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Threatened Reptiles of Colombia

Updates in the evaluation of extinction risks

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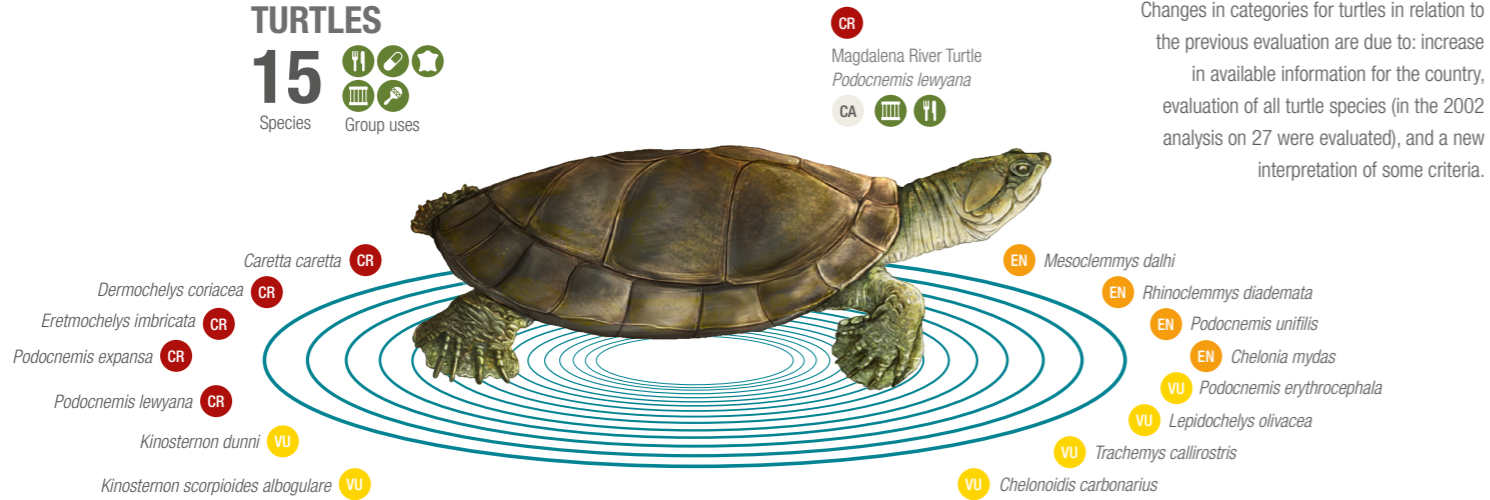
SNAKES

10 Species — No use

CR Boshell's Forest Racer
Dendrophidion boshelli
EM

CR *Coniophanes andresensis*
CR *Synophis plectovertebralis*
EN *Micrurus mederni*
EN *Atractus punctiventris*
EN *Saphenophis sneiderni*

CR *Dendrophidion boshelli*
VU *Bothrocophias campbelli*
VU *Atractus nicefori*
VU *Atractus orcesi*
VU *Micrurus sangilensis*

TURTLES

15 Species — Group uses

CR Magdalena River Turtle
Podocnemis lewyana
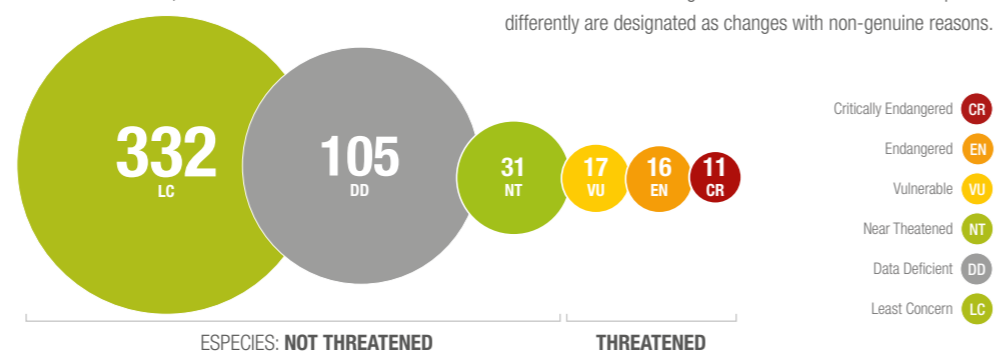CA

Changes in categories for turtles in relation to the previous evaluation are due to: increase in available information for the country, evaluation of all turtle species (in the 2002 analysis on 27 were evaluated), and a new interpretation of some criteria.

CR *Caretta caretta*
CR *Dermochelys coriacea*
CR *Eretmochelys imbricata*
CR *Podocnemis expansa*
CR *Podocnemis lewyana*
VU *Kinosternon dunni*
VU *Kinosternon scorpioides albogulare*

EN *Mesoclemmys dahli*
EN *Rhinoclemmys diademata*
EN *Podocnemis unifilis*
EN *Chelonia mydas*
VU *Podocnemis erythrocephala*
VU *Lepidochelys olivacea*
VU *Trachemys callirostris*
VU *Chelonoidis carbonarius*

THE EVALUATION OF THE REPTILIAN SPECIES OF COLOMBIA SHOWED THAT 50 % OF CROCODILIAN AND 37 % OF TURTLE SPECIES ARE THREATENED AND THERE IS NOT ENOUGH INFORMATION TO CATEGORIZE 20 % OF ALL REPTILE SPECIES. IT IS THEREFORE NECESSARY TO STRENGTHEN CONSERVATION AND MANAGEMENT EFFORTS FOR THREATENED SPECIES, AS WELL AS DEVELOP MORE RESEARCH CONCERNING THOSE THAT LACK INFORMATION.

Results of the risk of extinction evaluation for reptiles

Changes in categories due to the existence of larger amounts of information or changes in criteria that have been interpreted differently are designated as changes with non-genuine reasons.

332 LC
105 DD
31 NT
17 VU
16 EN
11 CR

Critically Endangered CR
Endangered EN
Vulnerable VU
Near Threatened NT
Data Deficient DD
Least Concern LC

ESPECIES: **NOT THREATENED** | **THREATENED**

Colombia is the fourth country in the world with greatest reptile species richness, after Australia, Mexico, and Brazil. Historically, reptiles have suffered great anthropic pressures since some species are captured for consumption, held as pets, and seeked for the use of their skin. In other cases, reptiles are also sacrificed because people fear them. To all of these threats are also added the loss, transformation, and degradation of their habitat, which especially affects those species in the Caribbean slopes and the basin of the Magdalena-Cauca Rivers

because 80 % of the human population, and thus th the economical development of the country, is located there.

In 2002, the first extinction risk evaluation for reptiles was developed. In that time, crocodilians and turtles were mostly evaluated since for snakes and lizards there was still no complete species list for Colombia. According to the guidelines of the International Union for Conservation of Nature (IUCN), these evaluations must take place every eight years; however, the second evaluation for the

extinction risk of reptiles in Colombia was only completed after thirteen years, in 2015.

Of the 510 species and 2 subspecies that were evaluated, 9 % (43 species and one subspecies) were categorized under a threat category: 2 % (11 species) are Critically Endangered, 3 % (16 species) are Endangered, and 3 % (17 species) are Vulnerable. It is also worrisome to know that 20 % of reptiles in Colombia do not have information of any kind, eluding proper evaluation. These species are categorized as Data Deficient (DD)[1].
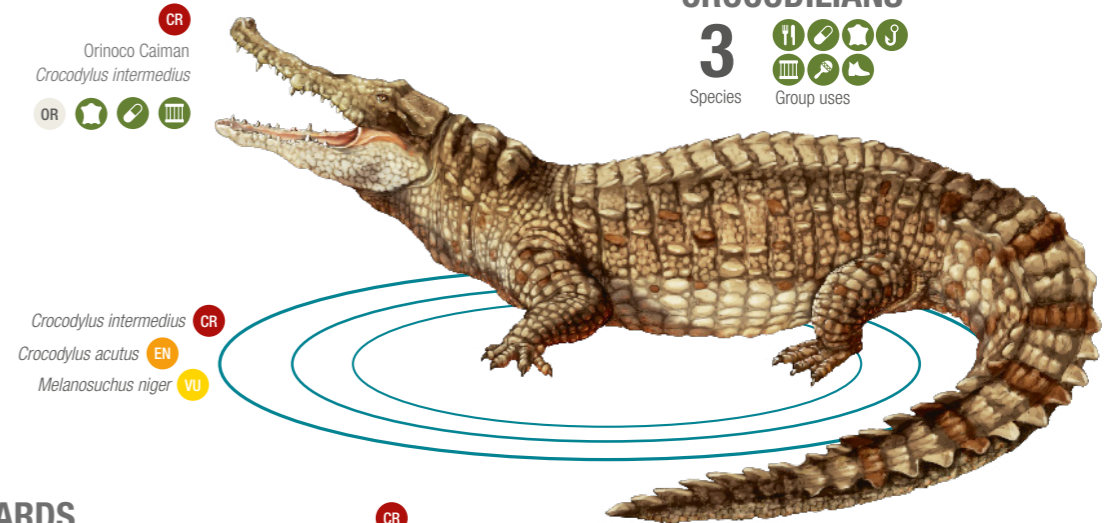
¿WHAT ARE THREATENED SPECIES?

9 % of reptiles in Colombia are threatened. Planning and conservation strategies, such as the risk extinction evaluation, are needed. Here the species information (distribution, demography, and population threats) is gathered and analyzed, in addition to the knowledge of researchers, to evaluate each species according to IUCN criteria. The results show what species should be the focus of research and management efforts (those that are threatened or are data deficient). Although various countries can share the distribution of a single species, each of them must develop their own evaluation since conservation status differ. In Colombia, evaluations are published in Red Books and are officially presented by updating the Endangered Species Act by the Ministry of Environment.

Threatened Species of Reptiles in Colombia
◎ Number of species

Distribution
EM Eastern Mountain Range
MA Magdalena and Cauca Rivers basin
OR Orinoco River basin
CA Caribbean water catchment

Use
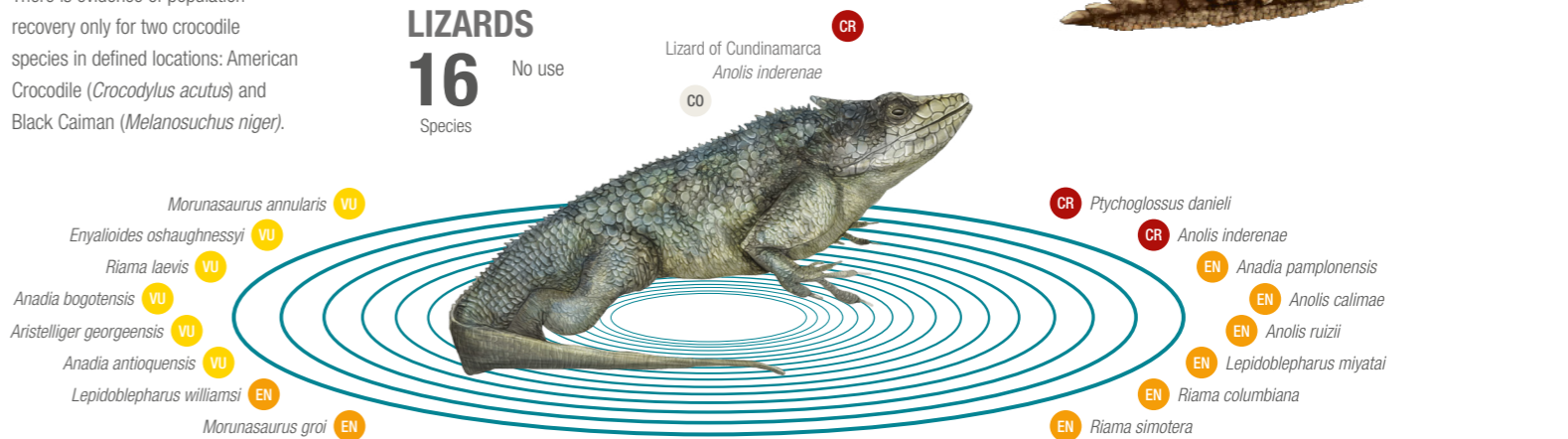Food | Ornamental | Bait | Cultural
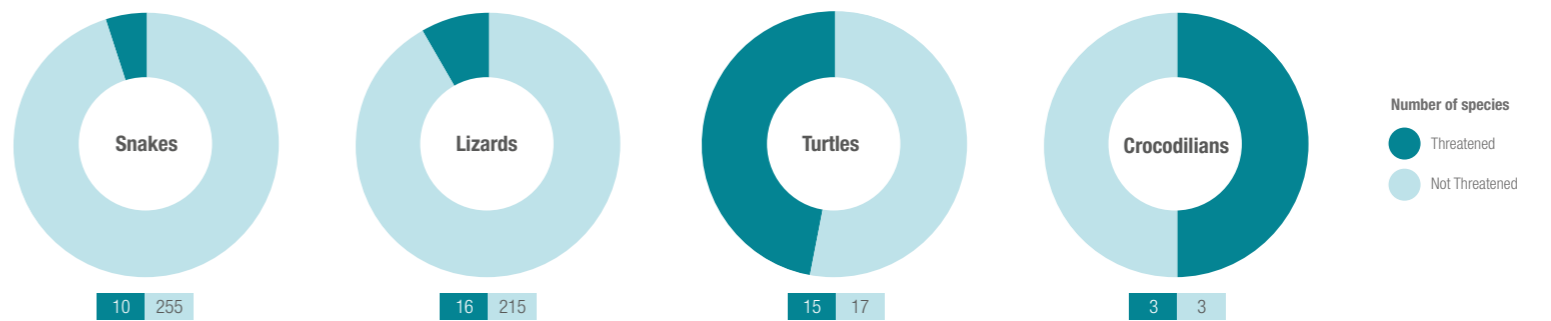Medicinal | Pet | Skin

CROCODILIANS

3 Species — Group uses

CR Orinoco Caiman
Crocodylus intermedius
OR

CR *Crocodylus intermedius*
EN *Crocodylus acutus*
VU *Melanosuchus niger*

There is evidence of population recovery only for two crocodile species in defined locations: American Crocodile (*Crocodylus acutus*) and Black Caiman (*Melanosuchus niger*).

LIZARDS

16 Species — No use

CR Lizard of Cundinamarca
Anolis inderenae
CO

VU *Morunasaurus annularis*
VU *Enyalioides oshaughnessyi*
VU *Riama laevis*
VU *Anadia bogotensis*
VU *Aristelliger georgeensis*
VU *Anadia antioquensis*
EN *Lepidoblepharus williamsi*
EN *Morunasaurus groi*

CR *Ptychoglossus danieli*
CR *Anolis inderenae*
EN *Anadia pamplonensis*
EN *Anolis calimae*
EN *Anolis ruizii*
EN *Lepidoblepharus miyatai*
EN *Riama columbiana*
EN *Riama simotera*

The number of threatened species increased from 22 to 50 when information about lizards and snakes (squamates) was included in the analysis. This group was initially not included due to lack of information.

Number of threatened and non-threatened species by taxonomic group

Snakes — 10 | 255
Lizards — 16 | 215
Turtles — 15 | 17
Crocodilians — 3 | 3

Number of species
Threatened
Not Threatened

The groups with the greatest number of threatened species are turtles and lizards. However, the most affected groups (percentage of threatened species over total species in the group) are crocodilians (50 % of species threatened), followed by turtles (37 %)[1].

Based on the information analyzed, it may be concluded that it is essential to start generating standardized population data, as well as evaluating and quantifying the threats that affect different species. These aspects are the most relevant while applying IUCN

criteria. It is therefore recommended to prioritize species with greatest threat status and those categorized as DD. Similarly, a heads up is important because for all species habitat degradation, transformation, and loss is a constant threat[1].

CONSERVATION STRATEGIES

To appease threats, different strategies have been developed. Conservation plans (at species or group scales) have been created, and the establishment of

protected areas is also considered as a conservation effort, although these have not been reaching expected results. In addition to threats that are particular to each species, all reptiles, especially those distributed in the regions of the Caribbean and Magdalena, are threatened in great part due to habitat degradation, transformation, and loss. This shows that there is not a rigorous implementation of environmental norms inside of the territory, nor is there an integrated management of ecosystems.