LIFE Arcipelagu Garnija LIFE14 NAT/MT/991 Securing the Maltese Islands for the Yelkouan Shearwater Project Closing Webinar 9-10 June 2020

History of Seabird Conservation in Malta



John Joseph Borg, Senior Curator National Museum of Natural History, Malta





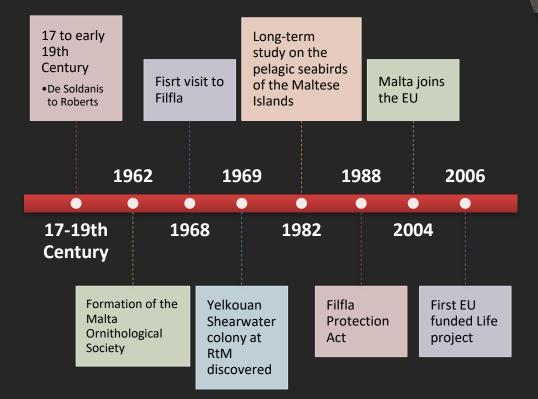








Some key dates





Ghasfur ta Ghawdesc – Thallassidroma melitensis



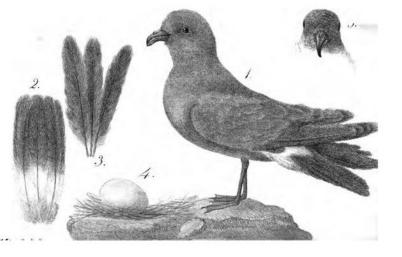
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British Military Personell



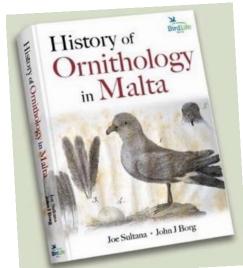
Rear-Admiral John Hutton Stenhouse

"This bird breeds all round the Maltese islands and the fishermen take their eggs and it is said, sell them as Hens eggs! They nest in the cliffs as well as under the herbage. We found them behind the herbage at the top of St. Paul's Islands but they are chiefly on the southern side". (1890s)





Date	Species	Remarks (as written in Stenhouse's letter to Jourdain)
03.04.1893	Yelkouan Shearwater	13 eggs - weighed 803-676grs [= grains] - average weight - 742grs, one fresh, others partly incubated. Measured - 2.32"-2.06" long by 1.62"-1.46" broad. Biggest egg 2.32" x 1.62" - Smallest 2.06" x 1.46"
30.06.1894	Scopoli's Shearwater	22 eggs taken - 2 only were fresh probably others considerably incubated. 1 egg measured 2.9" x 1.9"
	Storm-petrel	One egg hard sat. 100 grains. 1.15" x .84" – another infertile rotten – shell falling to pieces & yet bird sitting on it.
31.03.1895	Yelkouan Shearwater	13 eggs – 2 fresh. Some far advanced in incubation. Measured – 2.42"- 2.05" long by 1.64" to 1.56"
17.03.1896	Yelkouan Shearwater	70 eggs found – fresh
05.04.1901	Yelkouan Shearwater	9 eggs. All more or less incubated. Others were left as too incubated to blow. 3 eggs measured - 60x43 - 56x40. 55x41 millimetres.
26.05.1901	Yelkouan Shearwater	One egg very hardest. Many young in blue grey down - as big as adults
	Scopoli's Shearwater	Ten eggs found all fresh. Eggs 69 x 43 - 68 x 46. 67 x 47 - 65 x 45mm - My note says main body of <i>P. kuhl</i> will lay in about a week.
	Storm-petrel	Egg quite fresh. 1.2" x .8" - found 4 pairs but only one egg - others ungetable in holes.



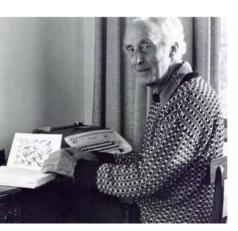


Giuseppe Despott



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Year	Calonectris	Puffinus	Hydrobates
	diomedea	yelkouan	pelagicus
1954	Less than 30 pairs on Filfla. No longer breeds on Malta	Seen offshore in ones or twos or in small parties	On 29th June 1952 after a thorough search on Filfla, found only 2 nesting pairs.

Eliot Langley Roberts

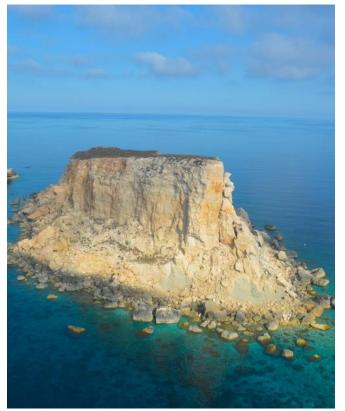




1962 Formation of the Malta Ornithological Society

1965 Bird Ringing Group

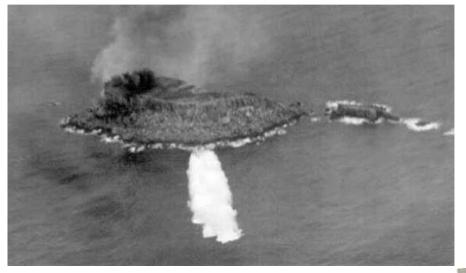




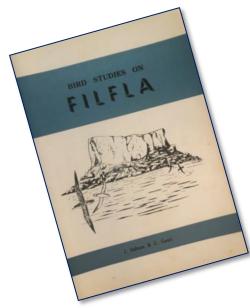


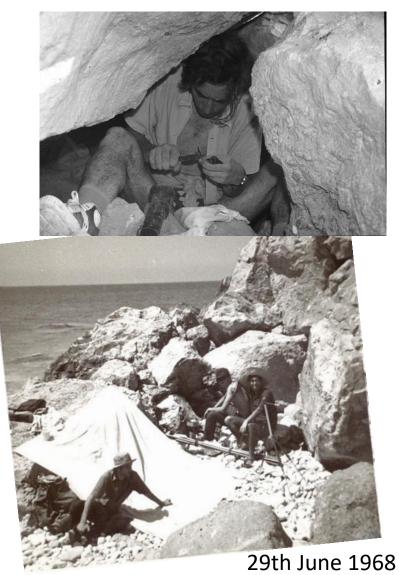
Filfla islet

First visits to Filfla Island



Filfla was still being bombed when the first visits were carried out.





Filfla – Sleepless nights

 Around 25,000
Storm-petrels have been ringed on Filfla.





Annual visits to monitor the breeding success of the Yellow-legged Gull *Larus michahellis* are also carried out to the island's plateau.







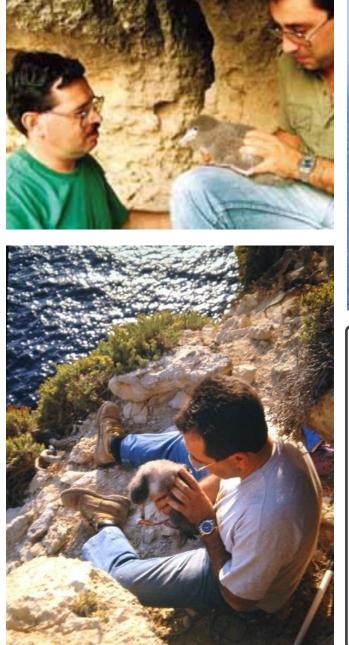
Searching for new sites (1968-1969)







1975-1982 Systematic ringing of Scopoli's Shearwaters in a site on the SE coast of Malta





1981 – A visit to a shearwater colony in the south of Gozo was the catalyst for initiating a self-funded study on the ecology and breeding biology of our seabirds was initiated.





A total of 155 Scopoli's Shearwater nests found on Malta and Gozo were annually monitored.

Visits to the sites started in mid-February and ended in early November. Each study sites was visited once a week on average.







Calonectris diomedea



Longevity – 30+ years Arrival at colonies – last 10 days of Feb.

Age of First breeding – 2nd year in males 3rd to 4th year in females

Site Tenacity

Mate Fidelity

Incestuous behaviour

Philopatry

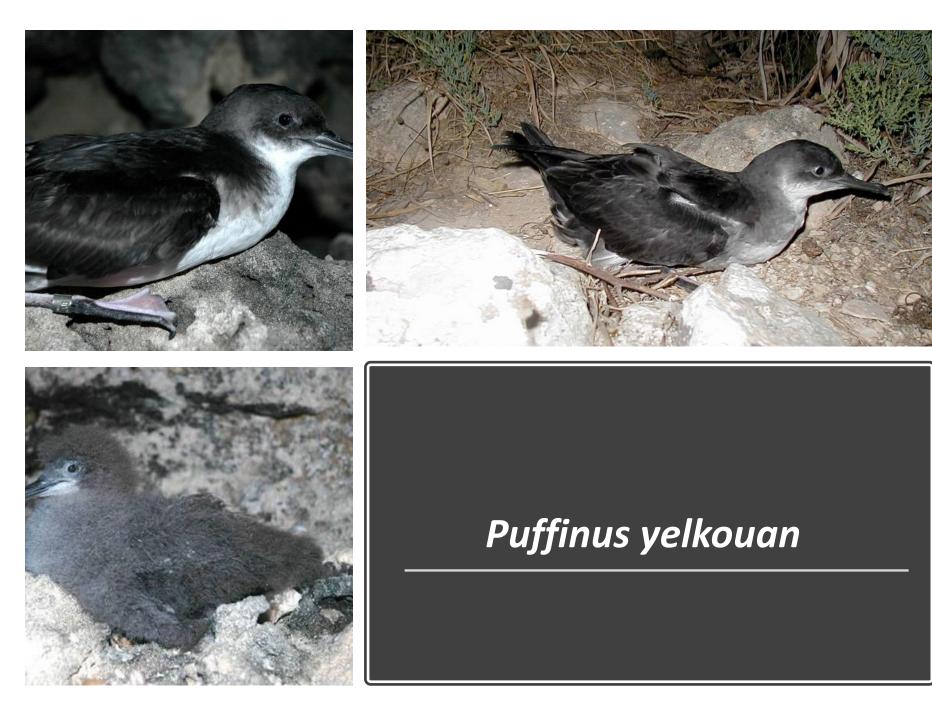
Incubation lasts 55 days

Low Breeding success

Fluctuating numbers in breeding population

Eggs and young susceptible to predation by rats and cats, adults killed by humans

Fledglings susceptible to excessive lights and sound





Pre-Life studies (1968-2006)

- Between 1969 and 1984 3-5 annual visits were carried out to the largest colony situated on the NE coast of Malta.
- From 1985 onwards, regular visits were carried out.
- In September 2006 an EU funded LIFE Nature project was initiated.



Arrives at the colonies in October Single egg laid (Feb-Mar) **Chicks hatch in May** Fledges (end of June – 3rd week of July) **Colonies deserted August-September** Moult in surrounding waters Young start to return back to the colony in their 2nd year **High mortality rate** Low successful fledging Eggs and chicks predated by *Rattus rattus* **Re-occupy old abandoned nests if colony is** predator free







Hydrobates pelagicus melitensis



Arrives in February and last young depart in early October

Extended egg laying season

Two breeding peaks

Long lived (27+ years)

Some movements by adults between colonies (Marettimo-Filfla)

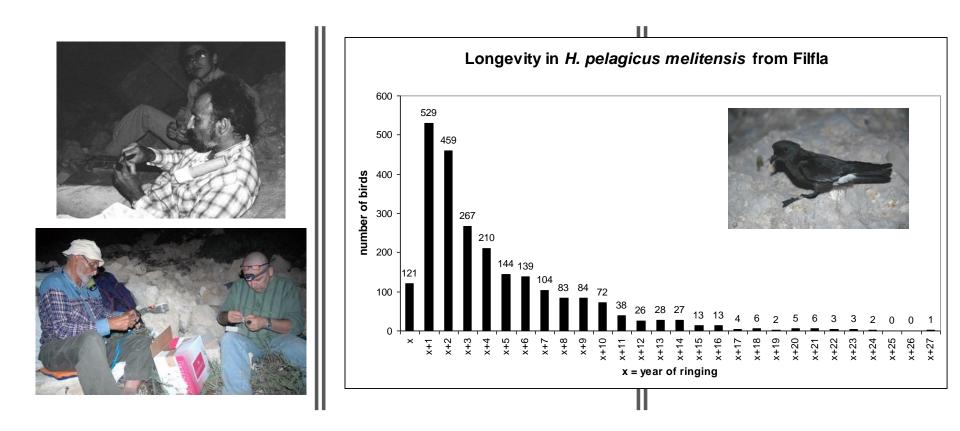
Recoveries outside the Mediterranean:1 atCote Sauvage, Atlantic coast of France1 washed on a beach in the Netherlands

Discovery of new colony in Gozo

Predation by Yellow-legged Gulls on Filfla

Highly susceptible to predation esp by *Rattus* sp.

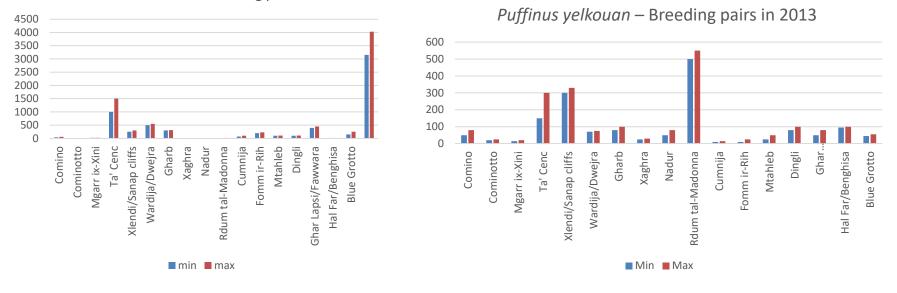
Frequenting tuna-farms - supplementary food source



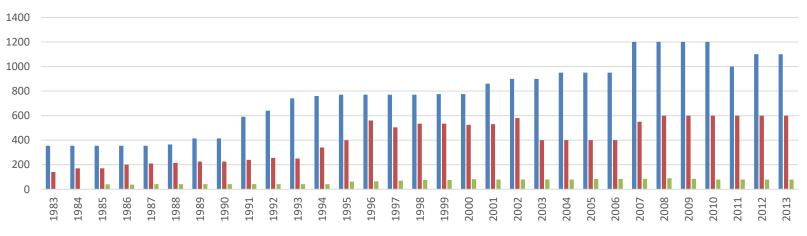
Long-lived birds require long-term studies

Annual population census

Calonectris diomedea – Breeding pairs in 2013



Puffinus yelkouan breeding pairs



Malta Gozo Comino

SCIENTIA MARINA

Seabird mortality from longline fishing in the Mediterranean Sea and Macaronesian waters: a review and a way forward*

INFN COUPER, NECLA BACCETTI, EDUARDO I. BELDA', JOIN I. BORO DANEL ORD, COITAS PLINCONCUMPTING: and ANTONIO SANCHEF

Migration strategies of the Yelkonan Shearwater Paglinus

Andri F. Rose - John J. Borg - Shine Rose -Robert A. Philips

Received 11 March 2012 Restand 12 Restantine 2012 Accessed 8 Notice 2012

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Part 2: Ecology and Conservation of Mediterranean Storm-petrel and Mediterranean Shag

The Mediterranean Storm-petrel Hydrobates pelagicus melitensis

in Malta. Joe Sultana' & John J. Rees'

Dar Ta' Gajdoru D. Gajdoru Sir., Xaghra, Gozo XHA 2503, Malta. (cesultana@mailanet.rel National Massum of Natural History, Midna, Malta, dismadual/borycl.nat

Sublemary: The Westerninean down-perform rydrocene progetius meanness is Mata, neeting mainly at Filfa, an islet about 4.5km off the southern coast. The o at 5,000–6,000 pairs at Filfa, and over 25 pairs at Ta' Cenc. The Medterranean in its treading behaviour: the appliciting period spans floar months (April to July) peak in mid-May in the 1950s it was reported that only two broading pairs were t Fills were initiated in 1960 to monitor the asabid populations. The latit was being invariant mitter-takes which were abload in 1917s. The toxes active and thouber on proxibing the island with the least swell, have all made it difficult to s least after 42 years of fieldwork, the accumulation of data is provided

Kay Works: Misliamanan Storn-patral, Hydrobates pelagitus mellansis, population, breading behaviour Ethia Mata

Introduction

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Avocetta 36: 91-94 (2012)

Tuna farms - a seasonal supplementary food source for storm petrels Hydrobates pelagicus melitensis

JOHN J. BORG

National Museum of Natural History, Vilhena Palace, Mdina (john.; borgill.gov.mt)

Abstract - The area investigated is located about 9 km and from the nearest abortion: at Manuscala (Maha), ex. 30 km from the main breeding coorsy of Fills, situated 5 km off the surface and Maha. The use of *trac*, nearwheld fish flow is informaterial in mericing ators pretrick chorer to hose manages. The sum for outpay has attracted a constant presence of main flow and the prave which it has at-ract gails and trans, expectively the black tem. Observations have shown that the noisystic of the track area and abias duarkneys gain young and the discontent presence of main the constant of the discharmating previous (black having previous While adds none proto negatively failed presence of the discharmating previous the discharmating previous while adds none protos the previous the previous

Key words: tuna farm, food supply, seahirds.

INTRODUCTION

Blue Fin Tuna Thunnas thynnus farming was introduced in the Maltese Islands (Central Mediterranean) in 2000. Their effects on birds (positive and/or negative), were hardly ever taken in consideration by scientist and developers alike, except for two cases: Ta' Cenc cliffs in Gozo in 1999 and Benghisa, S.E. Malta in 2001 when the areas beneath these pens. During the fattening period, the tuna are fed baitfish two sites were identified to hold two such farms. Both sites hold beeeding colonies of Cory's Shearwater Colonectris diomedea (ca. 1,000 pairs at Ta'Cenc and ca. 100 pairs at farms are stocked around mid-July. Harvesting typically Benghisa) and smaller numbers of Yelkouan Shearwaters Pathnus velkowar (150-300 pairs at Ta' Cenc and 30-50 ber/January. Therefore, operations at the farm last for 4 to pairs at Benghisa). Ta' Cenc cliffs also host a small colony of storm petrels Hydrobates pelagicus melitensis estimated at over 25 pairs. In both cases, the projects were rejected lowing" period. In order to avoid wastage frozen baitfish by the Malta Environment and Planning Authority In Maltese waters we currently find two areas desig-

nated for keeping caged tuna; one is situated at the northeast coast of Malta, off St.Paul's Bay (A) and holds eight (+ one experimental) pens and another one situated 6-9km off Marsascala (B), off the south-east coast of Malta holding six pens as well as two pens closer to shore (Figs. 1, 2). Tuna penning involves the capture of live tuna from the high seas by purse seiners and their transfer to large hold- & Sultana 1992-94, 2002, Raine et al. 2009, Sultana et al. ing pens for fattening. The harvested fish is fattened by

a mixture of bait-fish usually consisting of mackerel, an-© 2012 CISO - Centro Italiano Studi Ornitologici

chovies, sardines, squids and shrimps. During feeding time the oily content from this bait-fish forms a long and concentrated slick sometimes extending for several kilometres species such as terns and gull were attracted by the large shoals of small fry which form large shoals around these to gain body weight, mainly in the form of fat. In view of the proximity of Malta to the tuna catching grounds, local commences around October and is completed by Decem-7 months, with a substantial period of time when the site is allowed to recover following the season in a form of "falis placed in a small cage floating in the centre of the main tuna cage. Once these have thawed and feeding time has arrived, the baitfish is released into the tuna cage by opening the central cage net (Adi Associates 2005).

The Mediterranean storm petrel is a localised commor breeding visitor with two known colonies in the Maltese Islands; Filfla islet holding 5,000 to 8,000 breeding pairs, and a small cave at Ta' Cenc cliffs in Gozo (> 25bp) (Bore 2011).

Before the introduction of Tuna pens in Maltese wa-

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John J Bori Charles Gaue

Victor Falz

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Results

Interpreting pelagic seabird population nu in the Maltese Islands

Jon J. Bons

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Conservation Issues







Compiled by John J. Borg and Joe Sultana



BirdLife



2004 - Malta joins the EU

2007 - 1st LIFE project









Thank you











