

# The Dolphin Gazette

Volume 9, issue 4 (October 2005)



From the Dolphin Communication Project,  
Mystic Aquarium & Institute for Exploration  
55 Coogan Boulevard, Mystic CT 06355

[www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.org) and [www.mysticaquarium.org](http://www.mysticaquarium.org)

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## A Note from Kathleen:

Autumn is fully upon us - the days are getting shorter and cooler; the data are being processed. We had three VERY successful field seasons as you will read in this issue of the *Dolphin Gazette*. Justin began his first field season on Mikura Island observing the bottlenose dolphins and getting to know the people of Mikura. Justin fit in quite well with the community and shared his experiences on the DCP field reports. Darcie and Kelly continued their work from Bimini and added three new dolphins to our Bimini spotted dolphin catalog. We are thrilled by your support for our Name-A-Dolphin program and as we process more data, we hope to have more animals available for naming. We are happy to also include updates from our other two animal adoption programs. Each Animal Parent has a DVD program featuring the main animal. Our Marine Animal Rescue Program is off to a great start and two additional seals will be joining our roster this winter - successful releases from this past year. I am very proud to welcome Kristy Beard to our fold - you have met her previously but in this issue, you will learn about Kristy's research plans and her university program. This brings our student research team to 6 students from 5 universities. DCP is growing by leaps and bounds and we continue to be grateful for your support.

DCP is under the auspices of Immersion Presents at MAIFE and is coordinating with their development team to prepare After-School adventure activities for youth from the Boys & Girls Clubs across America. These programs will be finished for students in January - we hope to communicate by web or phone with some of the club youths during next season's field research. We'll keep you posted! Thanks again for your support.

Cheers, Kathleen

*(p.s. Umi adds her 2 cents this issue too!)*

DCP and MAIFE participated in the Heart Walk at Rocky Neck State Park on 16 October 2005. Together our team raised more than \$5,466 for the American Heart Association. Thank you to all who participated!

## Bubble Emissions and Concurrent Sound Production in Dolphins



Kristy Beard:  
Master's Degree Candidate,  
University of Connecticut

Kristy Beard was a DCP intern in 2000, and has returned to work with DCP as Project Assistant and Master's student.

### Plan of Study:

As an undergraduate student at Southampton College of Long Island University, I spent a semester as a DCP data analysis intern in 2000. While watching video of dolphins from Mikura Island and The Bahamas, I noticed bubbles that dolphins were emitting from their blowholes. Reading the few journal articles I could find about dolphin bubble emissions, I learned that bubbles were often used as an identifying factor in determining which dolphin was producing whistles. But, I saw a number of bubbles produced without audible whistles, so I began to question the whistle ID function. This project became my Honor's Thesis while at Southampton College, and has stayed with me as a research focus. After a few years of experience in various areas of the marine mammal field, I finally decided to go back to graduate school. I discussed with Kathleen the possibility of rejoining DCP to do research. She was as excited about this prospect as I was (and still am), and suggested a few University professors who might be interested in working with me on this project. I began my Master's Degree program in September, 2005.

I will be analyzing data collected from dolphins at RIMS, Mikura Island, and Bimini. All of the graduate students working with DCP share with each other data that we collect, facilitating more direct comparisons between populations, habitats, and species, as well as scientists.

I believe that bubble emissions are used as a form of visual communication and as such would be utilized more in areas where the water is clear (such as Bimini) than in areas where the water is

murky (as is the case around Mikura Island). I will be comparing these habitats, as well as the dolphins at RIMS, for differences in bubble production. I also intend to compare male and female dolphins, different age groups, and wild dolphins versus those in human care in an attempt to correlate bubble emissions with behaviors. The function of bubble emissions in dolphins is still unknown, and I hope to shed some light on the possibilities.

### Background:

Kristy was born and raised near Rochester, NY, and received her B.S. from Southampton College of Long Island University in 2001. Her first field research experience was in Costa Rica, studying Tucuxi dolphins in their natural habitat. She has since been hooked on both dolphins and field work! Kristy worked for the Florida Marine Research Institute both as a right whale Aerial Observer and with injured (or dead) manatees. She also spent time as a Marine Mammal Stranding Assistant at Hubbs-SeaWorld Research Institute in Orlando, FL, before moving back to the Northeast to return to school and DCP.

:-) Kristy

-Kristy Beard, DCP Project Assistant and University of Connecticut MS Candidate

### Internships:

We offer internships to students for personal development and for college credit. Credit is arranged by each intern with his or her school. Internships are offered on a semester basis. For details on internships and the application process, please visit the Education page of DCP's web site: [www.dolphincommunicationproject.org/internships.asp](http://www.dolphincommunicationproject.org/internships.asp), which links to the college internships page on the MAIFE website. Field positions are limited and only available during summer months.

### Dolphin Gazette in your email

If you would prefer to receive your quarterly copy of the Dolphin Gazette in your email, please let us know at [dcp@mysticaquarium.org](mailto:dcp@mysticaquarium.org). We request that you email us from the address to which you wish your Gazette to be sent.

## DCP T-Shirts!!

The T-Shirts finally made it onto the website! Sorry for the delay. For those of you who have been waiting, my apologies, for those of you who are just finding out, our new shirts are now here! Short sleeve shirts are available in sizes small through extra large, for \$15 plus shipping. Long sleeve shirts are available in small through large, for \$20 plus shipping. Shirts can be ordered using the order form at the end of this newsletter, from the DCP website, or via email ([dcp@mysticaquarium.org](mailto:dcp@mysticaquarium.org)). Please add shipping charges of \$2.50/shirt.



Don't forget to stock up on DCP products for **Holiday Gifts!** We have T-Shirts & Long Sleeve shirts, videos, notecards, & postcards. Our Adopt-a-Dolphin & Sponsorship programs make great birthday, anniversary, or holiday gifts, too! See ordering info at the end of the newsletter.

## Four-Legged Friends

For those of you who have been missing Umi's haiku, here's one for the end of summer:

Cold, smooth and creamy  
Speak its name to bring me near.  
Pavlov's drool – ice cream.

-Umi's Ode to Ice Cream, July 2005

## The Glass Block Wall

MAIFE is offering the opportunity to help care for our animals, the upkeep of our exhibits, & the continuation of our wide-reaching education programs, & enable you to make your mark at Mystic Aquarium & Institute for Exploration that will last for years to come! If you are interested in inscribing a glass block to become a part of the the glass block wall at MAIFE, please contact Jessica at [jguidry@mysticaquarium.org](mailto:jguidry@mysticaquarium.org), or Deena at [dfabricant@mysticaquarium.org](mailto:dfabricant@mysticaquarium.org).

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## Animal Parent Program

We are very excited to announce the launch of our new Animal Parent DVDs. All new Animal Parents will receive a short DVD-video featuring their adopted animal species. Animal Parents who entered our program before October can contact us for a copy of the DVD for their adopted animal.

Come and visit "Squid", our Octopus, in his new exhibit at MAIFE! You can adopt "Squid" and various other animals through our Animal Parent program. Currently, we offer the following animals for adoption: Sea Star, Spider Crab, Blue Lobster, Yellowhead Jawfish, Sea Horse, Jelly Fish, Moray Eel, Octopus, African Black-Footed Penguin, School of Lookdown Fish, California Sea Lion, Steller Sea Lion, Northern Fur Seal, and Beluga Whale.

For more information on the Animal Parent program or to participate in the program, please contact us at [animalparent@mysticaquarium.org](mailto:animalparent@mysticaquarium.org) or (860) 572-5955 ext. 553.

Thanks!

Jessica

-Jessica Guidry, Development Assistant, MAIFE

## DCP Roatan Ecotour Trips

Dates for the 2006 Ecotours are 10-17 September & 17-24 September. These trips run from Sunday to Sunday, when there is a direct flight from Miami to Roatan. If you are interested in joining our research at RIMS, contact Deena Fabricant ([dfabricant@mysticaquarium.org](mailto:dfabricant@mysticaquarium.org)) or Bill Sperling ([bsperling@idyllwild.com](mailto:bsperling@idyllwild.com)). Of course, the trip won't be all work - you'll also get to observe and interact with dolphins! Please note: children under 18 must be accompanied by a parent or guardian – absolutely no exceptions!! More details are available at: [www.dolphincommunicationproject.org/ecotours](http://www.dolphincommunicationproject.org/ecotours).

# End of Season Summary - Mikura

This year, I was the primary field researcher in charge of data collection on dolphins around Mikura. This is the first year that Kathleen was not on Mikura for the entire duration of the field season since 1997. Kathleen and John accompanied me to Mikura in May, introduced me to the island, the research methods for data collection, and their friends on the island. They left on 28 May, leaving me in charge of data collection from 22 May – 22 July 2005.

On several occasions, I enjoyed a visit to the local school to help Tanaka-sensei teach English to his students. I enjoyed this immensely! This year, the 7th and 9th graders had regular English classes. I also helped with the younger students (1st - 4th grade). Pictures from this lesson were in the school newspaper, as well as on a poster describing school activities.

The field season this summer included 31 boat trips. Our total effort of 59 hours, 6 minutes (3,546 min.) on the water searching for and observing dolphins yielded ~576 minutes (or 9 hours and 36 minutes, recorded on 13 videotapes) of video: a 15% return on effort. We had 108 dolphin sightings and entered the water to swim with dolphins 216 times. I worked on dolphin identifications from video when sea conditions prevented boat trips, although I was out on the water more often than not. Ten new calves were documented this year; 103 individual dolphins were identified from our videotapes.

Currently, I am working on a graduate research degree at Trinity College in Dublin, Ireland, in the School of Psychology. My research focuses on joint-attention and the eavesdropping hypotheses. Data collected around Mikura Island will be used to analyze behavior relating to gaze-following and attention shifts associated with the use of echolocation. I am trying to determine if dolphins behave in such a way as to facilitate “eavesdropping” on returning echolocation clicks produced by other dolphins, and, if so, how and why they do this.

Thank you to all the people of Mikura for being so welcoming and kind during my stay. A special thank you to the boat captains who



are essential to the success of our research. Thank you to all of the researchers on the island who helped introduce me to the dolphins and shared with me their wonderful cooking skills. And a very special thank you to Kogi-san

and Mai-chan who were instrumental in helping me acclimate to a new culture and language. I look forward to returning next year! If you haven't yet read the field reports from Mikura, they can be seen at: <http://www.dolphincommunicationproject.org/field-reports/default.asp>

ジャスティン・グレグ

-Justin Gregg,  
DCP Research Associate

# Roatan Institute for Marine Sciences

Our field season studying the dolphins at RIMS was very successful. We returned with more than 12 hours of data from the MVA & ECD. Bill & I arrived on 8 Sept & our team of 7 volunteers joined us on 10 Sept. The team was with me for a week, but I remained until 24 Sept to continue data collection. Besides our 'regular' data collection with the MVA & ECD, we used a third recording system, housed within a 'pec pac', that Ronnie & Gracie wore on their right pectoral fins. This is the MOSART tag (Mobile Submersible Acoustic Recording of Transients), which was designed by Christer Blomquist & Mats Amundin from Sweden. I have worked with them often over the years. The really cool thing about this system is that it records the 'receiving' dolphin's point of view. When Ronnie or Gracie had the pec pac on their flipper, the MOSART tag recorded what other dolphins vocalized at them. So, when I recorded with the MVA while a dolphin wore the tag, we were able to gather both sides of a communicative bout - the receiver & sender roles! We are analyzing the data now. The implications are great for increasing the amount of data we can view to better understand dolphin signal exchange. Overall, we were able to gather much data and the visibility was mostly cooperative. Ronnie decided that I was his play toy during most of the first week of observations. It was the first time I had a dolphin repeatedly poke & push me without regard to other dolphins. Yes, this would seem fun, but I had to continue to ignore him during those sessions. Still, he wore the pec pac like a trouper. Alita, Cedena & Rita were all three pregnant; however, not far enough along to present us with a repeat performance of last season. Alita had her calf about a week after I returned to CT & Cedena had her calf a couple of weeks ago. Rita is not due till later in November. But, both calves are doing well and survived Wilma without much fuss. We will have an update on the details related to data analyses. Feel free to check out the publications page of the DCP web site to read more about the MOSART tag & pec pac units. Christer has shared with us some of his papers with the DCP web site (publications page).

DCP's 2005 research team





## End of Season Summary from Bimini

The 2005 Bimini field season came to a close on 28 August. The season, spent aboard Bimini Undersea's Wild Dolphin Excursions, was a great success. Here's a wrap-up of how things went:

The season began with our return to Bimini on 30 May 2005. Bimini is a very small island and the most westerly of the Bahamian archipelago. Bimini lies just 50 miles off the coast of Florida, yet it feels a world away; still, it was home for the summer.

As we have with each field season since 2001, we spent our time accompanying eager tourists who came to swim with wild dolphins on Bill & Nowdla Keefe's Bimini Undersea trips. Our first trip was on 5 June. June was rainy, July was busy and August ended with Tropical Storm Katrina, but between all of this, we were able to complete 43 boat trips. These resulted in 187 hours, 21 minutes of total effort (time on the boat looking for dolphins). Approximately 86% of our trips resulted in sightings and ~56% had encounters. There were a total of 75 dolphin sightings and 45 encounters. We collected video and acoustic data using MVA1, as well as taking digital still photographs for the photo-identification catalog. This year, we were able to record 389 minutes of video. Since these are wild spotted dolphins, they often swim in and out of view while we are in the water. So, of this video, there are ~160 minutes with dolphins actually in view.

We have re-identified 26 of the 76 spotted dolphins in the 2004 catalog. The newly updated 2005 catalog has 79 animals - we were able to add 3 new dolphins to the catalog. DCP ID# 80 is a young class 3 (juvenile) female. She has already been named "Leslie", and is now available for adoption. DCP ID# 81 was given to a young calf who is missing part of its fluke. And, DCP ID# 82 goes to an adult female, who is also missing part of her fluke and has a dramatic notch in her dorsal fin. ID #82 was seen from the boat during the 2004 field season, however, she was not seen underwater until 2005. After being able to observe her spot pattern, we determined that she had not yet been entered into the catalog.

Many of the dolphins in our adoption catalog were re-sighted: we saw Buster (#04), Cerra (38), Dolphin Dandy (#77), Finn Cusimano (#09), Freckles (#15),

Juliette (#12), Leslie (#80), Lil' Jess (#35), Lonestar (#56),



Lumpy (#17), Nemo (#76), Niecey (#48), Prince William Joseph of Wycoff (#64), Romeo (#10), Splitjaw (#22), Swoosh (#36), Tina (#14), Vincent (#11), and White Blotch (#29).

Each week, we provided casual presentations to boat passengers on Bimini Undersea. These presentations included a more thorough introduction to DCP, our (Kelly & Darcie's) Master's theses, and generalities of dolphin behavior. It was one of our favorite parts of the week! Thanks to all of our passengers for their enthusiasm and questions, and respect for the dolphins.

We also extend our thanks to Bill and Nowdla Keefe and the Bimini Undersea staff who were professionally welcoming and great friends throughout the summer. Thank you to our landlord, Lorenzo Saunders, and the rest of the residents of Bimini for their hospitality. We have now returned to school in Alaska (Kelly) and Rhode Island (Darcie) and our individual Master's Degree research projects.



And, of course, we are looking forward to returning to the island for the 2006 Bimini field season!

-Kel & Darcie  
Kelly Melillo & Darcie Blanding  
DCP Research Associates

If you would like to Adopt-a-Dolphin found in the waters around Bimini, The Bahamas, you can do so by sending in the form at the end of this newsletter, or by going online to: [www.dolphincommunicationproject.org/Adopt.asp](http://www.dolphincommunicationproject.org/Adopt.asp).

# Marine Animal Rescue Program

Heather Medic, Standing Coordinator

The Marine Mammal and Sea Turtle Stranding Program at Mystic Aquarium & Institute for Exploration (MAIFE) changes gears this time of year. We do not get as many calls as we do during our seal season, which runs from January to June. We do get an occasional dolphin, whale, or sea turtle call during the summer and fall months, but most of these animals do not come to us for rehabilitation.

During the summer and fall, we spend most of our time doing outreach programs with the general public and law enforcement to help educate everyone on marine mammal and sea turtle strandings. Increasing the number of people who know what to do and who to call to report possible stranded or injured animals benefits these animals greatly.

The summer of 2005 was a bit more exciting than usual. In 2004, we had our very first harbor seal pup come into MAIFE for rehabilitation. This year, we had two harbor seal pups rescued within a week of each other, and we had more sighting calls than in past years. We are not sure what the reason, but we are expecting to have more harbor seal pups showing up on our beaches every summer from now on.

In the past, harbor seals left our area in May to migrate north to Maine to have their pups in June, but, as the population grows in size, the harbor seals have started to migrate a lot less. Harbor seal mothers nurse their pups for approximately 5-6 weeks and then leave their pups to go and mate, never returning.

The first pup we brought in this summer was around five weeks old and had a fishing hook in his mouth.

The hook was removed and no infection set in. The second pup was also around 5 weeks and was thin and weak. Both pups were tube fed five times a day until they learned how to eat on their own, and then it was just a matter of time before they were both healthy enough for release. The first pup was released in August and the second pup was released in September.

Often, people will see a harbor seal pup on the beach and assume it is abandoned when, really, the mother has



gone out to hunt. If a lot of people are around a pup when the mother returns, she will stay off shore and wait for people to leave. As more pups are seen in our area, more public education is needed to try to prevent this from happening.

If you see a seal on a beach, please stay more than 50 yards (150ft) away from it. Seals that are continually being approached never get the chance to rest. This leaves them vulnerable to predation and illness. Call your local Stranding Network (for MAIFE, this number is 860-572-5955 ext. 107) or police department so they are aware of the seal, and limit your viewing time to 30 minutes.



## Name-a-Dolphin Updates

DCP's Bimini Name-a-Dolphin program has proven to be extremely popular in the past year. Each winter, we scour our past and present data to find dolphins to include in the program, and to name all of the dolphins on our waiting list. Due to the popularity of the program, and the fact that we have had 13 new dolphins named between May 2004-July 2005, and two additional names that will be assigned to dolphins in the coming weeks, we are sad to inform you that we will have to put this program on hold until we can complete ID analyses to add more dolphin candidates to our list of animals that need to be named.

Thank you to all who have named a spotted dolphin from Bimini, The Bahamas in the past, and to all of you who are patiently waiting for your newly named dolphins.

We will keep you updated on the status of this program, and as soon as new dolphins are available for naming, we will let you know immediately!



## Other Ways to Support DCP

Videos		DCP T-Shirts \$15 + \$2.50 S&H
Dolphin Sense	\$ 25	DCP Long Sleeve Shirt \$20 + \$2.50 S&H
Dolphin Spirit	\$ 25	Eco-Tours at Roatan Institute for Marine
Bridging the Ocean Divide	\$ 30	Sciences (RIMS) in Roatan, Honduras.
		See page 4 for more information.
Note cards	\$2.50 each	
Postcards	\$1.00 each	
Discounts are available for packets.		

Please send check or money order to DCP. Products can be purchased through PayPal at [www.dolphincommunicationproject.org/support.asp](http://www.dolphincommunicationproject.org/support.asp). For more information, email [dcp@mysticaquarium.org](mailto:dcp@mysticaquarium.org).

Thank you to DCP Volunteers!!

Without your effort and assistance, DCP's office could not run so smoothly throughout the year. You all do a great job processing data and keeping things organized. Well done! If you'd like to become a DCP volunteer, opportunities may be available for processing data and working with DCP's video and sound files in our office. For more details, see the Education page on the DCP web site, or contact Kate Cook, Volunteer Coordinator at MAIFE. Kate can be reached at: 860-572-5955 x209. All DCP volunteers coordinate their time through the Volunteer Coordinator and Kristy.

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To:

