



FACT SHEET

MEDITERRANEAN STORM PETREL

HYDROBATES PELAGICUS MELITENSIS



NOVEMBER 2013

STATUS OF CONSERVATION

Habitat directive : Annex II, IV and V
Bird Directive : Annex I
Bern Convention : Annex II
IUCN : least concern
Protocol concerning specially protected areas
and biological diversity in the Mediterranean: Annex II



INTRODUCTION

This document was produced in the framework of the Mediterranean Small Islands Initiative (PIM) in order to compile the essential information concerning monitoring and conservation of Mediterranean Storm Petrel. This document will be updated regularly thanks to the contribution of natural protected managers and scientists members of the working group of the “Albatros Project” (PIM).

SPECIES CONTEXT

The European Storm-petrel is the only species in the genus *Hydrobates*. Its breeding range is confined to the west Palearctic, extending from the northwestern coast of Europe to the Mediterranean. It used to be regarded as monotypic, but in recent years strong differences were noted between the Atlantic and Mediterranean populations, confirming the distinction of two subspecies: *H. p. pelagicus* for Atlantic birds, and *H. p. melitensis* for the Mediterranean birds (Hemery & d’Elbee 1985; Cagnon et al. 2004; Sangster et al. 2012).

UPDATED GEOGRAPHICAL DISTRIBUTION OF THE COLONIES

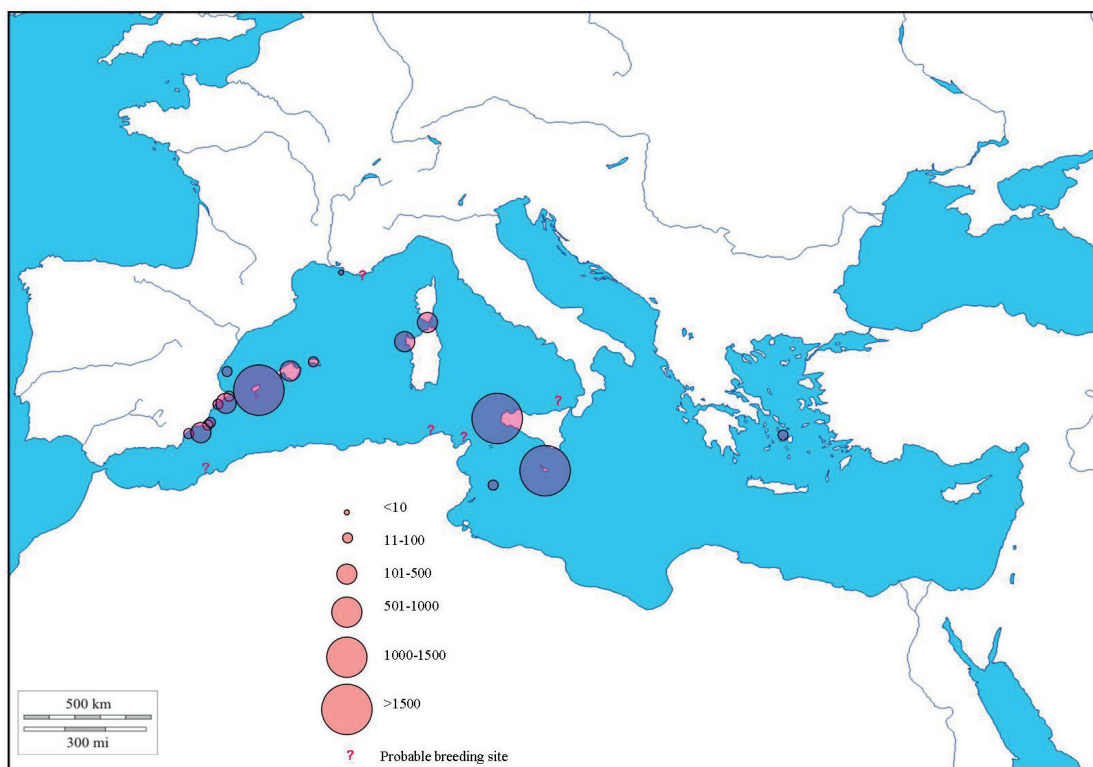
The current breeding population in the Mediterranean basin is estimated at 10,712 to 16,419 pairs. These are located in five countries amounting to a total of twenty colonies (**Fig. 1**). A further two possible sites are located in Spain and France respectively (**Table 1**). The Maltese Islands, with an estimate of 5,000 to 8,000 breeding pairs holds 47% of this population; the main part is confined to the tiny islet of Filfla, followed by Spain (28%), Italy (23%), France (1%) and Greece with less than 1%.

Breeding has not yet been confirmed for Morocco, Algeria and Tunisia. There is a possibility of a breeding colonies on Habibas Island, Algeria (Isenmann & Moali 2000) and on La Galite, Tunisia (Mission PIM 2006, Benhaj et al., 2008). Single birds have also been recorded at night during the breeding season around Zembra and its satellite islands (PIM 2012 and 2013).

While the above figures cover the breeding population, to date, no estimates for the whole Mediterranean population are known to have been presented.



Figure 1



Hydrobates pelagicus melitensis- Geographical Distribution of the Mediterranean breeding populations - 2013



Table 1

COUNTRY	REGION	ISLAND and (breeding site)	BREEDING STATUS	BREEDING PAIRS		YEAR	REFERENCE	
				min	max			
ALGERIA	West Algeria	Habibas Islands	Possible	?	?	2000	Isemnann & Moali 2000	
SPAIN	Almeria (Andalusia)	Terrerros islands	Certain	30	30	1999	Pers. comm.Ana Sanz	
		Hormigas	Certain	100	100	2011	Pers. comm.Ana Sanz	
		Grosa	Certain	10	20	2011	Pers. comm.Ana Sanz	
		Palomas	Certain	200	200	2011	Pers. comm.Ana Sanz	
		Cueva de lobos	Possible	?	?	2011	Pers. comm.Ana Sanz	
	Murcia	Total Murcia			310	320		
		Benidorm Island (Cueva grande y cueva pequeña)	Certain	459	630	2012	Sarzo B. D.G. Medio Natural, Conselleria de Medio Ambiente pers. com.	
	Valencia	Columbretes Island	Certain	20	30	2012	Sarzo B. D.G. Medio Natural, Conselleria de Medio Ambiente pers. comm.	
		Mitjana Island	Certain	50	60	2012	Sarzo B. D.G. Medio Natural, Conselleria de Medio Ambiente pers. comm.	
		Archipelago Tabarca, La Galera Islet	Certain	20	25	2012	Sarzo B. D.G. Medio Natural, Conselleria de Medio Ambiente pers. comm.	
	Total Valencia				549	745		
		Espartar and other Islets of West Ibiza	Certain	1500	2500	2011	Conselleria d'Agricultura Medi Ambient i territory	
	Balearic islands	National Park of Cabrera	Certain	500	700	2011	Pers. comm. joan Mayol Serra	
		Islets between Ibiza and Formentera	Certain	150	250	2011	Pers. comm. joan Mayol Serra	
		Ibiza - Murada island	Certain	20	40		Pers. comm. joan Mayol Serra	
Mallorca Islets		Certain	20	50	2011	Pers. comm. joan Mayol Serra		
Minorca - Aire Islet		Certain	10	20	2011	Pers. comm. joan Mayol Serra		
Total Balearic islands			2200	3560				
Total Spain			3089	4655				
France	Riou Archipelago	Jarre	Certain	6	6	2013	CEN PACA pers. comm.	
	Port-Cros National Park	Port-Cros Island & Gabinière Islet	Possible	?	?	2011	LPO PACA - Aurélien Audevard/PNPC	
		Porquerolles Island	Possible	?	?	2011	LPO PACA - Aurélien Audevard/PNPC	
	Southern Corsica	Cerbicales Islands - Vacca	Certain	15	16	2013	pers. Comm. J.M Culioli, Environmental Office of Corsica (OEC)	
		Cerbicales Islands -Toro	Certain	81	87	2013	pers. Comm. J.M Culioli, Environmental Office of Corsica (OEC)	
Lavezzi Islands	Certain	0	10	2011	Cadiou et al., 2011			
Total France			102	119				
GREECE	Elbée Island	Prasouda Nisida	Certain	?	?	1983	Akriotis & Handrinoa	
	Total Greece			10	30	2004	BirdLife International	
ITALY	Sicily	Marettimo	Certain	2 500	3 000	2012	Massa Pers. Comm.	
		Lampedusa	Certain	10	100	2012	Massa Pers. Comm.	
		Filicudi Island- Aeolien islands	Certain	1	10	2008	lenticile & Massa 2008	
		Salina Island – Aeolien islands	Certain	1	10	2008	lenticile & Massa 2008	
	Sardinia	Foradada Islet	Certain	300	700	2000	Aplington ingozo proceedings, Baccetti et al., 1988	
		Toro Islet	Certain	10	100	2013	Baccetti comm. Pers.	
Spargiotto	Certain	1	10	2000	Rabouam et al., 1995			
Total Italy			2 823	3 960				
MALTA	Fiffla Island	Gozo Island (Ta' Cenc)	Certain	5 000	8 000	2013	Borg & Sultana pers. comm.	
		Malta (Rdum tal-Madonna, Mellieha)	Possible	25	30	2013	Borg & Sultana pers. comm.	
	Total Malte			5026	8040			
MOROCCO			Possible	?	?	2003	Thévenot et al., 2003	
TUNISIA	North Tunisia	Galite archipelago	Possible	?	?	2006	Mission PIM 2006, Benhaj et al., 2008	
		Zembra archipelago	Possible	?	?	2013	Mission PIM 2013, Borg et al., 2013	
TOTAL				11 050	16 774			



BREEDING MONITORING DATA

Benidorm Island (Spain) is the only Mediterranean site where the breeding parameters of a Storm-Petrel colony are monitored every season to obtain the nest occupation, recruitment and survival, over a significant period of years and on a significant numbers of nests (**figure 2**). The small colony of Jarre in the South of France is also accurately monitored since a couple years. To a lesser extent the same applies to the nearby colonies of la Galera and Mitjana (**figure 3**). The colony of Marettimo Island (Sicily) is monitored as well but in a lesser extent.

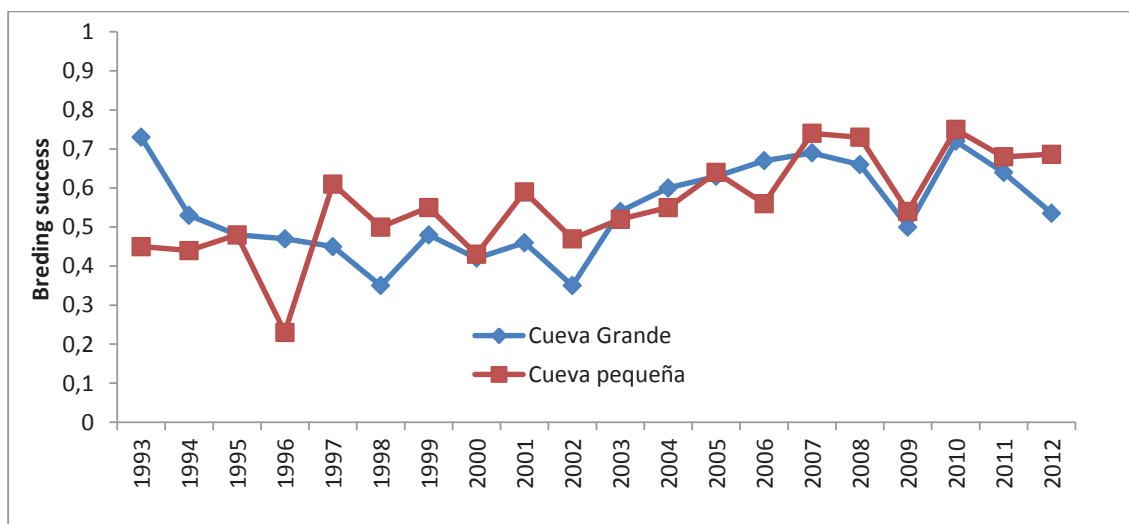


Figure 2: Storm-petrel breeding success at 2 breeding colonies (cueva pequeña and cueva grande) located at Benidorm Island (Spain). Ana Sanz Pers. Comm.

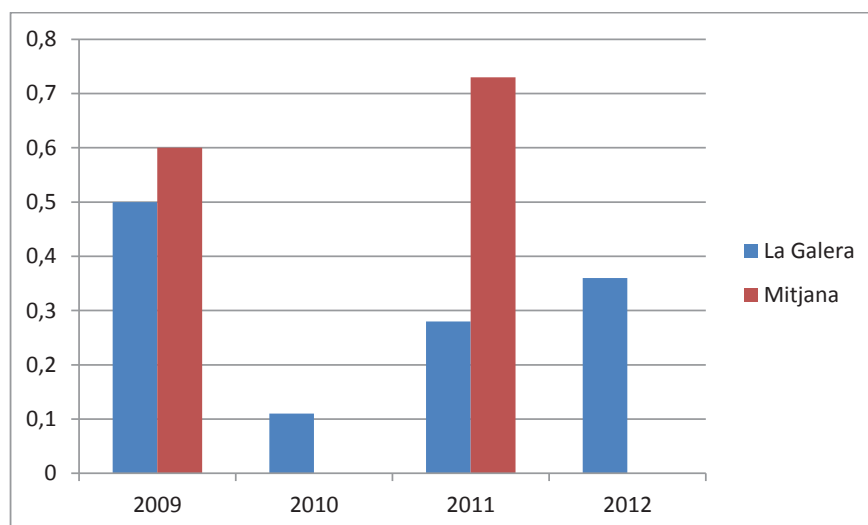


Figure 3: Storm-petrel breeding success at 2 breeding colonies (Islets of La Galera and Mitjana) located near of Benidorm (Spain). Blanca Sarzo Pers. Comm.

The largest breeding colony in the Mediterranean is situated on the small island of Filfla (Malta) with an estimated 5,000-8000 breeding pairs. The boulder screes provide ideal nesting habitat for the Storm-petrels but access to a significant number of nests has never been possible. So most of the attention was directed towards population studies by means of capture-recapture as well as predator-prey relationships with the Yellow-legged Gull *Larus michahellis*.

A small colony was discovered in 1994 in a small cave on the island of Gozo where annual visits are carried out to study site tenacity, mate fidelity and philopatry. A stretch of cliffs on the north-east side of Malta, hosting the largest breeding colony of Yelkouan Shearwaters in the Maltese Islands, has also started attracting a number of Storm-petrels to the site as a result of a rat eradication program.



MAIN FIELD ACTIONS FOR THE BETTER UNDERSTANDING OF THE ECOLOGY OF THE SPECIES AND THE IMPROVEMENT OF ITS CONSERVATION

2011-2016 Malta seabird project - Creating an inventory of Marine IBAs for Puffinus Yelkouan, Calonectris diomedea and Hydrobates pelagicus in Malta (LIFE10 NAT/MT/000090)
Contact : john.j.borg@gov.nt

From 2006 to present – Seabird Action Plan of the Valencian community, various species are concerned including the Storm-Petrel
Contact: blancasarzo@gmail.com

Spring 2013 (and previous years) – Benidorm Island, Spain –. Nest boxes installation and selective culling of predatory Yellow-Legged Gull. Breeding monitoring of the colonies soliciting general public using social media tools. In the 2013 campaign, 21 volunteers from different countries helped in monitoring tasks, both working and funding themselves.
Contact : ana.sanzaguilar@gmail.com / edupaino@gmail.com

May 2013 - Zembra archipelago, Tunisia. APAL and PIM Initiative. On earth and at sea survey of the potentially favorable of breeding sites of the species.
Contact : albatros-pim@conservatoire-du-littoral.fr

LATEST IMPORTANT PUBLICATIONS AND REPORTS (SINCE 2010)

This part is aimed at presenting all the last relevant studies about biology, ecology, in order to share this knowledge between all the Storm petrel actors.

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Albores-Barajas, Y.V., Riccato, F. Fiorin, R. Massa, B. Torricelli, P. & Soldatini C. 2011. Diet and diving behaviour of European Storm Petrels *Hydrobates pelagicus* in the Mediterranean (ssp. *melitensis*). Bird Study, 52: 208-212.

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Sanz-Aguilar, A., Libois, E., Minguéz, E., Oro, D., Pradel, R. & Gimenez, O. 2012, Conservation of the Mediterranean Storm Petrel *Hydrobates pelagicus melitensis* at Benidorm Island (Spain). In: Yesou, P., Baccetti, N. & Sultana, J. (Eds.) Proceedings of the Alghero 2011 Medmaravis symposium, 103-110.

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Sanz-Aguilar, A. 2011. Removing specialist gulls: a successful conservation method for the European storm petrel. In: Valeiras, X., Muñoz, G., Bermejo, A., Arcos, J.M. y Paterson, A.M. (Eds.). Actas del 6º Congreso del GIAM y el Taller. internacional sobre la Ecología de Paíños y Pardelas en el sur de Europa. Boletín del Grupo Ibérico de Aves Marinas, 34: 181-184.

Sanz-Aguilar, A., Tavecchia, G., Minguéz, E., Massa, B., Lo Valvo, F., Ballesteros, G.A., Barberá, G.G., Amengual, J.F., Rodríguez, A., McMinn, M, & Oro, D. 2010. Recapture processes and biological inference in monitoring burrowing nesting seabirds. Journal of Ornithology, 151: 133-146.

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UNEP-MAP-RAC/SPA, 2010. Report presenting a georeferenced compilation on bird important areas in the Mediterranean open seas. By Requena, S. and Carboneras, C. RAC/SPA, Tunis.

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CONCLUSION

The Mediterranean Storm Petrel is one of the most endangered species of seabird in the Mediterranean. It is confined to rat free sites along the western basin. Information concerning its geographical distribution is still lacking, and only a few colonies are well studied, permitting the gathering of enough data to locally know their breeding success. It appears that the main threat impacting the species is the presence of rats in the colonies. Predation by Yellow-legged Gull has been demonstrated from various colonies in Spain, Sicily and Malta and there is also sufficient information to confirm the detrimental effect of light pollution on these birds, at least on several Mediterranean sites.

Therefore, conservation efforts on the Mediterranean Storm Petrel should be focused on the improvement of its habitat conditions by limiting invasive species and the installation of artificial nest boxes known to substantially improve its survival rate and breeding success. Census of poorly known areas should be carried out in order to identify the distribution of all the significant colonies across the Mediterranean.



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