

Obituary and Tributes to William Eugene Evans (1930-2010)

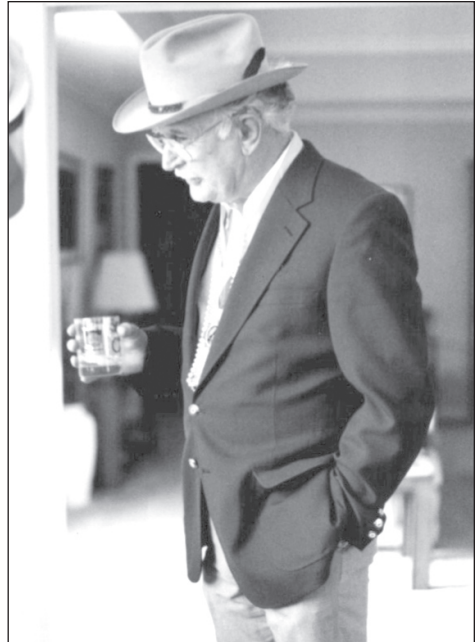
Dr. William Eugene Evans was a world-renowned marine mammal acoustician and ecologist with special interest in marine mammal management and conservation biology.

Bill graduated from Bowling Green State University (B.S.) in 1953 and received his M.S. from Ohio State University the following year. He served in the U.S. Army from 1954 to 1956. In 1956, he began work in the aerospace industry related to the impact of noise on humans and animals.

In the 1960s, Evans was one of the first scientists who made up the cadre of the U.S. Navy's Marine Mammal Program at a naval base in southern California. During his 10 years with the program, his primary area of research was marine mammal communication, echolocation, and population ecology, which resulted in the design of a special research platform for recording and observing dolphins under water called "Sea See," as well as the radio telemetric study of several species.

Bill was an Advanced Study Fellow and Visiting Scientist for the National Marine Fisheries Service from 1972 to 1974 while he worked full-time on his Ph.D. at the University of California at Los Angeles. He received his degree in 1975. Because he was supported by the Navy for two years while he worked on his degree, he owed them two years (1974 to 1976). During this time, he was Head of the Bioanalysis Group at the Naval Undersea Center. He resigned from the Navy in 1976 and took on administrative duties as the Executive Director of the Hubbs-Sea World Research Institute in San Diego, where he created a world-class research facility and staff which remain prominent in the studies of marine species.

In 1984, he was appointed Chairman of the U.S. Marine Mammal Commission (MMC) with oversight responsibilities of the Marine Mammal Protection Act. In 1986, he moved to Washington, DC, to pursue a career with the Federal Service as the Associate Administrator of the National Oceanic and Atmospheric Administration (NOAA) Fisheries. In 1987, he was appointed by President Reagan with Senate confirmation as the Under Secretary of Commerce for the NOAA and the U.S. Commissioner for the International Whaling Commission (IWC). Throughout his years with these organizations, Bill participated in negotiating several environmental and fisheries



agreements with Norway, Iceland, Japan, Poland, Korea, the People's Republic of China, and the former Soviet Union. In the late 1980s, he headed a delegation to Murmansk, USSR, for fisheries discussions. This was the first U.S. presence in Murmansk since the end of World War II.

Bill retired from Federal Service in 1989 and left Washington, DC, to become the Dean of the Texas Maritime College, later known as the Texas Maritime Academy, in Galveston, where he conceived a new course entitled Environmental and Resource Management, Policy and Politics. He retired from Texas A&M in 1999 and worked as an adjunct professor at the University of Notre Dame and as Managing Editor of *The American Midland Naturalist*.

He and his wife of 58 years, Phyllis, lived in South Bend, Indiana, during the summer and in Galveston and College Station, Texas, during the winter, with intermittent visits to their sons, Jonathan and Timothy, and grandchildren, Courtney, Kendell, and Kelsey, and Andrey and William.

Taken from Evans (2008a).

A Tribute to Bill Evans

In recent years, Bill Evans wrote a book, *Fifty Years of Fluke and Flipper* (2008b); a Historical Perspectives article in *Aquatic Mammals* (Evans, 2008a); and was highlighted in a DVD interview by Terramar Productions. I am so glad he wrote about and was interviewed to document his very exciting career. This process also gave me an opportunity to reconnect with Bill.

However, there are several facts about Bill that did not come through in his own writings. He was a kind-hearted, generous person who was accomplished in a wide variety of fields: research, public relations, teaching, and government service. His accomplishments were facilitated by the constant support of his wife, Phyllis Evans (Figure 1). He was a family man who often spoke affectionately and with pride about his wife; two sons, Jonathan and Tim; and his grandchildren; and he and Phyllis always had a menagerie of animals. He was an excellent mentor to many young marine mammalogists, especially young women. He taught through story-telling and had many stories. He was the first to recognize that towed-arrays of hydrophones used by the geophysical industry had great application for studying marine mammal acoustics. His connections with Soviet marine mammalogists paved the way for the exchange of scientific information about marine mammals. In his retirement,



Figure 1. Phyllis and Bill in 2002. Photo taken for their upcoming 50th wedding anniversary.

Bill also became an accomplished artist. Let me expand on these contributions below.

When I was a Ph.D. student from the University of Minnesota working with Don Siniff, I had the opportunity to make some underwater recordings of killer whales in the Antarctic. At that time, Bill Evans believed killer whales had geographic dialects and color patterns but nothing had been published. So, I mailed a cassette tape of underwater recordings to Bill and asked if the sounds were different than northern killer whales. The sounds were dramatically different, but Bill asked “Are you sure they were killer whales?” I sent him a copy of the photograph (see Figure 2) and replied, “Yes, I’m pretty sure they were killer whales.”

Apparently, he was intrigued, and when I first met him at a Biennial Marine Mammal conference he offered me a post-doctoral position at Hubbs-Sea World Research Institute (HSWRI) in San Diego. The opportunity to build and equip a bioacoustics lab was a dream come true for me.

However, I was not in San Diego much of the time. Over a five-year period, Bill sent me all over the world on research projects—to conferences and workshops, as a U.S. delegate to the Japanese/U.S. Dahl’s porpoise gill net entanglement negotiations, and as a representative at the U.S./USSR Joint Agreement on Environmental Protection meetings at Vladivostok and at Lake Baikal in the former USSR. I learned the importance and power of political negotiations and that marine mammal biologists are like-minded the world around. It was sort of a running joke at HSWRI that Bill was trying to get rid of me. He sent me to the Antarctic and Siberia, but I came back. So, then he started sending me to sea in the tropics on research vessels and a tuna seiner, but I came back.

My office at HSWRI was next to the coffee pot, which Bill visited often, so I heard many of his stories. He also liked to stay late at work (I think to avoid the traffic) and chat with his staff and tell his stories. I always marveled at the number of stories and how effective story-telling is for getting a point across. At that time I thought, someday I hope to have stories to tell. All the travel and research experiences at HSWRI gave me stories to tell, and now I also tell my stories to my students as I lecture.

A couple of his stories: Bill said that while working for the Navy, he was in three airplane/helicopter crashes in the same day. He never did like flying after that. He told of working for Lockheed and needing to find a solution for birds flying into aircraft windshields, so he developed a chicken flinging machine to toss frozen chickens at aircraft to determine the effects.

While at HSWRI, Bill was a father figure to me, and Phyllis was a mother figure. I admit that moving



Figure 2. Studying a killer whale in the Antarctic

from the Midwest to southern California was quite a change for me. Being one of Bill's students was like being adopted into the family. They often entertained their students on their ranch in Escondido where they had all sorts of animals: horses, zebra finches, otters, dogs, cats, and sheep. They gave me a surprise party on my 30th birthday; it was wonderful. When I was expecting my first child, they hosted a baby shower/party for us. This was not only a kind gesture but also sort of a political statement. At that time, there was no maternity leave, and the belief by many was that once a woman had a child, her career in marine mammalogy was finished.

Bill was always very supportive of women entering the field of marine mammals. At the time I first started my career in 1980, there were a handful of women at the Biennial Marine Mammal conference. Look at the change! The majority of marine mammalogists are women. This is due to people, like Bill, who promoted women entering this field of study. There is a long list of women whose careers were affected by Bill Evan's mentoring: Pam Yochem, Ann Bowles, Terrie Williams, Caryn Self-Sullivan, Sarah Stienenson, and Nancy Foster. I apologize if I have missed mentioning them all. Bill gave women many opportunities, but at the same time I believe he worried about their safety and ability to adapt in a situation where they likely were the only women. When I went to the former Soviet Union, he paid to have me tutored in Russian. When I went on a tuna seiner, he made sure I met all the lead tuna boat owners and, perhaps most importantly, their wives.

The major project I worked on at HSWRI was funded by the National Science Foundation to use a towed-array of hydrophones on a tuna seiner to determine whether tuna could be detected acoustically and thus avoid the need to set nets on dolphins. As part of this project, I needed to work with geophysical engineers in Texas to design and learn to use the array. I had never been to Texas, and the engineer I spoke with on the telephone

always addressed me as "Dr. Thomas, you good old gal." So, Bill took me to Houston to meet the engineers, but he told me I would be more effective if I wore a cowboy hat. I knew there were different types of cowboy hats, men vs women, and summer vs winter, so Bill took me to a mall and helped me pick out a white woman's cowboy hat, which I wore to the meetings. I was somewhat skeptical that I needed a cowboy hat, but the next year I was on a cruise in the Antarctic during which the chief scientist from Texas A&M wore his hat the entire trip. So, maybe Bill was right.

When I first started working at HSWRI, I was a field biologist and did not really believe that much could be learned from captive animals. Bill encouraged me to conduct studies at Sea World on belugas and leopard seals. These studies made me realize there are some advantages to knowing the study animals and being able to train and observe them on a daily basis. It is ironic that my current research is almost exclusively with captive animals.

Working at HSWRI was somewhat of a pressure-cooker in that most of the funding came from grants and contracts. I honed my proposal-writing and budget-management skills while I was there. Once we received a request for proposal to study gray whale acoustics, and Bill asked me to write a proposal. I responded that "Bill, I do not know anything about gray whales." He responded that it was time for me to learn about them. This lesson taught me to not be narrow-minded in what species or topic I might study. This lesson has served me well as the advisor of many graduate students at Western Illinois University who have conducted research on a variety of these topics—not only on dolphins and seals but also on deer, raccoons, opossums, giraffes, elephants, bats, coyotes, bears, and sable antelope.

Throughout my career, I have always noted the many and varied types of scientific activities in which Bill was involved. I guess I have unconsciously tried to model his career. He was involved in founding the Society for Marine Mammalogy; I served as President of SMM. He was a Marine Mammal Commissioner; I was a Scientific Advisor for the MMC. He was a journal editor for *American Midland Naturalist*; I was editor of *Aquatic Mammals*. He actively sought out collaborations with Soviet Union marine mammalogists; I organized a conference in Rome that for the first time had famous Soviet scientists in attendance. He advised many graduate students; I have had many graduate students over the years at WIU through our program with the John G. Shedd Aquarium.

So, I am highly indebted to Bill and Phyllis Evans for the many contributions they have made



Figure 3. Watercolor by Bill Evans, 2009

to my career and life. In recent years, Bill took up painting. I told him that my husband and I raise alpacas and sent him some photographs. He painted a watercolor picture of alpacas for me (Figure 3), which I have prominently displayed in my home and will always cherish.

–Jeanette Thomas, Professor
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Moline, Illinois

A Few Memories on Almost Fifty Years of Dr. William E. Evans

I first met Bill Evans in 1961 while I was still an Air Force Veterinary Officer working with people at Point Mugu, California, on the start of the Navy Marine Mammal Program (NMMP). Bill came up to Mugu from his base at the Lockheed-California Company. He worked at sea from the Lockheed research vessel; he made measurements in pools at Lockheed and Marineland of the Pacific; and he did dissections with the Caldwells at the Los Angeles County Museum of Natural History. Indeed, Bill ranged all over the area from the lagoons of Mexico to offshore southern California. He was planning experiments in Point Mugu Lagoon. Bill was interested in all things acoustic from sound production, language, communication, hearing, and echolocation to the anatomy involved. Bill's enthusiasm for these subjects was infectious and, though he had already done and illustrated a number of head dissections, he convinced me that I might be able to help on the anatomy. When sometime later I heard that Pacific Ocean Park in Santa Monica had a pilot whale head in their freezer, Bill Scronce, Marty Conboy, and I headed down there in a Navy pickup truck. The head was a big black solid lump of ice that we moved only with great difficulty. How would we plumb its anatomy? Morris Wintermantel

declared that he could borrow equipment and went away, returning soon with a chain saw. We sliced the head with the chainsaw. When we finished, we were covered with muscle, blubber, and bone fragments. So was the chainsaw and it was also missing teeth. I asked Morris how he convinced someone to loan us the saw. "Oh," said Morris, "I didn't tell him what we were going to do with it!"

I did not think we had done a very good job of anatomy with this pilot whale. Nevertheless, when I showed the pictures to Bill, he was enthusiastic. There were several sections through the ears. He pointed out all the good things the borrowed chainsaw had revealed. Bill Evans had this talent: he was quick. He could always point out the redeeming scientific or social value of any effort.

In those early days, every time Bill showed up at Point Mugu it was a time for new perspectives and renewed enthusiasm for the work at hand. At Lockheed, he did an experimental study on echolocation, or lack thereof, in the California sea lion (Evans & Haugen, 1963). When Bill left to resume graduate studies at UCLA, Lockheed did not want his trained sea lion, Roxie, so Bill took Roxie home to live with the family dogs. Needing a job to support the family, Bill came to work at Point Mugu for the summer of 1964. At the time, we were all about dolphins at Point Mugu, and sea lions had not much entered our minds. Bill showed up for work with Roxie. In Bill's words,

The Navy did not know that they hired two for one so when I showed up for work that summer they were surprised that I brought my own sea lion. This served two purposes: one, my dogs were delighted to get rid of this strange kennel mate, and two, Roxie got a new home with real seawater and a better diet and an excellent medical care plan. My task for the summer was to train Roxie to retrieve rings similar to those in the echolocation study but fixed with an acoustic pinger. (see Bill's book, *Fifty Years of Flukes and Flippers* [Evans, 2008b])

With the help of trainer Wally Ross, this training proceeded to the open ocean with ring retrievals down to 240 feet and 15 miles to sea from Point Mugu. Divers filmed the work, and Bill called the finished film, *Project ROXIE*. When Bill presented the film to visiting VIPs from the Pentagon, he was surprised when the project was introduced with an acronym, **ROXIE: Retrieval of Xperimental Immersed Elements**. Roxie turned out to be the very first open-ocean trained sea lion involved in the NMMP. By the end of the 1960s, sea lions were an integral part of the program (see Conboy, 1972;



Working with a Navy sea lion (Official U.S. Navy Photo)

Ridgway, 1972), and they are still today (www.spawar.navy.mil/sandiego/technology/mammals).

Starting in 1964, while Bill was still a graduate student of Drs. Kenneth Norris and George Bartholomew at UCLA, we collaborated on a number of projects (*cf.* Coulombe et al., 1965). It was great having Bill as a coworker with the NMMP. He left to assume the position of Director of the Hubbs-Sea World Research Institute in San Diego. Bill was then called on to become Director of the National Marine Fisheries Service in Washington, DC. After this work, he went on to head the Texas Institute of Oceanography and to serve as Dean of the Texas Maritime College of Texas A&M University in Galveston. Over almost 50 years, I appreciated Bill Evans for his scientific accomplishments, for his willingness for scientific interchange, for his kindness and consideration to students, and for his leadership in our field. Over all our years of our friendship and scientific interchange, I was also aware that Bill Evans could accomplish so much because he had the constant love and support of Phyllis Evans.

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Remembering Dr. William Evans

Bill Evans was a man of vast and varied experience. He was an expert on dolphin acoustics and ecology, an author and painter, a diplomat, a sheep farmer, and an admiral. He was an authority on giant Chinese salamanders. He was not covetous of his knowledge; rather, he shared it with the many people drawn to him and his interests. He was a mentor to many whose lives he touched and fostered. On his walls hung letters from three Presidents. He was part and party to many world class ideas. My favorite was to replicate the Challenger Voyage, the first oceanographic expedition around the world a hundred years later. He was a marine mammal biologist who signed a treaty in the Hall of Mirrors at Versailles. He was a Plenipotentiary for the U.S. Government vested with the full authority to negotiate a treaty that resulted in the EPIRB we wear on our life jackets that has saved many lives. He was a biologist with an intimate knowledge of many marine mammals who became the Under Secretary of Commerce and U.S. Delegate to the International Whaling Commission. It will be some time before one of us rises again to such heights in our government.

I first knew Bill as the first research associate at Hubbs-Sea World Research Institute, which I joined the week before it officially opened in 1977. There, under his tutelage, I studied the hearing of beluga whales and the ears of whales, dolphins,



Antarctic explorer, South Georgia Island, Antarctica, 1984

and porpoises. I learned about *strunction*—how structure and function are related in animal ecology. He even let me take care of his sheep, though Phyllis says I overfed them. This was the 1970s. Marine mammals were first becoming the darlings of our society, and *Minds in the Water* was a best-seller. I was always impressed that Bill was open to many ideas and HSWRI was filled with a variety of people—Russian, Japanese, French, Italian, and even American; their names included Yablakov, Busnel, Nishiwaki, an Italian Prince, and Carl and Laura Hubbs. John Lilly would visit often during a time when that was not often encouraged among some scientists. We at Hubbs enjoyed his synergistic input, and he gave me the wonderful chance to meet and work with many excellent people, including Steve Leatherwood, Jeanette Thomas, Joe Jehl, and Frank Awbrey. And not all of his friends were bipedal—some had no feet and others four. Moto, the parrot, was one of the many bipedals that will miss him. Look at that last picture of Gigi the grey whale as she was being released back into nature. Bill sitting alone with her, bidding his friend adieu. We in the digital age will miss the opportunity Bill had to have their pet otter fill its playroom by unspooling hours of tapes.

Many of us began our careers with Bill as our guiding light, and we are all the better for it. Our discipline will miss the long perspective that he offered, the varied career, the open sharing of knowledge gained. And I am sure that he would have loved to be a party to the many investigations that are ongoing into the intricacies of beaked whale acoustics, porpoise echolocation, and blue whale feeding ecology. He was that kind of man. We revisit again his beloved *Delphinus* off southern California. I spoke to him of them on his 80th birthday, the day before he passed away. I was reminded of the constancy of good ideas and the collage of answers to the immutable questions. If it is true that your soul is in others, as Zhivago's mother told him, then the soul of Bill Evans was as fine a tapestry as we shall witness for many years. And mine was made infinitely richer in the reflection of his.

—Jeffrey C. Norris, Ph.D.

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Memories of Bill Evans

While Bill Evans was scientist, administrator, academic, and mentor, it is the latter of these about which I'd like to share one of many happy vignettes about Bill.

In 1972, as a young PhD student, I made a pilgrimage to San Diego, NMFS, Navy, Scripps to meet some of the important players in marine biology and marine mammalogy—Bill Perrin, Carl Hubbs, Gerald Kooyman, several others, and Bill Evans. All were very kind, and Bill was amazingly so, taking almost a day to show me around. He taught me how to catch dolphins by hoop net, advised on radio tracking, and bought me lunch. He gave me a paper he had published with Jarvis Bastian in 1969 as the final chapter in the book *The Biology of Marine Mammals* (ed. H. T. Anderson), and I kept that paper—with the most sophisticated data and interpretations of dolphin social behavior to that time—close by me during four years of field research in the Argentine boonies, during post-doc work with Ken Norris, and to this day.

Above all, I remember Bill's openness and friendliness, his willingness to drop other things and help a totally untested and unknown young student. He operated at all levels, from educating undergrads to advising U.S. Presidents, and that, in retrospect, was an amazing capability. As with so many others, he especially influenced young people throughout his professional life, and he was still mentoring several of my present and former grad students until weeks before his death.

Thank you, Bill.

—Bernd Würsig, 24 October 2010



Bill in Washington, DC, 1988; he served as Under Secretary of Commerce and Administrator of NOAA. He served under Presidents Reagan and Bush.

Some Thoughts About Bill Evans and His Legacy

I first met Bill in 1979 while I was a graduate student at Scripps Institution of Oceanography. We were both attending a demonstration of marine mammal research for the Queen of England and Prince Philip during their memorable visit to San Diego. I'm not certain the Queen understood the point of the research, but she graciously watched a trained sea lion while security men watched vigilantly from the roof of Scholander Hall. A few years later, Bill gave me my first job at the Hubbs Marine Research Institute. Sea World of San Diego had started the research institute to conduct basic research on marine mammals that would contribute to their conservation and justify bringing some into captivity for display. The small research staff included Steve Leatherwood, Jeanette Thomas, Jeff Norris, Joe Jehl, Brent Stewart, Pamela Yochem, Ann Bowles, Terrie Williams, myself, and others. Much of the research focused on Bill's main interest, bioacoustics. However, there was other research, including a four-year study of the impacts of crude oil on sea otters and methods of mitigating those effects. This research would later prove critical for the rehabilitation of oiled sea otters following the *Exxon Valdez* oil spill. Bill was also interested in the physiological adaptations of diving and supported several studies by researchers from Scripps and Stanford. His influence inside of Sea World was essential to provide access to captive animals for research, which was a major advantage for Hubbs' staff. After Bill departed for Washington, DC to serve as head of NMFS during the Reagan administration, Hubbs had other directors, but none with the vision and broad research interests of Bill. After he stepped down as Under Secretary of Commerce for NOAA, he took a position at Texas A&M University. In 1990, with encouragement by Bill, I applied for and received a faculty position at Texas A&M University. At that time, Bill was head of the Maritime Academy and the Texas Institute of Oceanography. I was head of the Department of Marine Biology, and together we worked on many projects for the university. We also worked together along with Bernd Würsig on a six-year study of cetacean abundance, distribution, and habitat associations in the Gulf of Mexico, a baseline study that is proving important in understanding the impact of the recent Deepwater Horizon spill. As Bill eased toward retirement, he never ceased to be active. One thing that always impressed me about Bill was the range of his interests and knowledge and the energy he always demonstrated in every endeavor.

His academic accomplishments were immense, his contribution to public service and the university impressive, and his friendship and collegiality well-known in the marine mammal community. Maria and I spent many evenings together with Bill and Phyllis. We will greatly miss Bill, but fondly remember his friendship and support.

—Randall Davis
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Literature Cited

- Conboy, M. E. (1971). *Project quick find: A marine mammal system for object recovery* (NUC TP 268). San Diego: Naval Undersea Research Center. 35 pp.
- Coulombe, H. N., Ridgway, S. H., & Evans, W. E. (1965). Respiratory water exchange in two species of porpoise. *Science*, 149, 86-88.
- Evans, W. E. (2008a). A short history of the Navy's Marine Mammal Program (Historical Perspectives series). *Aquatic Mammals*, 33(4), 367-380.
- Evans, W. E. (2008b). *Fifty years of flukes and flippers: A little history and personal adventures with dolphins, whales and sea lions (1958-2007)*. Sofia-Moscow: Pensoft. 147 pp.
- Evans, W. E., & Bastian, J. (1969). Marine mammal communication: Social and ecological factors. In H. T. Andersen (Ed.), *The biology of marine mammals* (pp. 425-475). New York: Academic Press.
- Evans, W. E., & Haugen, R. M. (1963). An experimental study of the echolocation ability of a California sea lion, *Zalophus californianus* (Lesson). *Bulletin of the Southern California Academy of Sciences*, 62, 165-175.
- Ridgway, S. H. (1972). Homeostasis in the aquatic environment. In S. H. Ridgway (Ed.), *Mammals of the sea: Biology and medicine* (pp. 590-747). Springfield, IL: Charles C. Thomas.