activities that have reduced or altered the natural environments of raptors in recent decades.

Another threat to predators is indiscriminate slaughter. Many birds are killed indiscriminately due to the possible predation of domestic animals. Although there are no detailed studies on this type of impact, there are frequent records and reports of cases of butchery against predators in all regions of the country, especially by residents of rural or riverine areas. The habit of killing predators is so pervasive among the rural population that even if they find these birds in distant areas without risking their creations, they are slaughtered with the objective of avoiding future losses. Another common habit is to shoot birds of prey only out of curiosity, "sport" or trophies. Species of large size are the ones that suffer most from this type of impact.

In addition, many species are despised or exterminated because of fear and prejudice because of popular beliefs. Some people are influenced by legends and creeds that associate owls and some hawks to signs of death, witchcraft or bad omen. The vocalization of *Herpetotheres cachinnans* (laughing falcon) or the *Tyto furcata* (barn owl), for example, are interpreted as foreshadowing of death or bad luck.

The consequences of hunting and pursuit of raptors are disastrous. Slaughter can eliminate adult individuals with established territories and in full reproductive vigor, posing a serious threat to species of naturally low populations and slow reproduction, such as the gray-headed eagle (*U. coronata*), crested eagle (*M. guianensis*), harpy eagle (*H. harpyja*), hawk-eagles (*Spizaetus sp.*), among others. In the medium term, it can lead to genetic deterioration or even regional extinctions.

A threat to be considered is poisoning through biomagnification (accumulation of toxic substances in the bird's body). Many species can die by participating in a food chain where their prey is contaminated by pesticides used in various crops. In some cases, some birds may have their reproduction impaired through the eggshell syndrome. There are no detailed studies on the birds of prey's contamination by pesticide in Brazil, but considering the use of illegal organochlorines from Paraguay and other countries in Brazilian agriculture it's a threat that must be considered.

Other unnatural threats faced by Brazil's birds of prey include electrified wires, window collisions, roadkill, kite lines, barbed-wire fences, and illegal smuggling.

### **Conservation Measures**

The conservation of raptors depends on a joint effort of the community, since different forms of impact contribute to the decline of the species. The most important and urgent measures to preserve the prey are the protection of their habitat, through conservation units, as well as restoration of degraded areas and supervision of protected areas.

The development of scientific studies with the group is equally important. Research on the biology and ecology of the species and the search for new populations would allow to infer in the distribution and conservation of many birds of prey in Brazil.

Environmental education is among the most important and effective instruments to promote the conservation of birds and nature. In addition to generating concern and awareness, it can be directed towards taking conservation measures and strategies.

### **Lack of incentive**

We now know what species of predators are threatened, what their main threats are and where they should be preserved. However, the conservation of Brazilian raptors "walks slowly." Despite the commitment of researchers, the government's lack of interest and support substantially impairs studies with birds of prey. Most public institutions and researchers lack the resources and equipment needed to work with this group in the country.

### **Challenges for women working with Bird of prey conservation in Brazil**



Alessandra Oliveto

Recent research has shown that Brazilian researchers face some problems in working with field conservation of birds of prey. We know that several problems are shared between both men and women, such as: lack of money destined to conservation about endangered species, lack of incentive to research and researchers.



According to falconer and biologist Mariana Fernanda "Research in Brazil is not seen as work. Researchers are seen as students, so the pay is low. "

Unfortunately women beyond the described problems still face others. In a recent article (2018) by the ECO website in Brazil entitled "The challenges of being a woman and working with conservation in the field" biologist, geographers, ecologists, engineers, veterinarians

and many other renowned project professionals in Brazil cite some challenges faced by all to carry out the work of field researcher.

In summary, they highlighted four major issues that are hindering women in the field:

An infographic with a green background and a grass border at the bottom. It lists four challenges for women in the field, each preceded by a leaf icon. The text is as follows:

- The "lady-in-waiting":** When it comes to field collection, it is usually necessary to get men into the role of ... "men." Be it a field mate, field assistant, field guides or even colleagues or family members. This is because, on many occasions, the male presence is enough to inhibit unwanted male behaviors on the part of other men.
- Extra costs:** The need to allocate financial resources to pay men to play the role of "men" in the field means that one does not apply a precious resource to essential things like equipment, fuel or more days in the field. In addition, it is necessary to adjust the schedule to fit these people, who often have other occupations.
- Fear:** From the psychological point of view, the stress of insecurity hampers work. Going to the field with the constant fear of being attacked by men is discouraging.
- Rationalization of violence:** In many regions of the country, the issue of violence directed at women is seen naturally, including by women themselves.

Source: (C) eco

We do the same research with the professionals who work with birds of prey and the issues raised are the same and still complete the list saying that the acquisition of materials for research with birds of prey is difficult and expensive in Brazil. Most of the equipment is imported and we always face long processes of import and acquisition of them.

Regardless of the difficulties women continue to gain space in research institutions in Brazil and many struggle for a long time as is the case of Tânia Sanaïotti coordinator of the Harpia Project. The project recently launched the book Harpia Project 20 years that tells a little of the history of researchers over these 20 years.



Ornithologist, Master in Zoology, expert in ecology and behavior of neotropical raptors. Currently works conducting censuses, monitoring and assessments of environmental impacts on birds. It is founder and editor of the scientific site Brazilian raptors ([www.avesderapinabrasil.com.br](http://www.avesderapinabrasil.com.br)).

Brazilian Falconer and environmental manager, chairwoman of Women`s working group, Board member from , Latin american (International Association for Falconry and Conservation of Birds of prey). who for the last six years, has worked in the control pest fauna species using Falconry techniques.



#### References:

[http://www.avesderapinabrasil.com/termos\\_de\\_uso.htm](http://www.avesderapinabrasil.com/termos_de_uso.htm) © Aves de Rapina Brasil  
<https://www.oeco.org.br/reportagens/os-desafios-de-ser-mulher-e-trabalhar-com-conservacao-em-campo/>

#### Photos:

Harpia – Adult and Young in nest. Alta Floresta / MT, June 2009. Photo: Rudimar Cipriani  
Spizaetus tyrannys - Adult. Santana dos Montes/MG. Photo: Augustinho Nery  
Spizaetus ornatus - Adult . Corguinho/MS, December 2015. Photo: Willian Menq  
Spizaetus melanoleucus - Adult. Figueirópolis/TO. Photo: Willian Menq