



Spyhopper

ACS Newsletter
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Bubble Net: Encounters With a Humpback Feeding Frenzy

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Photo by Janie Wray, North Coast Cetacean Society

by **Eric M. Keen**

At first it was sporadic. We would pick up calls for an hour on one hydrophone, then a few hours more on the other, over twenty miles away. Their movements seemed both exploratory and timid, curious but restrained, like a prodigal traveler checking up on old haunts after a long absence, peeking down well-remembered streets for familiar faces, wondering if anything had changed at all.

It was not long, however, before the calls settled into the usual pattern: all day, every day. The drones became endless; twelve straight hours one day, sixteen the next, then a few eighteen-hour-long meals. You could keep time by their calls; their first morning moans your alarm clock, their evening's conclusive bellows your soothing lullaby. It was clear they had all found each other at last.

This is what the furrowed, fiord-ridden coast of British Columbia sounds like in the summer. While its drier half is imbued with its renowned, spacious silence – excepting the occasional chatter

of ravens, bald eagles, and wolves – those endless, marrow-loosening calls set the tone underwater. The one exception to this acoustic asymmetry is CetaceaLab, a lone research station on a boggy, fiord-flanked island. Here one listens to both worlds at once, via a network of underwater microphones (“hydrophones”) stationed in the surrounding channels. All underwater sound activity (whale call, passing motorboat, everything) is broadcast throughout camp, twenty-four hours a day. There is no “off” switch. It is a surreal and vivid life. The moans, squeaks, and honks seem to be emanating from the ubiquitous banana slugs. It is as if somewhere in the island's dark interior, a stranded humpback is crying despondently.

The source of these calls was actually fifteen miles due south: Caamano Sound, a large swath of island-encased sea. Its sea floor topography, a submerged relic of hanging valleys from a glaciated past, forms deepwater cliffs that divert abyssal currents skyward; this in turn yields hugely productive, nutrient-rich upwelling zones, which, like clockwork, attract

Bubble Net, cont.



Photo by Janie Wray, North Coast Cetacean Society

herring by the millions every summer. And, like clockwork, the humpbacks are there too, relying on Caamano as the rendezvous point for their annual post-migratory feast.

Janie Wray, the lab's co-director, is never far behind. She'd take my colleagues with her on re-supply runs to an outpost near Caamano, and the whales would keep them out past dark. They would stumble back onto our lab's shore, jaws still dropped and eyes still frozen wide from their day with the feeding group. Even days after such encounters, I noticed their eyes glaze whenever the calls rang out particularly clear. But from these bizarre sounds and the ID photographs they would return with, I could only guess at what they had seen. I had yet to experience them for myself.

Then, one cold July morning, a friendly sports fisher radioed the lab, "There must be ten, twelve of 'em out here! The farthest north into the Sound I've ever seen!" North, meaning closer to us -- perhaps into a harbor that would shelter us from the Pacific's howling winds. Janie jumped to her feet. It was worth a shot.

Before I knew it we were on the water, the wind whipping about our faces. My mind reeled with premonitions of a boyhood dream fulfilled, with mental preparations for a rite of passage through which all aspiring cetologists must at some point clamber dumbly. It was time to experience the bubble net.

As one of the most orchestrated, innovative and dumbfounding phenomena in the biosphere, the basic concept of the humpback's "bubble net feed" is easy enough to grasp. However, as with most matters concerning whales, our intellect quickly proves insufficient. A group of whales, as many as fifteen in number, must first work themselves into a focused, frantic, exuberant frenzy. Their movements meld into coordinated extensions of the

same multifaceted monster, a leviathan composed of leviathans, moving as one in a food-crazed and ruthless choreography, at once inescapable and inconceivable -- both for their prey and to anyone lucky enough to witness from a safe distance.

These whales are hungry. *Unimaginably* hungry -- a hunger proportional only to their girth and to the ocean basin they just traversed. Like they do every year, after a long winter without meals, they had just finished a 4,000-mile quest from their clear Hawaiian breeding waters, fasting for every mile, swimming on blubber reserves across the endless food deserts and maelstroms of the Pacific. They arrive in Caamano weighing *one-third* less than did when they left it the previous autumn. For these humpbacks, as with most migratory whales, hyperbolic weight fluctuations are as inevitable as the seasons, as inexorably grown and lost as the annual leaf cycle of a deciduous forest.

And so, voracious, these humpbacks work themselves into a communal frenzy. Upon doing so, the whales center themselves over a shoal of herring, dive around and under them in unison, and use bubbles and vocalizations to herd the fish to the surface, where they are easily swallowed *en masse*. That's it: the bubble net feed. But no, such a summary lets the wonder of your witness fall through the cracks. Rather, it is only conveyable through metaphor and interjection, abstraction and hyperbole, garish details and as much shameless inanity as can be managed in the re-telling.

The blows are seen first, from kilometers away. Erupting one after the other and side by side, the towers of vaporized water are like Hollywood pyrotechnics. As our boat, the *Elemiah*, topples towards these geysers, I am caught off-guard by an obvious fact: these titanic explosions are simply their breath. I heave a few big sighs myself, trying to grasp their scale by

comparing it with mine. Not even visible, let alone fifteen feet tall. Letting the relative inconsequence of my being wash over me, I let out a soft whimper.

Janie suddenly cries out, swerves hard to port and cuts the outboard, lurching us and our equipment forward. Looking for the cause of alarm as I regain my balance, I quickly lose it again: ten monsters surface not one hundred feet away (one whale length, give or take). They are headed right at us. Surfacing in quick succession, bringing their bodies high out of the water and saturating the sea air with the sound and stink of their almighty breath, the whales tear towards us with unsettling speed and confidence, a brazen, unstoppable zeal. Your stomach drops (a nifty adaptation, a makeshift ballast to withstand the throes of wonder). They surface again, closer now, still charging. Their very breath is dripping with the adrenaline of their feast. Their tight formation and rapid-fire surfacing would seem dolphin-like if it were not for the orders of magnitude that distinguish the scale before me. The cannon-fire is trumpet-like and quivery, tremulous. You are close enough to hear the lining of their nasal passages luff flaccidly with each blow. Their brooding backs shiver in the cool wind, as if their anticipation for the next gulp is equal to yours. It is the epitomic rampage. The sheer Newtons behind their every breath, the plutonic combustions incumbent to such forceful lives, the roaring, churning, chugging furnace of their massive, improbable being! They get nearer and nearer to the boat, which you suddenly realize is smaller than one of their newborn calves.

Then, as the wind shifts, the full stench of their breath washes over you like a freak wave. In marveled disgust you wonder what must go on within the dark chambers of their innards to produce such ghastly stink. But as they surface again, closer still,

your thoughts return to their size. The lead whale comes up right before the bow. You gaze down into the oblivion of its flaring nostrils. The whale could fit several 2" by 4" planks of wood up there. Those gaping, ravenous holes suck something out of you, undermine you, deflate you. Again seeking to gain some reference for their scale, you unabashedly pick your nose. The pinky barely fits.

Suddenly, the monster before you bucks into a tight fold, rearing up and curling its back into an impressive parabola: here comes its fluke. Hoisting its tail high into the air with practiced bravado, brandishing two car-hood-sized flanks with exquisite scratches and markings, the humpback dives. Despite its girth, this several-hundred-pound tail wobbles like a rubber chicken as it is flung vigorously into the air, lacking the grace endemic to it while underwater. And, once you are this close, your vision gains some wobble of its own, and your ability to speak coherently decreases with the growing immensity of the encounter. Your breath is stolen even as you try to gasp. Your mind boggles, time lapses, and you come to in seconds only to see ten more wobbly flukes saluting the heavens, far too late to take identification photographs. In synchronized display, the conniving marauders slink sulkily, mischievously into the obscure abyss.

Their sudden disappearance resonates in the Sound. Soon the boat is drifting through the swirling eddies of their fluke-prints. You are waylaid by a grand silence, too soon and too different from the recent din to be sensible, too opposite to what is happening below to feel right. You stand, alone and lost in the aftershock, left only to scoop up the scattered remains of your life up until now.

Directly below the Eleemiah, the group is now making its next move. One



Barbara Bennett, ACS Board Member and Alaska resident, shares her up-close photo of a bubble net off the Alaska shores.

Bubble Net, cont.

of the ten whales, probably the first to dive, is the “caller.” Her job is to get beneath the hapless school of fish and belt out those familiar bellows, quivering moans and drawled yawns. This net of sound, the feeding call, echoes off the sea surface to create an all-enveloping acoustic snare, turning the herring’s brains to coleslaw.

Our hydrophones pick up the feeding call from miles away. It begins as a high moan, quivering with the whale’s enthusiasm for what is at hand. But there, floating above its source, you assume it’s just your ears still ringing from the encounter. Then, however, the call gains a metallic harmonic. Looking down you realize what is going on: the hull, serving as an amplifier, is projecting their submarine opera. It is emitted in pulses, slowly descending from spiraled melodies to bemoaning wails. It sounds alien, surely not animal, possibly mythic. Odysseus’ sirens? Imagination? Hallucination? Insanity? Eventually it sinks in: They are feeding right below you, and they are on their way up.

In addition to this “hull amp,” the Elemiah has a small hydrophone for listening more clearly to their riffs. Toss it over the gunnels and you can now associate movement, context and timing with those familiar wails. The calls come in so clear and strong over it that your eyes are forced closed, and you can do literally nothing except listen. It can be entirely disabling. As the calls crescendo, Janie has to sit down. It is enough to make a man weep. So. Eyes on the horizon, ears in the water, entire being ensnared, and stomach somewhere around your feet, you wait.

By now the other whales have arranged themselves in a circular blockade below the targeted school. The team then begins to rise slowly – in ever-tightening circles, releasing constant streams of bubbles as they go. Any hope for escape is now gone. The ghostly silhouettes of the whales and their blindingly white pectorals, hurdling through the deep blue like the charging arms of windmills, bedazzle and confound the poor shoal into a complacent glob of oily meat. You try to imagine the scene from the fish’s perspective. Looming, murky shadows consume your field of vision in all directions...strobed flashes of flipper and fluke materialize on all sides, horrifyingly beautiful... Those ghastly jaws methodically lowering, as if an abyssal fissure were renting the earth apart from within...the water rushing into the vacuum of their mouths, the ocean itself unable to escape the black hole of their embrace. It is all so efficient – an inescapable cylinder of bubble, sound, and whale. The bubble net.

Aside from the faint wails through the hull, all at the surface has been excruciatingly still. Soon, however, if looking at the right place at the right time, you might see a bubble. A single, inconsequential, basketball-sized bubble. Just one. And with it, a vertiginous pulse of nausea shoots through your core. *Here it comes.* Slowly the turbulence on the surface builds. Now a great circle of bubbles appears, inscribed

with torturous patience from below as if by an unseen hand, as if an aquatic Ouija board were spelling out the herring’s ghastly fate. From high up, say from a seagull’s perspective, this tightening circle of death materializes as an elegant, mathematically perfect spiral whorl. But seen from a boat, on the surface and slightly to one side, all you can make out is commiserated chaos, a nefarious percolation. Preemptively, your heart starts to convulse. At once your bones both brace and resign themselves, already at a loss for what is charging up from below.

In a searing and dissonant flash these bubbles are replaced with fish, thousands upon thousands of desperate fish, fighting to climb over each other and out of the seething waters. All you can hear from your distant vantage is the puny pitter-patter of their tails on the water, a pathetic, unbearable noise.

And then, all too quickly, the quiescent death throes of the doomed school are lost behind the gaping maws of ten humpback whales. You blink, wonder what is happening, why your eyes seem unable to focus. You note that like theirs your jaw is dropped, but for a different reason.

So worn and smeared are these memories, even during their making, that like a sneeze or an orgasm, the actual crescendo is difficult to pinpoint and all but impossible to describe. The only aspect that remains clear is how vexingly silent it all is. For all the force and death and displacement and scale before you, their emergence is just far too quiet. Surely something is wrong, either with your ears or with what you see. You are compelled to imagine a roar, or explosions, or screams, anything to bridge the dissonance, and what follows is all the more opaque for it. The seared memories that remain allow only for a patchy and obtuse rendition of the paroxysm:

Enormous, yawning scissors, inchoate, steely black, and fifteen feet in length...hyper-extended claws being thrust out of the water all at once, as if a vengeful Poseidon below were wildly brandishing fistfuls of cutlery...foaming spray jettisoned dozens of feet outward...



Another stunning Alaska photo by Barbara Bennett.

Bulging from each pair of scissors is an expanding, parachute-like pouch filling with tons of fish and brine. Remember, these pouches -- expandable like an accordion, like the waistband on a pair of sweats -- are simply their cheeks and throats. Imagine a chipmunk, its mouth bulging at the seams with acorns; now, imagine it mostly hairless, covered in barnacles and larger than a school bus.

Savoring the splendor of their mouthfuls, the baleen juggernauts fall back from their lunges in the thralls of Dionysian ecstasy. They roll about lavishly, wrapping around each other, flinging about their fifteen-foot pectorals and drawing their ornate flukes high into lingering headstands. Sound rushes back to the scene. The fizzing of bubbles and the resumed cannon-fire of their breath reinstates some earthliness to the spectacle. Upon closing their widespread jaws -- one of the largest biomechanical forces on the planet -- the throat grooves constrict, jettisoning the brine out through the baleen in far-flung spray. The herring, meanwhile, remain trapped within the mouth, their catacomb. A quick flick of the 1,000-pound tongue and the fish are gone, tossed into the beckoning oblivion of the esophagus. Immediately the refinement process begins, deep within, trying out these herring into fuel reserves for the autumn's migration back south.

Within seconds the group is huddled up, resuming its foreboding phalanx. They recharge in staggered exhalations, those familiar but inconceivable explosions of breath. You imagine their blows as delighted interjections of satisfaction. They relish their feast, leaning back and patting their bellies with gluttonous reverie. One of the whales lets out a tonal blow, a large, trumpeting "Hoo-eeey!," like the whoop of a Southern uncle after his first plate at a summer barbecue, proclaimed as he lets his belt out a notch.

As the wake dies down, you notice a few straggling herring at the surface that somehow survived the eruption, though only just. Mouths gaped, as if filled with as much incredulity as you are, they hobble about in pathetic circles, stupefied by the coming and passing of their apocalypse. But being left behind is no blessing here. Chinook salmon and Dall's porpoises race among the whales to collect these leftovers, breaching all around the boat in charming imitation of the humpbacks' methods. The fastest cetaceans on earth, the Dall's soon rally into their own feeding frenzy. They appear and vanish like lightning, whirring razor blades of pied blubber and rooster-tailed water, hydroplaning into the flotsam, ripping the sea surface to

Bubble Net, cont.

shreds. A Stellar's sea lion comes along, weaving its way in and among the humpbacks, picking off the remaining shell-shocked fish with ease. Flocks of seagulls congregate above the obscure whale-lumps, the way cumuli accumulate over islands. Even a bald eagle swoops down for its share. Humpbacks, feasting as they do, cultivate a vast, cascading food web. This is not only a meal; it is a community event, a sinister potluck. To the observer, it is an overwhelming fugue of ecology-in-motion, beyond picturesque, a symphony of porpoise breaths, tonal blows and humpback burps, all in step with the ruthless grinding of natural selection's mill.

And then, before even you can catch your breath, the whales are at it again: the caller dives. The rest follow in quick succession. Their silky fluke-prints smooth over the foamy vestiges of the previous net. Three minutes of silent calm pass, all too incongruous to what just happened, what will happen again soon. Then, faintly, through the hull, feeding calls. On the starboard side this time, bubbles. A minute later, the fish fry. Then, as they erupt, the dissonant silence, the imagined roar; the spray; Poseidon's knife-set; the throat pleats; the Armageddon; the ecstasy; the sighs; the swallows; the end.

To the human mind, it's hard to fathom. If it was played backwards and upside down, you would be likely *not* to notice. We are ill-equipped for whales. It happens too hugely, too quickly. The memory of it is too foreign to seem real; the pacing, the scale, the complexity, the noise, it all converges and swells into something that simply *cannot be* but nonetheless -- and all the more glaringly -- is. There is something ultimate about their meal, something unfathomable, this *Megaptera tremendum et fascinans*, a revelation writ large in rollicking blubber and Vulcan fish-breath.

Ignoring your struggle to cope, they are at it again: re-group, breath in, dive down, bubble up. And again: the huddle, the dive, the suspense, the fireworks. Again. *Eighteen* hours a day. For a fraction of that we float nearby, wide-eyed and at a loss, failing to reflect the hardened stoicism of research the Elemiah is licensed for. But Janie, more seasoned than I, was at least functional. Calling the whales by name, she would comment on their appearance, whether they've grown since last year, whose calf is whose.

They were the usual suspects, faithful patrons to Caamano for the last decade at least, ordering the "usual," together to break fast among old friends. You begin to understand. Despite the adrenaline, euphoria, and rapture, this is much more than frenzy. It is reunion. It is fellowship. It is endearing. For a moment, the thought calms you.

Your mind wanders over the breadth of Caamano Sound. It is a beautiful expanse. The rapid fire of Janie's shutter, however, pulls you out of your reverie to find the whales diving once more. Within moments, the surface is reset. All seems calm. Time to wait. Janie, her eyes still on their fluke-prints, is beaming. Minutes pass. You wonder if these whales recognize Elemiah's hull, as Janie does them. You wonder if they will all be back next summer, if you will be back, if whales sense anything like nostalgia. Another silent minute. You wonder how it would feel to have throat pleats.

The boat starts singing: corralling whoops and playful jibes between friends. You toss the hydrophone in. A few herring jump, port side. The seagulls drift directly above you. With every pass, they hover lower, reflecting the whales' advances below. The calls seem louder this time. Perhaps it's time we move the boat. Suddenly, they cease. Silence again, searing, palpable. Your stomach is in position. Here they come.

Eric Keen grew up among the manatees and dolphins of Florida's east coast. A naturalist and an educator, he studied biology and religion at Sewanee: The University of the South, before graduating Phi Beta Kappa and completing a Fulbright grant in Indonesia. He has studied cetaceans in the rivers of Borneo, in the Mediterranean, in the geologic records of New Zealand, and in the fiord-lands of Chile and British Columbia. He has been published in Earth Times and the Ecologist. Eric is currently at Scripps Institution of Oceanography, pursuing a Ph.D. in the coastal ecology of large whales.

Update from Taiji, 2011



Police are among those to greet Ric O'Barry as he arrives in Taiji, Japan this year. Photo by Mark J. Palmer, Earth Island Institute.

by Ric O'Barry

**Campaign Director, Save Japan Dolphins
Earth Island Institute**

In March 2010, “The Cove” won the Oscar for Best Documentary; that summer, “The Cove” opened in Japan, and gave us a unique opportunity to bring our *Save Japan Dolphins Campaign* to the attention of the people of Japan. “The Cove” has now been certified by the Guinness Book of World Records for the most film festival awards ever given to a documentary.

I've been trying to publicize the dolphin hunts in Japan since 2004, with little to show for it. A media blackout on dolphin and whale stories prevails in Japan, orchestrated by the government's Japan Fisheries Agency. But the TV and newspapers in Japan could not ignore the impact of “The Cove,” and the movie ran in theaters there for at least three months last summer and fall.

Now, every time our Save Japan Dolphins Team and I go to Japan, we are surrounded by the media looking for the latest story on the hunts. We still have a long way to go to let the people of Japan know about what is going on, but we have made great progress. We, along with other organizations, maintain a constant vigil at the Cove to report to the world what is happening there and,

more importantly, to let the dolphin killers and the Japanese government know we are watching.

From the beginning, we have always made it clear that our campaign is not against the people of Japan. There is only a small group of people killing dolphins in Japan, and most Japanese do not even know it happens and are as appalled as we are when they learn about it. This is why we do not support a boycott of Japanese goods. We want to target the bureaucrats in the Japan Fisheries Agency that keep this ugly secret alive and well.

On September 1st of this year, the official starting date of the Taiji dolphin hunts, I went to Taiji accompanied by twenty-two people from seven countries. We did not go to condemn the Japanese or cause trouble. Instead, we peacefully gathered on the shore of the notorious Cove and had a moment of silence as a group to honor the souls of the dead dolphins that have been killed there and the souls of the dolphins that are to be killed, and for the souls of the Japanese people who died in the March earthquake and tsunami, a national tragedy that has shaken Japan to its core. When I spoke to Japanese reporters in interviews, I emphasized my recent trip to Mikura Island, where the Japanese people love their local wild dolphins, give them names, and support a strong dolphin-watching tourism program. This is what Taiji should be doing rather than killing dolphins, I explained. We plan to do more to promote the Mikura Islands ecotourism in Japan.

The results? In 2010, sales of whale meat in Japan plunged by an astonishing 30%. We believe this has resulted from “The Cove” and our campaign, along with other organizations, to warn the Japanese people about the high levels of mercury in dolphin meat. (Dolphin meat is often mis-labeled in Japan as “whale” meat on the market.) The mayor of Taiji told a local journalist that he was upset about all the stories about mercury hurting their sales of dolphin meat.

Taiji, cont.

The dolphin-killing season in Taiji usually lasts from Sept. 1st through the end of March, but in February 2011, the Taiji dolphin hunters ended the hunts a month early. They expressed relief when they stopped that they would not have to put up with the foreign monitors in town. We believe the number of dolphins being killed in Taiji is likely decreasing, but we do not yet have the official government numbers for the 2009/10 or 2010/11 seasons to confirm this yet.

The March 2011 tsunami also devastated many northern fishing ports on the main island of Hokkaido. Our Cove Monitor, Brian Barnes, was in the northern port of Otsuchi investigating the Dall's porpoise hunts when the quake hit; he was lucky to get to higher ground and filmed the incredible tsunami that destroyed the town. We believe that the northern hunts for Dall's porpoises have been seriously impacted by the tsunami damage and that such hunts are not likely to have much impact on the porpoise population (which is badly depleted) for several years at least. We are seeking ways to help the people of Otsuchi, which is still just a pile of rubble.



On Mikura Island, the Japanese people support a strong dolphin-watching tourism program. This photo was taken by Leah Lemiux off of Mikura.



Media attention since the release of "The Cove" allows Team Taiji to get information out to Japan and the world. Photo by Mark J. Palmer, Earth Island Institute.

We can stop these hunts – it is just a matter of time. We need to stick to our efforts in Japan and world-wide to publicize what the Japan Fisheries Agency is doing – promoting false science and issuing permits for the bloody slaughter of these magnificent animals, while poisoning consumers in their own country.

For further information on our campaign efforts, I invite you to go to our website:

<http://www.SaveJapanDolphins.org>

Thank you, and my thanks to the American Cetacean Society for the opportunity to post this update with you.

A Perspective on Captivity

by **William Rossiter**

President, Cetacean Society International

Reprinted from CSI's Oct. 2011 *Whale's Alive!* Newsletter

If you've ever enjoyed watching a dolphin or whale show you're just the person I hope will read this article.



Tilikum photo by Naomi Rose.

Tilikum, an adult male orca kept at SeaWorld in Orlando, Florida (above), is unaware that he may be the most significant catalyst for change to the captive display industry since it began. Tilikum killed trainer Dawn Brancheau during a show in February, 2010. SeaWorld acted immediately and characteristically to limit public knowledge and official responses while simply isolating Tilikum from public view. While the big ticket-seller was returned to the daily "Believe" show in March, now replaced by "One Ocean," 18 months after Brancheau's death SeaWorld still has not completed changes that might enhance trainer safety, or their incident report analyzing the event.

"SeaWorld and OSHA" in Cetacean Society International's (CSI's) *Whales Alive!* last October reported briefly on the tragic event, noting how SeaWorld may spend more on lawyers than on animal care, and for decades has eluded justice by hiding or obfuscating "events" out of the public eye. That article is archived on CSI's website, csiwhale-salive.org, and includes some background information we won't repeat here for space.

Within days that February, SeaWorld had managed to sweep everything out of the public's view and lock it up. From limited media reports, we suspected that SeaWorld was obstructing and delaying the Occupational Health and Safety Administration's (OSHA's) safety investigation of SeaWorld following the event. We hoped the result wouldn't be like a similar event in 2007 (see below).

But the days promoting the SeaWorld myth at the expense of reality may be over, thanks to the people of OSHA. We've been amazed and invigorated by OSHA's admirable tenacity and skill with their response to Dawn Brancheau's death and SeaWorld's history of safety issues. Despite the delays, political pressures and legal tricks by a crack team of SeaWorld's high-priced legal eagles, OSHA persevered and pressed home decisions and citations for violations which triggered the public hearing that began in Sanford, Florida in mid-September.

The hearing between SeaWorld and OSHA began before the independent Occupational Safety and Health Review Commission, overseen by an administrative law judge. SeaWorld's purpose was to challenge OSHA's findings in their investigation, particularly OSHA's citation for "willful" safety violations that SeaWorld had not adequately protected the trainers who work with its killer whales. "Willful" is OSHA's most severe category and, while SeaWorld's fine is a pittance, it directly affects their reputation.

OSHA has recommended that trainers not be permitted in the water or close enough to be grabbed by the animals without significant, and potentially unfeasible, safety improvements. Nevertheless, driven by the demands for the in-water spectacle that ticket buyers pay for, SeaWorld is working on at least two emergency measures for trainers who are caught by orcas. One is a small scuba apparatus that a trainer would be expected to use for survival while being thrashed about or pinned to the bottom. As orcas are known to pull on things, trainers may suspect that the tank or hose would be the thing grabbed by the orca and, while it may have a quick release, the image-conscious deciders at SeaWorld are so concerned that the paying public might be distressed by seeing the emergency gear, it may be securely covered up! The second emergency idea suspends belief; requiring that the entire floor of the pool be raised very quickly, leaving the orca and victim

high and dry. Don't some of these pools have millions of gallons of water, at eight pounds per gallon? Where will it go? And why would the orca let go then? Without graphic reminders, did Tilikum let go of Dawn Brancheau?

CSI applauds and congratulates OSHA for their actions. We believe that various public and media releases of the graphic videos and data were unwarranted, unless directly required by the investigation or hearing. Brancheau's family's wishes were violated, causing them undue grief. More to the point, anyone who willingly watched videos of that young woman dying should be ashamed.

The hearing lasted the scheduled week but had to be postponed to a later date to give SeaWorld a chance to finish their case. No matter how long it takes, it is apparent to everyone involved that SeaWorld's past is being dragged into the light. CSI's goal is to help their paying public see it for what it really is, exploiting cetaceans for human entertainment. We believe the whales suffer for it, and occasionally people suffer too.

To understand suffering in captive cetaceans is to understand the extreme stress some are likely to suffer because of their situation. Stress is clinically proven to lead to many physical and emotional problems that may cause death. Official reports of causes of deaths at SeaWorld are obscure and generic, like "pneumonia" or "infection." Underlying causes are rarely given even to government agencies, much less the public. At the same time, SeaWorld declares that their veterinary and maintenance procedures are the best in the world, but who knows? Talk is cheap; they keep their protocols secret. Also secret are the details of why specific animals die, which is one reason all SeaWorld orcas were known as "Shamu." It is true or rumor that "Shamu" died and was buried in the San Diego parking lot one night, and the next morning "Shamu" was ready for show time?

SeaWorld has been involved in several "interesting" international situations regarding orcas and other cetaceans. Some were obtained from the infamous drives in Taiji, Japan. In Iceland, a SeaWorld executive stood proudly for a picture with his foot on a young orca in the bottom of a boat, while SeaWorld denied being involved directly with captures of Icelandic orcas. SeaWorld almost broke Mexican law by exporting a stranded orca calf to San Diego,

until stopped hours before the flight by direct intervention by senior government officials.

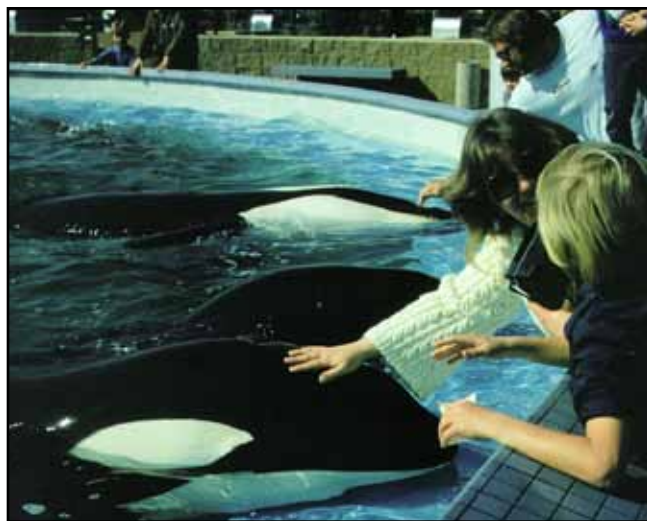
SeaWorld has also been involved in the struggle over Morgan, a young Norwegian orca who has languished for over a year in a tiny tank at Harderwijk Dolfinarium in Holland. Harderwijk had only been permitted to capture her for rehabilitation and release, but instead trained her for a life of captive display while waging a legal battle against her freedom. Fighting for her freedom in court, the Orca Coalition worked on behalf of the rehabilitation and release project operated by the Free Morgan Foundation. For details of how and where that would have been done see www.freemorgan.org. Once there notice all the supportive scientists, experts and celebrities, and especially the "Free Morgan PSA," or just search for that title on YouTube. I have been on the expert board almost a year, assisting the Free Morgan Foundation (FMF) to develop and fund the professional and realistic project to rehabilitate and release Morgan to the wild.

However, all that became moot on November 21 when a Dutch court announced the decision that Morgan would become the property of Loro Parque, a captive display facility in the Canary Islands. The decision stunned the community of specialists prepared to make Morgan's freedom a reality. It's no coincidence that Loro Parque has four rented SeaWorld orcas performing daily. One of them had killed a trainer there before the death of Dawn Brancheau at SeaWorld, Orlando.

How close was SeaWorld to the struggle over Morgan? A SeaWorld spokesperson, was quoted as saying that "One of our former veterinarians, Jim McBain, was on the scientific panel that recommended against any attempt to return Morgan to the wild," and "We are working with Dolfinarium Harderwijk and Loro Parque on the transfer of Morgan." It has been estimated that Morgan is worth ten million dollars to the display industry, anticipating that her Norwegian genes strengthen the current gene pool of captive orcas as she produces calves until she dies.

Led by the SeaWorld example, the display industry exploits the worst in some of us: the belief that all life on Earth is here to serve human needs; the thrill of seeing some awesome creature subdued and humiliated; the potential for witnessing something going tragically wrong, and the

demand to be entertained without guilt. Why is it that people believe that watching captive dolphins and whales doing tricks is educating? What is educational about a 12,000 pound predator bowing to some human with a whistle? What is this child learning at the touch-tank at San Diego? Only that cute and puppy-like killer whales want to be petted, eat dead fish and feel like wet rubber. While two of these whales may have died since this photo was taken, one may have been a very young Kasatka.



In 2006 a trainer was injured by Kasatka. The same man had been injured by Kasatka in 1999. The official investigation of the 2006 “event” suggested the very experienced trainer had tried to control, perhaps dominate the misbehaving orca, rather than escape directly. These and many other “events” are usually deeply buried or obscured, and were uncovered only with diligent work by CSI and other organizations and individuals, originally nicknamed the “Gadflies” by SeaWorld and now known as the Cetacean Freedom Network (CFN). Even now there is no single, objective account of all that SeaWorld has done, partly because the mind-numbing list is so long, but a tell-all book is due to be published soon. Keep watch for David Kirby’s *Death at SeaWorld - Shamu and the Dark Side of Killer Whales in Captivity* (St. Martin’s Press).

CSI monitored closely the 2006 investigation of Kasatka’s attack and, when SeaWorld’s interference became critical, authored a 2007 letter co-signed by 39 organizations that urged the District Manager of Cal/OSHA not to give in to pressure by officials and politicians to allow a humiliating edit of the “*February 27th Division of Occupational Safety and Health (Cal/OSHA) Information Memorandum and Narrative Summary of the occupational injury event at Sea World, San Diego, on November 29th, 2006.*” As one example of the edits literally written by SeaWorld attorneys, they removed Cal/OSHA’s statement that, without changes at SeaWorld, the next tragedy was “only a matter of time.”

Cal/OSHA was sadly prophetic, as were we, with our letter emphasizing that, “There are no contingency plans or training regimens that can adequately minimize risk to humans while interacting with whales or dolphins, nor can any remedial action on the part of the owners or trainers of these animals reduce the risk of injury to a level which would conform to Cal/OSHA safety standards. However, the entire safety issue can be solved simply by keeping humans out of the water with orcas.... The essential question is, why permit the potential for such catastrophe in the first place? ...it must be pointed out that there is little similarity between a circus elephant becoming a public danger by ‘running amok’ and an orca intentionally acting with what it considers to be self-constraint. No one can refute that an orca could kill a human very quickly if desired. Without attempting to define an attacking orca’s motive, but assuming that orcas are not trying to kill, the human deaths and injuries may be caused by orcas simply not recognizing how fragile and vulnerable humans are. Many examples suggest that orcas may not have intended the degree of injury that resulted.” Our effort to support Cal/OSHA failed, and with SeaWorld lawyers reportedly sitting on Cal/OSHA desks and the Governor’s office calling about lost jobs, the offensive truth was blotted out of Cal/OSHA’s final report.

Then it happened again, and this time someone died. It would be irresponsible to say that the 2007 win by SeaWorld contributed to Dawn Brancheau’s death, but the recent hearing illuminated the primary strategy even now employed by SeaWorld to prevent animals from harming trainers; it is up to the trainer to know enough not to expose themselves, primarily by recognizing visual cues that an orca might become aggressive. SeaWorld is saying that Dawn Brancheau had the primary responsibility to keep herself safe, not the corporation!

Perspective on Captivity, cont.

Humans have always worked in hazardous situations, and accidents happen, but in any modern society today workers have a right to be protected from harm by every possible means. It cannot be said that SeaWorld and other facilities do all they can to protect trainers, because an appropriate level of protection would interfere with the spectacle. To be adequately safe, no one could work within reach of an orca.

Has SeaWorld had enough experience with the dangers faced by trainers? For just a few examples, consider that Tilikum came to SeaWorld from Sealand of the Pacific after Nootka 4, Haida 2 and Tilikum in 1991 had drowned a trainer and prevented recovery of her body for several hours. By 1987, Sea World San Diego alone had produced a “white paper” describing at least 14 trainer-injury events during a five-month period. One of them is available on YouTube by searching for “Killer Whales Don’t See Too Well While Flying.” Near the end, it shows Orky 2 breaching on a trainer who was riding another whale. “Accident,” SeaWorld called it, but judge for yourself. Orky 2 looks like she knew what she was doing, and the only mystery is why the trainer wasn’t killed. The trainer’s lawsuit was settled out of court, with a rumored settlement of millions of dollars, but SeaWorld avoided the humiliating exposure of their inadequate safety protocols and preparations. One of the best exposures to date was the Frontline investigation, “*Whale of a Business*,” www.pbs.org/wgbh/pages/frontline/shows/whales/, still the best summary even if it’s from 1997. That program and the current hearing present what SeaWorld fears most – exposure.

Many dangerous occupations suffer losses of very experienced people who didn’t expect to die, but for whatever reason their guard was down. We believe that the hands-on people at SeaWorld’s parks truly love and relate to “their” animals. We lay full responsibility on SeaWorld’s corporate management. They have no excuse for not accepting responsibility for keeping trainers out of harm’s way.

To be clear, every trainer at SeaWorld Orlando, certainly including Dawn Brancheau, knew not to get in the water with Tilikum. That was one of the entertainment park’s special procedures for him. But everyone apparently ignored the potential for Tilikum or any orca to grab a trainer who was near enough. There’s always a first time, but no excuse for the second. The first record CSI has of a person being pulled into the water by an orca occurred at SeaWorld San Diego in 1971, when a woman was grabbed by her leg. In 1986 an orca at Marineland, Canada was reported to have “often” leapt out of the pool to strike trainers in the chest. SeaWorld documents prohibited trainers from being in the water with Ulises, Kyuquot and others, but rarely explained the events that caused those restrictions. It was not enough to keep trainers out of the water with Tilikum, but still within his space.

Why has SeaWorld been blind to 20/20 hindsight? SeaWorld’s corporate perspective on this was evident in a comment at the Florida hearing by Chuck Tompkins, corporate curator of zoological operations for SeaWorld Parks & Entertainment, the parent company of the Orlando, San Diego and San Antonio SeaWorld marine parks. Tompkins was reported to have said, “Mistakes are made. But we have a process by which we learn from those mistakes, not only the animals but the people.” After all these years of learning lessons, SeaWorld still isn’t motivated enough to provide a safe working environment.

And there it is, the real reason Dawn Brancheau died; the SeaWorld method didn’t work. Brancheau was not the first person to be killed by a captive orca, and, in fact, Tilikum has been involved with the death of two other people during his captive show business career, but the September hearing might have been the first time the public heard testimony about these and many other “events” at SeaWorld’s entertainment parks, and solely because of the tenacity and skill of OSHA. If you want to read media reports of the initial hearings we’d suggest Jason Garcia’s objective work online at the Orlando Sentinel.

It appears, however, that the line in the sand between OSHA and SeaWorld is all about trainers and orcas together in the water. To SeaWorld it is an economic necessity, as the public who pays to see the shows wants to see people riding orcas. For example, in the photo to the right the audience is being enthralled by a talented, athletic, personable young woman commanding a few tons of top-predator to dance, which in “SeaWorldese” is called “education.”

To be fair, let’s give some space to another facility; they all have problems to choose

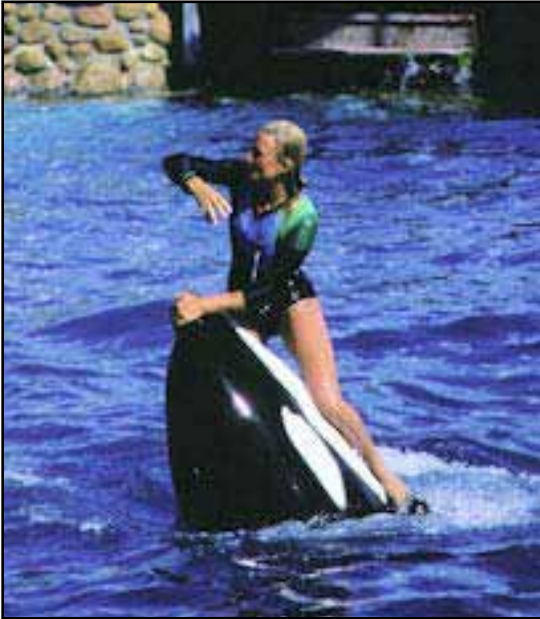


Photo taken by Jeff Friedman.

from. Lolita has performed tricks that the Miami Seaquarium has demanded of her for 41 years! What is educational about the experience those little children in the background are having? Lolita was born about 43 years ago into the L25 matriline of the "L" pod of what we know now as the Southern Resident orca community. Her mother, Ocean Sun, is still free, alive and well at 83, and may remember the day when Lolita and many others were captured, August 8th, 1970, at the infamous Penn Cove massacre. At least 13 members of Lolita's family were killed during those captures, their bodies cut open at night, filled with rocks, and weighed down with anchors to sink to the bottom and be hidden. At least 49 orcas were taken from that wild population, which continues to suffer today from prey depletion, harassment from boats, and so much pollution that the toxic load in the tissues of these orcas makes them hazardous waste.

Once Lolita was dumped in the Miami Seaquarium, she was kept separate from

the previously captured male orca, Hugo, for over eight months. They performed together for nine years until 1980, when Hugo may have killed himself by repeatedly bashing his head into the walls of the pool. His body was trashed in the Miami dump. Lolita has not seen another orca in 31 years. According to Jeff Friedman, "Lolita is approximately 21 feet long and 7,000 pounds. Her tank is 20 feet deep at its deepest point and only 12 feet deep along the edges. The tank measures 80 feet wide by 35 feet across with an additional 25 feet behind the trainer platform that sits in the middle of the tank." The facility has been cited for safety violations, and does not meet U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) Regulations. While rust and decay are not evident in this photo, note the very small audience, which is normal except for summer camps. Lolita is not even the Seaquarium's main money maker.

Try this: go to a small room, turn the light on, shut the door, and wait for your cat to decide it's time for you to earn your keep (it's OK to borrow or imagine that you have a cat). Try to understand what the cat wants as it gestures or makes strange noises, knowing that unless you follow instructions even the cat may not visit, except to leave even stranger food. Even if you learn quickly and follow the cat's commands as it sits on your back, the routine will become numbing well before you've been there 41 years. There will always be more cats, but you will never see or hear another human again. Several people have worked tirelessly on behalf of Lolita, and CSI especially wishes to thank Howard Garrett,



Lolita - 41 years at the Miami Seaquarium. Photo taken by Jeff Friedman.

Perspective on Captivity, cont.



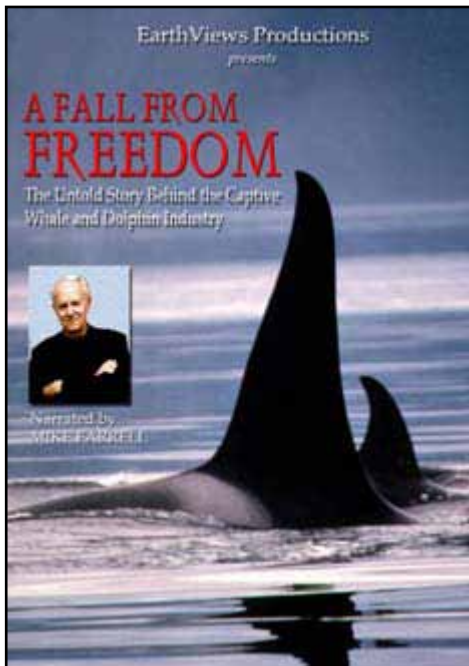
J2, with Ruffles, now thought to be deceased. Photo by Sandy Buckley.

Susan Berta, Jeff Friedman and others who have fought constantly for her freedom. If you want to help Lolita, see: <http://www.savelolita.com/>, and <http://www.orcanetwork.org/captivity/lolitatoday.html>. Only Corky at SeaWorld San Diego has been in captivity longer, since 1969, and her champions are Paul Spong and Helena Symonds, at www.orcalab.org. Lolita's family of Southern Resident orcas are easily the best studied and understood group of wild orcas in the world, with documented dialects, ceremonies, culture and great-grandmothers. "Granny," J2, is estimated to be 100! Here she swam with her assumed son, Ruffles, J1, born about 1951. Until 1970, both swam with the young Lolita. What would they remember of that time? We suspect they would remember very clearly the Penn Cove Massacre.

The Southern Resident Community may share a common culture as well as genetic history, but modern science has shown that they differ from orca societies in different parts of the world, even orca groups like the "Transients" that share

the same habitat. As with human societies, these communities have different foods, survival strategies, and communication styles. If you've toured foreign countries you recall the accents and ways people conducted their lives. We all have human needs, but meet them in different ways. So it is with orca populations, and over time they also come to look different from each other. The recent American Cetacean Society *Whalewatcher* journal on killer whales outlined many of these differences that go beyond appearance. Captive display facilities mix and match orcas from different cultures strictly for reasons of efficiency, and in general the orcas seem to learn to get along. It would be interesting to compare them with how well a group of people might get along if they were mixed from very different cultures and forced to live shoulder to shoulder in a very small room. "Killer Controversy: Why Orcas Should No Longer Be Kept in Captivity" is a newly-released report, available at www.humanesociety.org/, that will answer any rational, caring person's questions about why so much is at stake with the SeaWorld hearings. A broader scale resource from HSUS, also available from www.wspa-usa.org/ is "The Case Against Marine Mammals in Captivity." Many other resources are at www.wdcs.org/stop/captivity/index.php. For updated information SeaWorld doesn't want you to know CSI recommends that you visit theorcaproject.wordpress.com/. For a truly remarkable series of videos search You Tube for "Marineland FYI." In this video you will see and hear Dr. Jane Goodall express her views on captive display. Then check out the 26 other videos posted by this same "delphinusdelphis," a truly gifted and dedicated human being! Some of these videos expose the darkest side of captive display, sourcing dolphins and whales for sale from the infamous and disgraceful dolphin drives and slaughters at Taiji, Japan, www.savejapandolphins.org/. YouTube has many resources, of course, including pro-captivity videos and blatant promotions of display facilities. They unintentionally amplify our point about inadequate safety practices! For the fun of it search out some of the videos of trainers doing silly tricks with dolphins and whales and notice how many times they make themselves vulnerable.

A Fall From Freedom is an 82-minute film guaranteed to affect even the most ardent supporter of captive display. Stan Minasian, EarthViews Productions, has created a penetrating message exposing "the long and sordid history of the captive whale and dolphin industry," and if we can get captivity-supporters to see it, it will help change the future of the industry.



Narrated by actor Mike Farrell, *A Fall From Freedom* includes interviews with former Sea World trainers, biologists, conservationists, and more. The film digs deep into the history of the captive whale and dolphin business, revealing the culpability of marine parks around the world for the continuing killing of thousands of dolphins in the Japanese drive fisheries; a practice abandoned by the Japanese until SeaWorld secretly negotiated to bring it back to maintain a steady supply of dolphins to their parks. *A Fall From Freedom* is free to watch on its website: www.afallfromfreedom.com, but the film can be downloaded for a nominal charge and DVDs are available for purchase.

Now consider this: In all the videos and resources above, whenever a wild whale or dolphin is being attacked, abused, captured or killed does the creature ever try to bite the people? If you can, look again at the many underwater scenes of captures and slaughters. They may struggle violently to escape but do they ever fight back? Snapping jaws and tail swipes may be more from panic than aggression. The same behavior can be seen during strandings. Notice as well the apparent submission of whales and dolphins once they are in slings or in very shallow water. If these reactions weren't normal for cetaceans, if instead they reacted as humans might, people would rarely dare to get close enough to touch them. It is this "normal" cetacean behavior to

confusing, stressful, life-threatening situations that SeaWorld trainers, and Taiji and Faroe Islands whale killers depend upon to keep their blood out of the water. But it is the absolutely abnormal environment of captivity that makes cetaceans react abnormally, injuring and killing each other and people who believe that captivity is "normal." For decades SeaWorld and their kind have masqueraded as educational facilities, fought to hide the truth, and profited from the exploitation of orcas and other cetaceans. While the SeaWorld myth is being exposed in the hearings, the "*Killer Controversy*" report argues with truth that "we should realize that nothing – not profit, not education, not conservation – can justify keeping this large, social, intelligent predator in a small box." Authored by Naomi Rose, Ph.D., the report shows that:

- Captive orcas have higher mortality rates than wild orcas;
- Captive female orcas give birth too young and too often, leading to both high adult and high infant mortality;
- The most common cause of death for captive orcas is infection. Chronic stress may be an important factor in weakening the animals' immune response;
- Captive orcas have poor dental health compared to wild whales, which may be another factor in their susceptibility to fatal infections;
- Orcas in captivity are more aggressive toward each other than in the wild. Females also behave abnormally toward their calves more often than in the wild;
- Since captive orcas have been publicly displayed, they have seriously threatened the lives and safety of dozens of people, and four people have been killed. However, wild orcas have injured only a handful of people – none seriously – and there are no records, at any time in history, of them killing anyone.

The report recommends a phasing out of the practice of maintaining orcas in captivity and rebuts several specific claims and statements made by SeaWorld Parks and Entertainment, which owns the largest number of captive orcas in the world. The U.S. Marine Mammal Inventory is a government-managed resource that should be kept current and available to the public, by authority of the 1972 Marine Mammal Protection Act (MMPA). It is neither, being notoriously difficult to pry from the National Marine Fisheries Service (NMFS) and always containing gaps or questionable data. Nevertheless, we thank South

Perspective on Captivity, cont.

Florida's Sun-Sentinel for making the inventory up to March 24, 2010 available online in a searchable database at www.sun-sentinel.com/. Captive marine mammals, whether alive or dead, can be found by name, state and facility. There now are many websites with exhaustive lists of events, injuries, media reports and lawsuits involving the captive cetacean display industry, leaving one to wonder why the business hasn't been shut down? The reason is that the people who pay to see the show don't want the facts; they want to be entertained. Until that demand for demeaning spectacle drops below the profit line the fight to stop this ugly business will continue. We have to find ways to get the right message to the ticket-buyers, that they are the reason orcas are captured, displayed, suffer and die. Can we get these people to care? Do you want to help CSI and other organizations to get the message out? We need people who enjoy using all the social media available today, such as Facebook, people who want to turn their pastime and passion into real advocacy.

CSI's *Position on Captive Display* has been unchanged since 1995: *"It is the position of the Cetacean Society International that it is no longer justifiable for cetaceans to be captured or maintained in captivity for purposes of exhibition, research, or education. There exists a moral imperative for cetaceans in captivity to be maintained in optimal conditions for their physical and social well-being and for efforts to be made for their rehabilitation and release."* It follows that display facilities have a moral obligation and responsibility to maintain a safe work environment for staff directly associated with cetaceans. We are appalled with testimony from the SeaWorld/OSHA hearing that declares, after decades of consistent experiences, that the responsibility still rests with the employee.

On a personal note, I can't apologize for the subjective nature of this article, because our science and society are still far short of presenting a truly objective understanding of orcas. We have so much to learn about them, and from them about ourselves. My awareness began to sharpen in 1978, when I happened to speak with Jill Stratton, here rubbing Orky's chin, on her first day back from leave at Marineland of the Pacific after being drowned by him! Her clear perspective from many days spent reflecting on that moment was that Orky was simply trying to get people to stay out of his world, the tiny tank he shared with Corky. Jill accepted that she was alive because Orky couldn't have known she couldn't survive four minutes underwater and,



Jill Stratton with Orky at Marineland of the Pacific.

seemingly embarrassed, had stopped pinning her to the bottom of the pool when he sensed she had drowned. I was so impressed to hear this young woman speak of purposely relaxing, trying to conserve energy, remembering clearly the trainers' discussion about what to do if the orcas endangered them. All had agreed it was stupid to fight back. She became unconscious and reflexively inhaled water. Her wetsuit buoyed her to the surface, where she was hauled out of the pool and successfully resuscitated.

At Ken Balcomb's whale school in 1981, I soaked up every moment with J, K, and L pods, and recall being awakened after midnight by their calls from the always-on speaker connected to hydrophones offshore, then amazed as someone described, from familiarity with their individual calls, how Ruffles seemed to be chewing out a youngster,

maybe Everett, as J Pod passed by. In 1983 I spent a little eye-to-eye time with Elsa, a young female orca that came into Provincetown harbor with a large fishing boat needing repairs, and left a month later when the boat did. In between she attracted enormous attention, from aquariums to kayakers, even an Australian film crew I took out to get good footage. Amply fed by the harbor's bounty she took to parading around the crowded docks with a fish in her mouth. I'm convinced she was trying to stop people from throwing food into the water for her, even hotdogs!

Then, through CSI's early small grant program, I met Tiu Similä of Norway and Ingrid Visser of New Zealand, and as the decades brought many new orca specialists, CSI more recently supported Argentina's Andrea Paula Capurro to study the vocal behavior of the orcas known for surging onshore to catch Southern sea lions at Punta Norte. I'm hoping Andrea's team will help us to understand the complex acoustical cues that coordinate a very complicated and dangerous foraging culture. Ingrid has spent the summer bouncing between New Zealand to help stranded orcas and Holland, where she has dedicated herself to Morgan's rehabilitation to freedom. A truly remarkable woman and scientist, she isn't hesitant to describe why she cares so much about orcas, as you will have seen if you watched the Free Morgan PSA noted above.

The reality of orcas challenges anyone who believes that humans are superior to every living thing. To some that reality is disturbing, if not frightening, so they find comfort in myths. It is the myth that places like SeaWorld exploit and sustain, locking up orcas for fun and profit. But the reality of orcas is our bridge to understanding our true relationship to life on Earth, and like it or not they have a lot to teach us, if we can learn.

Bill has provided his own short bio for our members! "Bill Rossiter began doing 'whale stuff' in 1973. He has been VP or President of Cetacean Society International since 1984, and remains infatuated with understanding cetaceans and the sea. Bill lives in the Connecticut woods with Mia, his sweetheart of 45 years, five adopted dogs and a bird. He specializes in interfering with people who want to do nasty things to the oceans and giving grants to people who don't. Too old to learn new tricks, he relies on expert friends to help him do both. Some of his fondest memories are of captive display people screaming at him."
Thanks from ACS, Bill!

CLOSE ENCOUNTERS - OF THE UNWISE KIND!

With all of the recent reports of close encounters between boaters, kayakers, and paddleboarders who have come dangerously close to whales in recent months, ACS is again printing the *National Marine Fisheries Service Guidelines for Safe, Non-disruptive Whale Watching*. The basic rule of thumb is to keep a distance of 100 yards. Please share these guidelines with your friends who are on the water and may be endangering themselves and the whale they are observing:

- In general, a whale's normal behavior should not be interrupted. Such annoyance may cause a whale to change its direction rapidly, swim faster, or swim in an erratic pattern, which might be dangerous to the whale and observers. Interrupting a whale's normal activity is a violation of the Marine Mammal Protection Act of 1972.
- Vessels should not be operated at speeds faster than a whale or group of whales while paralleling them within 100 yards.
- Vessels should be operated at a constant speed while paralleling or following whales within 100 yards.
- Vessels should do nothing to cause a whale to change direction.
- Aircraft should not fly lower than 1,000 feet while within a horizontal distance of 100 yards from a whale.

Student Coalition Reaches Out to Whole Foods Market:

Eliminate Single-Use Plastic Packaging in Bakery, Prepared Foods

By Cheryl McCormick, ACS National Director

The quantity of marine debris discarded into the world's oceans is reaching enormous proportions. Billions of pounds of debris, a large proportion of which is plastic, are dumped into the sea from vessels and platforms, blown from landfills, spilling from industrial outfalls, and discarded from coastal communities each year. Recent studies reveal this to be more than an aesthetic problem that fouls our beaches and degrades our pristine vistas. Debris, particularly non-biodegradable single-use plastics, is accumulating in the marine environment and causing significant mortality in many marine animals, including whales, dolphin, and porpoises. Based on necropsy evidence, we know that mortality and morbidity in at least sixteen species of cetaceans is linked to ingestion of plastic¹. Incidents of entanglement, ingestion, and mortality of marine debris in other taxa, such as pinnipeds, sea turtles, and seabirds, is staggering.

It's unrealistic to believe that we can stop pollution from entering the world's oceans. However, we can all do our part, regardless of our proximity to the ocean, to minimize our consumption of single-use plastic, and be thoughtful and vigilant in our consumer choices as we consider our individual impact on the environment.

As a part of its Anti-Plastic Marine Debris campaign, the ACS Student Coalition has reached out to Whole Foods Market CEO John Mackey to partner with the high-end grocery chain to develop a phase-out plan to reduce consumption of single-use plastic packaging in the bakery section of the organization's more than 300 stores across the U.S.



Current single-use plastic packaging used for single item food units (cake slice) in the bakery section Whole Foods Market (Monterey, CA), which also includes a plastic-wrapped 'spork' (also plastic) embedded into the clear plastic packaging. Photo by Bryant Austin.

Specifically we respectfully request that Whole Foods Market:

1. Take incremental steps to significantly reduce its packaging comprised entirely of single-use disposal plastic in the bakery section, where packaging and display decisions are determined exclusively by Whole Foods Market. Additionally, the use of single-use plastic for packing of bakery food items should eventually be phased out completely, in favor of more environmentally friendly alternatives to plastics (whether virgin or post-consumer recycled, or PCR plastic) and plastic-laminated carton boards, such as Tecta.
2. Partner with organizations such as the American Cetacean Society, the Plastics Pollution Coalition, and Algalita Marine Research Foundation to develop education materials to inform consumers about the impacts of plastic pollution in marine environments and encourage lifestyle choices that reduce plastic consumption altogether.

3. Encourage and provide incentives for vendors to adopt more eco-friendly material improvements in packaging with the goal of providing more green options for Whole Foods Market customers. Using guidelines previously developed by Whole Foods Market to create recycled packaging guidelines for suppliers of store-brand body care and supplements, the company should develop requirements to reduce the use of plastic in all aspects of product packaging, and limit acceptable packaging materials to those that are easily reused or recycled and use a minimum of non-essential virgin or post-consumer recycled plastic.



Possible alternative packaging proposed for same food unit – attractive, lighter, less expensive, customer-friendly, and significantly more environmentally friendly. Image source: Cater For You Ltd, www.cater4you.co.uk (left) and Mr. Take Out Bags Food Service Packaging (right), www.mrtakeoutbags.com.



Whole Foods Market has an impressive track record of continuing to reduce their environmental impact in ways that make good business sense and good “people sense.” Beginning in April 2008, the chain stopped using plastic bags at the checkout, offering recycled paper bags or reusable bags instead. Many Whole Foods locations have even started to offer paper bags in the produce section. We are confident that smarter, environmentally sensitive food packaging – beginning in the bakery section of Whole Foods Market - will result in mutually beneficial outcomes for the company, its customers, and environmental proponents by aligning business practices with the stated core values of the organization (<http://www.wholefoodsmarket.com>).

The American Cetacean Society Student Coalition welcomes the opportunity to develop an ongoing win-win partnership with Whole Foods Market on these issues and more. We are confident that by nurturing cooperative partnerships between corporations and NGOs like the American Cetacean Society, together we can play a significant role in adopting the policy changes and business practices we want to see in our effort to maintain the health of ocean and riverine ecosystems and the cetaceans that depend upon them.

I hope that you will join the ACS Student Coalition in insisting on eco-friendly packaging for food items in your local Whole Foods Market. What else can you do? See the four “Rs” on the next page. Together, we can make a difference!

On behalf of whales, dolphins, and porpoises,

Cheryl M. McCormick, Ph.D.
Executive Director

Heads Up!
You will not want to miss this!
American Cetacean Society
13th International Biennial Conference
Whales & Humans: A Conflicted Relationship
San Diego, CA Nov. 9-11, 2012
More details soon! Watch the web site at www.acsonline.com

Photos © Michael Ho, <http://michaeldanielho.com>

Plastics, cont.

How Can You Lighten Your Environmental Impact?

Refuse single-use and disposable plastics! Disposable plastics are the greatest source of plastic pollution. Plastic bags, straws, bottles, utensils, lids, cups and so many others offer a small convenience but remain forever. **REFUSE** disposable plastics! Follow the “4 Rs” of sustainable living: Refuse, Reduce, Reuse, Recycle:

- **REFUSE:** Say **NO** to disposable plastics! For tips on alternatives, visit the “Get Started” page at the Plastic Pollution Coalition (plasticpollutioncoalition.org)
- **REDUCE:** Reduce your plastic footprint: buy in bulk, choose products with the least packaging, look for products and packaging made from renewable resources, and avoid plastic packaging and containers. Choose products that have the least amount of disposable parts.
- **REUSE:** Reuse preferably nontoxic (glass, stainless steel) containers and goods to make less waste.
- **RECYCLE:** Recycle what you can’t refuse, reduce or reuse. Recycling is a last option because it uses energy, and there may not be a market for the refabricated materials.

The two biggest sources of plastic pollution are plastic shopping bags and plastic water bottles. An estimated 2,480,000 tons of plastic bottles and jars were disposed of in 2008 alone (Source: EPA). According to the New York Times, the 100 billion bags used per year in America require an estimated 12 million barrels of oil in their production. Californians alone use 12 billion plastic bags every year. That’s almost 400 bags per second! Far too many of these bags are littered and enter the ocean.

You can reduce your ‘plastic footprint’ by always bringing your own bags whenever you shop, not just for the supermarket. By bringing your own bag, you alone can save between 400 and 600 plastic bags per year. Also, consider investing a few dollars in a stainless steel water bottle. You’ll feel better knowing that, when it comes to marine debris, you’re a part of the solution...not the problem.

Source: Plastic Pollution Coalition (plasticpollutioncoalition.org)

ACS Student Coalition Has a New Website!

Please visit the ACS Student Coalition website to learn more about the students based out of Indiana University Bloomington. Learn about their interests in cetaceans, campaigns, and how they're doing their part to protect healthy marine ecosystems and the cetaceans that depend upon them. We all live in a watershed, and so ultimately are connected to the sea. Our Student Coalition members take that link very seriously. They're amazing! Visit:

<http://www.acsstudentcoalition.com>

You can also follow the Student Coalition on Facebook! Find them with the keyword search, "American Cetacean Society Student Coalition-ACSSC"



Visit ACS-National on Facebook:

[www.facebook.com/
AmericanCetaceanSociety](http://www.facebook.com/AmericanCetaceanSociety)

Visit ACS-National on Twitter:

<http://twitter.com/CetaceanSociety>

Join the dialog – See you there!



Baja Trips: Reserve Your Spot!

San Ignacio Lagoon Whale Watching Camp

Trip Rating: Easy

Trip Length: Five days/four nights

Price: \$2,395 per person, double occupancy plus a \$25 Conservation Fee*. A non-refundable deposit of \$500 reserves your space!

Accommodations: Four nights in a comfortable, catered, upscale camping environment

Activities: Whale watching, bird watching, kayaking, beachcombing, star-gazing, and more!

2012 Dates:

February 11-15

March 2-6

February 15-19

March 6-10

February 19-23

March 10-14

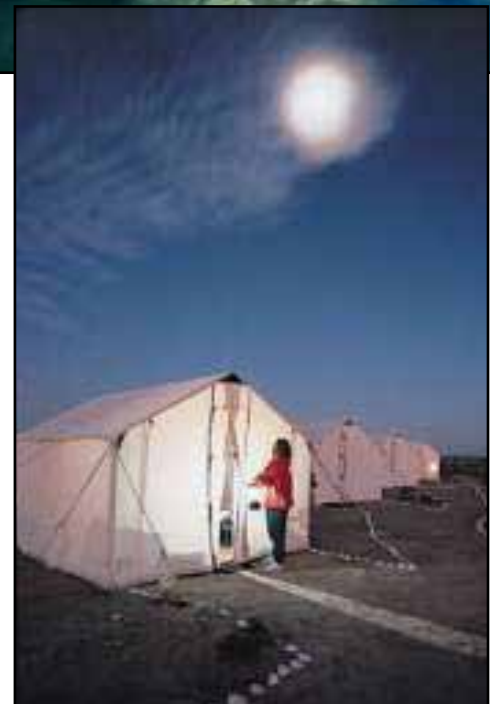
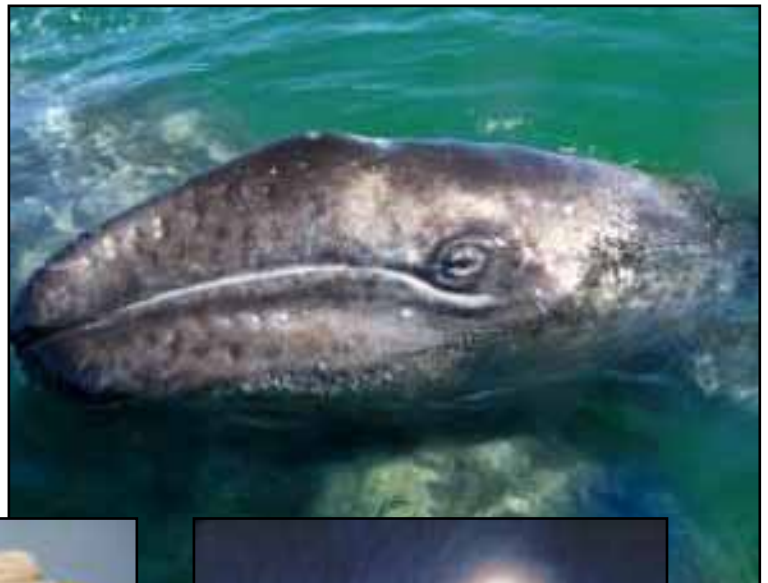
February 23-27

March 14-18

February 27-March 2

March 18-22

For information or reservations: Please contact Kaye Reznick at the American Cetacean Society by phone at (310) 548-6279 M-F, 9:00 a.m. to 5:00 p.m. PST, or e-mail: kreznick@acsonline.org.



Chapters In Action

Diane Glim, Monterey Bay

John Calambokidis, founder of Cascadia Research, delivered a profound presentation about the many issues confronting the great whales at the August general membership meeting. The chapter honored long-time board members, Diane Glim and Sally Eastham, at a BBQ fundraiser at Indian Village in Pebble Beach.

In September, Michael Kerner, MS, discussed studies of the translocated sea otter populations at San Nicholas Island. The informative talk was well-received by the Monterey Bay audience who share a strong interest in the southern sea otter.

ACS's National Board member, Flip Nicklin, made a presentation at the October monthly meeting while promoting his phenomenal book, *Among Giants*. Hearing the stories behind the photographs was enlightening.

On December 1st, Robert Boessenecker, MS in Earth Sciences, will discuss Marine Mammalogy Paleontology of the Purisma Formation in Central California. Items from Puerto Penasco, Baja California, will be available for a fundraiser to benefit *Viva Vaquita* following the talk.

The chapter participated in the Wildlife Conservation Network Expo in San Francisco and in an Environmental Breakfast with California Assembly Member, Bill Monning. ACS/MB is involved with the planning of Whalefest 2012, which will take place on Fisherman's Wharf in Monterey on January 21, 2012.



Diane Glim and Sally Eastham, ACS/MB Board Members and strong supporters of Vicki Vaquita, were honored for their many years of service to ACS and cetaceans.

Kim Valentine, San Diego

Phillip A. Morin, Ph.D., Southwest Fisheries Science Center, provided a talk entitled, "Using 'next generation' DNA sequencing technologies to identify new species of killer whales." Phil has also been an adjunct professor in the Department of Marine Biology at the Scripps Institute of Oceanography since 2007.

Chapter members have been feverishly working with Dr. Barbara Taylor making vaquita jewelry to sell at the Marine Mammal Conference in Tampa, Florida, in late November. The jewelry is beautiful and we have had a lot of fun!

We will resume our speaker series in January. We will have a chapter Christmas dinner in December.

Lynette Koftinow, San Francisco

The San Francisco Chapter ended their 2011 Speaker Series with a book signing for *Among Giants: A Life with Whales* and special presentation by Flip Nicklin, who is widely regarded as the leading whale photographer in the world. It was an outstanding and inspiring presentation. Jenny L. Atkinson, director of the whale museum in Friday Harbor, WA. also provided a great presentation on southern resident killer whales.

The 2012 Speaker Series will begin on January 26th with Jodi Frediani, photographer and swimmer, discussing “*Swimming with Humpback Whales on the Silver Bank: a photographic journey!*” Watch for updates on our 2012 free monthly speaker series, special events, and more on our website: www.acs-sfbay.org and facebook.com/sfacs.

Interested in whale watching? Check our website for local companies that offer discounts to ACS members. Please e-mail us at lklifeart@sbcglobal.net or visit our website at www.acs-sfbay.org if you are interested in learning more about discounts for these trips.

To find out more about volunteering and/or becoming a board member visit our website: www.acs-sfbay.org and follow us on Facebook: facebook.com/sfacs. Here are some recent changes and great additions to our board:

New San Francisco Bay Board Members:

Lynette Koftinow: President.

Last year I created the monthly Speaker Series, whale watching events, and am in the process of co-creating a new marine mammal school educational program “Gray Whales in the Schools” with The Oceanic Society. This year I will continue to bring an engaging monthly speaker series and whale watching events to our chapter. I am developing a partnership with Marin Surfriders in a campaign to educate the residents of the North Bay (Marin, Sonoma, & Napa) to stop using LTA (lighter than air) filled balloons at all the various events (birthdays, parties, fairs, and especially the farmers’ markets in these communities.

Dave Thompson: Vice President

Dave is an avid sailor and often crews for sailboat races in the Bay Area. Twenty-five years ago he was a high-wind addicted windsurfer. He has over 20 years computer programming experience in relational database applications, mostly with IBM on contract assignments in different places all over the U.S. In 2003 he returned to school at the University of Utrecht, Netherlands, to pursue an M.S. in neuroscience and studied MRIs of autistic children’s brains. With wind and sailing passions in mind, he purchased a custom marine canvas shop in Sausalito in 2007, and led by his constant dabbling in boats and racing found a new interest in working to help save the marine environment, which is his favorite playground. Dave hopes to get more involved and help the issues he feels are important.

Trish Mirabella: Education/ Research

Trish is a native San Franciscan who graduated from Dominican University of California, with a degree in Historical Biology. Her fascination with marine mammals led her to write a thesis on, “Whaling from Past to Present” with an emphasis in California Shore Whaling. Trish has been a naturalist in the Bay Area, Baja, and Alaska for fifteen years, via kayak vessel and by foot. She has been leading trips out to the Farallon Islands and Pelagic waters for ten years educating participants on national sanctuary models and the marine animals who migrate within these waters. Trish comes to ACS where she can disseminate environmental awareness and share her love for nature to individuals from all walks of life.

Ed Estes: Web design, Photographer, Naturalist

Ed is a SF Bay Area native with a love of the history and ecology of our marine environment and an avid photographer. Over the past six years, Ed has had the opportunity to help bring the ever more critical message of conservation in an engaging way to the people he meets. He has journeyed out to the Farallon Islands more than 200 times, and is one of the few to ever set foot on this important ecosystem. Ed firmly believes that education plays an essential role in the preservation and protection of marine habitat and wildlife, and his work with leading voyages throughout The Gulf of the Farallones National Marine Sanctuary is a contribution to the educational process and helps bridge the gap between the public and the academic.

Wellington Rogers, Orange County

Ten naturalists are in Desi Green's Naturalists class. They will be graduated at our December 1 meeting. ACS "T" shirts and the *Whales of the World* Poster have been selling well. Applications for ACS memberships are on display at Davies Locker Whale Watch office in Newport Beach. Twenty-five people attended the *Day of the Dolphin* meeting October 27.

In September and October, we had reports of as many as fifty blue whales over a 5-mile area off Dana Point, with similar reports from Redondo Beach on down to San Diego. And we just reported this (completely in agreement with other operators) from Capt. Dave's in Dana Point: Mike Makofske reported "The variety of whales we are seeing is astounding! October 29, we saw four different types of whales in one day! 20 Fin Whales, 2 Minke Whales, a Blue Whale, and a Humpback Whale. We also saw a combined total of 1,400 Common Dolphins across 3 trips."

This, by all accounts, is truly unprecedented. We've had summertime whales here in recent years, but never in these numbers or variety. In addition to the species mentioned above, we had brief visits from orcas and sperm whales this year. And all of these extraordinary numbers have been sited from mid-September through October.



Orcas sited off of Dana Pt. this September. Photo taken by OC Naturalist, Martee Shabsin aboard the Dolphin Safai boat.

ACS/PS is in the midst of contacting and confirming speakers for our 2012 season. We hope to welcome, among others, Bruce Mate, Alex Zerbini and John K. Ford. We have no general meeting in December. We will post updated information on our website: <http://www.acspugetsound.org/speakers/index.html>.

Allison Dahle Riele, Los Angeles

Gray whale season is now upon ACS/LA!! Whale-watch is already successfully underway with over 100 naturalist volunteers this season. Also, the Gray Whale Census has an official starting date of 12/1, with volunteers manning the Pt. Vicente observation location during daylight hours.

Uko Gorter, Puget Sound

At this writing, we are holding our chapter board elections. Deadline is November 25, at which point the ballots will be tallied.

ACS/PS Speaker Series: Wednesday, November 16: We took a closer look at two very different harbor porpoise populations; one in Southeast Alaska, and the other in the Greater Puget Sound of Washington State. In this "two-for-one" deal, Marilyn Dahleim (National Marine Mammal Laboratory's Cetacean Assessment and Ecology Program) presented her findings in, *Abundance and Trends of Harbor Porpoise (Phocoena phocoena) in Southeastern Alaska Inland Waters*, and Brad Hanson (Northwest Fisheries Science Center) spoke about the *Return of the Harbor Porpoise to Puget Sound: Recent Increases in Abundance*.



Oregon Chapter Forming!

A new Oregon chapter is in the process of forming. If you would like more information, please contact the ACS Office at acsoffice@acsonline.org or call 310-548-6279.

For Kids Who Love Cetaceans

CETACEANS IN DEPTH: How long can you hold your breath?

Cetacean	Max. breath-hold	Max. depth
Dall's porpoise	7 minutes	180 meters (590 ft)
Blainville's beaked whale	23 minutes	890 meters (2919 ft)
Narwhal	20 minutes	1400 meters (4593 ft)
Northern bottlenose whale	120 minutes	1453 meters (4767 ft)
Sperm whale	138 minutes	3000 meters (9842 ft)

Uko Gorter

Source: Berta et al. 2006, *Marine Mammals Evolutionary Biology*, 2nd edition, Academic Press

A Legacy of Conservation

The legacy of ACS will be the pivotal role it has played for over 40 years in protecting the world's "ambassadors of the seas." Part of your legacy can be in the support you provide toward this cause. You don't need to be wealthy to make a gift that will have an impact on the future of whales, dolphins, and porpoises and their habitats. A charitable bequest to ACS in your will or living trust will serve as a powerful testimony to your conviction that this work is important to the health and biodiversity of our marine ecosystem.

I hope you'll join me in including ACS in your estate planning. I can't think of a better gift for our children and grandchildren.



All information about charitable bequests is held in the strictest confidence.

Your Name: _____ E-mail: _____

Street Address: _____ Phone: _____

City, State, Zip: _____

Please send more information about.....

- How IRAs can be used for charitable gifts
 Charitable gift annuities
 Charitable lead and remainder trusts
 Remembering ACS in my will

The American Cetacean Society
welcomes gifts of stocks and
securities. To arrange transfers,
please contact your personal
financial planner.

Please indicate if you have already made bequest arrangements to ACS:

- I have established a charitable bequest to the American Cetacean Society. Please add my (our) name(s) to the Legacy of Conservation Display at ACS Headquarters and in the *Spyhopper* publications.

Thank you for supporting ACS and our mission.

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AMERICAN CETACEAN SOCIETY 

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Membership in ACS Puts You in Good Company



Photo ©Michael Ho, <http://MichaelDanielHo.com>

The American Cetacean Society (ACS) protects whales, dolphins, porpoises, and their habitats through public education, research grants, and conservation actions. Founded in 1967, ACS was the first whale conservation organization in the world.

ACS is a 501(c)(3) non-profit public benefit corporation with national headquarters based in San Pedro, California. We have active chapters in Los Angeles, San Diego, Orange County, Monterey, San Francisco, and Puget Sound, plus a new, energetic Student Coalition chapter made up of college students from all locations. Our members live throughout the United States and in more than a dozen countries.

Join us in our mission, and help us spread the word! You will find many opportunities in 2011 for education and involvement.

You can join/renew or make a donation by using the form below, or go to www.acsonline.org and enroll or donate using PayPal. We hope to see you on the active rolls, and would love to have you share in our upcoming *Whalewatcher* journals and online *Spyhopper* newsletters.

Thank you,
Your friends at ACS



Please join, renew, and/or donate!

Select your one-year membership category:

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