

Final Report

The Project has been running well and growing fast during the last two years. We are now getting interesting results from our investigations into the use of acoustic devices on fishing nets in an attempt to reduce the number of dolphins caught as by catch. We conducted a double blind experiment in artisanal gillnet fisheries during two consecutive fishing seasons. We concentrated on a fleet of small inflatable and fibreglass vessels operating between 0.5 and 7km from the coast. Each vessel carried an independent observer who was rotated between vessels during the experiment. Information on the number of dolphins caught, geographic position, and depth, configuration of fishing gear, soak time, biomass of fish caught and sea lion predation in a string/net producing any damage was recorded. Equivalent numbers of active and silent acoustic devices were used. Neither fishermen nor observers were aware of which type of alarm was placed on each net. A total of 43 dolphins were caught in the silent nets and only 2 were caught in the active pinger nets, thus demonstrating a highly significant reduction in by catch. Active acoustic devices did not reduce sea lion attacks on the nets but nor was a "dinner bell" effect noted. Although these acoustic devices show promise long term effectiveness needs to be assessed and other alternatives tested.

We have also made a preliminary estimation of dolphin abundance in northern Buenos Aires, where the by catch level is the highest recorded along the species distribution. Also, the Convention on Migratory Species (CMS) at Bonn has been supporting us this year to get specific information about the ecology and behaviour of the La Plata dolphin in Argentina. The Federal and Provincial Governments continue to give institutional support to our project. In fact the borderline at Bahia Anegada Natural Reserve located in Southern Buenos Aires has been changed and the total protected area enlarged after taking into consideration our reports about the use of habitat by La Plata dolphins. The current Reserve logo is a La Plata dolphin and the species is considered an emblem of marine wildlife in the region. Several posters with information about the species have been placed strategically along coastal Buenos Aires.

Our next challenge, for March 2004, is to run radio-satellite telemetry studies on the La Plata dolphins to understand its home range and movement patterns in one of the most critical areas for the species in Argentina. Meantime we continue working on the evaluation of dolphin population stocks, habitat health, fishing activity and management plans.

During 2003 our project has become much better known, both to the general public and the authorities and this is partly due to receiving awards from sponsors such as you.

In general terms, there have been no major difficulties during this year's fieldwork. Here are the key points:

The pinger experiment in Cabo San Antonio was running very well, except for a delay produced by the pinger manufacturer, making a different start time for the experiment. Boat and Land surveys carried on in Bahia Blanca and Bahia San Blas were also running very well, reporting interesting results on the general ecology and habitat use of the species for both areas.

Meetings with authorities and fishermen produced a good relationship with them, and it supports the continuation of many of our current activities.

However, one important negative aspect was affecting the Project in many aspects; our country's economic crisis. Fishermen were reluctant to collaborate because they were worried about their own economy. The fishing season was not so productive for them because of devaluation, and fishing effort was poor due to weather conditions. It also affected the results obtained during the pinger experiment. At the same time, some available funds for the Project were blocked at the local Bank due to the new economy regulations in Argentina. All these difficulties affected the team's morale. However, our work continues - pretty much on schedule.

What have we achieved last year?

Research

February-March 2001

Effects of acoustic deterrents and other fishing gear modifications for reducing by catch.

Acoustic alarms of 10 kHz were tested in a small fishery camp located in northern Buenos Aires Province to reduce by catch of La Plata dolphins. This fishing camp showed to be potentially dangerous for La Plata dolphins in the last ten years.

The alarms were effective at reducing the incidental mortality of this dolphin in bottom-gillnets in the study area. The by catch was six times lower than previously reported. Our results suggest that the alarms appear to be attracting sea lions over time and that they learned to associate the alarm with the presence of food. Early studies suggested that acoustic deterrents increased the problem by alerting the seals to the presence of caught fish, creating a "dinnerbell" effect. To implement the use of these alarms will require finding a solution for reducing the sea lion attacks on nets.

May-August-October 2001

Preliminary abundance estimation of La Plata dolphins in different locations in southern Buenos Aires Province.

We used three different methodologies in this survey: line and strip transects from boats, and simultaneous sighting from land positions. Results indicated that population size in southern Buenos Aires Province is about 900-2200 individuals. Estimates of annual by-catch in coastal fisheries, biological data from by-caught dolphins, and abundance were used to create population models. The models predicted a population decline.

Conservation

February 2001

Distribution of a brochure with information on the species in different localities along the Buenos Aires Province.

Almost 3000 brochures were delivered by volunteers in recreational areas, as well as in tolls in routes, and highways reaching beaches along the coast. A new brochure has been designed with the voluntary help of the Cathedra of Art Design at the University of Buenos Aires and one professional artist.

March 2001- December 2001

Meeting with authorities from the Department of Aquatic Resources at the Secretariat of Natural Resources (Argentina Federal Government).

Two meetings were coordinated in order to develop a national strategy for management of La Plata dolphins in Argentina. Although there is no advance in this issue at this time, the authorities have been in touch with the Federal Fishery Council to discuss about the creation of No Fishing Areas and Management Areas for La Plata dolphins.

June 2001

Meeting with authorities from the Ministry of Environmental Policy (Buenos Aires Provincial Government)

This meeting was coordinated in association with the Marine Mammals Lab at the Argentinean Museum of Natural Sciences, in order to discuss solutions to the by catch dilemma. Currently, better understanding of the spatial and temporal patterns of the La Plata dolphin by catches are still needed before proposing regulations on fishing areas and seasons.

August 2001

Meeting with artisanal fishermen from Buenos Aires Province at the "II National Meeting for Coastal Fishery".

The meeting took place in Puerto Madryn, Chubut Province, with the assistance of more than 300 fishermen, politicians, authorities and scientists. A special meeting was coordinated by us with 13 fishermen from the Buenos Aires Province, whom support and want to reduce the by catch of La Plata dolphins.

October 2001

Meeting with fishermen community from Bahia Blanca, Buenos Aires Province.

The meeting was coordinated by the Department of Natural Resources at the Provincial Government in association with Authorities from the Provincial Natural Reserve "Three Bays". During this meeting, local fishermen reported incidental mortality of La Plata dolphins in small size mesh nets for shrimps by first time.

October 2001

Lecture for the general public at Bahia Blanca County Hall, Buenos Aires Province.

Conference supported by the Secretary of Culture, Department of Natural Resources and Ministry of Agriculture, Cattle Raising and Food from the Provincial Government. This talk was focalized to inform the current situation of La Plata dolphin and its habitat. More than 100 people assisted to this conference.

November 2001

Training Course for students.

A four days course was developed to train 38 volunteers in fieldwork activities. This course was declared as "Educational Interest" by the Ministry of Education by Resolution N° 0184/01.