MEMBER COUNTRY: **MONACO**

National Report to SCAR for year: 2012-2013

Activity	Contact Name	Address	Telephone	Fax	Email	web site
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2) Alternate Delegate	Florence Descroix-Comanducci	Centre Scientifique de Monaco, 8 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 28	377 98 98 86 74	fcdescroix@centrescientifique.mc	
Standing Scientific Groups						
Life Sciences						
1)	Denis Allemand	Centre Scientifique de Monaco, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 50	377 98 98 86 74	allemand@centrescientifique.mc	
2)	Céline Le Bohec	LEA-647 BioSensib, CSM-CNRS, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 56	377 98 98 86 74	clebohec@centrescientifique.mc	
3)	Jason D. Whittington	LEA-647 BioSensib, CSM-CNRS, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 55	377 98 98 86 74	jason@centrescientifique.mc	
4)	Cindy Cornet	LEA-647 BioSensib, CSM-CSM, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 58	377 98 98 86 74	cindy@centrescientifique.mc	
5)	Robin Cristofari	LEA-647 BioSensib, CSM-CSM, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 58	377 98 98 86 74	robin.cristofari@gmail.com	
Geosciences						
1)						
2)						
Physical Sciences						
1)						
2)						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
Scientific Research Program						
ACE **1)** **2)** **3)** **4)**						
AGCS **1)** **2)** **3)** **4)**						
EBA **1)** **2)** **3)** **4)**						
AAA **1)** **2)** **3)** **4)**						

Activity	Contact Name	Address	Telephone	Fax	Email	web site
ACTION GROUPS						
1) **2)** **3)** **4)** **insert others as needed**						
EXPERT GROUPS						
1) BioSensib (seabirds)	Céline Le Bohec	LEA-647 BioSensib, CSM-CNRS, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 56	377 98 98 86 74	clebohec@centrescientifique.mc	
	Jason D. Whittington	LEA-647 BioSensib, CSM-CNRS, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 55	377 98 98 86 74	jason@centrescientifique.mc	
	Cindy Cornet	LEA-647 BioSensib, CSM-CNRS, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 58	377 98 98 86 74	cindy@centrescientifique.mc	
	Robin Cristofari	LEA-647 BioSensib, CSM-CSM, 4 Quai Antoine Ier, MC98000 Monaco	377 97 77 44 58	377 98 98 86 74	robin.cristofari@gmail.com	
3) **4)** **insert others as needed**						
SCADM						
1) **2)**						
SCAGI						
1) **2)**						
NATIONAL ANTARCTIC DATA CENTRE						
SCAR DATABASE						
insert name of database for which your country has responsibility						

A BRIEF SUMMARY OF SCIENTIFIC HIGHLIGHTS*:

A long-term research program on Adaptive strategies and population dynamics of polar seabirds under environmental constraints is undertaken as part of the IPEV Program N° 137 and the PICASO ANR-project (Penguins as Indicators of Climate Anomalies in the Southern Ocean). This program aims at exploring the effects of environmental modifications on population dynamics of these sentinels of Southern Ocean ecosystems: the King penguin *Aptenodytes patagonicus* (Crozet and Kerguelen Archipelagos), the Adélie penguin *Pygoscelis adeliae* and the Emperor penguin *Aptenodytes forsteri* (Adélie Land) using innovative technologies (Automatic or Mobile Identification Systems based on Radio Frequency Identification – RFID, microloggers, etc.). According to the individual and population responses, the LEA-647 'BioSensib' aims to project population dynamics and adaptive capacity of these penguin species at regional and global scales under future environmental change scenarios. Two overwintering field assistants are continuously working in the Crozet Archipelago (king penguin colony) and Adélie Land (Adélie and emperor penguins) since November 2012. Moreover, several scientists (5 last year) are present in the field during summer season (few months in the field at Crozet, Kerguelen and in Adélie Land). Since this Programme is essentially based on a long-term monitoring of the birds, most of the 2012-2013 objectives/achievements were in continuity with the previous years. However, note that 2 new colonies of emperor penguins were discovered in the vicinity of Merzt Glacier in November 2012. Also, note that due to the Marion Dufresne accident (the oceanographic boat that supplies the french sub-Antarctic islands with material and personnel) which seriously impacted our previous summer campaigns in Kerguelen and Crozet, part of the work that was planned for last year has been postponed for the upcoming seasons (2013-2014, and potentially 2014-2015).

Results/Publications [2012-2013]

Saraux C., Friess B., Le Maho Y. & Le Bohec C. (2012) Chick-provisioning strategies used by king penguins to adapt to a multiseasonal breeding cycle, Animal behaviour, 84, 675-683.

Le Vaillant M., Wilson R.P., Kato A., Saraux C., Hanuise N., Prud'Homme O., Le Maho Y., Le Bohec C. & Ropert-Coudert Y. (2012) King penguin adjust their diving behaviour with age, Journal of Experimental Biology, 215, 3685-3692.

Le Vaillant M., Le Bohec C., Prud'Homme O., B. Wienecke, Le Maho Y., Kato A. & Ropert-Coudert Y. (2013) How age and sex drive the foraging behaviour in the king penguin, Marine Biology, 160, 1147-1156.

Le Bohec C., Whittington J.D., Le Maho Y. (2013) Polar Monitoring: Seabirds as Sentinels of Marine Ecosystems in "Adaptation and Evolution in Marine Environments", Volume 2. From Pole to Pole (C. Verde & G. di Prisco eds). DOI: 10.1007/978-3-642-27349-0_11, Springer-Vergal Berlin Heidelberg.

* Please include any scientific activities you believe might be considered bioprospecting (http://www.scar.org/treaty/atcmxxxiii/ see WP2)