



# The Dolphin Gazette

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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:** Happy Spring! As many of you may know, I am a cold wimp. It is true that I have the ability to actually get goose bumps in the Bahamas in summer. So, I am thrilled that the warmer temperatures have arrived to Connecticut. I am also excited about the coming season's fieldwork. Kelly Melillo and Darcie Blanding will return to Bimini in early June to conduct our 5<sup>th</sup> season of observing and recording the actions and sounds of the Atlantic spotted dolphins in that area. Both Kelly and Darcie are now MS degree students continuing their data collection with DCP. You can read more about Darcie's thesis proposal in this issue of the *Dolphin Gazette*. Kelly will provide a brief synopsis of her thesis topic in July. Justin Gregg, whom you met in the fall 2004 issue of the *Dolphin Gazette*, will begin his first field season studying the Indo-Pacific bottlenose dolphins around Mikura Island, Japan. The rumors are true ... I will only be in Japan for two weeks this year. This year, 2005, represents the first in 15 years for which I will celebrate the 4<sup>th</sup> of July actually in the USA. I am proud that DCP is able to provide opportunities for students to continue our fieldwork into dolphin behavior, communication and cognition. I will return to the field in September when we continue our studies in Roatan (but more on the exciting work at that site in July's issue). Since 2000, we have provided daily to weekly updates from the field to our web site and we will continue this diary in 2005. Darcie and Kelly will post updates from Bimini while Justin will share his research journey with you from Mikura Island. You can find the current and past reports from the field on the DCP's web site home page under the big photo on the "Notes from the Field" icon. This summer while I am in CT, I will be working on data analyses with help from our volunteers, interns and other collaborating graduate students (Shawn & Kristy). You will also note a few extra sections in this issue of the *Dolphin Gazette*. As we mentioned this past winter, the *Dolphin Gazette* has become the newsletter for all of the adoption programs at Mystic Aquarium & Institute for Exploration. These include DCP's wild dolphin adoptions, MAIFE's animal parent program and the new marine animal rescue adoptions. We look forward to keeping you in the loop about the animal collection here as well as our continuing ground-breaking (or should I say wave-breaking) research. Thank you for your continued support!

## A Comparison of Whistle Types and Behavioral Contexts

Darcie Blanding

Master's Student, University of Rhode Island

Darcie Blanding has been with DCP since January 2004. Read on to find out more about Darcie and her exciting research project!



### Plan of Study:

As an undergraduate student at the University of Rhode Island (URI), I participated in an internship with the Dolphin Communication Project during the spring of 2004. For my research topic, I focused on whistling behavior with regard to diurnal periodicity, age and sex in the Atlantic bottlenose dolphins in human care at the Roatan Institute for Marine Sciences (RIMS) in Honduras. Data analyses included looking at the number of whistles in a single whistle bout and whether or not bubble streams accompanied the whistles. A whistle is defined as a frequency modulated, pure tone. A bout was defined as a series of pure tones produced continuously by one individual. These bouts were measured by their duration, or the amount of time, in seconds, that a single whistle or bout lasted. Through this project, I noticed many different behaviors that were interesting to me. Although there was no significant difference between males and females, there were differences between age as well as time of day. The most intriguing fact was that "Bill," a juvenile male dolphin approximately 3 years of age, whistled far more than any other individual dolphin. Through a little investigation, I found that Bill's mother died when he was only a little more than a year old. With that information, I wanted to develop the research project further for my Master's Degree and look into whether or not whistling is a learned behavior with respect to function and use rather than instinctual. In other words, this is a small way to ask the big "nature versus nurture" question. Could Bill have missed out significantly by not having his mother around to guide him as to when and when not to use his whistles? As I began my literature search, I realized not much had been done

on the topic; which is both helpful and hindering to me. Maybe I will discover some unknown tidbit in dolphin communication. On the other hand, I may not have a lot of background information to assist me in my research. One aspect that I will look at is the Coefficient of Association (COA): when a calf is whistling, I will note where other members of their kin (mother, in particular) are in the nearby water. Does this spatial range change with the age of calves? The other major variable I will review is the difference between wild dolphins and dolphins in human care. The two species and field sites I will be comparing are the wild Atlantic spotted dolphins residing off the coast of Bimini, The Bahamas and the captive Atlantic bottlenose dolphins that inhabit the RIMS facility in Roatan, Honduras. Other variables may include, but are not limited to, time of day, age and sex of the calf. My overall hypothesis is that the calves are in fact "learning" from their mothers, or other older individuals, and this is related to the proximity that they are holding in the group. I do not believe there will be significant differences between the wild and captive research sites as these are presumed to be natural behaviors exhibited by the dolphins, not behaviors that are trained as part of the human care environment.

### Background:

Darcie Blanding earned B.S. degrees in Marine Biology and Animal & Veterinary Science from URI in May 2004. She is currently completing her first year in the M.S. program at URI. Darcie holds a Graduate Assistantship position where she teaches an introductory Animal Science lab as well as puts in many long hours working on the University farm and as a "sheep mid-wife." She has also volunteered at the Marine Animal Lifeline in Maine, from where she originates. Before spending her summers in Bimini, Darcie worked as a Veterinary Assistant as well as Summer Camp Director for Waterboro Parks & Recreation in her hometown. Darcie was very involved on the URI campus as an undergraduate student and continues working with many of the same groups during graduate school.

***Internships:*** We offer internships to students for personal development and for college credit. Credit is

arranged by each intern with their school. Internships are offered on a semester basis. Please visit the Education page of DCP's web site, where there is a link directly to the college internships page of the MAIFE website, for details on internships and the application process. Please note that field positions are limited and only during summer months.

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### Marine Research Youth Conference

As we mentioned in the February newsletter, this May 16<sup>th</sup> will be the inaugural Marine Research Youth Conference held at MAIFE. This is an opportunity for students of all ages to share their scientific projects with each other and the aquarium community. The evening will include a "milk and cookies" reception. It will be a great experience for everyone. If you or your students would be interested in sharing a project, email [dcp@mysticaquarium.org](mailto:dcp@mysticaquarium.org) for more details! There is still time to sign up!

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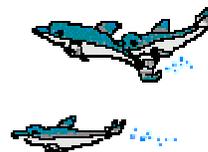
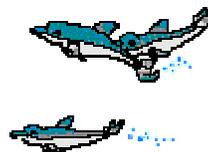
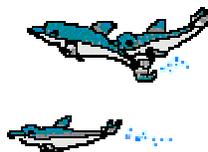
### Adopt-a-Dolphin Updates

We are proud to introduce "Lone Star" to all of our supporters. Spotted Dolphin ID #56 was given the name Lone Star by Thomas & PJ Whelan for their daughter Chelsea. Lone Star has now been added to our adoption roster!

*Lone Star (#56):* Lone Star is the mother of DCP ID #16, "Picky." Identified in the summer of 2002, by both her spot pattern and the nicks in her dorsal fin, Lone Star was seen early in the summer of 2003 showing off her older calf Picky. Although she was a bit more camera shy, she was seen again in 2004 and researchers look forward to seeing her during the 2005 field season.

If you would like to adopt Lone Star or any of our other spotted dolphins, you can do so by sending in the form at the end of this newsletter, or by going online:

<http://www.dolphincommunicationproject.org/Adopt.asp>



MAIFE is a non-profit (501c3) organization. Donations are tax-deductible. Consult your tax accountant for details.

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### Just for Laughs from John

#### A Tale of Absurdity

One dark day in the middle of the night,  
Two dead boys got up to fight,  
Back to back they faced each other,  
Drew their swords and shot each other,  
A deaf policeman heard the noise,  
Came and shot the two dead boys,  
If you believe not this tale so tall,  
Go ask the blind man,  
He saw it all.

Author Unknown

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### Programs at MAIFE

In addition to supporting DCP directly through our Adopt- and Name-A-Dolphin programs, you can support MAIFE through one of the following programs!

- ◆ Animal Parent Adoption Program- This already existing program allows people to "adopt" various different animals on site here at MAIFE.
- ◆ Marine Rescue Adoption Program- This newly designed program supports Marine Mammal and Sea Turtle Stranding Program (MMSTS).

Read on to learn more about the Marine Mammal and Sea Turtle Stranding Program!

## Mystic Aquarium & Institute for Exploration Marine Mammal & Sea Turtle Stranding Program

Mystic Aquarium & Institute for Exploration (MAIFE) has been responding to both live and dead marine mammal and sea turtle stranding calls since 1973. The activities of the Marine Mammal & Sea Turtle Stranding Program are directed primarily along the coasts of Connecticut, Rhode Island, and Fishers Island, NY. The Aquarium is also a founding member of the Northeast Regional Stranding Network.

According to the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973, it is illegal for an **unauthorized person** to disturb, handle, or feed marine mammals and sea turtles. It is also illegal to collect or possess parts of dead marine mammals and sea turtles. The Stranding Program at MAIFE has a Letter of Authorization (LOA) from National Oceanic and Atmospheric Administration (NOAA) Fisheries, which allows the staff's involvement with stranded marine mammals. Under the LOA, the Aquarium staff is allowed to and is responsible for collecting information on both live and dead animals that wash up on our beaches.

The Stranding Department maintains 2 different stranding centers on the campus of Mystic Aquarium. The Seal Rescue Clinic (SRC) is a designated area for the rehabilitation of stranded seals. It is capable of simultaneously housing and providing medical and rehabilitative care to 10 stranded seals. The Aquatic Animal Study Center (AASC) is the Aquarium's facility for rehabilitating stranded dolphins, porpoises, and small whales that do not exceed a weight limit of 1500 pounds. The Study Center consists of the two largest pools, which are the only ones of their kind, on the East Coast.

The Marine Mammal and Sea Turtle Stranding Program operates with just two paid employees and a volunteer force of over 30 individuals. The Program is under the direction of a permanent full time Stranding Coordinator, and supported by a permanent part time Stranding Assistant. Stranding volunteers assist in responding to stranding calls, assist with maintenance of the stranding facilities, and care for in-house stranded marine mammals. Without their perseverance and dedication, the rehabilitation process would not be possible.

The ultimate goal of the Marine Mammal & Sea Turtle Stranding Program is to release each stranded animal that is brought into the Aquarium for rehabilitation. In the effort to learn more about marine mammals, MAIFE occasionally releases animals with satellite tracking devices. In 1999, the Stranding Program released two pilot whales with satellite tags and received transmissions for 4 months. In addition, a harp seal released just 20 minutes from the Aquarium in June 2004, was still transmitting signals and providing migration data from Newfoundland, Canada in January 2005.

Mystic Aquarium & Institute for Exploration is a private, non-profit organization and its Marine Mammal & Sea Turtle Stranding Program is funded by the Aquarium's gate revenue, grant support, and in large part by private donations. The cost of operating the program is approximately \$250,000 annually, exclusive of a large marine mammal stranding and rescue. Meeting the growing demands of rescue and rehabilitation efforts has required a substantial investment of finances and resources.

## Spring 2005 Stranding Program Update

Now that we've introduced you to the Marine Mammal and Sea Turtle Stranding Program, we thought you might be ready for an update!

The 2005 stranding season was off to a typically slow start for most of January. It officially kicked off on the 29<sup>th</sup>, with the arrival of 2 seals into the Seal Rescue Clinic.

On this day, we brought in a yearling male hooded seal. Hooded seals are known as "ice seals", as they are typically found in the North Atlantic, drifting on ice flows in the deep ocean water. New England does not see a large number of hooded seals, so each stranding occurrence is treated with great care. The seal was picked up on a beach, in a protected cove of Jamestown, RI. It was treated for dehydration and intestinal parasites. This hooded seal spent just 41 days in rehabilitative care and was successfully released on March 10, 2005.

The other stranded seal we responded to on the 29<sup>th</sup> of January was a male yearling harbor seal. Harbor seals are quite common in New England waters and are often seen in large gregarious groups resting on rocks. This seal was found by itself, very lethargic, thin, and suffering from congestion. This animal has been rehabilitated, is no longer receiving medication and is awaiting release.

In February the phones began to ring more frequently with the arrival of the migratory harp seals. Harp seals, like hooded seals, are known as "ice seals." In New England, we begin to see juveniles from mid January to early May. They typically follow the receding snow and ice north as spring

approaches. In the absence of ice and snow, the juveniles will ingest sand and rocks and as a result become dehydrated. We saw an increase number of harp seal sighting calls in Connecticut this year. From January through March we received almost 100 calls about harp seals. Most of the seals that were spotted by beach-goers were healthy and resting on the beach. We brought in just 6 harp seals for rehabilitation. Three of those animals have already been successfully released.

During this stranding season, we have provided care to four different species of seals: hooded, harbor, harp, and also grey seals. We received a newborn female grey seal pup from the Cape Cod Stranding Network. This animal was abandoned by her mother and was found on a busy beach with lots of people and dogs. We also brought in a male grey seal pup. Both were likely still nursing from their mothers and therefore, did not know how to eat on their own. They required a tremendous amount of effort and energy during their critical care periods, before they ate fish on their own. Both are now eating well and we are hopeful for their successful release.

With the advent of spring, we began to receive our first dolphin and porpoise calls. Unfortunately, the one Atlantic white-sided dolphin and two harbor porpoises that were called in were already dead when they washed ashore. The number of seal calls has been dwindling, but regardless of the season, we are committed to providing a quick response to callers' concerns about stranded animals.

## **DCP Prepares for the 2005 Field Season!**

**For updates on each site throughout the season, be sure to read our Field Reports, posted regularly to the website [www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.org)**

### **Mikura Island, Japan**

Kathleen will be returning to Mikura Island, where she has been gathering data on a group of Indo-Pacific bottlenose dolphins since 1997. Actually, Kathleen has been collaborating with researchers from Mikura since 1994, but has systematically and consistently been observing the Indo-Pacific bottlenose dolphins around Mikura for her studies since 1997. Here Kathleen braves the cold water as she collaborates with eco-tour operators to observe and record these dolphins.

This year, Kathleen will be introducing Justin Gregg, a Ph.D. student at Trinity College in Dublin, Ireland, to the island, the culture, and of course, the dolphins. Justin has been diligently learning the Japanese language, as Kathleen only will be staying on Mikura Island for approximately two weeks before returning to the states for her first summer at home in 15 years! Her husband, family and dog-child Umi are all thrilled. Once Kathleen is off the island, Justin will continue DCP's research for the remainder of the field season.

Again this year DCP will collaborate with members of "bridge" in Japan to offer workshops for children in Enoshima and Tokyo. Justin will also lead a workshop on Mikura for the students on the island.

### **Bimini, The Bahamas**

Darcie Blanding (University of Rhode Island) and Kelly Melillo (Alaska Pacific University) are preparing for their departure for Bimini this June, where they will continue DCP's research on resident Atlantic spotted dolphins. DCP has been studying this group of dolphins since 2001. Darcie and Kelly will be in the field until the end of August, hopefully avoiding any hurricanes that may feel the need to pass over the island. During this three-month field season, they look forward to as many dolphin trips with Bimini Undersea as the weather will allow (BU operates a swim-with-dolphins program off Bimini: [www.biminiundersea.com](http://www.biminiundersea.com)).

The two also hope to visit all three of the local schools before summer vacation begins for students. Darcie and Kelly will miss working with Kathy DeStefano (Bimini field seasons 2003 & 2004), but will be very happy to still see her every day since she is now a full-time dive instructor with BU! Congrats Kathy! While in the field, Darcie and Kelly will both continue analyzing data from the 2003 and 2004 seasons for their respective master's theses.

### **RIMS, Honduras**

This fall, Kathleen will once again be returning to the field—this time for a short field season to the Roatan Institute for Marine Science (RIMS) at Anthony's Key Resort in Roatan, Honduras. Because this is a dolphins-in-human-care facility, the return on effort when gathering data is near 100%. As a result, the duration of a field season can be much shorter, yet still extremely productive. RIMS is home to a group of male and female Atlantic bottlenose dolphins, of various ages (and "dolphins-inalities") that reside in sea-pens. By studying dolphins-in-human-care, in addition to wild populations (Japan and The Bahamas), DCP can conduct comparison studies on the behaviors of the groups.

If you are interested in assisting Kathleen with her research at RIMS, please see the ecotour section at the end of this newsletter or visit the ecotour section of DCP's website:

<http://www.dolphincommunicationproject.org/ecotours.asp>

Stay tuned for a more detailed update on our RIMS field site in the summer newsletter!

*The Dolphin Gazette* is also available on-line at [www.dolphincommunicationproject.org/newsletter](http://www.dolphincommunicationproject.org/newsletter).

### **DCP Sponsorship Levels**

The following list defines the benefits for each level of sponsorship of DCP:

- \$15 Student:** welcome packet    **\$25 Individual:** welcome packet    **\$35 Foreign:** welcome packet  
**\$45 Family:** 3 note cards, 3 postcards & welcome packet (note: family sponsors consist of 2 or more individuals living in the same household.)  
**\$75 Supporting:** A copy of *Dolphins* video (while supplies last or a DCP season summary or *Dolphin Spirit* video), 3 note cards, 3 postcards & welcome packet  
**\$250 Contributing:** 1 DCP t-shirt, copy of *Dolphins* video (while supplies last, then a DCP season summary or *Dolphin Spirit*), 3 note cards, 3 postcards & welcome packet  
**\$500 Patron:** Limited edition matted print suitable for framing, 1 DCP t-shirt, a copy of *Dolphins* video (while supplies last, then a DCP season summary or *Dolphin Spirit*), 3 note cards, 3 postcards & welcome packet  
**\$1,000 Benefactor:** 20% discount for individual sponsors on a DCP Ecotour trip, limited edition matted print suitable for framing, 1 DCP t-shirt, a copy of *Dolphins* video (while supplies last, then a DCP season summary or *Dolphin Spirit*), 3 note cards, 3 postcards & welcome packet  
*Welcome Packet:* 1 packet of 5 bookmarks, welcome letter, DCP flyer, one-year subscription to the *Dolphin Gazette*, and a 10% discount on DCP-related merchandise.

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### ***Adopt-A-Dolphin & Name-A-Dolphin Programs***

Our Adopt-A-Dolphin and Name-A-Dolphin programs offer an opportunity for interested persons to help sponsor and fund our field research studying the spotted dolphins around Bimini Islands, The Bahamas. Our adoption program includes twenty-one different Atlantic spotted dolphins: *Buster, Cerra, Cleopatra, Dolphin Dandy, Finn, Freckles, Juliette, Lil' Jess, Lumpy, Nemo, Niecey, Picky, Prince William, Romeo, SplitJaw, Swoosh, Teardrops, Tina, Vincent* and *White Blotch*. *Lone Star* was just named recently and is now on our roster for adoption. You can read more about each dolphin on DCP's web site under the Bimini research or on the support page. Each one-year adoption costs \$30 while a name purchase is \$200 with the name being added to our permanent research database. Adoption packets include a certificate, photo of your dolphin, a spotted dolphin fact sheet, biographies of our named dolphins, a DCP flyer, and a copy of our most recent issue of *The Dolphin Gazette*, as well as the next 3 issues of our newsletter.

***Become a spotted dolphin parent today & support valuable scientific research!***

[www.dolphincommunicationproject.org](http://www.dolphincommunicationproject.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 are always available for processing data and working with our video and sound files in our office. For more details, see the Education page on the DCP web site, or contact Tim Robbins, Volunteer Manager at MAIFE. Tim can be reached at: 860-572-5955 x209. All DCP volunteers coordinate their time through Tim as well as Kathleen.

### ***DCP Roatan Ecotour Trips – Get ready for Fall 2005!***

We continue our studies of the dolphins at the RIMS, Anthony's Key Resort, Honduras. We have two weeklong trips available for persons interested in participating in our research: data collection and preliminary analyses. Of course, you'll also get to observe and interact with dolphins. The dates are: **10-17 September & 24 September – 1 October**. Deena Fabricant ([dfabricant@mysticaquarium.org](mailto:dfabricant@mysticaquarium.org)) and Bill Sperling ([bsperling@idyllwild.com](mailto:bsperling@idyllwild.com)) are handling all the logistics and sign ups. You can also find more details on our web site at: [www.dolphincommunicationproject.org/ecotours](http://www.dolphincommunicationproject.org/ecotours). We look forward to seeing you in Roatan!

*MAIFE is a non-profit (501c3) organization. Donations are tax-deductible. Consult your tax accountant for details.*

The Dolphin Gazette is also available on-line at [www.dolphincommunicationproject.org/newsletter](http://www.dolphincommunicationproject.org/newsletter).

**Yes! I want to sponsor the work of the Dolphin Communication Project.**

Please enroll me at the level checked below.

New Sponsor

Student \$15

Individual \$25

Foreign Individual \$35  
(outside USA)

Family \$45

Renewing Sponsor

Supporting \$75

Contributing \$250

Patron \$500

Benefactor \$1,000

Gift Sponsorship

**I would like to offer an additional  
gift of: \$\_\_\_\_\_.**

***Sponsorships to the Dolphin Communication Project are for one year.***

My check made out to DCP/MAIFE is enclosed. *(Credit card payment is available online.)*

Name: \_\_\_\_\_ If a gift, note gift recipient at left & your contact

Address: \_\_\_\_\_ name, address here: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Yes! I want to Adopt a Dolphin!**

Freckles SplitJaw Swoosh Juliette Romeo Dolphin Dandy Picky  
Cleopatra Finn Lil Jess Prince William Teardrops White Blotch  
Nemo Lone Star Niecey Lumpy Cerra Buster Tina Vincent

*Circle your choice, fill out the information above & send \$30.00 per adoption.*

Dolphin Communication Project  
Mystic Aquarium & Institute for  
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55 Coogan Blvd.  
Mystic, CT 06355

To:



MAIFE is a non-profit (501c3) organization. Donations are tax-deductible. Consult your tax accountant for details.