

DECAN Wildlife Rescue & Wildlife Protection

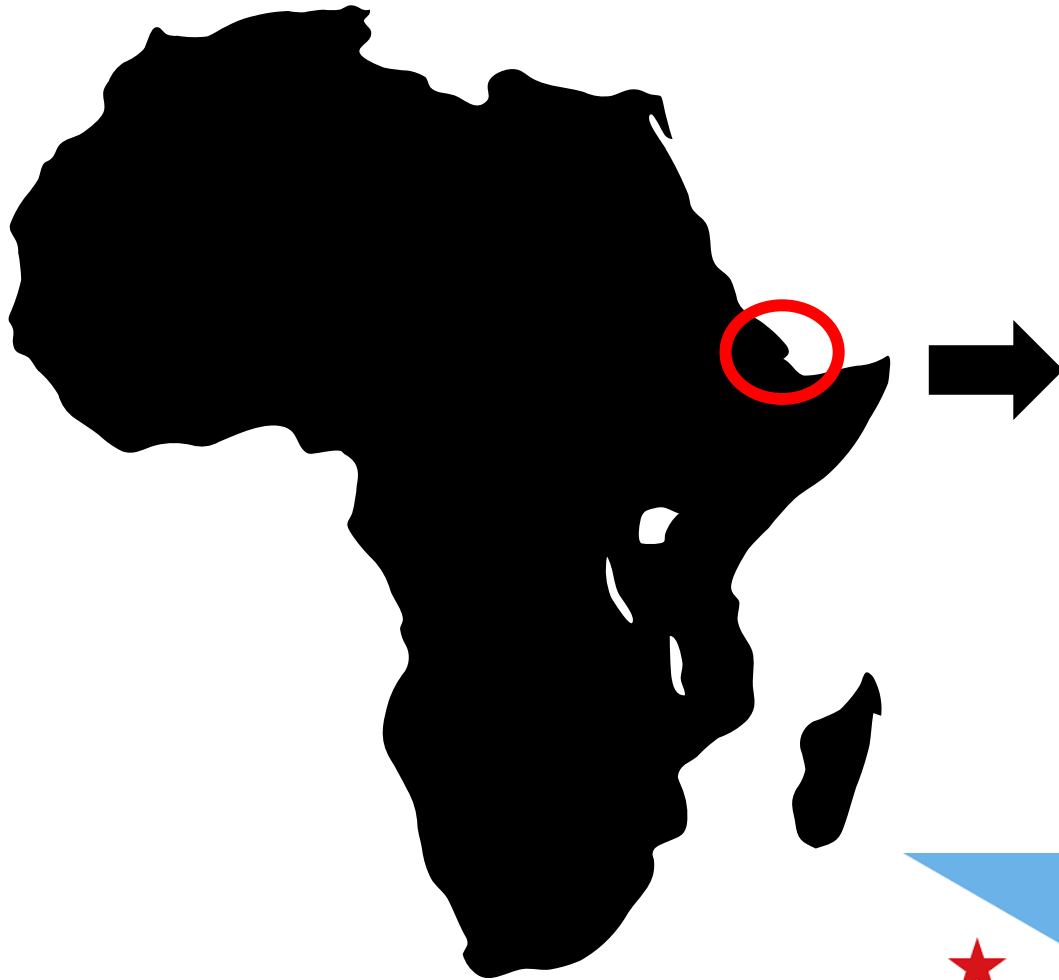
Dr. Mathieu Mahamoud Issa



Summary

- The DECAN association and its wildlife shelter
- Research & Conservation programs
- Challenges





- 23 200 km²
- 1 million inhabitants
- Ethnic groups: Afar and Somali
- Languages: Afar, Somali, Arab, French
- Muslim



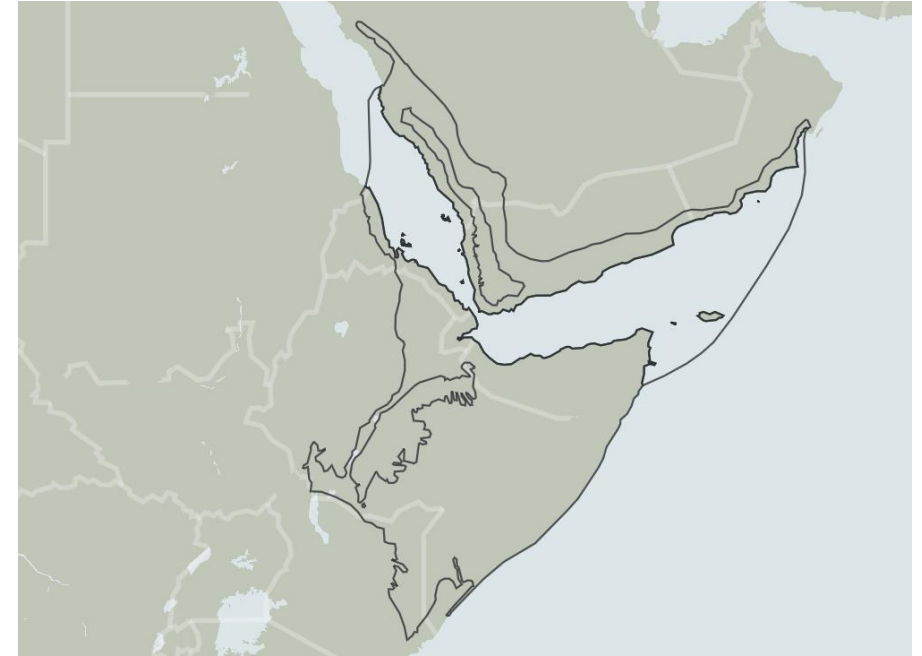
Djibouti is part of the Horn of Africa Biodiversity Hotspot

36 Biodiversity Hotspots around the World:

- It is one of only two hotspots that are entirely arid, characterized by xeric bushlands and other dryland ecosystems.
- A significant number of species found in the Horn of Africa are found nowhere else on Earth. For example, it has more endemic reptiles than any other region in Africa.

Main threats:

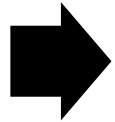
- Overgrazing
- Uncontrolled trees cutting for charcoal production
- Climate change
- Urbanization
- Pollution, the lack of waste management
- Political instability and regional conflicts



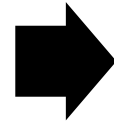


Association DECAN (“Discover and Help Nature”)

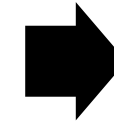
2001



2003



2011



2014

- Association Decan is officially created.

- Opening of the wildlife shelter.

- Opening of a field station within the wildlife shelter.
- Creation of the Djalelo and Assamo protected area with touristic camps.

- Creation of the Douda protected area (mangrove) with an ornithological reserve.

Local employees

Volunteers

Internship students



- Fenced area
- Take care of animals
- Open to visitors
- Organize school visits





50 animals
rescued



35 projects



20 animals released in
the wild



More than 500
volunteers since
the beginning



People can register and pay to participate to different activities at the shelter



Activities to develop people interest about wildlife



Advertisement shared on social medias.



4 scorpion species can be observed at the shelter.



Activities to develop people interest about wildlife



Advertisement shared on social medias.



An experienced ornithologist leads a group of people within the Douda protected area to do birdwatching.



Promote environmental education



- A small building was recently built by UNICEF with recycled plastics: **Pedagogical activities.**



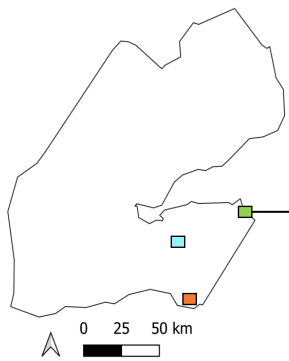
Research & Conservation programs



Decan association manages 3 protected areas in the country

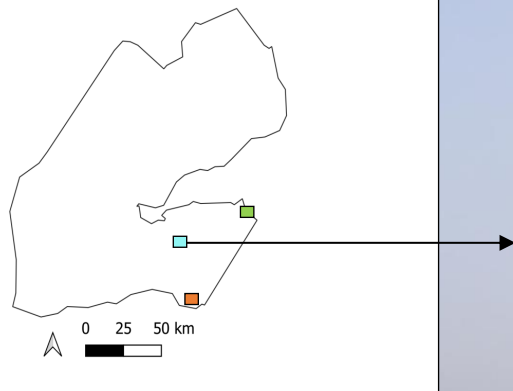
-  Doua - Damerjog
-  Djalelo
-  Assamo





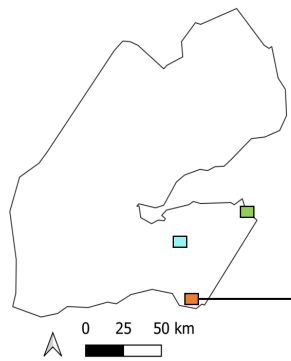
Douda-Damerjog





Djalelo





Assamo

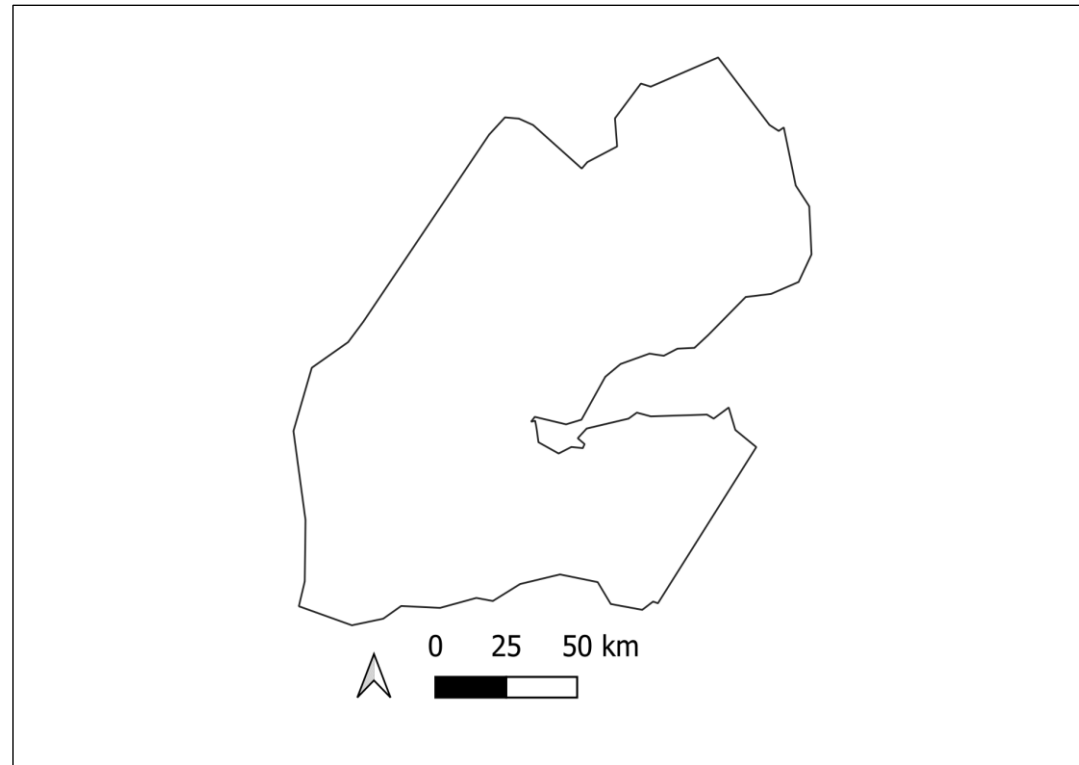


Bird conservation and research



Birds of Djibouti

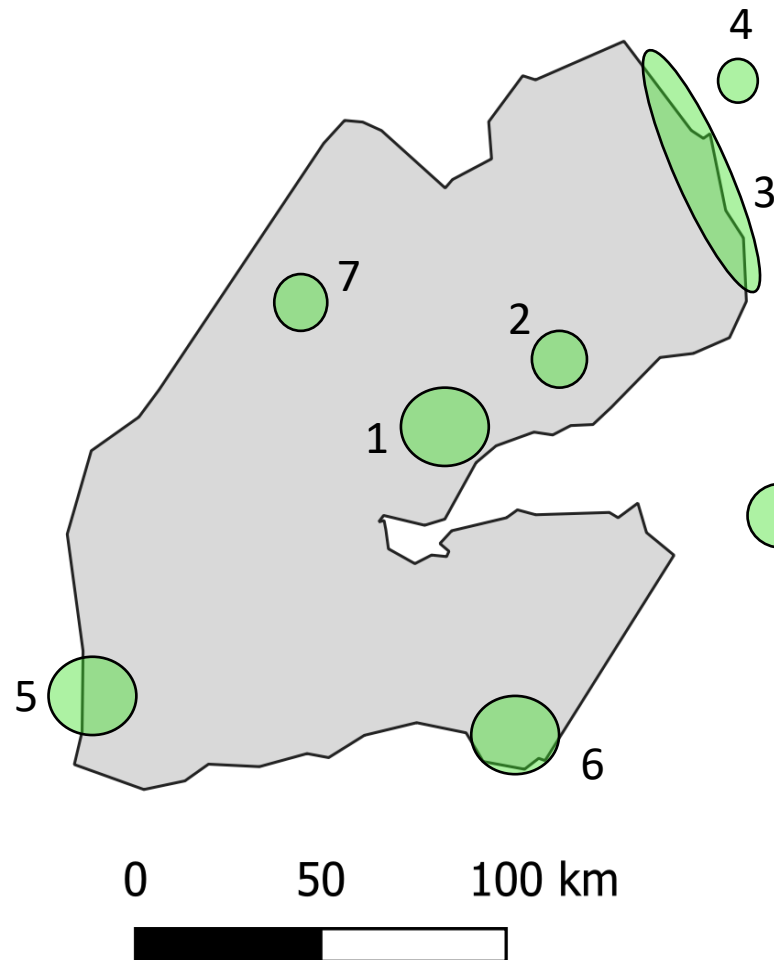
There are about 400 species of birds in Djibouti



<https://avibase.bsc-eoc.org/checklist.jsp?region=DJ>



Important Bird and Biodiversity Areas (IBAs)



- IBAs are sites identified as being internationally significant for the conservation of birds and other biodiversity, based on a set of standardised, data-driven criteria.
- BirdLife Partners typically lead the process of identifying, monitoring and updating the IBA network. Locally gathered data are analysed nationally and assessed against a set of standardised criteria to identify sites of global importance.
- **Presence of endangered species / restricted geographical distribution / particular biotope / large concentration of migratory birds or coastal – marine species.**

 IBA: Important Bird Area

- 1: Mont Goda
- 2: Mont Mabila
- 3: Kadda Guéïni–Doumêra
- 4: Les Sept Frères
- 5: Lac Abbe
- 6: Aserjog
- 7: Plaine de Dôda



Coastline and mangroves



Moucha island



Goliath heron
(*Ardea goliath*)



Ruddy turnstone
(*Arenaria interpres*)



Scrublands



Shrubs and grassland in Djalelo



Crested lark
(*Galerida cristata*)



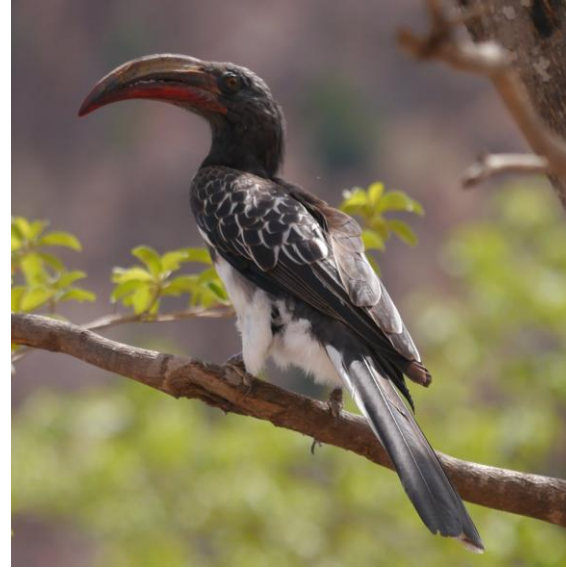
Rosy-patched bushshrike
(*Rhodophoneus cruentus*)



Highlands, woodland savannah



Goda mountain



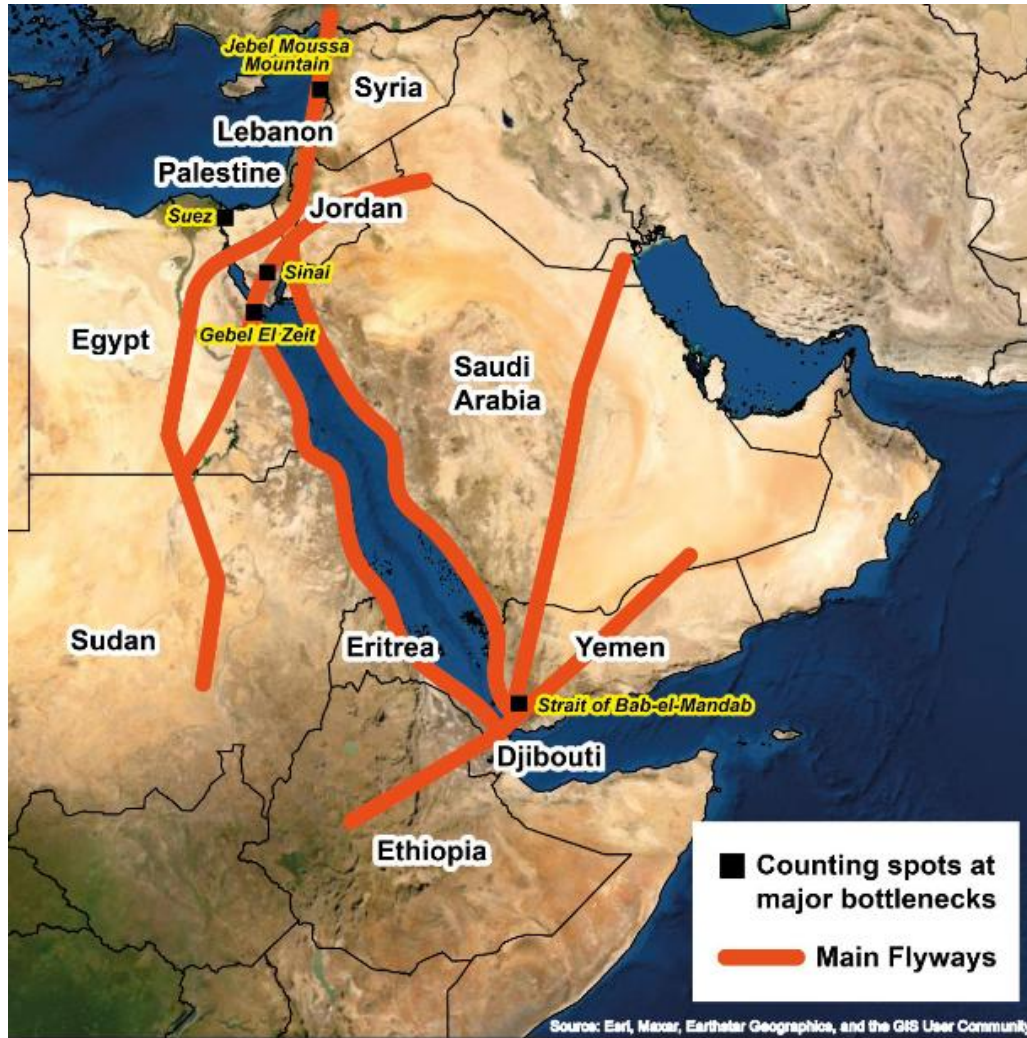
Hemprich's hornbill
(*Lophoceros hemprichii*)



African paradise
flycatcher
(*Terpsiphone viridis*)



Djibouti is a strategic location within The African-Eurasian Flyway



- The Horn of Africa is a point of entry and exit point of Africa for many migratory birds; it is even likely that the region hosts one of the largest concentrations of migratory birds in the world (Bildstein 2006).
- **The Bab al-Mandab Strait** is a major passage area for migratory birds connecting the African continent to Eurasia.



Djibouti is a strategic location within The African-Eurasian Flyway



Waterbirds



Landbirds



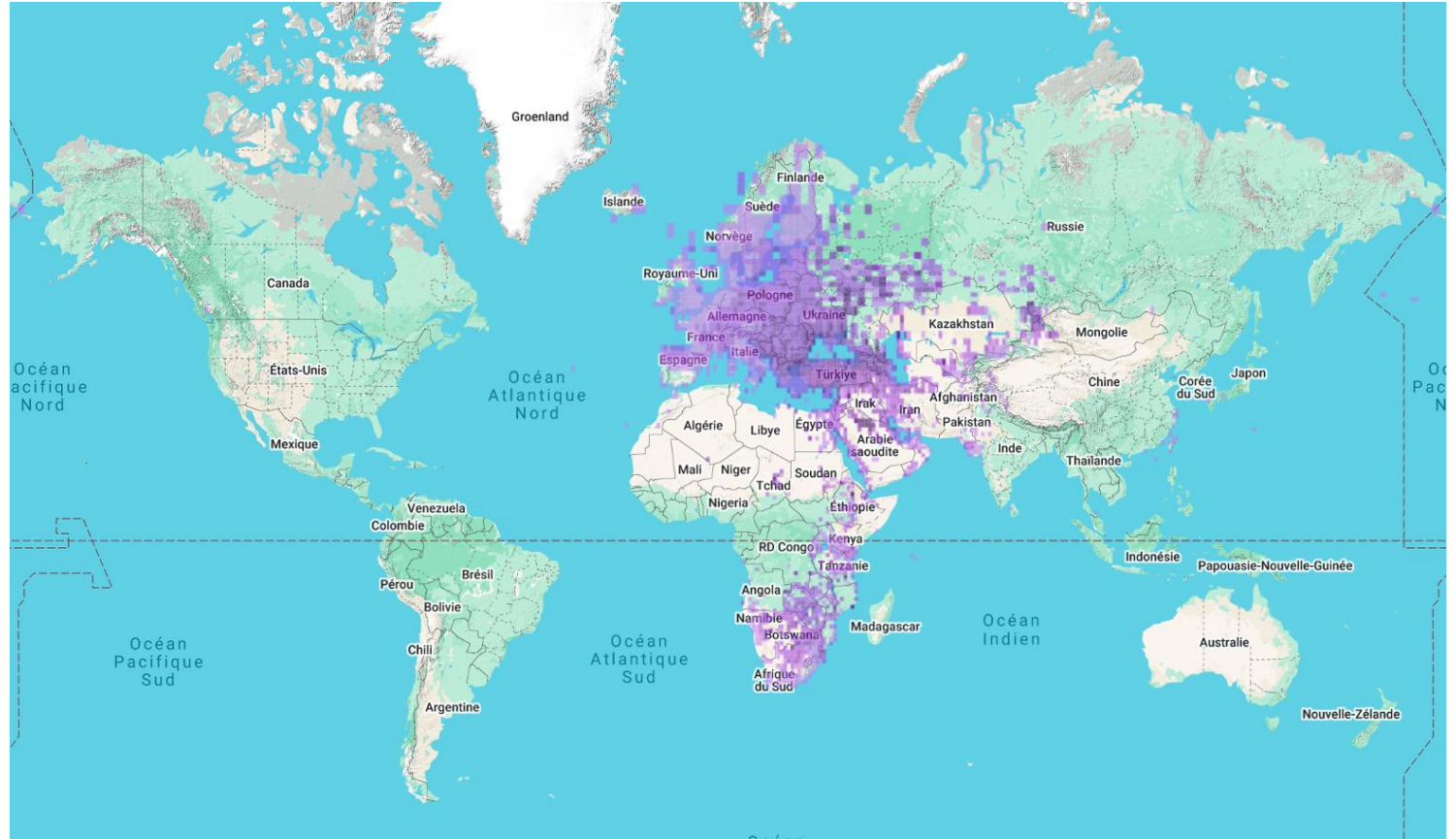
Birds of Prey (Raptors)



Example of a migratory landbird



Red-backed shrike
(*Lanius collurio*)



Données d'observations sur le site **eBird.org**

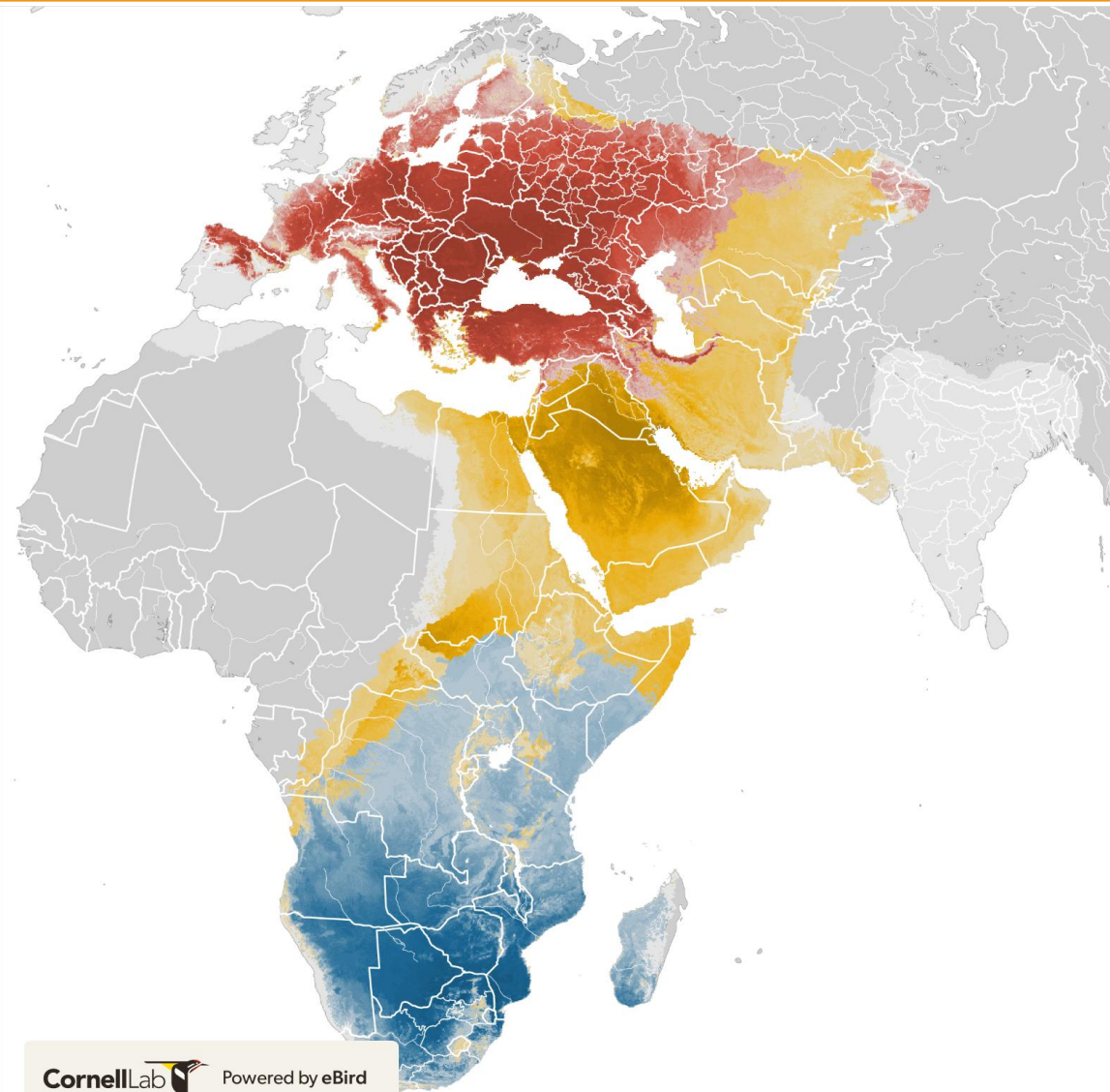
eBird



Example of a migratory landbird



Red-backed shrike
caught at the wildlife
shelter in May



Red-backed Shrike

Lanius collurio

Abundance

Relative abundance is depicted for each season along a color gradient from a light color indicating lower relative abundance to a dark color indicating a higher relative abundance. Relative abundance is the estimated average count of individuals detected by an eBirder during a 1 hour, 2 kilometer traveling checklist at the optimal time of day for each species.

Breeding Season 7 Jun - 19 Jul

Non-breeding Season 20 Dec - 8 Mar

Pre-breeding Migratory Season 15 Mar - 31 May

Post-breeding Migratory Season 26 Jul - 13 Dec

0.02 0.2 1

Modeled Area (0 abundance)
No Prediction

eBird Data from 2008-2022. Estimated for 2022.

Fink, D., T. Auer, A. Johnston, M. Strimas-Mackey, S. Ligocki, O. Robinson, W. Hochachka, L. Jaromczyk, C. Crowley, K. Dunham, A. Stillman, I. Davies, A. Rodewald, V. Ruiz-Gutierrez, C. Wood. 2023. eBird Status and Trends, Data Version: 2022; Released: 2023. Cornell Lab of Ornithology, Ithaca, New York. <https://doi.org/10.2173/ebirdst.2022>

CornellLab Powered by eBird

Diets on the Flyway



VOGELWARTE.CH



Diets on the Flyway

- Every year, over two billion landbirds migrate from their breeding grounds in Europe to non-breeding grounds in Africa, involving some of Europe's most rapidly declining bird species.
- While much is known about these birds during their breeding season, their non-breeding ecology remains largely unexplored.
- “Diets on the Flyway” seeks to fill this knowledge gap by investigating fundamental aspects such as habitat preference, moulting sites, seasonal movements, and diet outside Europe and in Africa.

Aim: help identify potential vulnerabilities in migratory bird populations, such as their dependence on scarce or highly seasonal food resources, which may be impacted by climate and habitat changes.



VOGELWARTE.CH



Diets on the Flyway

3 sites for data collection

- Decan shelter
- Djalelo
- Dittilou

Bird species

- >360 birds caught
- 60 species



White-throated Robin
(*Irania gutturalis*)



Scientists collecting data on birds during migration at the
Decan shelter





Barn Swallow
(*Hirundo rustica*)



Grey-headed Kingfisher
(*Halcyon leucocephala*)



Common Redstart
(*Phoenicurus phoenicurus*)



Training opportunities for University students



- A group of students from the University of Djibouti learning about bird migration in the field.



- 2nd year master student from Nancy University (France).



- 3rd year undergraduate internship student of University of Djibouti.



Conducting workshops and field training to promote bird surveys and capacity-building in ornithology in the Republic of Djibouti.



African Bird Club
Working for birds and conservation in Africa



Module 1: Field training to observe and identify bird species.



- Students got the opportunity to explore the Douda protected area.
- They learnt how to observe birds and recognize common species.
- They developed their interest toward birds and learnt how studying birds can positively impact the conservation efforts of the environment.
- They received information about the career possibilities if they wish to become a professional ornithologist.



Module 2: Listening to Nature: The use of Bioacoustics to study bird behaviour and a tool in conservation.



Acoustic monitoring of protected areas
using autonomous recording units



Automatic sound classification with
BirdNet Analyzer



Monitoring of antelope populations



- **Current problem:** there is no actualized data about the current distribution range nor estimation of the population size and trend of antelope species in Djibouti due to the absence of dedicated study to track the population changes.

Our work focuses on four species of antelope endemic to the Horn of Africa that are listed in the IUCN (International Union for Conservation of Nature) Red List of Threatened Species.



Gazella dorcas pelzlenii



Litocranius walleri sclateri



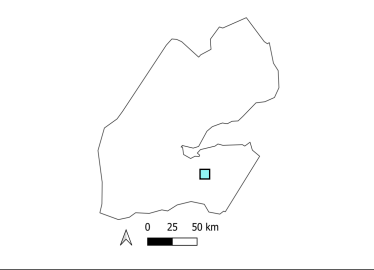
Nanger soemmerringi berberana



Aims:

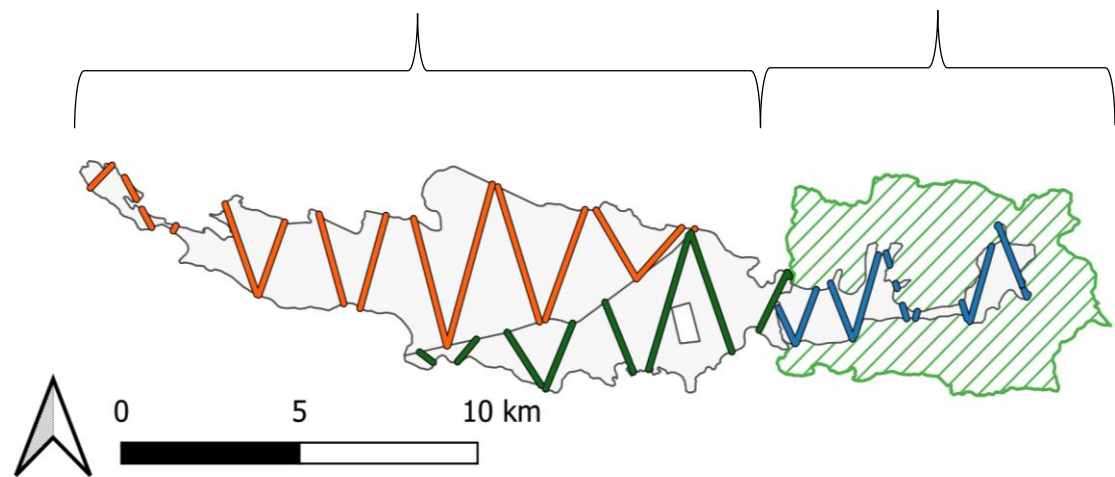
- 1- Gather data to estimate population size and distribution pattern of three species of antelope within the Djalelo valley and Petit Bara desert in Djibouti during a single season survey.
- 2 - Determine the habitat preference of each antelope species within the area of study.
- 3 - Identify the anthropogenic activities that could negatively impact the habitat quality and the presence of the antelopes.





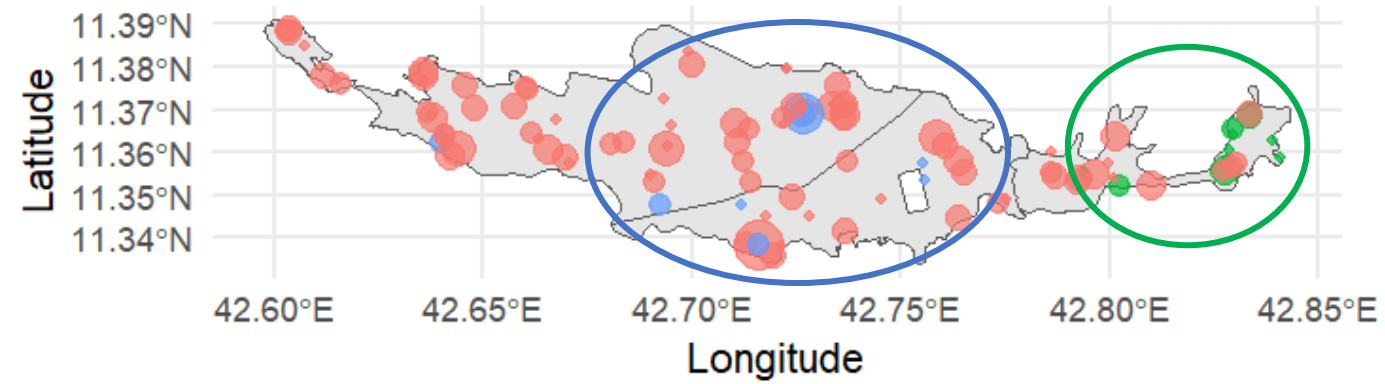
Petit bara desert

Djalelo protected area



Transects survey

Antelopes occurrence during one survey



species

- *Gazella dorcas pelzlenii*
- *Litocranius walleri sclateri*
- *Nanger soemmerringi berberana*

size

- 5
- 10



Results so far:

- 1- Dorcas gazelles are the most common antelope species in the area.
- 2 – Very few Sömmering's gazelles restricted to the Petit Bara desert.
- 3 – Gerenuk are commons but restricted to area where trees occur, avoiding flat open grassland.
- 4 – Overgrazing by livestock seems to be a major threat for the habitat quality of the antelopes.

In the future:

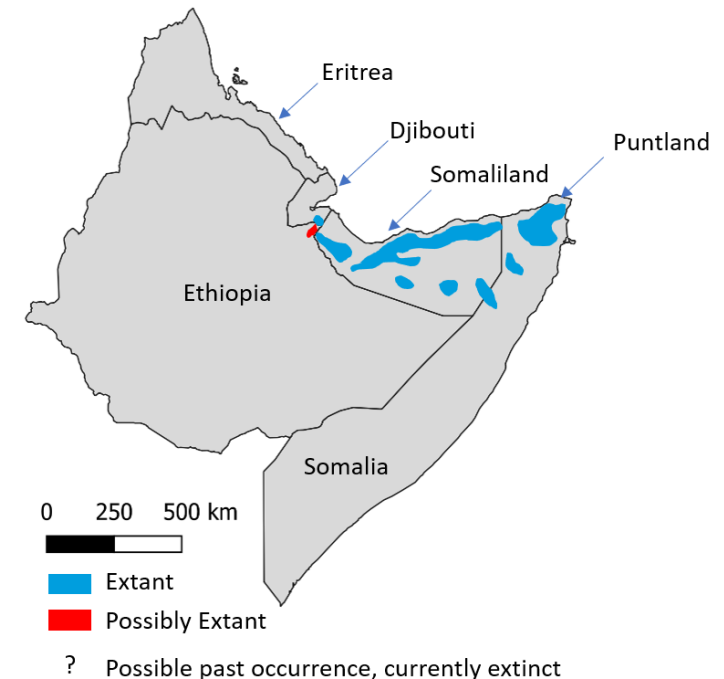
- 1- Continue the surveys to detect population trend (increase and decrease).
- 2 – Conduct environmental awareness activities with locals.
- 3 – Develop strategies to minimize the impact of overgrazing.



Assessment of the habitat suitability and the current distribution of the endemic and threatened Beira antelope *Dorcatragus megalotis* in the Republic of Djibouti.

- Since 2021, the Decan association is monitoring the population of Beiras within the Assamo protected area.
- Our current project consists of collecting data regarding the occurrence of the Beira antelope in the South of Djibouti (not only Assamo protected area).
- Gather environmental variables and together with occurrence data create Species Distribution Models (SDMs) to explore the suitable habitat for the species in the country.

Dorcatragus megalotis



Other program: Mangrove restoration



Rhizophora mucronata



Ceriops tagal



Avicennia marina



Challenges

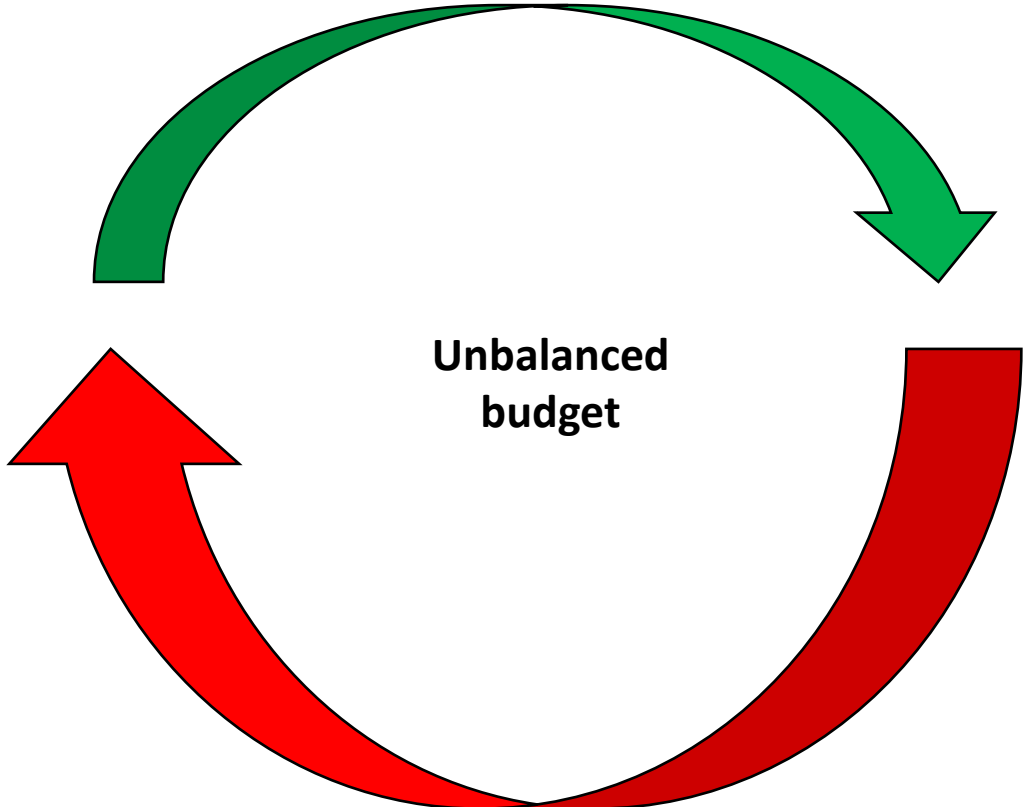
Incomes

- Visitors
- Touristic camps
- Activities with people
- Charcoal production

expenses

- Salaries (17 locals)
- Food for animals
- Water
- Equipment
- Building renovations
- Car maintenance and gazoil

**Unbalanced
budget**



Challenges

Our current problems

- We do not get any financial supports from the government of Djibouti.
- It is relatively easy to get funded for specific conservation or research project, but hard to find money to renovate buildings, pay salaries, etc...
- Need more people to increase capacities, but lack of funds to hire and create new job opportunity.
- Lack of communication (the website of the association hasn't been updated since 2023...).

- Financial support to renovate Assamo touristic camp.
- Financial support to renovate the wildlife shelter.
- Create a position in Communication.

Generate more incomes



Thank you for your attention!



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Our website:

<https://www.decandjibouti.org/>