



The Dolphin Gazette

Volume 9, issue 1 (February 2005)

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

www.dolphincommunicationproject.org and www.mysticaquarium.org

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**A Note from Kathleen:** Happy Winter! I hope that you are all staying warm during the recent cold spell. Of course, if you live in a warmer climate, then I hope you are staying dry, unless you are in the water. Now that you all know I am writing this at the end of a very long day, let me alert you to a few changes: all good news. In December 2004, I accepted a second position at Mystic Aquarium & Institute for Exploration – Director of Development. I still oversee DCP and conduct research (as well as advise students) but I have also added Development duties to my roster. (Questions on my sanity and understanding of a 24 hr day not with standing.) With this promotion, DCP receives an operating budget to assure that our field programs (in The Bahamas, Honduras and Japan) are funded. So, DCP is expanding including student researchers in all of our field locations, though only Bimini offers field internships. Kelly Melillo and Darcie Blanding are participating more directly with DCP operations at MAIFE twice a week, acting as DCP Project Assistants. Their efforts are greatly appreciated! In the research arena, we have something new about which to update all our sponsors. We are coordinating with Dr. Mats Amundin and Dr. Christer Blomqvist from Kolmardens Djurpark, Sweden to study both the receiver and sender roles in dolphin communication. In English: we will be using MOSART tags that allow recordings of dolphin signals both when they receive sounds and when they send sounds. We will conduct this work with the dolphins at the Roatan Institute for Marine Sciences (RIMS), Honduras. We will post details as the program evolves but this is an exciting step in learning the meaning of many of the signals that dolphins use. For example, Blomqvist and Amundin have shown that dolphins use a pulsed sound with a short following whistle to mediate play fights. This sound allows them to communicate that the aggressive activity is not serious. This is similar to the submissive behavior that dogs show when playing. So, follow the web site updates and the next newsletter. Exciting things continue to happen with DCP, our students and interns and volunteers, as well as our research!

## A Comparison of Whistle Types and Behavioral Contexts

Shawn Makepeace

Master's Student, University of Connecticut

Shawn Makepeace is one DCP's Master's students. Below is a summary of Shawn's intended research topic. Her research abstract will soon be available on DCP's research topics page. Welcome Shawn!



### Plan of Study:

The physical characteristics of an environment may affect how an animal uses their senses to communicate. The development of sensory signals used in communication can be enhanced or constrained by environmental effects. For example, the underwater environment can be murky or relatively clear, but acoustic signals are more reliable for information transfer when compared to visual cues. An increase in vocalizations may be observed in more turbid, silty environments as compared to habitats with visibility greater than a few meters.

The focus of this research project is to examine any potential correlation between dolphin vocalizations (primarily whistles) given differing behavioral contexts recorded in three distinctive habitats. The habitat for each of the three dolphin groups has specific characteristics that may affect how and when dolphins might use specific vocal signals. The three dolphin groups are as follows, Free-ranging Bahamas' Atlantic spotted dolphins (*Stenella frontalis*) are north of Bimini Island, on the Western edge of the Bahamas Banks. Their habitat is a wide area of shallow sand banks (~20 m max) surrounded by deeper waters (~200 m). Wild Indo-Pacific bottlenose dolphins (*Tursiops aduncus*) reside around Mikura Island, Japan which is a dormant volcano surrounded various depths that range from 4 to 20 m within 200 m of the coastline. Bottom composition consists mostly of boulders ranging in size from centimeters to meters in circumference. The group of bottlenose dolphins (*Tursiops truncatus*) in human care resides at the Roatan Institute for Marine Sciences (RIMS), Anthony's Key Resort, Roatan, Honduras. They live in natural sea pens that include a shallow

coastal habitat comprised of coral, sand and sea grass.

Data from simultaneous visual and audio recordings of each of the three species will be used to analyze and investigate the following questions: (1) How does water clarity at each location affect acoustic communication? For instance, the Atlantic spotted dolphins of the Bahamas' reside in a habitat with exceptional water clarity unlike the Indo-Pacific dolphins of Mikura Island, Japan who live in more turbid conditions. Therefore, the Atlantic spotted dolphins will produce less vocalizations and rely on more non-verbal signals than the Indo-Pacific dolphins. (2) What other factors (i.e., behavioral or environmental) may cause the use of non-verbal communication rather than acoustic signals? For example, the Atlantic spotted dolphins may utilize body posture or positioning as a visual and behavioral signal rather than vocalizations in communication.

### Background:

Shawn became interested in dolphin communication as a child when she saw the dolphins at the Minnesota Zoo in Apple Valley, MN. She is especially interested in the acoustical aspect of dolphin communication because of her vision loss. She earned a B.S. in Marine Biology at the University of West Florida and worked with Dr. Stan Kuczaj in his Marine Mammal Cognition and Behavior Laboratory as well as with DCP. Sybil, Shawn's guide dog, is an extremely important part of her life. They were partnered together in 1999 and Sybil attended every class with Shawn, earning a certificate of attendance-although she slept through class, making the other students (and myself) jealous!

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**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 on the MAIFE website for details on application and internships. Field positions are limited and only during summer months.

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### DCP DRTs

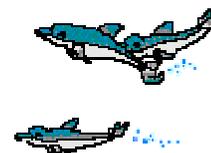
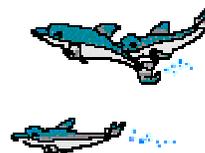
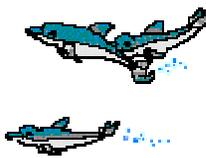
Those letters may sound a bit random, but they aren't! We are proud to announce DCP's "Dolphin Research Trainee" (DRTs- affectionately pronounced "dirts") program. Approximately twelve middle school students from Pine Point School in Stonington, CT are beginning their very own dolphin research with DCP! They will be invited into the DCP office at MAIFE, where they will be assisting in data analysis. The students are also exchanging letters with the students of Mikura Island, where they will even get to travel to this summer! DCP is very excited about this new collaboration and we look forward to working with all the new DRTs and other students and faculty at Pine Point School in Stonington, CT.

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### Recent and Upcoming Events

The evening of January 13<sup>th</sup> brought the rough cut screening of "Bridging the Ocean Divide," a film by John Anderson, Terramar Productions, that gives us a glimpse into cultural exchange and comparison between Japan and the United States over the last 150 years. The film features narration by Kathleen Dudzinski and Hayato Sakurai of the New Bedford Whaling Museum and was made possible by funding from the Japan US Friendship Commission in the form of a grant to Sea Research Foundation for the Dolphin Communication Project. Extremely well received at the screening, which took place at Pine Point School, the film will soon be available for purchase on DVD at MAIFE, the New Bedford Whaling Museum, and on the DCP website.

This May will bring the inaugural Marine Research Youth Conference to MAIFE. It will take place on May 17 & will showcase the research work done by the DRTs & many other students from around CT. We hope this will become an annual event. Stay tuned for more details.



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### NEW at DCP

We now have a new email address for general inquiries: [dcp@mysticaquarium.org](mailto:dcp@mysticaquarium.org). We can't wait for your emails!

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### NEW at MAIFE

Mystic Aquarium and Institute for Exploration (MAIFE) is proud to announce the newest member of their aquatic family. The newly named "Phoebe," is a harbor porpoise who was rescued in 2002 on the shores of Cape Cod. She was brought to MAIFE for rehabilitation and although she has recovered extremely well, it was determined that she could not be returned to the wild. She is adapting very well to her new home among the beluga whales here at the aquarium. Visit [www.mysticaquarium.org](http://www.mysticaquarium.org) for more details.

Also, the spring issue of the Dolphin Gazette will expand its focus to include information about all of the adoption programs available through MAIFE. These include:

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

Look for more details about these great opportunities in the spring!

### *Adopt-a-Dolphin 2004 Updates*

Here's an update on some familiar dolphins from the Bimini 2004 field season. Following these updates, we include information on our newly named dolphins.

#### **Cleopatra (#41):**

Cleo, as researchers call her, was seen 9 times this summer, tied with Nemo for the most often seen of our adopt-a-dolphins. It is now getting a little harder to identify her, as she is developing quite a few spots around the linear spot pattern that makes her so distinct.

#### **Finn Cusimano** (nickname: Finn, #09):

Finn, who just received his name in 2004, was seen 5 times! This dolphin still associates with Romeo, #10, and like to chase other juvenile dolphins in his group.

#### **Freckles (#15):**

We were able to confirm "Freckles Sightings" 4 times, but are pretty sure she was there a fifth time as well. A mature female, Freckles tended to stay to the periphery of the swimmers, but came near the boat to let us check her out—and maybe to check us out too!

#### **Juliette (#12):**

Juliette was seen quite often during 2003—usually in the company of Cleo. This year, however, we went the entire field season without seeing her. Kathy DeStefano (research associate) was able to go on a few post-season trips and is happy to report that Juliette is still around, associated with Cleo and...pregnant! We can't wait to see her and her calf next year.

#### **Lil' Jess (#35):**

Lil' Jess, another newly named dolphin, was seen 8 times and always guaranteed a good swim. A bit of a camera hog, Lil' Jess has not gotten the message that DCP researchers want to film her doing "her thing"—not showing off in front of the MVA1 and still cameras!

#### **Nemo (#76):**

Nemo, was named by research associate Kathy DeStefano, was seen 9 times—tied with Cleo for the most regularly seen dolphin this summer. He's doing quite well with his one strong pectoral fin and has gotten his first spots in the last year. Always a favorite among passengers, Nemo regularly swims by us in the water and loves to ride the bow of the boat.

#### **Picky (#16):**

We think Picky, named between the 2003 and 2004 field seasons, may have been around the boat once this summer, but she did not come by our camera. Since she was seen regularly with her mother, #56, in 2003, researchers look forward to seeing Picky in 2005—most likely with her first spots!

#### **Romeo (#10):**

Romeo, yet another newly named spotted dolphin, was seen 6 times this season, twice in the company of Finn. A young class 3 dolphin, Romeo still plays with seaweed and loves to do circle swims.

#### **Split Jaw (#22):**

Split Jaw is growing up very fast! Fully healed from his rostrum injury, he has developed a lot of dark spots that are pretty evenly distributed along his body—at the moment. This may change as he gets older! We saw Split Jaw 7 times this summer.

#### **Swoosh (#36):**

Swoosh is as fast as ever and was seen 8 times this summer. We'll always be able to pick her out by the marking on her dorsal fin, but like the other dolphins, we were able to see some new spots this year.

#### **Teardrops (#68):**

Teardrops, like Picky, was not seen this summer. This certainly doesn't mean she isn't out there though and we hope to see her in 2005. She only had a couple of spots when she was last seen in 2002, so she'll probably look quite different the next time we do see her!

#### **White Blotch (#29):**

We've been waiting all newsletter for this one! White Blotch had a calf in 2002, which she was seen with again in early 2003, but without later on that same season. It was presumed, sadly, that she lost the young calf. When researchers returned to Bimini in June of 2004, they saw that White Blotch was VERY pregnant again! We confirmed that she successfully had this calf (a female) when she brought her by the boat on 9 Aug 04. And we know she is a good mom, because when the other dolphins in the group led the boat into deeper water (~100 feet), White Blotch stayed behind in shallower water (~30 feet) to keep the calf safe. The calf seemed healthy and was quite curious about the boat and very playful with the other dolphins, some of which were young and some of which were adults. We can't wait to watch her grow and are hoping for the best for White Blotch and newest calf!

### ***Adopt-a-Dolphin 2004 Updates Cont'd***

Now, let us introduce you to some newly named dolphins now available for adoption!

#### **Buster (#04):**

Buster was one of the first dolphins seen by DCP researchers in 2001. Seen most recently in 2004, this sub-adult male is quick and curious. Unfortunately, Buster suffered an injury to his left side during July 2004. Researchers were very happy to see this dolphin healing nicely and keeping up with the group later this summer.

*Buster was named by Mike Ferry & Cindy Skinner 12/04*

#### **Cerra (#38):**

Cerra was first seen by DCP researchers in 2001. Seen frequently during the 2004 season, this dolphin is recognized by the spot pattern above her left pectoral fin. She is friendly and inquisitive and often seen with Juliette (#12) and Tina (#14).

*Cerra was named by Anthony Helms for Cerra Swack 12/04*

#### **Dolphin Dandy (#77):**

Dolphin Dandy was first seen by researchers this past summer and we believe he is the calf of #48. He was affectionately referred to as "Boo" as he suffered from a nasty injury on his right side. This injury has healed quite nicely though and he has no problem keeping up with others!

*Dolphin Dandy was named by Mr. & Mrs. Thomas Garnett 12/04*

#### **Lumpy (#17):**

Lumpy, an adult male, received this affectionate name because of the multiple grooves found behind his dorsal fin. Lumpy has been seen since 2001 and we do not know how he received his injuries, but they make him easy to identify! Lumpy also made a cameo appearance beside Freckles in the large format film, "Dolphins" from MacGillivray Freeman Films.

#### **Niecey (#48):**

Niecey is an older class 4 animal who was first seen by DCP researchers in 2001, then again in 2002 and 2004. She is curious individual who occasionally comes to check out our camera. We believe she is the mother of Buster (#77), who we first saw with #48 during the 2004 Bimini field season. She is not always an easily identified animal, but researchers know her by her spots patterns around her eyes and the small notches on her dorsal fin and

left pectoral fin. As with all of these dolphins, DCP looks forward to watching her and her offspring grow.  
*Niecey was named by JaNeice Vincz 01/05*

#### **Prince William Joseph of Wyckoff (#64):**

Nicknamed "Billy," this juvenile male was easily IDed even before he began to develop spots because of an unfortunate scar left from a serious shark bite. This injury was well healed by the time DCP researchers first saw him 2002. He is often found playing with other dolphins and certainly isn't camera shy!

*Billy was named by Samatha Hourihan for Mr. William Joseph Hourihan 09/04*

#### **Tina (#14):**

Tina is one of DCP researchers' favorite dolphins as she is easy to ID and very playful- with passengers and with other dolphins! First seen in 2002, she was regularly seen in 2003 and 2004, sometimes in the company of Split Jaw (#22) and Nemo (#76). IDed by the large spot and vertical scars on the left side of her peduncle, she sometimes very curious about our camera and sometimes completely oblivious!

*Tina was named by Jessica Wood for Pete, Amparo and Kyle Furey 11/04*

#### **Vincent (#11):**

While Vincent was first seen in 2001, he was not seen again until 2004—but boy did he make up for lost time! He is still quite curious for an adult dolphin and in 2004 he was even seen mimicking two people in the water. Easily identified by the cluster of spots around his genitals, DCP researchers were very pleased to see so much of Vincent this season.

*Vincent was named by DCP researcher Darcie Blanding and her family in honor of Darcie's late grandfather 10/04*

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The following poem was submitted by the Garnett family with their dolphin naming. Thanks! We hope you all enjoy it as much as we did.

#### **Dolphin Dandy**

Once upon a bathtub  
In the land of Washing Wave  
Lived a toy submarine  
Owned by Little Boy Dave.  
His name was Dolphin Dandy  
But it wasn't really true  
'Cause he couldn't wear his "Dolphins"  
'Till he proved what he could do.

A submarine's "Dolphins"  
Are more than just a shiny pin.  
They show with pride and honor  
He can work alone and win.  
So Dandy had to qualify  
In every single way.  
He had to sail around the block  
And return in just one day.  
A submarine needs water  
To move when engines turn  
But if - and where - the water was,  
Dandy had to learn.

From the bathtub to the fishpond  
Was the easiest part of all.  
He jumped right out the window  
And slid down the waterfall.  
The fishpond was a lovely place  
To swim and dive all day  
So he opened up his ballast tanks  
And filled them all the way.  
The water made him heavy  
And he sank down very deep.  
Then he blew the water out -  
Like snoring in his sleep.

But when he floated to the top  
He felt a heavy dread.  
The sun was half across the sky  
With most the block ahead.  
A little baby's wading pool  
Was a nifty spot to swim.  
So with a great big hefty jump  
He landed right within.  
A sprinkler that a neighbor  
Had turned on to water grass  
Caught Dandy's eye at once  
Because it sparkled just like glass.  
He sailed around the sprinkler  
While having lots of fun  
When he saw a garden bucket  
Filled with water in the sun.  
Although he didn't want to,  
He left the sprinkler's swirl  
And landed in the bucket  
And tipped it over with a whirl.  
With the water running out of it

Dandy got a treat.  
He sailed the tide the water made  
And headed for the street.  
In the gutters off the curbing  
Were waters from a rain  
And Dandy sailed quite rapidly  
Without a bit of pain.  
But suddenly he scraped the ground.  
It wasn't even wet!  
He looked up in the sky and saw  
The sun was almost set!  
He had half an hour left to get  
Back to the tub before the night  
And there wasn't any water in Dolphin Dandy's  
sight!

Little Boy Dave was scared,  
Watching from within.  
He didn't think his submarine  
Could earn his "Dolphin's" pin.  
So Dave knelt down and said his prayers.  
He voiced around his fears.  
And though he tried he couldn't help  
But burst out into tears.  
He looked out of the window  
And began to cry and cry.  
He thought if Dandy didn't win  
They both would surely die.

But suddenly a miracle!  
There was water all around.  
And Dandy started sailing  
Again across the ground.  
Back to the sprinkler, then the tub.  
Now there were not any fears.  
As Dandy glided right along  
On Davey's loving tears.  
Dave grabbed his submarine at last.  
Just one last thing to do!  
Drink the water in the tub  
Then he was really through.  
And when his ballast tanks were full  
He saw his "Dolphin's" pin  
And knew that he was qualified  
To do his work and win.

*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 nine different Atlantic spotted dolphins: Cleopatra, Finn, Freckles, Juliette, Lil' Jess, Nemo, Picky, Romeo, SplitJaw, Swoosh, Teardrops, and White Blotch. Buster, Cerra, Dolphin Dandy, Lumpy, Niecey, Prince William, Tina and Vincent were just named recently and are 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 did 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 2005 Fall!***

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 Nemo Picky  
Cleopatra Finn Lil Jess Prince William Teardrops White Blotch  
Dolphin Dandy 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  
Exploration  
55 Coogan Blvd.  
Mystic, CT 06355

To:



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