



Breeding Seabirds on the Small Islands of the Edough Peninsula (Algeria)



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Introduction / Objective

Insular ecosystems harbor unique biodiversity, particularly that of marine birds, which play a crucial role in these fragile environments (Orgeret, 2021). The small islands of eastern Algeria hold significant ecological importance in the Mediterranean region, playing a pivotal role in the preservation of marine, terrestrial, and avian biodiversity. Despite their modest size, these islands host colonies of marine birds, contributing essential components to the regional ecological balance. However, the lack of dedicated research on these islands creates a notable gap in our understanding of their ecological richness and potential impact.

It is imperative to undertake comprehensive studies to document and protect these unique ecosystems, especially concerning the interactions among seabirds, fauna, flora, and their insular environment. The primary objective of this preliminary research is to assess avian diversity on the islands within the framework of a thesis aimed at studying the impact of these birds on the vegetation of the small islands in this region.

Results and Discussion



Fig.2 Some photographs from the Sainte-Piastre island .

Tab. Yellow legged gull density in the Studied Islands.

| Name | Area (m ²) | Distance to the continent (m) | Height m | Colony size | Nests |
|-------------|------------------------|-------------------------------|----------|-------------|-------|
| El Louh | 3.23 | 20 | 3 | 1450 | 5 |
| Ste Piastre | 35.5 | 2260 | 13 | 3200 | 28 |
| Gargamiz | 90.3 | 45 | 29 | 20 | 0 |
| Serigina | 35000 | 575 | 16 | 2000 | 22 |
| Cap kal'aa | 10400 | 40 | 9 | 17 | 0 |

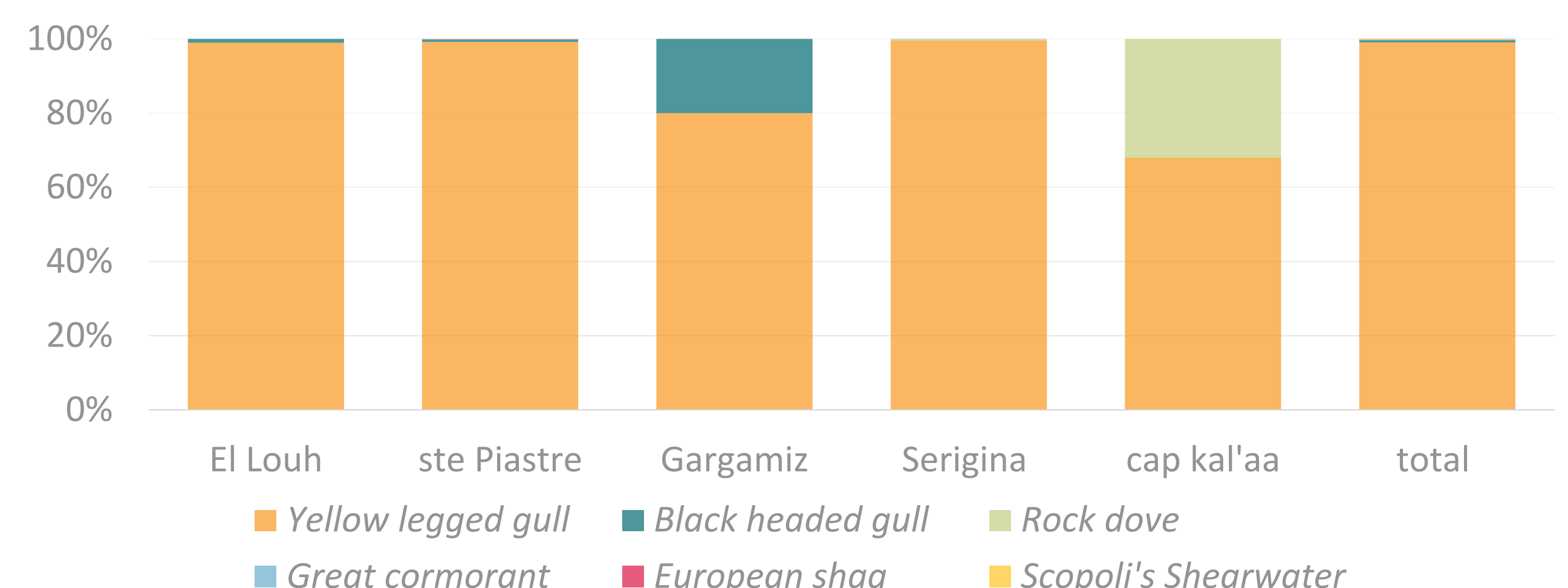


Fig.3 seabirds Density observed species on each island

In the five studied sites, a significant disparity in population density is observed, highlighting a marked difference among them. The population of yellow-legged gulls stands out distinctly due to its high level compared to other present species.

It is noteworthy that the islands farther from the continent seem to serve as breeding sites, while those adjacent to the continent are primarily resting places. This observation could be attributed to the absence of disruptive factors on the islands farther from the continent. The small islands in question are uninhabited by humans, which may explain the choice of these sites by yellow-legged gulls for breeding, thereby benefiting from a conducive tranquility for nesting. It is in this context that this preliminary study was conducted. The main objective of this research is to examine the impact of seabirds, particularly yellow-legged gulls, on island vegetation. This approach aims to understand how the high density of this species can influence biodiversity and the development of vegetation on these islands, contributing to a better comprehension of insular ecosystems.

Conclusion

The islands are sites conducive to the development of seabirds species the gulls particularly find the tranquility necessary to make the nesting. This research lays the foundation for a more in-depth exploration of the biodiversity of seabirds and their impacts on insular ecosystems in the Mediterranean region

Materials and Methods

Islands' Location:

We conducted a preliminary geolocation of small islands, identifying 15 islands that met the criteria for the presence of seabird communities. Our focus was on five specific islands: El Louh, Ste Piastre, Gargamiz, Serigina, and Cap Kal'aa. The first three belong to the Edough Peninsula, designated as a Marine Protected Area (MPA). The latter two are located further west along the coast of the Skikda wilaya (Fig. 01).

Study Period:

During the spring season of 2023, we monitored the seagull population on the islands in the East of the Edough Peninsula. Despite the highlight on seagulls, other species of seabirds were also recorded. Field excursions, conducted between late May and early June, covered various island environments.

Bird identification was carried out on-site using an ornithology guide, "le guide ornitho." Direct observations in the field included counting individuals and assessing nests on the island. These observations were crucial for documenting the variety of species present. Observation tools such as ornithological binoculars and terrestrial telescopes were used.



Fig.1 Geographic location of the five study islands in north Algeria