SARASOTA DOLPHIN RESEARCH PROGRAM

NICKS 'N' NOTCHES

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The Conservation Role of the Sarasota Dolphin Research Program

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The Sarasota Dolphin Research Program is dedicated to the conservation of marine mammals. We aim to accomplish this by conducting scientific research of the highest quality possible, by providing training and educational opportunities, and by disseminating the information we collect, through scientific and non-technical articles and reports, and by presentations at professional meetings and public lectures. Our primary contributions since the program's inception in 1970 have been toward understanding the biology, behavior, ecology, health, and population dynamics of coastal bottlenose dolphins. These dolphins are among those most impacted by human activities in U.S. waters and elsewhere around the world. Some of the threats of most concern are:

- Pollution from industrial, agricultural, and residential sources
- Loss and/or degradation of their habitat
- Interactions and competition with commercial fisheries
- Injury and mortality from recreational fishing activities
- Boat collisions and disturbance from increasing vessel activities
- Feeding of wild dolphins

These threats are also recognized by the National Marine Fisheries Service (NMFS), the federal agency charged with responsibility for managing and protecting the whales, dolphins, and porpoises in U.S. waters, under the Marine Mammal Protection Act. The Southeast Center of NMFS, with responsibility for the inshore and offshore waters from North Carolina through Texas, convened a Program Review Panel in Miami on December 11-13, 1996, to evaluate its progress in meeting the management needs of the animals in the Region, and to provide direction for the five years beginning in FY1998. We presented a summary of our research activities to date (some of which have been supported by the NMFS), as they relate to the conservation of bottlenose dolphins. As a result, the Panel ranked the continuation and operation of the Sarasota Dolphin Research Program among the top 12 marine mammal priorities for the Southeast Region out of more than 70 recommendations considered. Our work, as the longest-running study of wild dolphins in the world, was recognized as having provided much of the background information crucial to the management of bottlenose dolphins to date, and as having the potential to provide more information in the future. In particular, it is expected that we will play a significant role in the understanding of bottlenose dolphin population structure, and in the development and calibration of animal counts that will allow NMFS to estimate the size and distribution of stocks of these animals throughout the Southeast. It will then be possible to assess their status and to determine the appropriate wildlife management actions.

This important endorsement of our Program is the result of the efforts of many people and organizations working together to help insure that the dolphins continue to have a future in coastal waters as human activities increase. The staff, graduate students, and volunteer student interns of the Sarasota Dolphin Research Program are extremely pleased with our progress toward this goal during 1996, and we would like to take this opportunity to share with you some of our accomplishments, as well as our plans and hopes for next year. We do this also because many of you have had an important role in making this work possible, through your participation in the research, through your financial support, or through both. We offer you our sincere thanks for your help, and hope that you will consider our Program worthy of your continued support into the future.

Sarasota Dolphin Research Program Components

The Sarasota Dolphin Research Program (SDRP) is the result of the joint efforts of the Dolphin Biology Research Institute (DBRI), the Conservation Biology Department of the Chicago Zoological Society (CZS), Earthwatch, and Mote Marine Laboratory (MML). Together these groups insure the continuity of the dolphin research in Sarasota.

Earthwatch Update 1996

Sue Hofmann, DBRI Field Coordinator

Thanks to all of the Earthwatch team members who participated during 1996, we were able to continue our monthly observational monitoring of the resident Sarasota bottlenose dolphin community. Sixty-three Earthwatch volunteers from twenty states and six foreign countries as far away as Japan and Columbia donated over 3200 hours to our project.

During our census surveys this year, we were able to determine the presence or absence of existing community members as well as document the births of new calves. Each of the community members is indicated in the table on page 3. Beginning in early May and ending in late August, eleven new calves were born during the spring/summer of 1996. This is the most YOYs born since the thirteen of 1992. All of the YOYs were sighted within two weeks of their birth, and Merrily's first-born YOY was seen when it was less than a day old! Our first fourth generation dolphin was seen when FB 131 gave birth in May. This YOY is the grandcalf of Genie and would have been the great grandcalf of Granny. We are rooting for these two first born calves and hope that they can beat the odds! As of this writing, YOYs that are still with their Moms include the YOYs of Saida Beth, Killer, FB 25, and FB 54 in addition to the two mentioned previously. Females that also gave birth this year but have lost their calves include Ms. October, Lightning, FB 75, FB 29 and FB 57.

The assistance of Earthwatch volunteers gave us an opportunity to spend 89 survey days on the water. We sighted 565 groups of dolphins totaling 1807 individuals (including resights). We averaged six sightings per day with an average of three dolphins per sighting. As a result of our surveys, we accounted for all but six of the previously existing 103 members of the Sarasota dolphin community. Five of these missing animals were males, but it is not unusual for a lengthy period of time to pass between sightings of some of the Sarasota males. Six community members were lost during this year. Five of these animals were YOYs. The only calf that was recovered for examination and tissue analysis was that of Ms. October. This calf was a male that died at six weeks old primarily due to a blood clotting disorder. The other animal that died and was recovered was FB 57. She was 44 years old , had given birth two months earlier and still had her YOY with her just prior to her death. Her YOY was never sighted or recovered after her death. With the addition of six YOYs, our community size stands at 108 as of mid December 1996 (although if the dolphins not seen in 1996 are not found in 1997, this number will decrease).

The Mote Marine Lab Stranding program would like to extend their thanks to those of you that helped with Belle and Mark during July and September respectively. Unfortunately, we lost both animals. Belle was stabilized enough for transport to Clearwater Aquarium approximately two weeks after her arrival at Mote. She continued to improve while at Clearwater- gaining weight, swimming on her own and playing with toys. She died very unexpectedly on December 3. Preliminary necropsy results revealed a bone infection and some lung abnormalities. Failing to show any improvement in his health since his arrival at Mote, Mark was euthanized approximately two weeks after his arrival. This decision was not an easy one to make but was supported by the subsequent necropsy results which indicated terminal septicemia and hepatic failure.

Our Earthwatch surveys will continue through 1997, with 15 two-week teams scheduled. One emphasis will be on the relative distributions of boats and dolphins, to begin to assess possible disturbance responses. For more information on participating on these teams, please call Earthwatch at (617) 926-8200.

Again, many thanks to all! You have significantly helped to make another year a success.

Computer Databases

Kim Urian, CZS/DBRI Data Manager

The Dolphin Sighting Database dates back to 1975 and is current through October 1996, with 13,500 group sighting records. This database includes all information from the sighting data forms collected during the Earthwatch surveys, during our photo-identification surveys to other areas, and by our graduate students and interns during their behavioral observations. This is as current as we've ever been thanks to the help of all the folks working in the lab to follow through on the fun field work part of things! This includes the considerable time put into labeling the 10,000 or more slides that come back fast and furious, and entering the data after the photo-analysis is complete. The Photo-ID Catalog Database includes 2,354 individual dolphins that have been identified since 1970, as well as information regarding their sex, age, familial relationships, birth date, stranding date (if known), their initial sighting date from the Sighting Database, and the dorsal fin category in our Photo-ID catalog. Other databases include blood values, measurements, and body condition. The databases reside in our Macintosh computer systems, and are in a Foxbase relational database format.

Bottlenose Dolphin Photo-Identification Workshop, March, 1996, Charleston, SC

Kim Urian

DBRI/CZS was contracted by NMFS to conduct a workshop for researchers involved in photo-identification studies along the Atlantic coast. Thirteen researchers participated, from Cape May, NJ through Biscayne Bay, FL, and shared their methodologies and findings. The participants discussed opportunities to enhance knowledge of the movements and residency patterns of bottlenose dolphins on the east coast of the U.S. One accomplishment of the workshop was to establish common definitions for terms used by researchers to make comparisons more meaningful between research sites. The primary recommendation from the workshop was the need to establish a centralized photo-ID catalog and database of the dolphins along the Atlantic coast. As part of the workshop, SDRP provided the "SDRP Field Techniques and Photoidentification Handbook" that describes our methods that have been developed over the last 26 years. This handbook is particularly useful as a standard reference for new students, interns, and volunteers, but especially for researchers initiating dolphin photo-ID studies in other areas. The utilization of common methods and terminology increases our ability to make comparisons and share information on wild dolphins with other researchers. The report from the workshop will be published as a NOAA Technical Memorandum.