



ABATROS WORKSHOP 20-22 April 2009 - Marseille

RESTITUTION

Insular ecosystems represent a major stake for the biodiversity conservation in particular for the avifauna. The biological inventories made on the small islands demonstrated their importance as refuge and reproduction zones for numerous species of birds, which so constitute good indicators of the quality of their housing environment and the natural global environment (presence of fish resources, weak human disturbances ...).

The insular micro-territories are thus privileged sites for the populations of sea birds as Procellariids.

So, it's within the framework of the " Albatros project " of the **Mediterranean Small Islands Initiative** (in french, *Initiative pour les Petites Iles de Méditerranée PIM*), that the Conservatoire du Littoral, the Regional Activity Center for Specially Protected Areas (UNEP-MAP-RAC/SPA), the Conservatoire-Etudes des Ecosystèmes de Provence CEEP and the City of Marseille, united their efforts to organize a workshop associating researchers, ornithologists, administrators and institutions in charge of the protection of the Mediterranean avifauna from **April 20th till 22th in Marseille**, to think about the organization and the implementation of a **Mediterranean Insular Birds Observatory**.

During these two days, the various workshops allowed to animate very interesting debates for the development of the *Albatros project*. The guidelines of the specific action plan for the next months and coming years are today in progress.

This workshop allowed numerous exchanges between all the participants (40 persons) representing the riverside countries of the western Mediterranean Basin (Algeria, Spain, France, Italy, Malta, Morocco, Tunisia) as well as Libya, Montenegro and Syria.

The meetings allowed to reaffirm the great value of the Mediterranean natural heritage, and especially small islands habitat and birds protection. To be able to reach this objective, the best knowledge of these species was called back as a required urgency.

This document suggests restoring, in a synthetic way, all the discussions and the recommendations formulated by the Mediterranean experts gathered in Marseille around 5 thematic workshops : species and sites ; monitoring methodologies ; mutualization and data analysis ; inventory and monitoring problematics on major sites ; action plan.

On the basis of these recommendations, a **Mediterranean Insular Birds Observatory project** will be proposed to various financiers and sponsors in the next weeks and a specific action plan of the *Albatros project* will be presented during the Mediterranean Small Islands Conference, co-organized by the City of Six-Fours (Var - France) from October 7th till 10th 2009.

WORKSHOP 1: SPECIES AND SITES

Presenter: Fabrice BERNARD (Conservatoire du littoral)

Expert: Joe SULTANA (BirdLife Malta)

Species :

This workshop was the opportunity of a debate on the choice of the species that must be selected for the *Albatros project*, to make a scientific monitoring.

It was acted that the number of the studied species must be limited to the nesting species of the Mediterranean small islands.

The choice of the species was guided by several criteria, because of:

- gaps and lacks in their knowledge (in particular in their reproduction cycle);
- the possibility of organizing a long term monitoring (several years at least), some species are already well studied for a long time, so long term tendencies and evolution are possible;
- available technical and logistic means to make these monitoring;
- the possibility access for their site of study, because logistic problems and field work on small islands are very important;
- criteria of rarity and their value in term of quality indicator of the habitat: the species which are the most representative, in their food, of the environment quality;
- their vulnerability;
- their island characters, place of their reproduction;
- the effort of necessary and practicable monitoring;
- the population size, by privileging the most important populations, because easier to study;

Considering these various criteria, the chosen species are: Cory's Shearwater (*Calonectris diomedea*), Yelkouan Shearwater (*Puffinus yelkouan*), Balearic Shearwater (*Puffinus mauretanicus*), European Storm-petrel (*Hydrobates pelagicus*), Mediterranean Shag (*Phalacrocorax aristotelis Desmarestii*), Yellow-legged Gull (*Larus michahellis*), Audouin's Gull (*Larus audouinii*), Peregrine Falcon (*Falco peregrinus*), Eleonora's Falcon (*Falco eleonora*), Osprey (*Pandion haliaetus*), Lesser Crested Tern (*Sterna bengalensis*).

Sites:

After a presentation of islands and islets concerned by monitoring or inventories, a list of sites to choose for the *Albatros project* was proposed. The presented list was validated. It was suggested adding a site for Morocco: the island of Mogador.

Notice that this list is not exhaustive and can evolve during the project according to the objectives and the priorities of the *Albatros project* and the capacities of new sites to participate in the network of monitoring and exchanges.

Limited to the western basin, on the West of a line Italy-Malta-Libya, for the beginning, the *Albatros project* wishes to go beyond the only managed spaces. Indeed, because of the weak number of managed island territories, it is necessary, to observe indeed the patrimonial birds of the Mediterranean Sea, to proceed to the extension of the monitoring in other not managed sites.

List of the *Albatros project* sites and species

CD : <i>Calonectris diomedea</i> / PY : <i>Puffinus yelkouan</i> / PM : <i>Puffinus mauritanicus</i> / HP : <i>Hydrobates pelagicus</i>											
PA : <i>Phalacrocorax aristotelis desmarestii</i> / LA : <i>Larus audouinii</i> / FE : <i>Falco eleonora</i> / PH : <i>Pandion haliaetus</i> / SB : <i>Sterna bengalensis</i>											
Country	Archipelago	Contact	Priority nesting species				Other nesting species				
			CD	PY	PM	HP	PA	LA	FE	PH	SB
Algeria	Archipel des Habibas	Commissariat National du Littoral	X				X	X (2006)	X	X	
Spain	Archipel des Columbretes	Réserve Nationale des îles columbretes	X			X					
	Cabrera	Parc National de l'archipel de Cabrera	X		X	X					
France	Iles de Marseille	Conservatoire-Etudes des Ecosystème de Provence	X	X		X	X				
	Iles d'Hyères	Parc National de Port-cros	X	X		?	X				
	Ile de la Giraglia	Réserve Naturelle de la Giraglia	X	X							
	Iles Cerbicales	Réserve Naturelle des Bouches de Bonifacio	X			X	X				
	Iles Lavezzi		X			X	X				
Italy	Archipel toscan	Parc National des îles Toscane	X	X			X	X			
	Iles Tavolara/Molara	Aire Marine Protégée de Molara-Punta Palazzo	X	X		X	X	X			
	Autres : îles du nord de la Sicile		X	X		X					
Libya	Ile Elba										X
	Ile Ghara	Environment General Authority					X				X
Malta	Gozo	Bird Life International	X								
	Comino		X	X							
	Filfla		X			X					
Morocco	Mogador	Haut Commissariat aux Eaux et Forêts							X		
Tunisia	Zembra/ Zembretta	Agence pour la Protection et l'Aménagement du Littoral	X	X		X		X			
	La Galite		X			X		X	X		

WORKSHOP 2 : MONITORING METHODOLOGIES

Presenter: Roger ESTEVE (Conservatoire du littoral)

Expert: Daniel ORO (IMEDEA)

After several presentations of concrete examples on the various approaches and the methodologies of sea birds monitoring, several recommendations were kept. They are presented here untidy neither by importance nor by priority :

- need to harmonize the methods of monitoring, to standardize the data collection : necessary to homogenize the information and to analyze the long-term tendencies;
- need to have predefined documents of monitoring (in minima, in maxima) to simplify the field work;
- organize sessions of exchanges and training to authorize more persons in the ringing and the manipulation of birds. These trainings will not necessarily be intended for the only managers. They must be also proposed to the amateur and/or voluntary naturalists;
- organize missions of inventory which associate experts of various countries, to allow the exchange of the know-how and the harmonization of protocols;
- realize an inventory of the devices of marking and of tracking. Who makes of the marking ? Why ? How ? Allow the exchange and the training on these techniques;
- do not limit itself to the study of the reproduction success. We have to study also adults mortality, the offshore food zones, the feeding zones, the preys (more difficult for migratory birds, because it requires more means);
- researches on the adults mortality sources should be priority because it is an important demographic parameter which affects sea birds populations health;
- organize a reflection and produce a report of the fishing practices (net / palangre) and their impacts on the sea birds, study the evolution of the types of fishing machine used. We will have to work with fishermen to involve them in the sea-birds monitoring process;
- the application of the future European fishing regulations can be closely followed to see their impact on the populations of birds;
- the study of the dynamics of the populations must be led in the whole of the Mediterranean Basin thanks to programs of CMR (Capture-Mark-Recapture). The information about the dynamics of meta-populations is essential for the conservation of this species;
- the links between the populations of east and western sea birds of the Mediterranean Sea must be studied;
- some well studied colonies could be chosen as "laboratories" or " experimental sites " to follow the effects of the global changes on the interface between the marine and terrestrial ecosystems (to connect with the *Sentinel Islands* program of the PIM Initiative);
- imply local populations, fishermen, users, volunteers, children, because they will be the manager of tomorrow;

WORKSHOP 3: MUTUALIZATION AND DATA ANALYSIS

Presenter: Fabrice BERNARD (Conservatoire du littoral)

Expert: Céline DAMERY (Naturalia - Conservatoire du littoral)

This workshop was the opportunity for the PIM team to present the work already realized on the conception of a database of the Mediterranean Small Islands and its development in thematic sectors, of which the ornithological data-base.

In mutualization and data analysis, several reflections were kept:

- It's better to arrange numerous data of a relative reliability rather than to limit itself to rare data of excellent quality;
- As regards the reliability and the traceability of the data, it was suggested to choose a referent by country which will be in charge of validating the information. His role must be clarified;
- Three referents could be indicated to follow this database: a scientist, a manager, an administrative;
- A more specific tool "Sea birds" must be developed within the Database, as long in data, that of treatment of data;
- This database must be internally valued but will owe also benefited from a wide communication towards the outside;
- The mutualization of the knowledge relative to the rehabilitation of the patrimonial species, the good practices and the know-how to facilitate the return and the development of the sea birds (artificial breeding grounds, regulations, etc.) must be valued and encouraged.

WORKSHOP 4: INVENTORY AND MONITORING PROBLEMATIC ON MAJOR SITES

Presenter: Sami BEN HAJ (Thétis)

Expert: Aïssa MOALI (Béjaïa University)

Some symbolic sites will be also used as "experimental sites" or "school site" to form managers in monitoring methods and to perpetuate the knowledge. These sites were chosen according to their important interest for the conservation of 5 endemic Mediterranean species:

- The island of Zembra (Tunisia) for Cory's shearwater
- The island of Tavolara (Sardinia, Italy) for the Yelkouan Shearwater
- The archipelago of Mogador (Morocco) for Eleonora's Falcon
- The island of Ghara (Libya) for the Lesser Crested Tern
- The island of Filfla (Malta) for European Storm-petrel

A local referent will have to be responsible for the development of the relationships with the *Albatros project* and of the organization of the various scientific missions and the training courses.

WORKSHOP 5: ACTION PLAN

Presenter: Sami Ben Haj (Cabinet Thétis)

Expert: Alain MANTE (CEEP)

During this workshop, was advanced the importance of a solid and effective structuralization with the aim to succeed, now and in the future, and then develop the action to the oriental basin of the Mediterranean Sea. The numerous discussions and the recommendations validated the action plan proposed in the note with small evolutions:

Action 1: Aggregate the existing data and information;

The Mediterranean Small islands database, now being set up, aims to store all the information so as to have a global shared view. Available on Internet, it will be available for free consultation by the managers community, scientists and the general public.

A preliminary version has already been prepared. The format and the contents of a new space "Albatros project" dedicated to the Mediterranean Insular Birds Observatory, will be developed. Referents will be choose to validate the information contained in this database and a "charter" regulating the conditions of these exchanges of data will be signed by all the partners and the users.

The information to be gathered initially could be as follows:

- The monitoring methodologies already used and adapted to the various colonies;
- Census and monitoring protocols;
- List of relevant sites to be monitored;
- The list of the key stake holder working on this issue and who should be associated with this approach;
- The number of reproducing birds and the reproduction success on the monitored sites;
- The disturbances and the threats;

This first inventory would also make it possible:

- To target the gaps so as to initiate monitoring of those islands where there is no management of the insular area or where management is being prepared;
- To see whether it is possible to update the estimated numbers and to evaluate the necessary logistic and human means.

Action 2: Setting up a network for knowledge sharing and exchange though the Internet on the basis of harmonized monitoring.

This activity would make it possible to set up the network and get it running (constitution of groups, thematic groups, mode of group meeting, etc.).

The exchanges would pertain to :

- the transfer of methodologies
- the dissemination of monitoring results
- the promotion of conservation actions

Activity 3: Strive to have harmonized monitoring (joint protocols for monitoring reproduction and the evolution of colonies)

The work will mainly be to define the smallest common denominator between scientific requirements so as to obtain coherent estimations and field reality, depending on the resources available.

This homogenization will cover the field methodologies, data input and their retranscription on to a joint internet site (PIM Database).

Genetics could also make it possible to complete and refine the knowledge on bird species which could have a Mediterranean taxon like *Puffinus puffinus* : Shag, Cory's Shearwater, Lesser Crested Tern, etc.

Action 4: Report on the state of knowledge of the population numbers of the different pilot sites and assist, if necessary, the managers of national authorities in updating the estimation of the main bird colonies

The state of the available information and regular updating at the databank will make it possible, after analysis, to draw up a report on the state of knowledge of the numbers per locality, their evolution in time and the general success of reproduction.

This would also make it possible to highlight the conservation problems in the nesting sites and to launch specific studies to identify the causes (disturbances, predation by rats and cats, gulls and other specific disturbances).

Successful reproduction and population dynamics however depend on factors pertaining to the feeding areas at sea during the reproduction period or in the wintering areas (variation in the trophic quality of the marine environment, climatic vagaries and various causes of mortality of the birds at sea). Specific studies on these feeding areas could be carried out with the utilization of new technologies (transponder, satellite beacons....).

On the basis of the data available in the Observatory, data collected during field work carried out within the framework of PIM missions and from other sources from the partners, from the evaluation of constraints and local means, an exchange, assistance and coaching program will be determined for the collection of comparable data and on the different monitored colonies in the long term.

Action 5: Actions to valorize the data so that the information can be disseminated and management actions improved

The present disparity in the census and monitoring protocols makes it difficult to make a comparison between the sites and to analyze the results on a sub-regional (Western Mediterranean) and regional basis (Mediterranean basin).

The aim of implementing joint protocols is as follows:

- to evaluate the overall state of health of the native birds of the islands;
- detect any possible changes which are common to the whole Mediterranean basin
- or detect some specific problems of some of the reproduction areas

On the basis of these new data, new orientations for some conservation issues which stem from these updated results could be the foundations for an updated Conservation Action Plan.

A communication plan would be developed for the decision-makers, managers, scientists and the general public of the different western Mediterranean countries.

Action 6 : Consolidation of the mechanism to make it sustainable:

Within the framework of the Action plan for the conservation bird species in Annex II of the SPA and BD protocol, a seminar will be organized with all the partners (with of course the RAC/SPA) to synthetize the results, report on the updated situation of the different sites, estimate the population trends and asses the state of health of the populations through a global approach on the western basin and to target recurrent problems.

Mutual efforts and results should lead to the establishment of a sustainable exchange and sharing tool.



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