

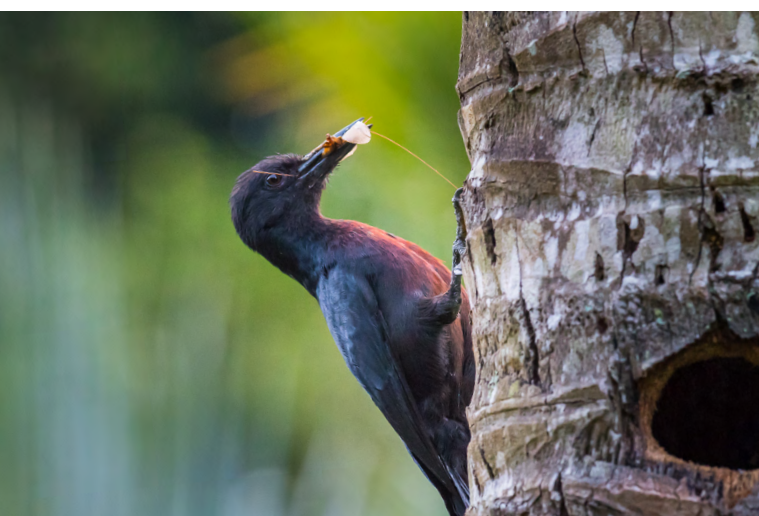
STATUS OF BIRDS ON THE GUADELOUPE ISLANDS

What is the state of the archipelago's biodiversity?

INDICATOR OBJECTIVE

This indicator aims to report on the status and evolution of the avifauna found in the islands of Guadeloupe. Birds are among the best-studied species groups, as they are relatively easy to detect. Indeed, a large proportion of species vocalize for a variety of reasons, such as defending their territory or attracting mates, which facilitates inventories and monitoring. This has provided qualitative data covering the last 40 years and quantitative data on biodiversity trends over the last 10 years.

This indicator therefore entails collecting all the data available for the Guadeloupe islands during these periods, to summarise it and identify not only threats to communities but also conservation measures taken for their preservation.



▲ Guadeloupe Woodpecker, NT

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¹ A bird is a breeder if it completes all or part of its breeding cycle on a given territory.

² Species found locally in the wild, that breeds and feeds in the territory and does not migrate.

SUMMARY RESULTS



84
breeding
bird species¹

including **60**
sedentary species²



7 extinct
species

including **2**
at a global scale



31 threatened
species

18 % of species
assessed



15
introduced species
including **3** invasive alien
species

The Guadeloupe archipelago, made up of volcanic and limestone islands, shelters all the habitats found in the Lesser Antilles.

Cliffs, sandy or rocky beaches, mangroves, swamp forests, dry forests and rainforests offer a wealth of habitats where numerous species can both feed and reproduce. The many freshwater areas (ponds and pools) and saltwater areas (brackish marshes and salt marshes) are habitats to a myriad bird species.

The Guadeloupe islands' location in the Lesser Antilles Volcanic Arc as well as their wide variety of habitats, make them a prime destination for many migratory species³. Lots of seabirds come there to nest and feed. In addition, it is a place where various bird species attracted by fresh and salt water can find suitable food resources and nesting sites. Further inland, forests offer shelter and food to many migratory forest species.

Although Guadeloupe has only one species endemic to the archipelago, the [Guadeloupe Woodpecker](#), its location in the Lesser Antilles endows it with plenty of species endemic⁴ to the region. Safeguarding these natural habitats is therefore critical in preserving the bird species that live there all year round or on a cyclical and regular basis.



▲ [Antillean Crested Hummingbird, LC](#)

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³ Species that moves cyclically and regularly between two or more habitats to find favorable conditions for feeding or reproduction.

⁴ Species whose range is restricted to a given territory, usually an island or group of islands.



RESULTS

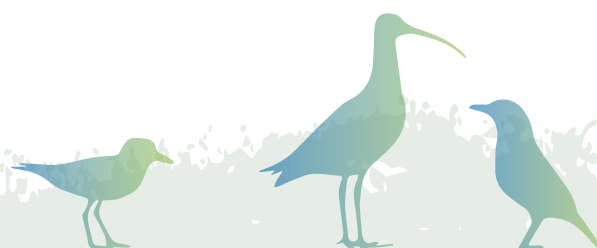


1. State of knowledge

Land and sea birds are the most closely monitored species groups in the region, with no fewer than **31 surveys⁵ implemented across the archipelago**. There are **26 land bird surveys, 9 of which are ongoing**. These include STOC Guadeloupe (Temporal Monitoring of Common Birds), wetland bird monitoring through Wetlands Counts, and very specific monitoring such as that of the Forest Thrush. There are 5 seabird monitoring programs, 2 of which are currently underway: monitoring the breeding of Least Terns at the "Pointe des Châteaux" salt marshes in Saint-François and at the "Îlets de Petite Terre" National Nature Reserve.

Monitoring surveys are carried out by several organisations: naturalist associations (AMAZONA, Caribaea Initiative, AEVA, Titè, Tò-Ti-Jòn), **public institutions** (Office français de la biodiversité (OFB), Parc national de Guadeloupe (PNG), Office national des forêts (ONF)) and **local authorities** (City of Saint-François). **Research** contributes to the production of this knowledge through the INRAE_UR_ASTRO and UMR CESCO research units. The expertise of **independent professionals** (Levesque Birding Enterprise in particular) or **companies** that chose to monitor their premises, such as the international airport, can also be relied upon.

⁵ The aim of naturalist monitoring is to track the evolution of species over several years, in order to understand how populations are changing.



2. Guadeloupe's birds species richness

In 2024, the Islands of Guadeloupe were home to **295 bird species, divided in 53 families of breeding and non-breeding birds**. There are two different profiles: sedentary species and migratory species (breeding or not). Today, there are **60 sedentary species** and no fewer than **228 migratory species**. **7** species are present on an erratic or occasional basis.

[*Lesser Antillean Bullfinch, LC*](#) ▶

© Anthony Levesque



3. Bird community composition in Guadeloupe

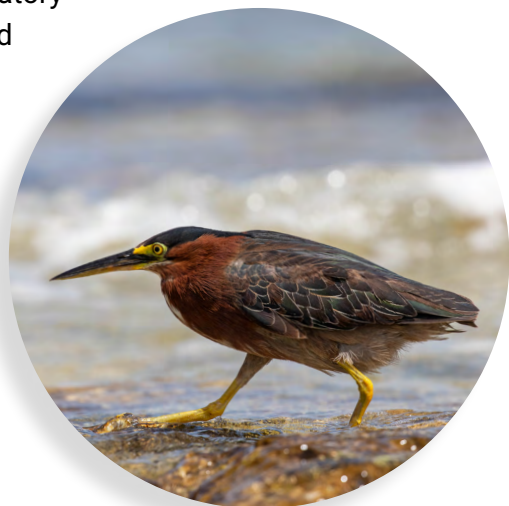


Coastal waters are home to **11 families of migratory seabirds**. These include terns, shearwaters, gulls... They are species that feed on fish, mollusks and crustaceans. While some species, such as the Royal Tern, stay close to coasts, estuaries and lagoons; others travel dozens of miles to feed. Certain species, like the Red-billed Tropicbird, migrate to nest on our shores, while others, like the Wilson's Storm-Petrel, are simply passing through. Some of these species have established colonies in the archipelago and are now present year-round. Such is the case of the [*Brown Pelican*](#), frequently seen on the waterfront.

◀ [*Roseate Tern, CR*](#)

© Anthony Levesque

Wetlands are highly prized by waterfowl. Most birds are also migratory species. Waders are small wading birds, often found near coasts and marshy areas searching for insects, worms and mollusks. These are mainly sandpipers, redshanks and plovers. Highly vegetated brackish marshes and freshwater wetlands are favored areas for gallinules, crakes and teals. Freshwater lakes, ponds and puddles are perfect vacation spots. Certain species, such as ducks, will find refuge there. Some are sedentary. Such is the case of the Common Gallinule and the Snowy Egret, to name but a few. The Wilson's Plover and the American Coot which can be found on the archipelago, are now breeding species in Guadeloupe. This testifies to their ecological adaptation to environmental change.



[*Green Heron, LC*](#) ▲

© Anthony Levesque



▲ *Bananaquit*, LC
© Frantz Delcroix

Forest species can be found in a wide range of habitats, from high-altitude rainforests to dry coastal forests, as well as open areas such as parks, towns and agricultural zones. Most are **sedentary**, like hummingbirds, mockingbirds and doves. However, some are **migratory**: as is the case of certain warblers, vireos and cuckoos, although they are less common. Swallows, which are migratory, are equally at home in forests, wetlands and urban areas, illustrating the difficulty of associating a species with a single type of environment.

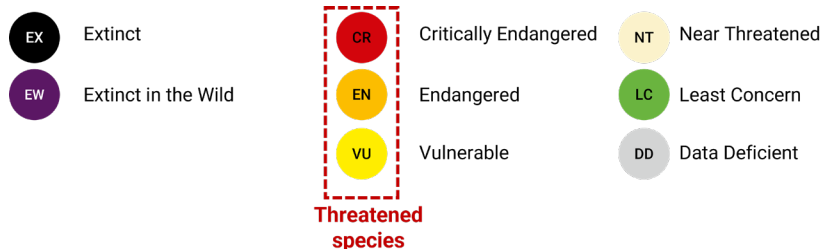
The Guadeloupe archipelago is still home to an endemic bird, the Guadeloupe woodpecker. It is also home to **9** species endemic to the Lesser Antilles, all associated with forest environments. Some are fairly common (Scaly-breasted Thrasher, Forest Thrush); others are rarer, like the famous [Lesser Antillean Euphonia](#).

4. Number of extinct, threatened and introduced species

What is the Red List ?

The Red List can be drawn up on a **global, national or regional** scale, based on a proven scientific method. Experts evaluate the species within different groups, to inventory biodiversity in a given area.

They characterise the extent of threat to each species, evaluate its risk of going extinct, and place it in a specific category.



▲ **Figure 1:** IUCN Threat categories for species assessed. Species listed as "critically endangered" (CR), "endangered" (EN), and "vulnerable" (VU) are considered threatened species and are outlined with red dotted lines.

7 Extinct species

Since the first settlers arrived around 1,500 AD, no fewer than **7** species have become extinct. **2 species have disappeared globally** (EX): the Guadeloupe Parrot and the Guadeloupe Parakeet, both endemic to the archipelago.

5 species have disappeared from Guadeloupe (RE), including the American Flamingo, Eskimo Curlew, Burrowing Owl and House Wren (recently renamed Kalinago Wren). The [Magnificent Frigatebird](#) has disappeared as a breeding species.

Amazone violacea, Rothchild print (1907)



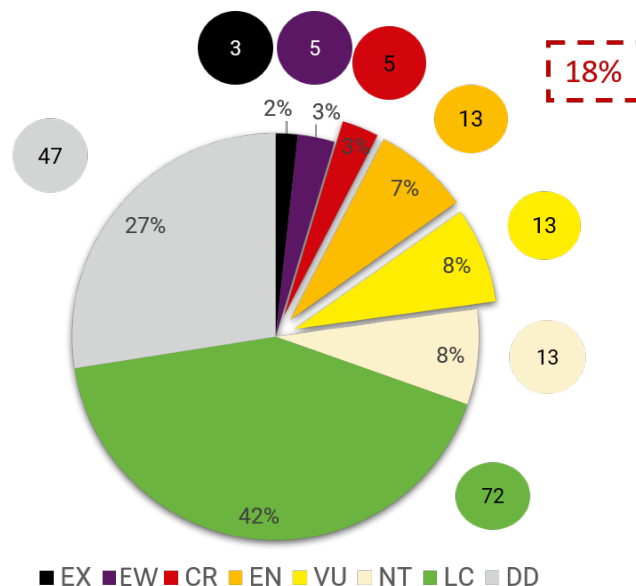
31 Threatened species

A species is considered threatened with extinction if listed as **Critically Endangered (CR)**, **Endangered (EN)** or **Vulnerable (VU)**.

Of the **171** species assessed, **31** are threatened with extinction (**18 %**). This includes **5 CR**, **13 EN** and **13 VU** species.

Birds face several threats that jeopardise their survival, including :

- The destruction of their natural habitat through urbanisation and deforestation;
- Pollution, which can poison them;
- Excessive and unregulated hunting, which is rapidly depleting their communities.



▲ **Figure 2:** Distribution of threatened bird species.
The colored disc indicates the number of species assessed in its category.



▲ *Eurasian Collared-Dove*
© Loïc Tello Y Vazquez

15 Introduced species

There are **15 introduced species**⁶, including the Red Junglefowl, the Rock Pigeon and the Rosy-faced lovebird, all of which are considered **domestic species**. Some, like hens, exert pressure on other species, especially small burrowing reptiles. Of these 15 species, **3 are classified as Invasive Alien Species**⁷ (IAS) : the Eurasian Collared-Dove, the House Sparrow and the Scaly-breasted Munia. These species, like some of the domestic ones, reproduce efficiently, thereby competing with local species for food. Some directly threaten specific groups, such as reptiles and insects, which are an essential food source. Invasive alien species thus represent a significant threat to local wildlife.

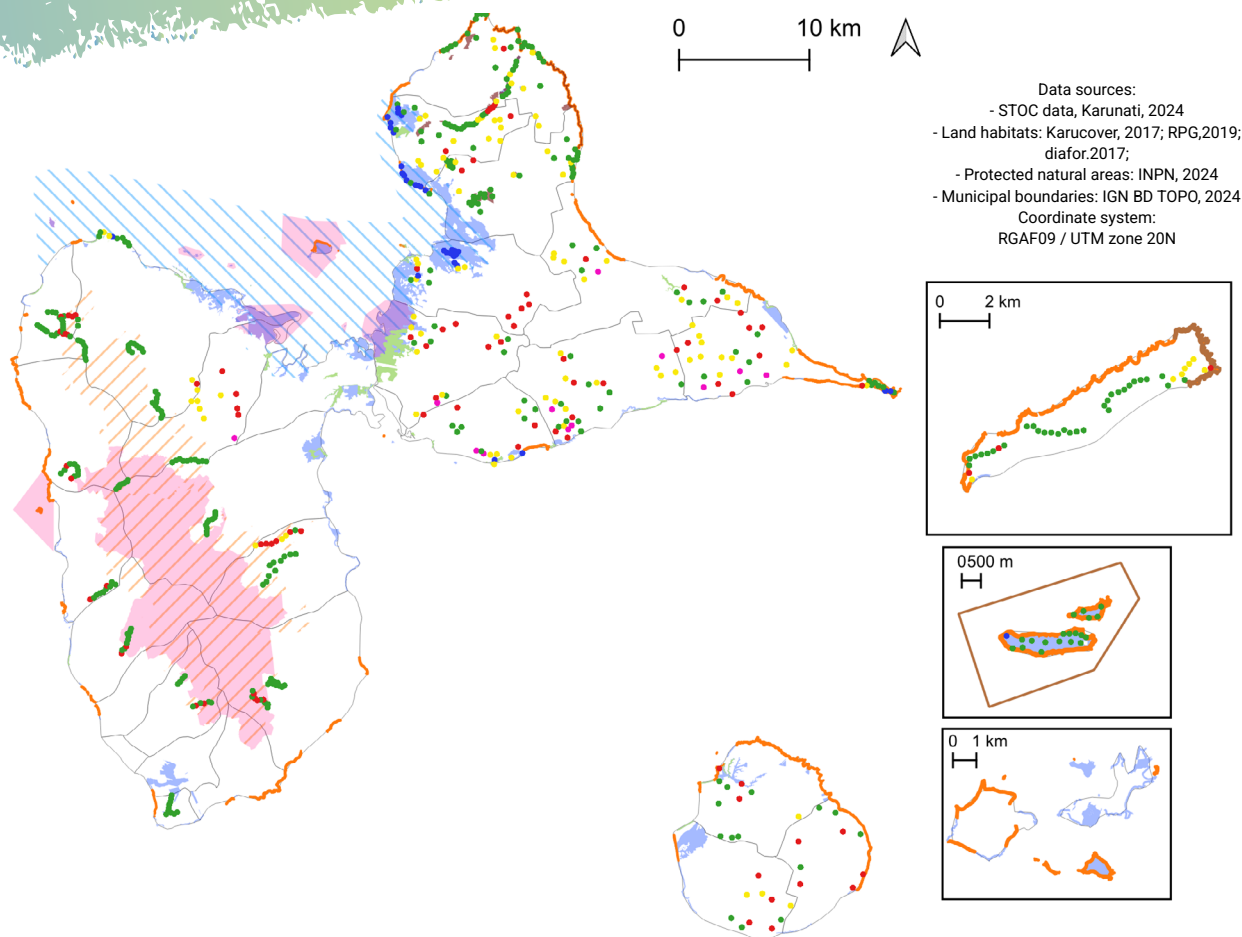
⁶ Naturalised species that is not native to a given territory, was intentionally introduced by humans and has maintained its population.

⁷ Species (intentionally or accidentally) introduced by humans outside its natural range, whose settlement and spread threaten ecosystems, habitats, or native species –with negative environmental, economic, and/or health consequences.

5. Temporal trends of common birds in Guadeloupe

The STOC-Guadeloupe program (**Temporal Monitoring of Common Birds**) is a citizen science program for monitoring bird populations. It was adapted from the national program to meet the specific needs of our region. It is run by the AMAZONA association and supported by the DEAL (Department of Environment, Planning, and Housing), the French Biodiversity Office (OFB), the Titè association, the Guadeloupe National Park and the City of Saint-François.

A route comprises 10 listening points of 5-minute duration each, plus observation. For each species, the type of contact (visual, aural) and the number of individuals are recorded, along with the habitat and weather conditions. In total, between 2014 and 2023, 141,704 presence observation data were collected, providing a sufficiently robust monitoring framework to analyse trends in the target populations.



STOC

- Farming environment
- Wooded area
- Semi-natural environment
- Wetlands
- Urban environment

Protected natural areas

- Core of the National Park
- Departmental forest
- State-owned coastal forest
- «Nord Grande-Terre» managed biological reserve
- Hunting and wildlife reserves

- National nature reserves
- Coastal Conservatory land
- RAMSAR Zone
- Municipal boundaries



▲ **Figure 3:** Map showing the distribution of STOC data according to environment. Each point corresponds to an observation site and is listed under the environment it belongs to. The semi-natural environment signals to parks, gardens and green spaces in urban areas.

Temporal monitoring of common birds reveals 3 profile types: species whose numbers are **stable**, species on the **rise** and species in **decline**.

Among species on the rise, the **Cattle Egret** stands out with a remarkable **+97 %** increase. This species adapts especially well to urbanisation, and is little affected by habitat loss or other pressures.

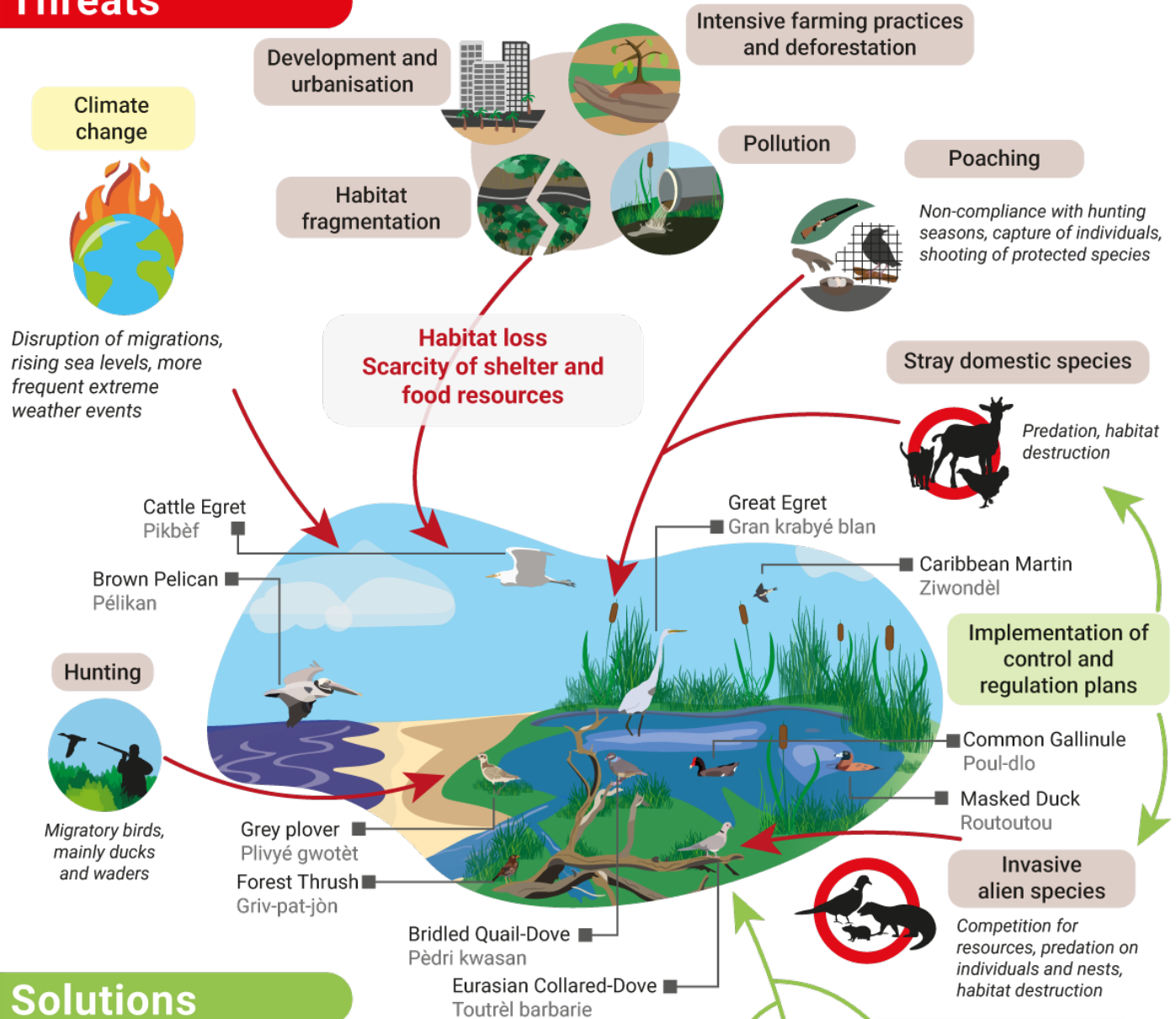
Among the stable species, the **Gray Kingbird** shows an overall trend of **-4 %**, indicating relative stability despite significant variations. The species seems to have experienced a steep decline until 2017, followed by an increase until 2021, and then further decline in 2022-2023.

The **Guadeloupe Woodpecker**, the archipelago's only endemic species, is also considered stable. Its temporal trend is **+18 %**, but this is not considered significant by experts —which is nonetheless reassuring when it comes to this iconic species.

Among species in decline, the **Yellow Warbler** shows a trend of **-17 %**. After a sharp drop in contacts in 2018, probably tied to the passage of Hurricane Maria in 2017, the decline has continued steadily since 2020. The **Bananaquit**, with a trend of **-29 %**, demonstrates that even very common species adapted to urban environments can be affected by global change.

→ **Bird populations are under heavy pressure. The depletion of their habitats and food resources is having a major impact on even the most widespread species, leading to a high percentage of endangered species. Restoring their habitats is essential to safeguarding this natural heritage.**

Threats



▲ **Figure 4:** Primary threats to avifauna and their habitats, and the local solutions brought by public policy and civil society. *Natural threats are shown in yellow boxes, man-made threats in brown boxes and solutions in green boxes. All threats are highlighted in red and solutions in green. Words in grey are in Guadeloupean Creole.*

ABOUT THE INDICATOR



► Calculation method

Calculation of the share of threatened species for each category is based on the percentage of the number of species in a category out of the total number of species assessed. Calculation Share of endangered species =

$$\frac{\text{Number of species facing extinction (CR+EN+VU)}}{\text{Total number of species assessed}} \times 100$$

► Limitations

The number of species present on the territory is based on the Guadeloupe bird list updated in 2024, which is the most recent data available.

With regard to the endangered status, analysis is based on species assessed in the Red List of Threatened Species in France - Guadeloupe Fauna Chapter for 2021 only.

Concerning the list of invasive alien species, the data comes from the prefectural decree of July 7, 2020, on preventing the introduction and spread of invasive alien animal species on Guadeloupean territory. Assessing the impact of new species on the territory and updating this list requires further knowledge acquisition.

► Theoretical update frequency

Every 10 years.

► Data sources

Guadeloupe bird list producer: AMAZONA

Red List producers (INPN/espece/listerouge/FR/Oiseaux_Guadeloupe_2024): IUCN French Committee, MNHN, OFB, CBIG

STOC-Guadeloupe program producer: AMAZONA et Dureux M., 2024, Analyse de l'apport des données STOC en Outre-mer pour la surveillance de la biodiversité. PatriNat, CESCO

► GIS Data

STOC_Karunati (2024)

Carte habitat_ RGP (2019) ; Karucover (2017), diagnostic forestier/ forest assessment (2017)

Protected natural areas_INPN (2024)

Municipal boundaries : IGN BD TOPO (2024)

► References

G.M. Kirwan, A. Levesque, M. Oberle et C.J. Sharpe. Birds of the West Indies. Lynx and BirdLife International Field Guides.

H. Raffaele, J. Wiley, O. Garrido, A. Keith et J. Raffaele. Les oiseaux des Antilles. Guide d'identification. Edition Michel Quintin.

AMAZONA Report n°84 (2024). Reports on the first 10 years of the STOC-Guadeloupe program (2014-2023).

AMAZONA Report N° 85 (2024). La liste des oiseaux de la Guadeloupe. 13th edition.

IUCN French Committee, OFB and MNHN (2021). Red list of threatened species in France - Guadeloupe fauna chapter. Paris, France.

Decree of July 7, 2020 on preventing the introduction and spread of invasive alien animal species on Guadeloupe's territory —prohibition of all activities involving live specimens.

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USEFUL LINKS

BirdsCaribbean: <https://www.birdscaribbean.org/>

Guadeloupe National Park: <https://karunati.fr/>

AMAZONA Association: <https://www.amazona-guadeloupe.com/>

French Committee of the International Union for Conservation of Nature (CF UICN): <https://uicn.fr/liste-rouge-france/>

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