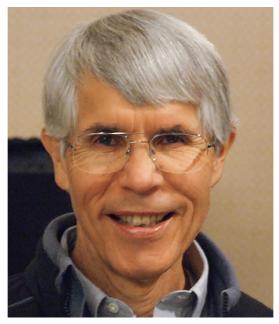
DOI: 10.1111/mms.13100

IN MEMORIAM

Marine Mammal Science

Michael F. Tillman 1943-2023



Michael F. Tillman 1943–2023

On July 19, 2023, Michael F. Tillman died after a long fight with various illnesses. Mike was born in Seattle, Washington on February 10, 1943. His mother was a Native Alaskan from the Tlingit (Łingít) Tribe, Eagle moiety, Flicker Clan of southeast Alaska. She instilled in him a great respect for indigenous rights, and he was a strong advocate for Alaskan and Pacific Northwest native tribes with respect to aboriginal whaling issues throughout his career.

Mike attended the University of Washington (UW), Seattle, WA receiving a BS cum laude in Fisheries Science in 1965, MSc in 1968 and PhD in 1972. His undergraduate work was supported with a Gov-Mart Scholarship. As a graduate student Mike was a Teaching Assistant in the College of Fisheries and then a Research Associate in the Center for Quantitative Science at UW.

After completing his Master's thesis (an assessment of stocks of Pacific hake), Mike took a break from his studies, serving in the U.S. Army from 1968 to 1970. He completed training and became an officer in the Chemical Corps and then served in South Korea. He received the Army Commendation Medal in 1970.

After Korea, Mike returned to UW where his research involved commercial fisheries. His PhD thesis, complete in two years, was an analysis of commercial fishing on northern anchovy populations (Tillman 1972). In a later letter,

^{© 2023} Society for Marine Mammalogy. This article has been contributed to by U.S. Government employees and their work is in the public domain in the USA.

Mike recalled his time as a graduate student as a particularly happy time, without the administrative duties that later were his focus.

After Mike finished his PhD, he worked for the National Marine Fisheries Service (NMFS) at two science centers (i.e., initially in Seattle, Washington and then La Jolla, California), as well as NMFS national headquarters in the Washington DC area, more of which is below. He represented the agency and the U.S. Government furthering conservation of marine mammals throughout the world. He retired from NMFS in 2004 as a member of the Senior Executive Service. In 2010, President Barack Obama appointed him as one of three Commissioners for the U.S. Marine Mammal Commission (MMC), a position he held until early in 2023. In La Jolla, he also was associated with the Scripps Institution of Oceanography and its Center for Marine Biodiversity and Conservation. Throughout his career, he advocated for women and minorities, enhancing opportunities for participation in field research and representation of the government at international meetings.

He began his NMFS career at the Northwest and Alaska Fisheries Science Center in 1972 as a Research Biologist in the Marine Fish and Shellfish Division. His research focused on assessing North Pacific fish stocks that were commercially harvested. He supervised a modeling study on the Bering Sea ecosystem. During his first year with NMFS, he also taught a graduate course on fish population dynamics at the UW.

He moved to the newly formed Marine Mammal Division at the Center in 1974 and in 1978 became the first Director of the newly established National Marine Mammal Laboratory (NMML) which was established to provide marine mammal expertise to the agency. Starting with a staff of 35, Mike was responsible for developing research programs on the biology, life history, abundance and ecology of pinnipeds and cetaceans. It was an exciting time for marine mammal research, with innovative studies and methods being developed.

Some of the new research programs established under Mike's direction included: the humpback whale photoidentification catalog that brought researchers from various organizations to work together and share data; aerial population studies on bowhead whales in the Arctic; and studies of gray whale feeding in the Bering Sea. For the annual surveys of gray whales during their migration, which had been underway since the mid-1960s, Mike initiated a multiyear effort to increase the quantitative rigor of both the survey methods and stock assessments. Established research programs, such as the pinniped population studies on San Miguel Island, were continued.

He was responsible for a groundbreaking initiative to assess the impacts of the incidental take of Dall's porpoise in Japanese high seas salmon gill nets. This was developed as an international research program under the auspices of the International North Pacific Fisheries Commission (INPFC) and Mike was the first marine mammal scientist to represent NMFS at the INPFC. In 1978, marine mammal bycatch was not always seen as important by NMFS but Mike's expertise and ability to work with the international community moved the program forward—ultimately, high seas gill nets were banned.

As he started his career at NMFS, he began attending meetings of the Scientific Committee (SC) of the International Whaling Commission (IWC). Dr. Douglas Chapman was Chair of the SC and was also a member of Mike's doctoral committee. With Mike's interest in aboriginal whaling issues, Chapman saw the need for Mike's expertise in stock assessment.

Much of Mike's international professional life revolved around the IWC. His first meetings were in 1974 as a member of the US delegation to both the SC and the Commission. Mike undertook and encouraged studies to assess the status of whale stocks that were still exploited to strengthen the advice of the SC to the Commission (the latter set the catch limits). Mike brought a strong quantitative component to the work of the SC and chaired several subcommittees and workshops as well as being elected its Chair from 1983 to 1985. With his strong support, four of us (R.L.B., S.B.R., D.P.D., and R.S.) followed Mike as Chair of the IWC SC. His intellectual rigor, firm but fair chairing, and dry sense of humor were his trademarks. He received a presidential appointment to be US Deputy Commissioner to the IWC in 1994 and served until 2004. At times during this period, he also served as the Acting US Commissioner. During long meetings of the SC and the Commission when Mike was chair, he could get quite intense and several of us had the job to provide him with snacks so that he would not get so cranky. This helped by keeping his blood sugar in balance.

Mike became deeply involved in aboriginal subsistence whaling (ASW) activities starting in 1977 as part of the US delegation at a Special IWC Commission meeting where the US Government presented a proposal for a small take of bowhead whales in 1978 (the SC, based upon the knowledge available at that time had originally proposed and the Commission accepted a zero quota at the 1977 Annual Meeting). The US proposal (with annual review and a number of requirements with respect to additional science and a reduction of the number of animals struck but not landed) was accepted by the IWC along with recognizing the need for the IWC to take formally into account the nutritional and cultural needs of Alaskan Eskimos that lived along the northern and northwestern coast of Alaska. Mike's involvement in ASW issues was especially pertinent and valuable because of his Alaskan Native heritage, which gave him a close bond with Alaskan Natives, and helped him contribute to the devolopment of sustainable management practices for bowhead whales under the IWC as well as with other native groups conducting ASW.

As part of Mike's role for the US government at the IWC, he was uniquely positioned to understand, collaborate with, and communicate with the Alaska Eskimo Whaling Commission (AEWC) that was established in the late 1970s. Those efforts were successful as the quota increased as a result of improved science undertaken jointly between NMFS and the AEWC, revealing that the population was more abundant than had been thought in 1977. This provided further opportunities for the communities of the AEWC to meet their subsistence needs, while the bowhead whale population flourished. However, political differences among IWC member nations on whaling issues within the IWC often led to difficulties in establishing ASW quotas.

In 2011, the IWC established the Ad hoc Aboriginal Subsistence Whaling Working Group (ASWWG) of the Commission's ASW Subcommittee to identify and consider unresolved ASW issues and establish a fairer and transparent mechanism for the Commission to approve ASW quota limits. Mike chaired the ASWWG from its inception to its successful conclusion. His last Commission meeting was in Brazil in 2018 when the new approach to addressing ASW quotas was agreed to by the Commission.

In addition to his work on all ASW activities, Mike was interested in historical whaling records (19th century catches) and convened and chaired the International Workshop on Historical Whaling Records held in 1977. He also chaired the International Workshop on the Behaviour of Whales in Relation to Management in 1982, the first time this topic had been considered in the IWC SC. Both led to special issues of IWC publications (Tillman & Donovan, 1983; Donovan, 1986).

Outside of the IWC, from 1979 to 1984, Mike served as the first Chair of the reformed IUCN Cetacean Specialist Group under the Species Survival Commission. From 1983 to 1987, Mike was seconded from NMFS to be the first professional director of the World Conservation Monitoring Center at the International Union for the Conservation of Nature in Cambridge, England. There he developed new management and fundraising skills while defining world conservation issues to focus the efforts of IUCN and World Wildlife Fund International.

When he returned to NMFS headquarters from Cambridge in 1987, he became the first Senior Scientist (chief scientist) in the agency. In this role he worked to ensure that the Science Centers focused research on the Fishery Conservation and Management Act, Marine Mammal Protection Act, Endangered Species Act, and National Environmental Policy Act in support of management issues. From 1990 to 1992, he was appointed the agency's Deputy Director to lead internally the reconstruction of the agency's effectiveness in managing the Nation's fisheries and protecting its marine mammals and endangered marine species.

In 1993, Mike was transferred to La Jolla, CA to become Director at the NMFS Southwest Fisheries Science Center. There he focused work on three areas: addressing the demise of salmon in California in relation to water allocations and timber harvesting; assessing the status of highly migratory species (billfish, tuna, and sharks); and a scientific study on the abundance of dolphin stocks in the Eastern Tropical Pacific in the light of their incidental mortality, primarily in the tuna fisheries. He forged a partnership with Scripps Institution of Oceanography (SIO) to form the Center for Marine Biodiversity and Conservation supporting interdisciplinary training programs for PhD scientists. Mike was responsible for the careers of three of us (R.L.B., J.M.B., L.L.J.) and a long-term guiding force for others (e.g. S.B.R.) in the NMFS.

Two other areas on which Mike focused research were the Antarctic Ecosystem Research Program to support the Commission for the Conservation of Antarctic Marine Living Resources and to support the Inter-American Tropical Tuna Commission with respect to reducing dolphin incidental mortality (Ballance et al., 2021). He also successfully addressed the problem of the ageing research vessels and infrastructure problems at four of the Center's laboratories. Perhaps of most significance, through his partnerships with SIO, Hubbs Sea World Research Institute, and others, he laid the foundation needed for replacing the La Jolla Laboratory rather than closing it.

Mike received a number of awards for his work. He received the Presidential Rank Award of Meritorious Executive in 1993 for sustained excellence in supporting US goals of protecting whales internationally and recovering protected species domestically. He received three separate Department of Commerce Bronze Medals for outstanding contributions to international marine resource management: in 1995 for work on fisheries bycatch in Chile; in 1998 for tuna/dolphin interactions; and in 2000 for controlling Japanese trade in whale products. He received the Schweitzer Medal in 1994 from the Animal Welfare Institute (AWI), for "thwarting commercial whalers, reversing the Revised Management Procedure and maintaining the moratorium on whale killing for profit" at the IWC meeting in Kyoto, Japan in 1994. The Schweitzer Medal is awarded for outstanding achievement in the advancement of animal welfare.

Mike was principally serious, upbeat and precise in his conversations. In group discussions, he was largely quiet and listened carefully so when he occasionally intervened it was a well-thought-out point that moved the discussion although he would join in laughter at funny things he found particularly cleverly stated.

After retirement from NMFS in 2004, Mike continued to work as a consultant on marine conservation and marine mammal management issues and as a member of the U.S. Delegation to the IWC. Between 2003 and 2005 he was Conference Chair for 16th Biennial Conference for Marine Mammalogy, which was held in San Diego December 2005. In 2007, he presented an invited paper at the first Pew Symposium on The State of the World's Whale Stocks: Implications for Policy Makers a perspective from within the IWC. In addition to his publications, Mike also contributed his scientific expertise to IWC reports and to developing improved whale management procedures that were adopted by the IWC. In 2011, Mike wrote Dayton (Lee) Alverson and said "It's been a good career and life. I have great memories and will always cherish having worked with and supported some of the greatest scientists serving in government."

Following on previous Presidential appointments to high-level government positions dealing with science and conservation policy for the oceans and marine mammals, as noted above, Mike was nominated by President Barak Obama in 2009 to serve as a Commissioner on the US MMC. After a successful Senate hearing in 2010, he joined Daryl Boness and Vera Alexander (who was replaced by Frances Gulland a year later) on the Commission for what was expected to be a three-year term, although the position was one for which you serve until replaced. Mike was finally replaced in early January of 2023 after twelve and a half years, having served under three different Presidents, including a troubling period in 2016–2020 when the Administration tried unsuccessfully to zero out the Commission's budget.

Of the three MMC Commissioners, Mike was the most experienced and savvy about the workings of government agencies and always had good advice on how to deal with various difficult situations. The MMC, as an independent agency that addressed marine issues using a strong scientific basis, did not get involved in political positions. Mike had strong feelings about maintaining such integrity and about remaining nonpolitical. He also believed passionately about the need to rely on the best available science in all decisions and recommendations. At meetings, Mike was often quiet and reflective for long stretches, but would be taking notes in a spiral notebook and clearly paying close attention to the presentations and discussions. The notebook was thick and the same one would come to meetings in successive years. He would often peruse back through pages of his notes following an answer to a question or a statement, after which he would come up with a pointed question that was right on the mark regarding the issue before the Commission. Mike was the ideal colleague to have as a Commissioner since the breadth of his knowledge and experience was wide. His IWC work gave the MMC an unusual opportunity to invest more strongly in international matters than it had for a long time (especially after the retirement of Bob Hoffman from the MMC). Likewise, Mike's cultural background and long history working with Alaska Native organizations was helpful to the MMC in dealing with issues in Alaska and particularly those dealing with Alaska Native subsistence hunting. As mentioned earlier, he was extremely well-respected among the Alaska Native communities, and this clearly showed whenever the Commission met in Alaska. Mike was also very active for years supporting the Makah Tribe of Neah Bay in western Washington both internationally at the IWC and domestically. In November 2019 he testified in court in Seattle in support of the Makah Tribe.

After retirement, Mike supported and participated in a variety of local and national organizations that were part of his nonscientific passions: nature, jazz, and education. He supported several local music and conservation organizations. During jazz concerts his love of the music was clear, with his toes tapping in time to the music.

Mike enjoyed travelling and visiting new places and cultures. He was especially interested in discovering good food, wines—and after his time in England—craft ales and beers. In addition, he loved to explore nature in both the US and beyond.

Mike will be missed greatly by his wife, Jennifer Tillman, his family, his friends around the world and those in the US. He will be remembered for his contributions to the stewardship of cetaceans in the US and internationally, his recognition of the importance of Aboriginal Substance Whaling to many coastal communities in Alaska and elsewhere, and for his leadership in solving "wicked" ecological problems with fairness and understanding. He was a special leader—both in marine mammal science and for conservation and wise use of our oceans and the animals living there. He will be greatly missed throughout the marine mammal community. Mike was a true leader and an inspiration to all involved in conservation science. He meant and will continue to mean a great deal to all of us.

ACKNOWLEDGMENTS

Many thanks to Stella Duff who helped us double check all of Mike's IWC contributions and to Jenny Tillman, who provided many details on Mike and fact checked what we wrote. We would like to thank Darel Jordan for providing the photo Mike, which was taken during his time with the Marine Mammal Commission.

Robert L. Brownell Jr¹ Linda L. Jones² Douglas P. DeMaster³ Greg P. Donovan⁴ Stephen B. Reilly⁵ Rolland A. Schmitten⁶ Jeffrey M. Breiwick⁷ Robert Suydam⁸ Daryl J. Boness⁹ William W. Fox Jr.¹⁰

¹National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southwest Fisheries Science Center, Monterey, California ²NMFS (Retired), Encinitas, California ³NMFS (Retired), Wailea, Hawaii ⁴Beannacht, Haddenham, UK ⁵NMFS (Retired), Templeton, California ⁶NOAA (Retired), Leavenworth, Washington ⁷NMFS (Retired), Mountlake Terrace, Washington ⁸North Slope Borough (Retired), Alaska ⁹Marine Mammal Commission (Retired), Bethesda, Maryland ¹⁰World Wildlife Fund (Retired), La Jolla, California

Correspondence

Email: Robert.Brownell@noaa.gov

ORCID

Robert L. Brownell Jr D https://orcid.org/0000-0002-6049-3180

REFERENCES

- Ballance, L. T., Gerrodette, T., Lennert-Cody, C. E., Pitman, R. L., and Squires, D. (2021) A history of the tuna-dolphin problem: Successes, failures, and lessons learned. *Frontiers Marine Science*, 8, Article 754755. https://doi.org/10.3389/ fmars.2021.754755
- Donovan, G. P. (Ed.). (1986). Behaviour of whales in relation to management. special issue of historical records. Reports of the International Whaling Commission, Special Issue 8, 1–282.
- Tillman, M. F. (1972). The economic consequences of alternative systems: a simulation study of the fishery for northern anchovy, Engraulis mordas Girard [Doctoral dissertation]. University of Washington.
- Tillman, M. F., & Dovovan, G. P. (Eds.). (1983). Special issue of historical records. Reports of the International Whaling Commission, Special Issue 5, 1–490.

How to cite this article: Brownell, R. L. Jr, Jones, L. L., DeMaster, D. P., Donovan, G. P., Reilly, S. B., Schmitten, R. A., Breiwick, J. M., Suydam, R., Boness, D. J., & Fox, W. W. Jr. (2023). Michael F. Tillman 1943–2023. *Marine Mammal Science*, 1–6. https://doi.org/10.1111/mms.13100