

## Historical Perspectives

### R.H. Defran

I was born in Beaumont, Texas, on April 23, 1943. Like me, many children born and raised in the South are named after their father. While my father's name was really Dominico (Dominic), he went by Dick, which most people, himself included, lengthened to Richard. Children in the South who are named after their dad are often nicknamed Junior and then later "Jr." My mother sought to get ahead of the curve by naming me R.H. when I was still in the cradle. Or, perhaps, when she called out my name to come home for supper, she only wanted me and not the other five kids on my block named Jr. to come running. In any case, the R. stands for Richard; more about the H. later in the section on scorpions and the Venezuelan jungle.

Both my mother and father were first generation Sicilian- or Italian-Americans from the Bronx. All their parents came through Riker's Island as immigrants from Sicily (paternal grandparents) or southern Italy (maternal grandparents). The Bronx neighborhoods my parents grew up in were right out of the Robert De Niro years of *The Godfather*. My parents married shortly after my father graduated with a civil engineering degree from Cooper Union College in Manhattan, several years before the U.S. entered World War II. My father's first wartime engineering job was building a road from the oil fields in Venezuela to the airplane gas refineries near Caracas. It was a great job opportunity but not available to an engineer whose name was Dominico DeFrancesco. At that time, Italy was one of the Axis powers (along with Japan and Germany), and worries about sabotage ran high. My father, newly reinvented as Dick Defran, sailed from New York City to Venezuela three days after marrying my mother. Shortly after arriving at his tent in the Venezuelan jungle, his tent mate cautioned him to shake his boots out in case a scorpion had sought shelter there for the night. My dad, who had only seen the jungle in library books, thought his tent mate was kidding but shook his boots out anyway. Out popped a little scorpion, prompting my dad to say "Harvey, I will name my first son after you." Thus, the "H." after the "R." in my first name. After the work in Venezuela was completed and the U.S. had fully joined the war, my mother, father, and older sister moved to Beaumont, Texas, where my father built

refineries that made high-octane airplane gas from all that Texas crude; this is also where I was born.

After the war, American chemical companies found there was a great market for more refineries and the petrochemical byproducts they had previously burned off. New plants needed to be rebuilt, and old refineries had to be modified to exploit new products such as plastics. America had begun to build a "better life through chemistry." About the time I began the third grade, we began to move about once a year or more all over the South, the Northeast, and the Midwest. By the



The day I first saw dolphins was the same day they taught me how to water ski. I spent the summer of 1958 living with family friends in Jupiter Inlet Colony, which was at the southern end of the Indian River Lagoon, Florida, where I would work 45 years later. One lazy day in July, I met this fellow (on the right) who owned this little speed boat, and he invited me to learn how to ski. I got up the first time without a problem and quickly noticed that I had company in the form of three very large sharks swimming below me. I made an immediate decision not to die on that particular day, so there was no way I was going to fall. Later, when the sharks went away, I fell, exhausted and trembling. I told my friend about the sharks, and he laughed and told me they were bottlenose dolphins. Gulp! Later that summer I saw more dolphins, first at Marineland in St. Augustine and then later at the Miami Seaquarium, which had opened about three years earlier.

time I finished high school in Cleveland, Ohio, my parents and my younger sister were sailing into the southern hemisphere for another chemical plant to be built in São Paulo, Brazil. Meanwhile, for no really good reason I can think of, I went off to St. Bernard's, a small Catholic college in Cullman, Alabama. In my junior year (1963), I transferred to Loyola University, a bigger Catholic college in New Orleans. As luck would have it, I was excused from the mandatory Army ROTC because I had missed the first two years of training. More than a few of my fellow dorm residents who were in the ROTC for all four years at Loyola came back from Vietnam in a flag-draped coffin or altered for the worse by the experience of being 19 years old and living a jungle warfare life.

I had majored in Psychology at Loyola and went on to start a master's program in Clinical Psychology at Bowling Green State University (BGSU) in Bowling Green, Ohio. After mind-numbing weeks of giving and scoring Rorschach (ink blot) protocols and taking a remarkable course in human and animal learning, I exchanged my ink blots for a Skinner Box and was invited to join a new and innovative Ph.D. program in Experimental Psychology. Pietro Badia was the professor teaching the learning course that led me away from the "Dark Side" of Rorschach cards. Paul Lewis was a graduate student in Dr. Badia's lab, a year ahead of me. Both of these men were my everyday mentors for the next four years and beyond. In Badia's lab, we worked with college rats and college sophomores as we asked every question we could imagine about the reinforcing properties of information about negative events (shock; Badia et al., 1968) and positive events (pictures of playboy centerfolds, balanced for gluteal and mammary views—if you think I am kidding, you can, as Casey Stengel used to say, "look it up": Defran, R. H., Badia, P., & Lewis, P. [1967]. Stimulus control over operant galvanic skin responses. *Psychophysiology*, 4, 168-175). We were encouraged to take our laboratory (Defran, 1972) and our theoretical (Badia & Defran, 1970) ideas wherever they led us. In lieu of comprehensive exams, we were required to complete three publishable research papers before we could submit a dissertation proposal—a practice now found in many contemporary Ph.D. programs.

Oh, yeah, about the draft. In my fourth year of graduate school, I lost my military deferment and was sent a notice to report to Dayton, Ohio, for a medical exam. Gulp! Apparently, some clever Army psychologist must have published a paper that showed that Experimental Psychologists could be trained to a high skill level as helicopter machine gunners. I buried the letter asking me to report, and eventually got another one. At this point, I thought about learning to speak Canadian, which I heard was a lot easier (add "eh?" after each sentence) than the

Fortran programming language I was already studying for my foreign language exam. Instead, I asked if I could take my medical exam in Cleveland, Ohio, which was closer to Bowling Green. Months later, they said yes; and on it went with me repeatedly canceling and rescheduling to a different recruit medical center. In the meantime, *Alice's Restaurant* became my favorite movie. Just as the "requests to report" became "orders to report," my fellow Texan, Lyndon B. Johnson, announced the lottery-based draft system. Lots were drawn on December 1, 1969, and my number was in the low 300s, ending my military career before it began.

Four months later, in the spring of 1970, during my fifth year of graduate school, I put myself on the university professor job market. I got good offers from Western Washington University in Bellingham, Washington; the University of New Orleans; and San Diego State University (SDSU). I took the SDSU job and began work there in September 1970. One of the first courses I taught, and continued to teach until I retired in 2003, was a course in Human and Animal Learning, a lower-division version of the course I had taken with Pete Badia in my first year at BGSU. In the fall of 1971, I had two dolphin trainers from Sea World in my learning class. They told me, in effect, that Sea World had looked into the near future and had come to believe that the Marine Mammal Protection Act of 1972 would raise expectations about how captive marine mammals were cared for and trained. Their goal was to base their already great training techniques on a more technical footing. The focus of my SDSU learning course was about associative learning processes as pioneered by Ivan Pavlov and principles of reinforcement pioneered by B. F. Skinner (the "Pigeon Religion"). Both approaches were relevant to training dolphins, and before long, I was asked to teach this course on site at Sea World to two or three trainers a semester. The *quid quo pro* I asked for was the opportunity to carry out some experiments on captive dolphins. Overcoming a good deal of reluctance about bringing strangers behind the scenes, Sea World agreed to relax their strict grooming standards to accommodate my full beard. As part of my arrangement, they provided me with a dolphin named "Metro" whose favorite trick at the time was to gather up a head of steam and ram his rostrum into the side of his concrete tank (which we were required to call a "pool"). Metro had a few other tricks, like floating at the surface playing dead until an unfortunate seagull landed next to him to pay its final respects. Usually, this was the last payment made by most of these relatives of Jonathan Livingston Seagull. I doubt they were thinking very metaphysically as Metro rose up and helped them cross over to Seagull Heaven.

It turns out that Metro preferred fresh seagull to the usual Sea World fare of silver smelt and cut herring, and for that reason was poorly suited to work in dolphin shows or even the petting pool. Yup, they gave me what we call a “ringer.” For years, state mental hospitals had done the same thing to psychologists who wanted to carry out clinical trials with members of the patient population. Over time, however, I learned what the Sea World training and animal care departments already knew: Metro loved to have his skin and tongue rubbed. I decided to make lemonade with the shower of lemons that Sea World had provided me and began a project in which we examined the feasibility of training a dolphin using only tactile reinforcement. Our behavioral target was to get Metro to press an underwater paddle, like a lab rat pressing a lever, but for tactile reinforcement rather than a fish. In order to rule out general associations with food and trainers, we gave Metro his entire daily ration of 9 kg of fish a few hours before we began a training or testing session. We had immediate success in getting Metro to press the underwater paddle, sort of. Not only did he press the paddle, he rubbed himself all over the edge of the paddle, and nothing we could do would get him to cease and desist. Trainers had a pretty good laugh about all this as they passed by my training “pool” at the end of the day. We heard a lot of “How’s it going, Doc?” Eventually, we raised the paddle out of the water about 60 cm, which was too high for Metro to rub on. One problem solved. We later paired the availability of tactile stimulation with an underwater tone, which we sounded after a successful paddle press. Then, we placed the whole process under “stimulus control.” In the end, it worked like this: We painted a 3-m section of the tank wall and called it the reinforcing station. The trainer stood behind a plywood barrier near the reinforcing station, out of Metro’s sight. We periodically turned on a buzzer, which meant that pressing the raised paddle (about 5 m to the side of the reinforcing station) would cause the tone (conditioned reinforcer, like the trainer’s whistle) to come on and the trainer to come from behind the barrier and stand by the reinforcing station. If Metro came over to this small reinforcement area (which he quickly did), we would rub his skin and tongue for 10 s. As part of our protocol, we avoided rubbing Metro’s genital area and, thus, left accusations of dolphin porn for John Lilly’s assistants to handle. Metro quickly picked up the routine, and we were able to use the tone to shape paddle pressing. We then moved on to more formal testing, alternating multiple sessions of reinforcement with sessions of extinction. During reinforcement training, Metro zoomed over to press the paddle when the buzzer came on and ignored the paddle during extinction training—fairly standard testing protocols but an unusual subject and reinforcer. Repeated

reinforcement and extinction reversals produced pretty convincing proof that tactile stimulation was a reinforcer. Next, we tested whether paddle pressing might have been reinforced by the mere presence of the trainer, a form of generalized social reinforcement. We paired the tone with a powerful jet of water directed to the reinforcement area. Metro picked this up immediately. When paddle pressing resulted in the water jet and no trainer, he returned to reliable paddle pressing and the stimulating impact of water on his skin and tongue. When the paddle pressing produced no water jet, paddle pressing stopped and so did the laughing as the trainers passed Metro’s “pool.” Later, the laughter resumed as I tried to train Metro to wear suction eye-cups for a sonar demonstration. He spent days swimming around with an eye-cup on his back, and I begged passing trainers to help me. It’s hard to help when you’re laughing so hard. “Way to go, Doc!” And on it went at Sea World.

About this time, the Naval Undersea Center (NUC) in Point Loma and Hawaii hired me as a civilian contractor to write a manual and conduct workshops in San Diego and Hawaii on how to train dolphins (Pepper & Defran, 1975). Apparently, they were impressed with my ability to train a dolphin to wear an eye-cup stuck to its back for days at a time. Eventually, most of the NUC marine mammal programs moved over from Hawaii to the backyard of the Inshore Underwater Warfare Group 1 Navy Seal facility on Coronado in San Diego Bay. There I taught a course on training marine mammals to Navy Seals who were staffing several of these programs. I noticed they videotaped the course, and I only taught it that one summer in 1974. About 10 years later, a very muscle-bound guy with very short hair came up to me in a country-western bar in San Diego and said “I know who you are.” I am sure I replied “I was just *dancing* with her.” He laughed and whispered that he recently saw a video of me talking about dolphin training. I asked him if he worked in Coronado and he nodded yes. Relieved, I said something manly like “semper fi” or “Ooh-rah!” (sounding more like G.I. Jane than Al Pacino) and realized that I was still working for the Navy but as an unpaid consultant. Briefly, I thought of barging into the Inshore Underwater Warfare Group 1 facility demanding to speak to whomever was in charge. As I began to set this plan, I watched a documentary on how Navy Seals are trained. Patriot that I am, I decided to cut them some slack, just this once. “Ooh-rah!”

I spent the next several years at Sea World training dolphins on a variety of auditory and visual psychophysical discrimination tasks. It gave me a chance to use and further my training skills, and it mirrored work I was doing in my basement laboratory at SDSU. Nancy Caine, an SDSU Psychology graduate student, and I spent 18 months training

a Navy dolphin to discriminate between pairs of high-frequency tones, which simulated a test of the dolphin's sonar ability to discriminate differences in distance. At the same time, we were running similar acoustic simulations with Labrador retrievers on the SDSU campus. Additionally, I was expanding my efforts to systematically observe and document behavior using Sea World's dolphin collection as my subject pool. We developed ethograms and behavioral budgets for bottlenose dolphins (*Tursiops truncatus*), pilot whales (*Globicephala melas*), false killer whales (*Pseudorca crassidens*), and beluga whales (*Delphinapterus leucas*).

Late in the 1970s, Lou Herman at the University of Hawaii–Manoa, who was putting together an edited book about cetacean behavior, approached me about writing a chapter about species differences in behavior and training. He paired me up with Karen Pryor as my coauthor, and together we exploited our broad familiarity with many oceanarium trainers to explore how 11 cetacean species differed in behavior and training while in captivity (Defran & Pryor, 1980). Karen was a fine writer and had recently emigrated from her job as the director of training at Sea Life Park in Hawaii.

Oddly, the net effect of compiling this questionnaire-based account of captive cetaceans, along with my captive-based ethograms and behavior budgets, was to strengthen my awareness of the limits of captive work and the importance of studying these animals in their natural environment. Then, published work by Randy Wells with bottlenose dolphins in Sarasota Bay, Florida, and Bernd Würsig's work in Argentina showed what was possible (Würsig & Würsig, 1979; Wells et al., 1980). In late 1983, the opportunity to work with wild dolphins in my own backyard came knocking during a meeting I had with Larry Hansen at the 5th Biennial Conference of the Marine Mammal Society in Boston, Massachusetts. Larry was a biologist with the National Marine Fisheries Service (NMFS), Southwest Fisheries Science Center, who had just completed a photo-identification assessment of bottlenose dolphins along the coastline of North San Diego County. Armed with a new logo, and little beyond the field training I got from Larry during the winter of 1984, the SDSU's Cetacean Behavior Laboratory (CBL) began the work that continued over the next 25 years. January 24, 1984, was my first day on the job, and it began with Larry and I lowering the NMFS's Boston Whaler over the side of Scripps Pier and into the small swells of the blue-green Pacific Ocean. I had seen plenty of documentaries about biologists studying marine mammals in the wild and figured their dress code would work for a psychologist. So, I showed up wearing a pair of very short corduroy shorts and a thin t-shirt. *Au contraire*, Larry showed up apparently dressed

for an Arctic expedition. Seemed like overkill to me, so I declined the jacket he offered me, and off we went. After all, this was Southern California and the sun was shining. By the time we reached Oceanside Harbor, about three hours later, I knew firsthand the meaning of "There are no atheists in foxholes." By the time we returned to Scripps Pier, I had already promised God I would become a priest, and, in general, that I would become a better man if I could end the day without dying from hypothermia.

Based on resightings of some individual dolphins, Larry Hansen's thesis data initially appeared to show that San Diego dolphins were displaying residency patterns similar to those that Randy Wells had reported for the Sarasota dolphin community. During the next six years, we carried out 146 photo-identification surveys along the North County coastline. At first, we were unprepared for the overhead of sorting, matching, and cataloging all the dorsal fin photographs we were taking. New techniques for the benchwork side of photo-identification were developed, and we began to get caught up with our backlog of dorsal fin photos. Once we were caught up, it was clear to us that the residency patterns of these dolphins were more complex than we had thought. Many individuals were only seen once; and for other individuals, there were often long intervals between resightings (Defran & Weller, 1999). We began to consider the possibility that perhaps these dolphins were not exclusive residents of San Diego County. We knew that infrequent resightings of the same individuals in North San Diego County were a weak foundation for assessing ranging patterns. The flaw of such an assessment was that it amounted to a case of accepting, rather than the more conventional rejecting, of the null hypothesis. In other words, we suspected that the dolphins we had been photographing ranged much wider than North San Diego County, and we were going to have to range more widely in our surveys to find out. Within a year of beginning our work, we developed a research relationship with Miriam Espinosa, a Biology student at Ciencias Marinas, Universidad Autónoma de Baja California in Ensenada (CMUABCE). In 1985-1986, and then again during 1999-2000 with CMUABCE student Oscar Guzon, we surveyed extensively across Ensenada Bay. A similar story exists for our surveys of the Santa Barbara area: in 1986 and 1989, and then again between 1998-1999 (with CBL graduate student Aimée Lang), we carried out photo-identification surveys between Ventura and Santa Barbara. As well, we inherited a good-sized catalog of dorsal fin photographs collected during Dennis Kelly's Coastal Dolphin Survey Project work from 1982 through 1989 in the coastal waters of Orange County, California. In the aggregate, this work helped us clarify the extensive ranging characteristics of the coastal bottlenose dolphins we had

in Southern California and Baja California Norte (BCN; Defran et al., 1999). Later work suggested southern and offshore range boundaries for these dolphins: no overlap between our coastal dolphins and those found offshore around Catalina Island and minimal overlap with those along the coastline of San Quintin, BCN (376 km south of San Diego and 200 km south of Ensenada).

By the late 1980s, the CBL had established a pretty good research foothold in the coastal waters and on the coastal cliffs of the Pacific. A significant part of our growth and productivity since then can be traced to the contributions of two graduate students, Dave Weller and Mark Hanson, both of whom came to San Diego from Lou Herman's lab in Hawaii. These two individuals displayed high degrees of scholarship, creativity, hard work, and collegiality that set the standards for all who followed them in the lab (Hanson & Defran, 1993; Defran & Weller, 1999; Defran et al., 1999). Mark went on to get his Ph.D. at the University of California at Davis and then joined the faculty of the University of Hawaii—West Oahu. Dave Weller went on to complete his Ph.D. at Texas A&M University and is now a biologist with the Protected Resources Division of the NOAA Southwest Fisheries Science Center in San Diego. Anna said it best when she sang to the King, “by your students you’ll be taught.”

In the early 1990s, the CBL began working with Birgit Winning of the Oceanic Society to examine the population characteristics and social dynamics of bottlenose dolphins found in the Turneffe Atoll and later in the Drowned Cayes areas offshore from Belize in the western Caribbean. A lot about this work, including our methods and the questions we were asking, was similar to the work we had done along the California coastline. Again, as with Larry Hansen in San Diego, we got a jump-start on this research by important developmental work done by a Biology graduate student—this time Kathleen Dudzinski—and, over time (1992 through 2002), we were able to accumulate a sizeable photo-identification catalog which reflected work over a significant geographic range (Campbell et al., 2002).

Fieldwork in California and Belize by members of the CBL began to wind down during the first several years of the new century. About this time, Marilyn Mazzoil and Steve McCulloch from Harbor Branch (HB) and I began a review and discussion of the history and future of their program to study bottlenose dolphins within the Indian River Lagoon. During my first several visits to HB, I was impressed with their use of digital photography to capture and then analyze dorsal fin photographs. We all knew this technology was coming, but at HB, it had already arrived. I was invited to develop and provide scientific oversight for a research plan that would generate systematically collected and fundamental information



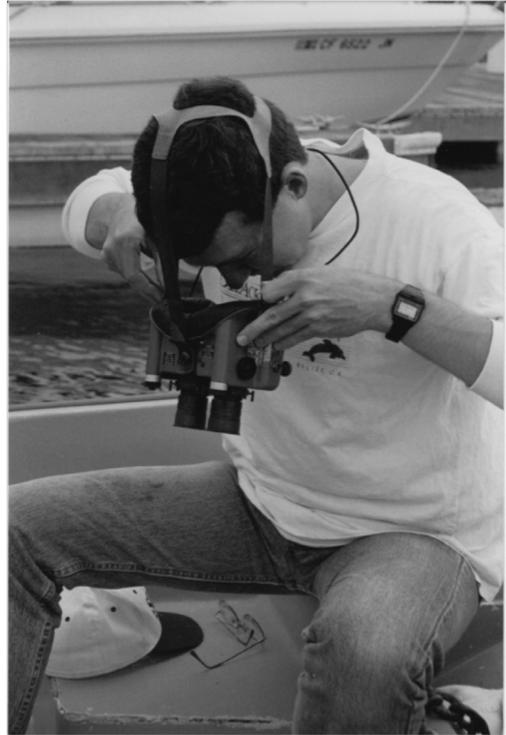
Dockside in Mission Bay, San Diego, California, on a Saturday morning in 1988, R. H. loads up the SDSU Boston Whaler, getting ready for a photo-identification survey with David Weller.



Two surfing species gather for a photograph 50 m offshore of Torrey Pines State Beach, San Diego, California, during the summer of 1984. We yelled out to the young woman splashing water (third from the left) for her phone number so we could call and then send her a copy of this photograph. Later that day when I talked to her, she explained that the fellow surfer beside her was her dad (extreme right), and that morning he had coaxed her out on her first ever surfing experience. She said she was really scared to begin with and then became really, really scared when the “sharks” showed up. She told me that she was splashing water to scare the sharks away but was trying not to splash too hard for fear of making them angry. I told her that these were bottlenose dolphins, and she said that her dad told her the same thing but she was sure, at the time, he was just trying to help her relax. She laughed when I told her the story of my experience learning to water ski with “sharks” in Florida.



CBL graduate student Dave Weller with his mom Barbara Joy Weller after a photo-identification survey in June 1990. Barbara was the “First Lady” of the CBL, and when we acquired our own survey boat in 1993, we named it the *R.V. Barbara Joy* in her memory. Dave and I acknowledged her loving contributions to us by dedicating our paper (Defran & Weller, 1999) about Pacific coast bottlenose dolphins in San Diego, California, to Barbara J. Weller (1938-1992).



CBL graduate student John Day adjusts the night vision goggles he used during his thesis on nocturnal behavior of Pacific coast bottlenose dolphins (Day, 1998). He is now Dr. Day after earning his Ph.D. in Biology from the University of California at San Diego.



The CBL crew gets ready to launch our inflatable, the *R.V. St. Francis*, into the surf south of San Quintín, Baja California Norte, for a photo-identification survey in April 1990.



CBL graduate students Aimée Lang and Jennifer Marsh in 1997 launching the *R.V. Barbara Joy* into Mission Bay, San Diego, before heading out on a photo-identification survey. Aimée is now Dr. Lang having recently completed her Ph.D. on the genetics of Western gray whales (*Eschrichtius robustus*) at Scripps Institution of Oceanography. Jennifer is now Dr. Marsh having earned her Ph.D. at the University of Washington studying killer whales (*Orcinus orca*) in the Pacific northwest (Lang, 2002; Marsh, 2000).



CBL graduate students and interns gather on campus at SDSU to send Ken Norris a get well card.



Love bloomed on the cliffs of north San Diego County. CBL graduate students Erin Tepper and Sam Ward met while carrying out dolphin behavior surveys from the cliffs above the blue Pacific. Several years later, they were married and now are the proud parents of two children (Tepper, 1996; Ward, 1999).

about the size and distribution of bottlenose dolphins within the IRL as well as in the coastal Atlantic adjacent to the IRL. I began my work on this program in 2002, and it continued as planned through 2006 when I completed my time at HB.

Concurrent with the last three years of my work at HB, I had assumed a similar role with the National Ocean Services' (NOS) Living Marine Resources Program in Charleston, South Carolina. There, we titled our program the Charleston Dolphin Abundance and Distribution program and, by 2006, we had successfully completed an ambitious three-year program of monthly surveys of the coastal, riverine, and estuarine waters near Charleston, South Carolina.

As my consulting work at HB and Charleston NOS began to ramp up, I decided to pull the pin on the SDSU retirement grenade. Life as an Emeritus has been great, and after 33 years as an SDSU professor, it was not hard to give up teaching, committee work, and faculty meetings. I maintain my office/lab on campus and can still sponsor graduate students in our Interdisciplinary Master's Program in Animal Behavior, which has been the venue for most CBL graduate students.

Most recently, I borrowed a few pages out of a James Michener novel and headed for a remote area of the South Pacific. Like a lot of American and Japanese soldiers in the early 1940s, I began my next assignment by arriving at Henderson Field on the island of Guadalcanal in the Solomon Islands. The Ministry of Fisheries and Marine Resources of the Solomon Islands Government (SIG) invited me to carry out a population study on the Indian Ocean bottlenose dolphins (*Tursiops aduncus*) found in the coastal waters of Guadalcanal and elsewhere in the Solomons. Support for this research came from several companies who had recently collected dolphins in the Solomons and agreed, as a partial mitigation, to fund a population study. There was plenty of controversy locally and internationally about the live dolphin captures that took place in the Solomons, as well as those planned for the future. There was no controversy, however, from any quarter, about the need for information about this population of dolphins, about which there was virtually nothing known.



With my nephew, Richard, and John, our pilot, on survey in the Solomon Islands

During the summer of 2005 and then later in the summer of 2007, I visited Guadalcanal to determine the feasibility of carrying out boat-based photo-identification surveys which would yield useful data for determining the distribution characteristics of these dolphins as well as calculating estimates of their population size. Apart from my Aussie expat skipper and one or two Solomon deckhands, I would be the only researcher on board. So, part of the feasibility assessment involved figuring out



Richard, my nephew, takes a dock walk at dawn in front of the Point Cruz Yacht Club. Richard, a Texas A&M-trained biologist, joined me on this early trip to the Solomons in the summer of 2007. Savo Island is in the background, site of two monumental World War II battles between the Imperial Japanese Navy and Allied naval forces. Three hours later, Richard and I had circumnavigated Savo Island during a photo-identification survey.

whether I was up for the program. Initially, the program involved many days spent on the water running nearshore and offshore tracks. Eventually, we set a survey route that was periodically local and at other times surveyed the limits of our range: the mostly pristine Florida Islands across Iron Bottom Sound from Guadalcanal and on to the warrior province of Malaita, about 100 km away. Three times a year, I visited the Solomons for 21 days at a time; and while there, I went on 12 to 15 surveys. An expedition to the Solomons began with a 10-hour flight from Los Angeles to Fiji, then five hours cooling our jets in the Fiji terminal, and then another three hours to Henderson Field outside of Honiara, Guadalcanal. It took about 24 hours for all my neurons to start holding hands again and about five surveys until I got my “Guadalcanal Groove” on.

After surveys, I sometimes met with SIG officials, and some evenings were spent trying to hunt down a vegetarian meal. Except for the three nights a week the King Sol Hotel put on a karaoke competition, and the three nights a week the Polynesian dancers performed, I went to sleep pretty early. At 4:00 AM, the alarm went off, I drank down my white coffee, spooned down my instant oatmeal, got dressed, gave my gear a final check, and began the long hike to the Yacht Club. An hour or so later, we launched our survey vessel, and we were off heading west to Cape Esperance, where under the cover of night the remaining 5,000 members of the Japanese Army were evacuated from Guadalcanal early in February 1943, a few months before I was born.

The more I learned about the history and culture of the Solomon Islands and its people, the more intrigued I became with where I was. And there was a lot to learn and unlearn. Despite

modern developments found in a few urban areas, the remoteness of the Solomons has preserved its village-based foundations, a way of life not easily understood or accommodated by outsiders. Enterprises that fail to understand and respect the Solomon culture and history have an uphill path in front of them, and few make it to the top. So, tempting as it was to hole up in my room when I was off the water, I didn't. I went to dinner and on picnics, and for coffee and beer with all my new Solomon Islands friends, and we talked late into the night about life in this extraordinary part of the South Pacific.

Indian Ocean bottlenose dolphins were a cinch to photograph, and there was plenty of marine life to watch while we searched for “the big ones.” The small ones were the ubiquitous spinner dolphins (*Stenella longirostris*) which were often sympatric with the *T. aduncus*. My feasibility assessments, however, failed to prepare me for a significant danger I repeatedly faced in the Solomons. At the end of most surveys, my personal tank was pretty low, and I still had to hike back to the King Sol Hotel. Time and again as I began to cross Honiara's streets, I looked to my left, saw it was all clear, and stepped off the rather high curbs built by the British years ago. Next, a fairly amused resident would grab me by the backpack and haul me back from a certain collision with a car, bus, or truck coming fast from the right.

The Solomon Islands project ended a bit earlier than planned. Once again, Solomon Islands culture and history trumped western ambition. I came away from the Solomons with a sizeable catalog of dorsal fin photographs taken across four years and thousands of survey kilometers, and with a good scientific account to be told. I will always miss this extraordinary place and its people, and I hope someday to return. However, for now at least, I have met my carrying capacity for karaoke and Polynesian dancing.



Honiara, Guadalcanal, Solomon Islands in front of Point Cruz Yacht Club; background: *Lalae*, our survey vessel in the Solomons.

*We'll only have the picture books  
Of land and sea and foam*

*'Cause they're sending the old man home.*

—Jimmy Buffett

“Sending the Old Man Home”

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### R.H. Defran: Short Biography

R.H. Defran is the Director of the Cetacean Behavior Laboratory and Professor Emeritus at San Diego State University. He obtained his Ph.D. in Experimental Psychology from Bowling Green State University in Bowling Green, Ohio, in 1972; and since 1970, has been a professor in the Psychology Department at San Diego State University. In late 1983, Defran began work with the National Marine Fisheries Service, NOAA Southwest Fisheries Science Center, La Jolla, California, assuming responsibility for an ongoing boat-based photo-identification project designed to assess the population size and range characteristics of bottlenose dolphins in north San Diego County. Since 1984, Defran has carried out and directed the CBL's dolphin population studies along the Southern California and Baja California Norte's Pacific Ocean coastline; in the coastal waters of Belize in Central America; within Florida's Indian River Lagoon; in the estuarine and coastal waters near Charleston, South Carolina; and, most recently, in the coastal waters of Guadalcanal in the Solomon Islands.

