



DIFFERENT STYLES FOR DIFFERENT SPECIES

Dolphin Research Center is home to three very important animals that aren't dolphins at all. I am talking about our three fabulous sea lions Kilo, Karen, and Lina. One of the most common questions we get as marine mammal trainers is, "How is training sea lions different from training dolphins?" This is never a short answer as there are many differences between working with the two species. However there are also a lot of similarities between training sea lions, dolphins, dogs, and pretty much any animal for that matter.

All of our teaching techniques with DRC's marine mammal family are based on the principles of operant conditioning



Photo by: DRC staff
Talon is happy to take a watery stroll, so to speak, with his long-time friend, V.P. of Animal Care and Training Linda Erb.

and positive reinforcement. To simplify: we reward behavior we want to increase and ignore behavior we would like to decrease. You probably use the

same techniques with your dogs, children and spouses. However, depending on the species you are working with, you make adaptations. For example your child may love the reward of an hour playing with your iPad, however your dog will not find that as reinforcing, except maybe to chew it up, but then that would be applying punishment to you!

When your goal is to teach, you must first know your student. Dolphins live in big social groups and at DRC we see that the roles they play are often based on the individual's strengths, not always whether they are male or female. Dolphins tend to thrive on variety. Baby

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PROJECT ODYSSEY

Dolphin Research Center (DRC) has worked in partnership with the Wounded Warrior Project (WWP) since 2009, supporting goals that promote a healthy transition to civilian life for our severely wounded heroes. In May, we collaborated with WWP on a new program called *Project Odyssey*. It was named after Homer's *Odyssey* - the legendary saga of a hero's journey home. The warriors flew into Key West from various parts of Florida and nearby states, ready to meet their peers on a parallel journey.

DRC designed a three-day retreat for eleven warriors who



Photo by: Katy Donegan
He'd already experienced a dorsal pull in the Dolphin Encounter, so this man knew just how to set up for the behavior, even though he was floating on an inflatable ring!

had been diagnosed with traumatic brain injury and Post-Traumatic Stress Disorder (PTSD), and three

WWP staff. The program's core goals of bonding with others on similar journeys, connecting with nature, and learning new skills in a novel setting were tailor made for experiences with intelligent, social dolphins at DRC.

The warriors arrived each morning for group discussion and an orientation that described the day's planned dolphin experience. The dolphin interaction followed and each day closed with a group lunch to relax, share, and anchor the experience.

With the warriors' diagnoses in mind, Joan Mehew (Director of Special Needs), Linda Erb (V.P. of

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BECOME PART OF THE ADVENTURE

Dolphin Research Center is a not-for-profit organization that conducts innovative research and education projects. We invite you to join our unique family by becoming a member of the Dolphin Society. As a member, your tax-deductible donation will help us provide the best environment and care humanly possible for the dolphins and sea lions who call DRC home. Your membership will also support our manatee rescue program and provide the educational programs that encourage our guests to become ambassadors for all marine animals and the environment we share. Annual memberships are available in several levels:

Individual (\$40 for adults, \$25 for full-time students with proof of enrollment) – receive a subscription to the *Dolphin Society* newsletter, our e-newsletter, a 10% discount on most gift shop items, free admission for one to DRC for one year, and one free guest pass.

Trio (\$70) – receive all the benefits of an individual membership plus free admission to DRC for up three people for one year.

Gray Cross (\$90) – receive all the benefits of the Trio membership plus a subscription to our quarterly *Gray Cross* newsletter and free admission to DRC for up to four people for one year.

Sponsor (\$150) – receive all the benefits of the Gray Cross membership plus the opportunity to sponsor a narrated session at DRC and admission for up to five people for one year.

Research Team (\$500) – receive all the benefits of the Sponsor membership plus receive a personal tour of the Research Tower (by appointment) and admission for up to six people for one year.

Memberships can be purchased via our website at www.dolphins.org, by phone (305) 289-1121 X229, or by mailing your check or credit card number to DRC, 58901 Overseas Highway, Grassy Key, FL 33050. Please note that memberships are not transferable and the member must present photo identification for admission.



VOLUNTEER UPDATE

Our snow birds returned to the north for the summer and our ten spring interns spread their wings and continued on their journeys.

Wonderfully, two didn't travel far; they accepted positions as staff members. We were not left with an empty nest, however. The summer sun brought a new clutch of 13 interns and a small number of resource pool volunteers.



Photo by: Brandi Castle
At the end of a busy day, Jesse Parker, an accomplished musician, played a few tunes, much to Cayo's delight.

Our volunteers come to us from across the world and from right down the road. With them they bring diverse interests and skills. You might not notice all they do, but if you take a look around DRC you can see some spectacular

work. Take a walk through the children's educational area and you'll see master craftsmanship in the woodworking and painting of the "Sensational Skin" and "Whale Sounds" boxes. Green thumbs and new plants add to the Veterans' Garden. Great stories and lessons are taught during Whale Wagon sessions. Late in the afternoon you might hear a lone guitar or a melodious voice enriching our birds or dolphins with a goodnight lullaby. Many thanks to all volunteers for everything you do to support the dolphins and organization.

-Becca Rabczak

RESEARCH CORNER

In the last few "Corners," we discussed DRC's main research areas: Cognition, Behavior, and Husbandry. Today, let's talk husbandry.

Studies of husbandry focus on the care and health of our dolphin and sea lion family. Dolphins and sea lions at DRC know a number of voluntary medical behaviors to help us monitor their health, take medical samples (such as blood or urine), and give them treatment when necessary. This is all part of their normal routine because their well being is our top priority. Sometimes in the course of this, we discover something or develop a procedure that we want to share with

the world. So we present it at conferences and/or write it up for scientific publication, so that the efforts DRC puts into our own

dolphins' and sea lions' care can impact the lives of other animals, too.

Examples of husbandry research include Ovarian Follicular Dynamics (exploring a method for determining

ovulation for artificial insemination), and Fetal Echocardiography (monitoring a calf's heart in-utero).

Have a research question? It might be the topic of our next "Corner". Email them to: research@dolphins.org.

-Emily Guarino



Photo by: Lauren Pickard
With Gypsi's full, relaxed cooperation, and some steadying from trainer Kelly Jayne Rodriguez, Medical Director Pat Clough (r) is able to easily perform an ultrasound examination.

Animal Care and Training), and Lorie Keaton (Director of Animal Care and Training) brainstormed how best to structure the warriors' time at DRC. The dolphin sessions were scheduled in a sequence that we felt would allow and invite the men to smoothly move from their inner world to connect with their outer world in a stress-free, nurturing environment.

For Day One, we scheduled a dolphin swim. As the dolphins invited the men to enter their lagoon home, the men encouraged each other to take part in a variety of dolphin interactions and learn about behavior and anatomy. This encounter proved to be the perfect ice breaker! It was a comfortable way to meet the dolphins who moved in and interacted with the men individually and in-group. The natural curiosity and unconditional acceptance from the dolphins helped the men to relax, enjoy the moment, and have fun. The smiles, laughter, and bonding began!

Day Two, we scheduled dock sessions. Small groups were formed, consisting of two warriors at each dock with a trainer and a dolphin. The men learned hand signals that trainers use to communicate with the dolphins, with each signal broken down into four steps: Stationing the dolphin, or asking for their attention; showing the hand signal that asked for a particular behavior; blowing a whistle to tell the dolphin that he or she had correctly performed the requested behavior; and then cheering and applauding to positively reinforce the dolphin. The dock sessions were specifically structured to be stress-free and fun for all involved while allowing the warriors to learn new skills. The trainers coached, but it was up to the warrior to communicate. It is a unique experience; slowing down communication with another species and having them look at you, wondering what you are going

to "say." Being in the moment and fully present may be the first small step for the warriors to bridge back into their personal lives. At the end of this day, one of the men commented, "I thought I had forgotten how to play, and today the dolphins reminded me. I can go back home and play with my wife and kids again."

Day Three, we scheduled a new experience called enrichment. In the past, this was something trainers did to enrich the dolphins' lives in fresh, new ways. The trainers demonstrated the activity first by entering the lagoons on flotation devices like rafts, surf boards, or an inflatable boat. They brought ice, gelatin cubes and toys and devised a game or interaction that got the dolphins' attention. Together, dolphins and humans enjoyed each other in novel ways. Now it was the warriors' turn! The men knew this was a DRC first! They were excited by the challenge and felt a responsibility to do this activity.

Once the warriors felt comfortable in their new role and the dolphins sized them up, the interactions began. It was exciting to watch them use what they learned about the dolphins to create a playful connection. Some splashed water, which invited the dolphins to splash them back. Others used hand signals they'd learned the day before to ask the dolphins for certain behaviors. Often, the dolphins would position themselves alongside the board or boat, and offer a dorsal fin. Thanks to the previous swim encounter, the warriors knew to grasp the fin so their grey friend could pull them across the lagoon! The respect and enjoyment they gave and received from their new dolphin relationships brought an overwhelming feeling of joy to the staff. The warriors and dolphins connecting was an incredible sight to behold.

During lunch, after each day's session, the men and DRC staff

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Adopt-A-Dolphin

You can sponsor your favorite dolphin or sea lion at DRC through our Adopt-A-Dolphin or Sea Lion program. Experience the warm feeling that comes with knowing that you are helping to provide for the care and feeding of your friend. Your tax-deductible donation for a membership will help us to fulfill our promise to provide the finest home humanly possible for our marine mammal family. Memberships are available in several levels:

E-Dolfriend (\$15) – receive an electronic membership that includes a subscription to our monthly e-newsletter and an e-mailed full-color certificate with your favorite dolphin or sea lion's picture and a biography about your friend you can print out at home.

Dolfriend (\$50) – receive a subscription to the *Dolphin Society* newsletter, our e-newsletter, a 10% discount on most gift shop items, a color certificate with your dolphin or sea lion's picture, a biography about your friend, free admission for two to DRC for one year, and one free guest pass.

Pod Pal (\$100) – receive all the benefits of a Dolfriend membership plus a subscription to our *Gray Cross* newsletter and free admission to DRC for up to four people for one year.

Parent (\$240) – Provide the ultimate support for your friend by pledging \$20 per month to sponsor one of their meals each month. You will receive all the benefits of a Pod Pal membership plus free admission for up to five people for one year and silver bucket stickers for your certificate to represent the meals you provided for your dolphin or sea lion friend.

Adopt-A-Dolphin or Sea Lion memberships make a great gift and can be purchased via our website at www.dolphins.org, by phone (305) 289-1121 X229, or by mailing your check or credit card number to DRC, 58901 Overseas Highway, Grassy Key, FL 33050. Please note that memberships are not transferable and the member must present photo identification for admission.

www.dolphins.org

Innerspace or cyberspace, the dolphins of Dolphin Research Center look forward to your visit.

dolphins are the responsibility of not only their mother, but also the entire pod participates in raising them. Sea lions are also social animals, especially during the summers when they are breeding (known as rut). However there is much more of a difference between the male sea lions and female sea lions. The males are much larger, and during rut their goal is to gather as many females as they can and defend them from all

other males. They display a lot of dominance behavior and posturing, constantly reading each other's body language. Once the pups are born, the mother sea lion takes care of her pup until weaning, then it is on its own. This is different than dolphins, where even once weaned it is fairly common for the youngsters to stay in the pod and continue to develop relationships with their family. So, what does all this mean when you are training a dolphin or sea lion?

With our dolphins we offer a lot of variety in their day. They can work with various lagoon mates, thus capitalizing on their social relationships, at different docks and in different lagoons. They can be offered lots of different toys, including novel "people"-our guests - and they find all of these experiences rewarding. The dolphins never know what a session may bring. Because we find that dolphins bring the curiosity and competitiveness from their

dolphin families to their learning sessions, it is common for a trainer to use the "jealousy factor" when working with a pair of dolphins,



Over time, Karen and trainer Kelly Jayne Rodriguez developed a great relationship and are obviously comfortable with each other.

Photo by: Krissy Wejbe

especially the females. If Merina refuses to do a particular behavior and the trainer turns and offers the same to Aleta, all of a sudden Merina wants to do it. Another thing that is unique about dolphins is that most of our communication with them is with us on land, them in the water. We shape their behavior by approximations, using our hands or target poles to guide them through the process. Confusion in the early stages of teaching a new behavior is fairly common, but the dolphins adapt and roll with it. They are very forgiving that we are limited in our ability to communicate with them!

Sea lion training has similarities, but also some obvious differences from dolphin training. Physically, the biggest difference is that sea lions can walk right up to us! In some instances you can physically manipulate them as you would a dog or child. For example, to teach them to lift a flipper you can reach down and touch or pick

it up. The down side to them being so close is that, well, they are that close to you! Adult male sea lions can range in size from 500 to 1000 pounds, whereas adult females are closer to 150 to 250 pounds. Either way, they are a lot bigger than most trainers, so there is a potential for injury if the sea lion behaves inappropriately. Therefore with all sea lion training we have safety protocols in place. Remember when I mentioned earlier how much sea lions read body language? Well, as trainers we implemented using a second trainer who is also in the enclosure when one of us works with a

sea lion.

This second pair of eyes helps watch behavior. Sea lions don't like surprises, thrive on consistency, and want to understand your expectations. Please don't throw them any curve balls. If a sea lion gets confused or frustrated, they usually display body language that is easy to recognize when you know what to look for. A widening of the eyes or a curl of the lip means that you, as a trainer, are confusing your friend. Better get back to basics and clearly communicate. During rut, if Kilo does a lip curl in a session, the trainer finds a way to positively end the session right away. Hormones are at play with a mature male sea lion and we don't want to ask him to focus on jumping and waving when his body is telling him he has other priorities!

How do dolphins handle confusion in their learning sessions? Granted, they don't have mobile face muscles, but they do show

surprise through their eyes and body language. They sometimes swim away from the dock and return when they are calm. Sea lions might leave, or they might react the way they would in nature, by using their teeth. For that reason our trainers practice very clear communication with them, take things in smaller steps at times, and don't push a point that they may not be getting. Our general rule with sea lions is to ask twice. If they don't get it, move on to another behavior that they can feel positive about correctly demonstrating.

We train our sea lions "placement behaviors". They learn to go to a location and stay there until we give them further direction. These behaviors include going to a target, a seat, the water, their house, and the dock. Kilo understands a point cue so, for example, we can point at the specific seat we want him to use. Lina is just learning to generalize the word "seat". To her "seat" means only the one that she is on or near. But she is quickly learning to follow the trainer's cues. These behaviors are important because they provide the sea lion with clear information. They also give the trainer a way to put the sea lion a distance from them in a safe, understandable way. The placement behaviors are always well rewarded, even if the sea lion has just missed a signal or incorrectly performed. This helps the sea lion feel confident and good about doing behaviors, even if he was just confused about something.

With dolphins we don't train placement behaviors. Instead, we teach them a game we call "follow me". The trainer gets up and moves around the dock, then goes to other docks or shorelines, and the dolphins follow. Another way we move them around is to signal them with a point toward another location. The trainer at the other spot makes a sound

underwater, and the dolphin races to that location. We can also ask the dolphins to gate into adjoining lagoons. So with both species we teach behaviors that ask them to move around. With the sea lions we always send them ahead of us, so we can watch and redirect them if they get confused. With the dolphins sometimes we lead, sometimes they lead, and either way works!

Another teaching point worth mentioning is the signals or cues that the dolphins and sea lions learn. Really anything can be a signal. At DRC we usually show a hand signal to the animals, since they so closely watch our bodies. Mandy tells a story of years ago when a dolphin did different behaviors based on which shape you held up: triangle meant dive, circle meant speed run! There are some signals, with the dolphins especially, which are tactile or touch signals. If you touch them on their chin when they are upside down, they wiggle their flippers.

Additionally both dolphins and sea lions are able to learn auditory or verbal signals. For dolphins, hearing airborne words can sometimes be difficult, as their ears are right at the waterline. If there is splashing going on, they might miss the cue. However, several of our dolphins do understand words - just ask Merina to stick out her "tongue" and see what happens! For sea lions, it is usually easier since they are often on land when we work with them so we make a big effort to train our sea lions verbal cues for all of their behaviors. Kilo understands both hand signals and verbal words for almost his entire behavioral repertoire. He has been learning words since he was a year old. Lina, our three year old, and Karen our 25 year old sea lion are both now learning verbal signals. It is challenging to learn these words, because they mean nothing to a sea lion. What is most important to

them is watching our behavior, the same way they watch each other's actions.

Why, then, do we take all the time to teach verbal signals to sea lions? One big reason is their eyes. Karen had over 80 behaviors on hand signals alone, and lost most of those when she lost her eyesight. In her years with us her trainers have been successful in transferring only one behavior to a verbal cue: When trainers say "Talk!", Karen roars! Unfortunately eye problems are common in sea lions, both in the wild and in human care. It is not a matter of if, but when they will occur. If we only train hand signals, we set them up to be confused and unsure when they have eye problems later in life. Our loveable Loki who lived at DRC years ago was a great example of this. Like Kilo, Loki knew both hand signals and verbals. When he needed surgery for eye problems as he got older, he handled the recovery with ease. Even with compromised vision, he understood everything his trainers asked of him, because he knew the words.

These are only a few of the ways that teaching sea lions is different than teaching dolphins. What is the main way they are the same? Your honesty! No matter whether a furry or gray face is in front of you, as a trainer you must be there for them! They read us like a book, literally. Positive, confident energy is probably the best thing any trainer brings to a session, regardless of who or what species they are training. Isn't that the same in life for all of us? Bring your A-game, show your love, and confidence in your pupil will mirror that! So go forth and teach someone something new to day!

-Linda Erb

TIDBITS

Merina: Merina has apparently decided that the one and two year olds need to be schooled in the art of fish inspection. Merina was seen by several staff and employees carrying a needle fish in her mouth and showing it to son Flagler and his buddies Delta and Louie. Unfortunately, Merina forgot about the “Reduce, Reuse, and Recycle” motto that we live by here at DRC, and tossed the needlefish onto the rocks when she was through with the demonstration. Luckily a trainer was close by and able to save it from becoming a fish fry.

Louie: Louie has become very proficient at the game of “me and my shadow”. We often see him following the trainers along the docks and imitating their movement while they are working with the dolphins in the next lagoon. A trainer was racing back and forth on the boardwalk one day, playing “tag” with Luna, and Louie exactly followed the trainer’s actions. The trainer mainly focused on Luna, who the session was with, but could not help involving Louie as well, much to the delight of both the guests and the little guy!

Jax: Jax has found a new profession...co-pilot. During a special needs swim session, Jax, who was in the middle of enjoying a *Play with a Dolphin* program with a few guests, decided that A.J. and Tanner might want an extra wingman for their dorsal pull with a participant in our *Dolphin Pathways* program. Jax politely

excused himself from the *Play* participants to swim alongside his lagoon mates. Once he had escorted them all the way back to the dock, he rejoined his trainer and guests and picked up right where he left off with the play session.

Molly: Our resident “senior”, and I mean that both figuratively and literally, dolphin earned the distinctive honor of being inducted as a member into the General Federation of Women’s Club of Broward County. The GFWC is a non-profit organization whose purpose is to promote and provide civic, educational and charitable activities. This is a perfect fit for Molly, as she is very in touch with her community. She is one of the first dolphins to greet our guests as the



Photo by: Katy Donegan
Our little Gypsi is so full of energy and spunk. When she pops up and screams, she gets lots of attention, just like her mamma Tursi.

approach the front lagoon. She is very good at educating both staff and public alike on everything from how to be a lady to the importance of getting out a good belly laugh on a daily basis. Molly is also extremely charitable, as she is one of the best dolphins at bringing presents to our guests and staff. Whether it is a mangrove pod or one of her treasured scarves, Molly never lets anyone leave empty handed. Congratulations, Molly!

Santini: This over achiever is an inspiration to pregnant women everywhere. I remember my doctor telling me the importance of staying physically active throughout my pregnancy. Tina has literally taken it to the next level. She soars higher than most of the dolphins in her lagoon and

does it with unrivaled vigor. If you listen carefully when she is diving, you can almost hear her little calf saying “Wheeeee!”

Delta: It looks like Delta has inherited the vanity trait from his mother, Aleta. The other day, Molly was cruising around with her scarf on her flipper, which is a common sight here at DRC. Delta happened to pass by and, possibly by accident, swam right into the scarf and picked it up with his head. He continued swimming around with the scarf completely covering his cute little face. Apparently he felt that it was a good look for him because he refused to give it back to Molly, who patiently followed him, for several minutes. Who knew two year olds were so good at accessorizing?

Cayo: This little lady has been practicing the fine art of “People Calling”. It’s similar to duck calling, but with people! Cayo waits until she sees her target walk onto the causeway, then begins screaming in that oh so beautiful voice of hers until people stop and chat. Her lagoon mates, Gypsi and Luna, are also very efficient at this, but Cayo always seems to vie for the closest spot to the causeway so she can get the praise from the guest rained on her first.

Gypsi: Gypsi has been working on her hide and seek skills. One of my favorite things to do when I walk out on the causeway is to engage Gypsi in a quick game. I hide behind the tiki pilings, signage, and even the wooden trash bins and pop out just when Gypsi starts to swim away. She always screams as if I got the drop on her, but the other day, just when I thought she was going to show up at the other end of her lagoon, she popped up right in front of where I was standing and screamed. It actually made me jump!!!

Luna: We need to rename this little lady Pickle, as in pickle in the middle. She is almost always found sandwiched

between her lagoon mates, Cayo and Gypsi, both of whom are the same age (five) and about the same size. Luna, only two and a bit smaller, seems to think that she is the crême filling

to their Oreo sandwich. No matter where they are in the lagoon, Luna finds a way to squeeze in between the two of them. Guess she just wants to hang out with the “in crowd”.

Aleta: Aleta is most definitely one of our more “It’s all about me” family members, and she proves that on a daily basis. The other day I walked past the front lagoon on the way to the fish house and Aleta was, of course, there to say hello. She was in the same spot when I left and headed out towards the causeway. As I came around just past the sea lion habitat, I stopped at the bridge to wait for the guests, and there sat Aleta, picking up right where she left off, as if to say, “You think I give up that easily?” I could not resist and tossed her a capelin for her tenacity. As always, Aleta wins.

A.J.: A.J. found a way to entertain himself the other morning, and ended up entertaining staff as well. Apparently neither Jax nor Tanner was interested in a game of basketball so A.J. decided to play by himself. Ashley from the Education Dept. was visiting the boys during docktime and found A.J. not only tossing the

ball around but also having a blast trying to float his entire body on the ball, and then watching it pop up from underneath him. He did this repeatedly for several minutes. I am sure he was spurred on by the laughter coming from the crowd that had gathered to watch him get his game on.



Photo by: Kara Pascucci

When the three young girls gather to greet visitors, it’s common to see Luna in the middle of the group as she is in this picture between Gypsi on the left and Cayo on the right.

Tanner: Tanner never ceases to make us laugh. His parents, Santini and A.J., are known for their comedic prowess as well. The other day during one of our *Dolphin Explorer* programs, in which our guests get to participate in research related activities with the dolphins, the trainer had a squeeze toy and asked Tanner to



Photo by: Kathi Rogers

Santini might be more than halfway through her pregnancy, but she’s still reaching great heights in her jumps!

imitate the sound it made. Now the sound is very similar to the “fog horn” sound that the dolphins often make. This toy seemed to tickle Tanner’s funny bone. Every time Laura squeezed the toy, Tanner giggled, much to the crowd’s

delight.

Calusa: Here at DRC, our Education and Training staff spend a lot of time on the microphone, educating and talking to the guests. From personal experience, I can say that I always think my voice sounds funny when I hear it played back on video. Well, the other day the Director of Education, Kirsten, was recording Calusa’s voice to use in a DRC project. Kirsten decided to play the recording back for Calusa, thinking maybe she would imitate it. Instead each time she heard it, she giggled. Evidently I am not the only one who thinks my voice sounds funny.

Pax: I have known Pax since he was four years old and have had the pleasure of watching him grow into an intelligent and fun loving guy. I love talking to the guests about his amazing athletic ability. However, the other day he gave me the impression that the feeling is not mutual. During a session I brought out the football and, as always, his eyes widened with excitement and anticipation. This is, after all, his sport of choice.

I then proceeded to ask him to “go long” so I could pass him the ball. He popped up only three feet away! I asked him to go farther and he did, but just as I was about to throw the ball, he came zooming in closer. I tossed a piece of ice, pretty far I might add, to give him the idea of where I would like him to go, and he just looked at me as if to say, “I have seen you throw. Not happening.” I realized he was not going to budge on this, so I tossed the ball to him just a few feet away...and missed. Point taken, Pax! I would like to add that I was quarterback on my high school football team, 20 years ago.

Sandy: Sandy has been honing his honking skills. Yes, I said honking. For anyone that

Ocean Notions



Did you know that dolphins have many of the same senses we do, but one we don't have? We also have one that they don't. Can you guess which one?

Humans and dolphins have the senses of touch, taste, sight and hearing. Dolphins like to let their friends know how much they like them. Sometimes they do this by touching flippers, kind of like holding hands! Dolphins can taste food with their tongues, just like us. Sometimes they can be picky about what they eat (ask Pandora)!

Dolphins have great eyesight both above and below water but, if the water is cloudy, they need to use their best sense - hearing! Because light does not travel far down into the water, the ocean can be a dark place to live. Sound moves through water better than light, so dolphins rely on sound to find food and other dolphins, avoid sharks and keep from bumping into things in the dark. How do they avoid bumping into things when it's too dark to see? Dolphins have an extra special sense of hearing called echolocation. Echolocation means using echoes to find things. Have you ever yelled in a big room or cave and heard your voice bounce back? Dolphins do the same thing and have learned to use those echoes to "see" objects in front of them. This makes hearing their most important sense, since echolocation works even in the dark!

What about smell? We can smell, but dolphins can't! Since they use echolocation and live under the water, dolphins don't need to smell their food. This is pretty nice since fish can be stinky.

-Kirsten Donald



Photo by: Kara Pascucci
Merina uses her beautiful eyes to see above and below the surface of the water.

Draw a line from the animal (Yes, people are animals too!) to the sense that is most important for it to use. Hint: Figure out a manatee's most important sense by finding the other three first!

DOG



HEARING



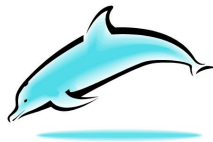
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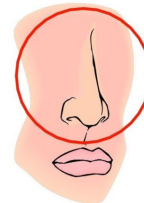
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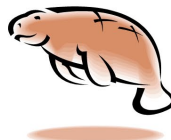
DOLPHIN



SMELL



MANATEE



SIGHT



has been to DRC, you are familiar with our dolphins showing their excitement through lots of noise making, usually high pitched screams. Well, Sandy does his share of screaming, but he is also notorious for his “honk” of excitement. This sound normally comes as a short burst of a “honk” following a behavior he is particularly proud of like belly flops, doing the hula, etc. However, his honks are not only becoming more frequent, but also much longer in duration, much to the delight of staff and guests alike. Next time you are in the area, come and see Sandy and “honk” if you like what you see.

Rainbow: I have always thought of Bo as a gentleman. For being one of our largest dolphins, he gives the most gentle kisses and his hugs are sublime. Yet it’s his impeccable manners that make me smile. After all, Bo is one of the most reliable dolphins when it comes to retrieving something dropped in the water. From sunglasses to brochures accidentally falling in, if he is right there, he will promptly bring them back to you. However, the other day, his chivalry extended beyond what we needed. One of our Education Instructors put an underwater microphone in the water to allow guests to hear the dolphins’ conversations. Rainbow thought that the hydrophone was accidentally dropped into the lagoon and kept trying to hand it back. Each time the instructor put it in a different spot in the lagoon, Bo lifted it up on his rostrum and screamed as if to say, “You’re welcome!” I guess chivalry is not dead.

Talon: Even though football season is still a few months away, Talon is working on his throwing skills. Like his younger brother, Pax, Talon has a special place in his heart for football. He is particularly proud of his ability to

toss the ball mid-dive. Normally it goes just a few feet in the air, and he then picks it up and brings it back to his trainer. Talon must have heard there were athletic scouts in the area, because his tosses have turned into full blown “Hail Mary” passes that go several feet up in the air, and sometimes land in the mangroves! I guess we shouldn’t be surprised since he is known as our athletic all star.

Kibby: Even though Kibby is known as one of the most “laid back” dolphins here at DRC, he is



*Photo by: Kathi Rogers
Karen and Lina have really bonded. Guests who see the two of them often assume they’re mother and daughter.*

also famous for being one of the loudest. His screams of excitement can probably be heard all the way in Key West. This is usually his way of showing his enthusiasm or trying to get your attention. Well, the other day, Kibby decided to make another sound to get my attention while I was narrating at the lagoon right next to his. Almost everyone who has been to DRC is familiar with the raspberry that sounds an awful lot like a certain embarrassing bodily function. Kibby decided to make this sound continuously while I narrated with my back to him. Now, if you are a guest familiar with this sound, it would just simply be funny, but we had some new guests visiting that day, including some that did not speak English. They assumed that I was making those noises! Thanks, Kibby.

Tursi: Tursi is well known

for her love of being a mom, and a strict one at that. Those of us who grew up with early curfews and moms who were presidents of the PTA can relate to how Tursi’s offspring have all felt. Maybe it’s the fact that she has done this four times now, but it seems that she realizes that she can take a lunch date with the girls every now and then. While previously, Tursi let Gambit hang out at different docks with the other kids his age, but made sure to check in on him from time to time, she now drops him off for play dates and spends the entire session hanging out with her trainer and the other moms. Could the next step be sleepovers?

Pandora: Pandora is well known for screaming at guests when they walk past her lagoon in order to get them to stop and pay her homage. However, she evidently did not get the memo about people not having echolocation or the ability to see through dense mangroves. As guests approach her lagoon, she parks in her favorite spot under the copious amounts of foliage. Once the people start walking away, Pandora screams as if to say, “Where are you going? The most beautiful dolphin is right here!” To the guests it must appear as if the mangroves are talking, but eventually Pandora seems to figure out that she needs to make more of an appearance.

Gambit and Flagler: These two best buddies have discovered the benefit of teamwork. Many of our staff members have been delighted during dock time to experience Flagler and Gambit doing tandem backrubs. Our staff members put their hands out flat on the water and the boys swim in circles, one behind the other time and again to get continual backrubs. Good thing dolphins don’t get dizzy.

Karen and Lina: We now

See Tidbits, page 12

WHAT MARINE MAMMALS TEACH US

BY BLOWING THEIR NOSE, BALEEN WHALES BLOW OUR MINDS!

It has long been established that toothed whales, such as dolphins, have no sense of smell. Many people thought this must apply to baleen whales as well. However, scientists have been puzzled by the fact that baleen whales still have a part of the brain called an olfactory bulb, essential to the ability to smell. In fact, the relative size of the olfactory bulb in some baleen whales would indicate that their sense of smell should be better developed than in other mammals, including humans.

Why would baleen whales have retained this feature since they live their lives underwater and their 'nose' (or blowhole) has adapted accordingly? A recent study

on Bowhead whales published in *Marine Mammal Science* (Thewissen, et al, 2011) suggests the species might use a sense of smell to find aggregations of krill on which they feed.

Clouds of plankton that the whales feed on give off a peculiar odor. While Bowheads feed underwater, to get enough to eat they must find areas where krill occurs in high densities. Behavioral studies indicate that Bowheads often orient their breach patterns into the wind, suggesting that they might be 'sniffing' for their food. This might be how they find dense aggregations of prey that are scattered across huge areas in their range.

For most aquatic life, airborne odors appear irrelevant to an air-breathing mammal that lives and feeds below the water's surface. This is in contrast to Pinnipeds (Sea lions, seals, walruses), in which both anatomical and behavioral evidence indicate a good sense of smell. So while dolphins like Talon don't judge a fish by its smell, baleen whales appear to 'take a big whiff' to find their food!

Reference: Thewissen, J.G.M.; John George, Cheryl Rosa and Takushi Kishida. *Marine Mammal Science*. Vol. 27, No. 2 April 2011. pg 282.

-Jennifer Powell & Kirsten Donald

OCEAN CELEBRATION DAY 2012

April 26th started off bright and sunny, a perfect day for Dolphin Research Center's Ocean Celebration Day! Staff and volunteers alike set up and got ready to welcome Monroe County school children to this fun and educational event.

Other non-profit groups and agencies throughout the Keys helped us put on a spectacular, environmentally diverse event. Students learned all about how important the ocean is to our environment and what they can do to help. The different activity stations included live sea turtles, a variety of small marine life, a puppet show and more! Of course, the dolphins had a 'flipper' in the day, wowing the children with their amazing behaviors and incredible personalities!

We thank all of our partners for contributing to the

educationally power packed day! Organizations represented included the Turtle Hospital, Reef

Altogether we had approximately 420 students and teachers participate in Ocean Celebration Day. We also had a technological first for the event: Key Largo Schools, who could not physically be with us for the day, joined us via our Distance Learning program!

The day was a success thanks to everyone involved! The compliments poured in from teachers and students alike. We hope you realize that your ongoing support of DRC allows us to host mission based activities such as Ocean Celebration. Thank you for sharing our passion for teaching, learning and caring about marine mammals and the environment that we share.

We look forward to continuing this fun, educational tradition next year!

-Jean Pessalano



Photo by: Katy Donegan
Students were fascinated when DRC Volunteer Gil Gilbertson showed them marine animal skulls, bones and other artifacts at the Whale Wagon.

Relief, Bahia Honda State Park, Everglades National Park, Seacamp, Florida Keys National Marine Sanctuary and Save A Turtle.

SPOTLIGHT ON TANNER

If you were to ask a ten year old boy who they look up to, they would all probably have an answer. It seems like this may be the case for our ten year old dolphin, Tanner. For the majority of his life, Tanner has lived next to our “big boys,” Talon, Pax, Rainbow, Sandy, and Kibby. He can always be seen “talking” to these boys and playing through the fence. Tanner had the opportunity to live with his role models for a few weeks and he had the time

of his life. He seemed to really enjoy his time with Talon and Pax in particular. Perhaps they discussed their interests in learning new concepts, being that they all are very good with our research “games”. While they were together, it was amazing to see the boys’ size differences, especially when we asked them to show us their tails. Pax has five years on Tanner, while Talon, Pax’s half-brother and Tanner’s uncle, is twelve years older. Both have big flukes for Tanner to fill! While the boys enjoyed their time together, Tanner has since been living with his dad, A.J., and his good friend, Jax. The “little” boys, as we refer to them, are a blast to watch during sessions. They really catch the crowds’ attention and guests’ hearts when they are in sessions and programs like *Dolphin Dip* and *Dolphin*

Encounter.

Tanner has always been a shining star when it comes to



Tanner loves the spotlight, whether he’s involved in research activities, playing with guests or learning new things from his trainers!

Photo by: Kara Pascucci

research and he still continues to impress us. He was the first dolphin to show us that he can imitate another dolphin completely blindfolded!! Now, Tanner is playing the other role in this game, where he is the model and his dad, A.J. is imitating him while completely blindfolded! Since Tanner is the model for the game and not the imitator, the game has changed up for him a bit. If A.J. incorrectly imitates what Tanner is doing, Tanner will then imitate A.J.’s behavior. It’s as if he doesn’t want A.J. to get the wrong answer. He’s very supportive of his dad!!

Just like most boys, Tanner is growing older but not up. Tanner loves to play, whether it is with his trainers and guests during sessions or with his lagoon mates, A.J. and Jax. One of Tanner’s trainers really

enjoys playing a retrieval game with him. The trainer throws out one or multiple objects and Tanner brings them back. Tanner generally likes to take his time returning sinking rings to her when they play this game and one day, he did not bring the ring back at all. The next day, with the same trainer, he brought her back the ring when he returned from a completely different behavior. This little boy is so smart and seems to really enjoy the reactions he

gets from his trainers when he does something impressive and a little mischievous.

While Tanner enjoys spending his time with his dolphin buddies, he still spends a good amount of his spare time people-watching at the bridge that connects his lagoon to the front lagoon. It’s always easy to tell when Tanner is saying hello to someone when we hear his high pitched noises, which can be continuous if the greeting isn’t reciprocated. So, if you walk by and hear Tanner, stop and say hello to the little guy. He loves all kinds of attention!

-Jamie Stevens



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Odyssey, from page 2

shared stories about their dolphin experiences. Laughter, warm conversation, and bonding created a sense of friendship and family. The lunches were donated by Centennial Bank of Marathon and Key West restaurants, La Trattoria and The Lazy Gecko.

During their visit, the group was introduced to a very special dolphin named Jax. When Jax was a baby, he was orphaned and rescued in March 2007 from the St. Johns River in Jacksonville, FL. He was missing half of his dorsal fin, part of his right fluke and a portion of his right pectoral fin. On January 8, 2008, Jax arrived at DRC to join his new family. Jax's story resonated with the men. On the last day, each warrior was given a silver replica of Jax's tail on a black leather cord as a keepsake of their visit. DRC donors, Jane and Chris Colwell, donated the Jax tails.

WWP staff shared that *Project Odyssey* was so successful that they want to schedule yearly retreats. The feedback from the warriors was overwhelmingly positive. DRC is proud to be a part of our heroes' journey home. DRC was able to host this group of wounded warriors due to the generous support of the Charles Evans Foundation.

-Joan Mehew

CONSERVATION CORNER: FUN IN THE SUN!

Summer is upon us and that means opportunities not only to have fun, but also to be earth-smart! Fresh water is not an endless commodity. Use it wisely. If you water your yard, do it at night. This ensures you use less to refresh your plants since the sun can't evaporate it.

While friends and family may visit you in the summer, bugs are generally unwelcome guests. If you want to keep them away, use earth friendly products, like citronella, which don't pollute the earth, but keep you from being bitten. Finally, many people love to spend the summer fishing! If you share this same passion as the dolphins, make sure you do it in a way that will keep them safe. If dolphins pass by while you are fishing on the ocean, pull in your lines so they don't get tangled up in them. Also be sure to recycle your used fishing line in the bins you'll find at many bridges, marinas, boat ramps, and tackle shops so it doesn't end up in the ocean where it can entangle dolphins or their other marine friends such as fish and manatees.

-Kirsten Donald

Tidbits, from page 9

have a nickname for Lina, and that would be Shadow. Just ask Karen. Wherever she is on the habitat, Lina is usually right there behind her. Whether swimming in large circles (Karen's favorite pattern) or taking a nap, Lina is always in close proximity. Who can blame her? If I lived with someone as cool as Karen, I would be her shadow as well!

Kilo: It is that time of year again...rut for our big guy Kilo. By big I mean over 600 lbs! This is the season when Kilo likes to enthusiastically announce his interest in the lovely ladies that share his lagoon. So if you are fond of that beautiful (although I think Karen and Lina might use another word for it) sea lion bark going on continually throughout the day, come visit us here at DRC. Kilo will give you an earful!!!

-Debbie Rose