LIFE Arċipelagu Garnija: A Success Story on the Conservation of Yelkouan Shearwater in the Maltese Archipelago

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Why Yelkouan Shearwater?

Data Source: Gaudard, 2018     Photo: Dani Velverde
Maltese Archipelago and Yelkouan Shearwater

Photo: LIFE Arcipelagu Garnija & Oliver Slessor
Conservation of Yelkouan Shearwater in Malta
LIFE Arċipelagu Garnija Project

• Securing the Maltese Islands for the Yelkouan Shearwater by;
  • Closing the gap in the knowledge: distribution, numbers and success of breeding birds
  • Assessing the site-based threats
  • Managing and reducing the threats by one third
  • Increasing breeding success
What we have achieved?
Population Range, Size and Breeding Success

**KEY RESULTS**
- 1.370 - 2.000 → 1.795 - 2.635
- Higher figures due to higher effort
- Low reproductive success

**HIGHLIGHTS**
- Combination of methods and technologies
- Baseline data for future monitoring
Site-based Assessment of Threats
Site-based Assessment of Threats
Predator Management

KEY RESULTS
- Improved breeding success

HIGHLIGHTS
- Well known methods adapted to the local conditions: seasonal eradications
- Novel methods at colonies: E2 traps
Mitigating Light Pollution

- Understanding the mechanism and impact of light pollution
- Tackle it through influencing policy in the long term

Two components:
- **permanent** coastal light pollution from development
- **temporary** light pollution from maritime activities like bunkering

Caruana et al., 2020 Journal of Environmental Management
Mitigating Light Pollution: Systematic Approach

- Long term monitoring of grounded birds
- Light intensity measurements at colony sites
- Pilot project site
  - Light intensity measurements
  - Modelling
  - Logistics
- Policy review
- Actors in lighting

Scale of the problem & identifying point sources

Complexity of mitigation

Gaps in policy

Policy recommendations
Mitigating Light Pollution: Ħerkewwa Pilot Project
Mitigating Light Pollution: Ċirkewwa Pilot Project
Mitigating Light Pollution

HIGHLIGHTS
• Baseline data
• Complications understood
• Public opinion on light pollution

#savedwejra
Reducing the Disturbance from Maritime Activities

Notice to Mariners
Proposals 2019

ZONE 1:
1.1NM no stopping zone
except for fishing and diving vessels
no lights, no sound, no firework.
All year, all times.

ZONE 2:
No navigation and anchoring
except for fishing and diving vessels.
All year, all times.

ZONE 3:
No navigation and anchoring
except for fishing
(category MFA, MFB, MFC)
and diving vessels.
All year, all times.

ZONE 4:
Restricted area:
Maximum speed 10Kn.
Only compulsory lights, sound.
All year, all times.

ZONE 5:
Restricted area:
Only compulsory lights, sound.
All year, all times.
Reducing the Impact of Site Users

LIFE Arcipelagu Garnija unpublished data

On-site surveys with site users

Major reasons for decline, all sites

- disturbance by people
- pollution at sea
- illegal hunting
- development of habitat
- I do not know
- others (incl climate and overfishing)
- accidental mortality in fishing gear (bycatch)
- predation by rats and other animals
- light pollution

LIFE Arcipelagu Garnija unpublished data
Reducing the Impact of Site Users

Telephone surveys with the general public

- Fisheries bycatch
- Disturbance by people
- Predation by rats
- Development of habitat
- Light pollution
- Pollution at sea
- Illegal hunting
- I do not know

LIFE Arcipelagu Garnija unpublished data
Where we are now?

• Increased knowledge about the needs of local colonies – transferability
• Improved breeding success at rat control colonies
• Better knowledge about what to do with light pollution
• New areas with less disturbance and Notice to mariners
• Increased awareness on the species
Where to go?

- Predator management + Biosecurity
- Light pollution policy in Malta
- Sustainable maritime activities – esp. tourism
- More awareness
- Marine areas
- International collaboration
Thanks to the passionate people!