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RESULTS OF BOTTLENOSE DOLPHINS MONITORING BY PHOTO-IDENTIFICATION AROUND HYERES' ISLANDS IN 2009

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INTRODUCTION

Bottlenose dolphin (*Tursiops truncatus*) is considered as a common species in the Mediterranean Sea, frequenting coastal and shallow waters. Although bottlenose dolphins seem to be increasingly observed since the 90's along the French Provençal coast, the population and its habits remain widely unknown.

As part of the PELAGOS Sanctuary research program 2007-2009, the GECEM conducted a study by photo-identification on bottlenose dolphins around Hyères' Islands on the French Provençal coast from April to October 2009.

MATERIAL & METHODS

- 22 dedicated surveys were conducted from April to October 2009 in the study area (Figure 1) during random effort tracks.
- Photo-identification of encountered animals were taken and analysed
- The data collected were compared to the catalogues collected by GECEM since 2005 along the French Provençal coast and since 2000 in Corsica.

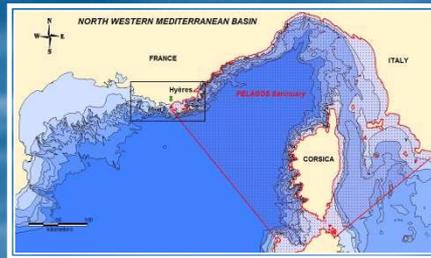


Figure 1 : Study area, Hyères' Islands region

Hyères' Islands :

The study area (Figure 1) is located in the western part of the PELAGOS Sanctuary, an area of 87 500 km² created by an international agreement between France, Monaco and Italy in 2002 for the conservation of cetacean populations.

The study area presents a relatively extended continental shelf surrounding the Islands and is bordered by two deep canyons (Figure 2)

RESULTS

- 9 groups have been observed
- 113 individuals have been identified
- 10 dolphins (8,8%) were already known by GECEM
- 6 dolphins photographed during the study had already seen in Corsica.
- The record distance between two (non consecutive) sightings locations is 464 Km between Corsican channel and Camargue¹ (CT-08 on Figure 3).



Figure 2 : Observations of bottlenose dolphin's groups in 2009

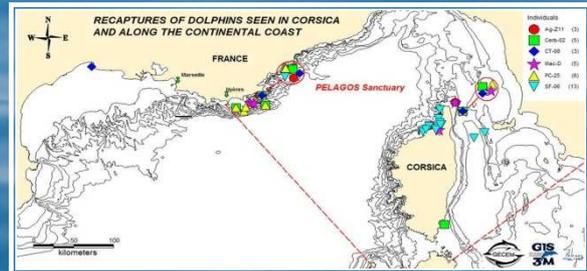


Figure 3 : Recaptures of dolphins photographed in Corsica and along the French continental coast.

- 15 dolphins (13,3%) have been photographed at least twice during the study.
- All groups included at least one individual shared with another group and never more than 3.

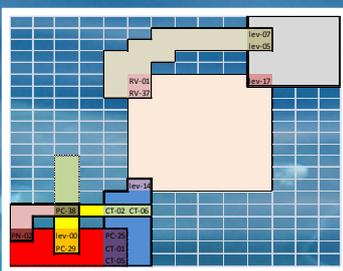


Figure 3 : Relationships between groups observed. Each figure represents a proportional group of dolphins. At the intersection between 2 groups (different color) are listed the names of dolphins seen in both group.

- An easily recognizable dolphin has been seen every year since 2005 and all around the year, showing no evidence of seasonary pattern.



Figure 4 : Recaptures of one individual regularly observed since 2005. PC-38 ©H. Labach-GECEM

CONCLUSIONS & PERSPECTIVES

This study provides preliminary results suggesting the presence of a resident subpopulation of bottlenose dolphins in this area. The confirmed movements between French continental coast and Corsica have contributed to the identification of two subpopulations in the PELAGOS Sanctuary, one in the eastern part (Italian waters) and the other one in the western part (French waters) suggesting that bottlenose dolphins cross the Ligurian Sea to move between Côte d'Azur and Corsica¹.

The size and structure of the group seem coherent with results obtained in Corsica³.

To improve the knowledge on the bottlenose dolphin's population in the north western Mediterranean basin and thus the conservation of the species, this study, as well as all the other local studies, needs to be continued encouraging and improving the current collaborative spirit between scientific teams.

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