IN MEMORIAM
Robert M. Ingle
1917–1997

Visitors to the headquarters of the Fish and Wildlife Research Institute (FWRI) in St. Petersburg, Florida, the research Division of the Florida Fish and Wildlife Conservation Commission, typically enter through the lobby of the Joint Use Marine Research Facility, known as JUMRF or J-Building. This facility is a shared space with the College of Marine Science of the University of South Florida. Few visitors will know they've parked in a reserved visitor parking space that lies in the footprint of the original headquarters, practically under the original director's office. Fewer still will realize that one of the original buildings, a converted Marine Corps loading dock still named F-Building, still stands. Some will notice the second-generation marine research building that bears two placards emblazoned with the name Robert M. Ingle. Many newer employees simply know the building as RMI, without really connecting the abbreviated name for the building with an actual person. If they do, they might wonder, was Mr. Ingle a former governor or perhaps influential legislator? Unlike the USF half of the building, the Knight Oceanographic Research Center sponsored by U.S. Representative C.W. Bill Young (Muller-Karger, 2010), the Ingle Building was named for neither a wealthy benefactor nor a politician.

Robert Maurice Ingle was born July 1, 1917, in Danville, Illinois, grandson of Charles M. Ingle, who had emigrated from England, and son of Charles F. and Nellie M. His father was fortunate

enough to retain employment with the local railroad through the Depression. Bob's father steered him toward a college degree relating to railroads and engineering but after graduating high school in his hometown, Bob chose to attend the University of Illinois where he received a Bachelor's degree in biology. By self-admission, his focus was on fully participating in fraternity life and developing the social skills he would use throughout his career. He was offered a faculty position on the Ph.D. track but chose to pursue other interests. With war brewing in Europe and the South Pacific, his first career step was to move to Rochester, Minnesota to teach biology and general science and serve as swim team coach.

He enlisted in April of 1941 and was called to duty in the U.S. Navy in June of 1941 and joined the Armed Forces as a conscientious objector, prior to the attack on Pearl Harbor. The details of his naval service are somewhat fuzzy, but his resume lists his position as Laboratory Technician studying tropical diseases at the Naval Medical School in Bethesda, Maryland from 1941 through 1943. He soon advanced to Instructor in Parasitology, later studying Malariology and Tropical Medicine. For the next portion of his service, he transited on the refrigerated ship *U.S.S. Polaris* from Hampton Roads, Virginia to the U.S. Naval Air Station in Trinidad, British West Indies. While in route, part of the mission was to patrol off the coast of Florida for German U-boats, even though the vessel had no means of defending itself against the submarines. Whenever possible, Bob would remain on deck fruitlessly staring at pitch black seas, lest he be trapped in water-tight compartments if the boat were sunk. Within months of arrival in the Caribbean, he was promoted to Assistant in Malaria Control Research. By late 1943 he was the Assistant Malaria Control Officer, by 1944 the Tropical Diseases Prevention Supervisor, and finally Malaria and Tropical Diseases Prevention Officer for the Lesser Antilles, completing his active duty in December of 1945. Having served on active duty for the entirety of World War II, he remained an active-duty reservist until 1960.

Bob briefly returned to the University of Illinois to work in the Department of Education. He had a brief marriage and his first child, Robin Suzanne Ingle. In 1947 he married Anne E. Lorber, whom he met while she was a graduate student in marine biology at the University of Miami. Perhaps there was a connection because Anne's father, like Bob's father Charles, also worked in the transportation industry but in aviation rather than rail. Her father served as an early Pan American pilot, developing routes to Europe, Asia, and South America. Anne was quite

accomplished in her own career, serving as a prominent real estate agent in Tallahassee, Florida. She operated Homefinders Inc., served on the board of the Tallahassee Board of Realtors, and was the first woman appointed to the Capitol Center Planning Commission. Bob and Anne had three children (Robert Jr., Charles, and Allison [Al] John) and were life-long partners. Bob's daughter joined the family in Tallahassee.

After a year in Louisiana at the Louisiana Department of Wildlife and Fisheries, Bob accepted a position at the University of Miami as a lab technician but had perhaps already been enrolled in the graduate program. There are versions of his resume from earlier and later in his career that suggest he was a student at the University of Miami for portions of the years 1946 through 1950, both showing that he received his master's degree in summer of 1951. He continued his studies at the University of Miami and possibly Florida State University from 1951 through 1954, but ultimately Bob never completed a Ph.D.

Robert M. Ingle became the first full-time marine biologist to be employed by the State of Florida in 1949, at a small lab in Apalachicola (Fig. 1), so the family moved there from Miami. His title was Associate Director, Division of Oyster Culture for the Florida Board of Conservation. The Board had been created in 1932 to oversee the state's wildlife and lands. Subjects in the first biennial report issued in 1934 include bass hatcheries, a variety of game, state parks, minerals, water resources, and many fisheries, including oysters. At least part of the impetus for creating an oyster division was a terrible red tide in 1946-1947, at the time determined to be *Gymnodinium breve*. Bob served as research coordinator of a marine laboratory for the University of Miami from 1953 until 1955, still studying red tides, but also taking on a role as Assistant Editor for the

Figure 1. The first known oyster research lab in Florida was in Apalachicola, as seen here in 1949.

Bulletin of Marine Science of the Gulf and Caribbean. In 1955 the Florida State Board of Conservation created a marine laboratory in St. Petersburg, using a single building on the site of a former U.S. Maritime Service Training Station at Bayboro Harbor (McRae, 2010) and Bob was appointed Director of Research in 1957. The principal funding sources were a small state fund for red tide research and royalties from the mining of oyster shell. Shell mining occurred prior to 1931, but the first records were not kept until the 1930s and were incomplete. Record keeping improved from 1938 through the 1970s, when the activity was largely discontinued. The total royalties are estimated to be around $5 million for ~ 26 million metric tons of shell, but the proportion of the revenue dedicated to oyster research at the marine lab is impossible to calculate, because funds were split among several entities (Whitfield, 1975). Ultimately, the discontinuation of this funding source contributed to Ingle's decision to retire in 1972.

Bob Ingle (aka "Big Daddy" & "Dr. Bob") is remembered as a staunch advocate for the Marine Lab who encouraged scientists to learn within both personal limits as well as fiscal restraints. He was not afraid to use his larger-than-life persona to prowl the halls of the State Capitol during the legislative session to advocate for the needs of the lab, grabbing legislators by the collar or filling the doorways with tall stature, booming voice, and assertive presence (Fig. 2). He was completely at home gathering with his underpaid staff making batches of spaghetti to supplement their meager pay but was equally comfortable meeting with stakeholders in their spaces such as a local bar (Fig. 3) or out on an oyster workboat (Fig. 4). (One must wonder if budding USF Marine Science Professor Norm Blake of "phylogenetic eat-off" fame was mentored by Bob on the St. Petersburg campus early in his career?) Bob is said to have walked miles along one of the Suwanee River's

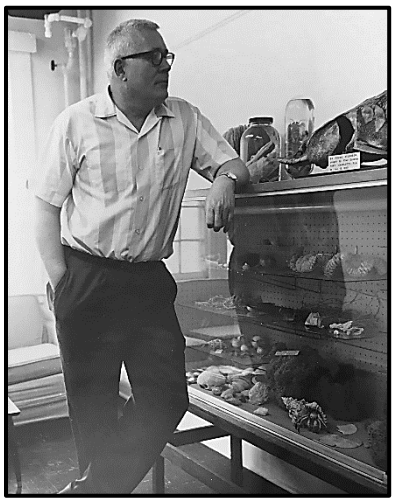

Figure 2. Robert M. Ingle circa 1965.

Figure 3. Bob Ingle (right) with Raddi Davis (left) of Cedar Key, Florida. The Davis family remains active in the Cedar Key fishing and aquaculture community. Photo from the Davis Family collection.

oyster reefs with nothing but an oyster knife, in a quest to figure out what salinity produced the most flavorful oyster.

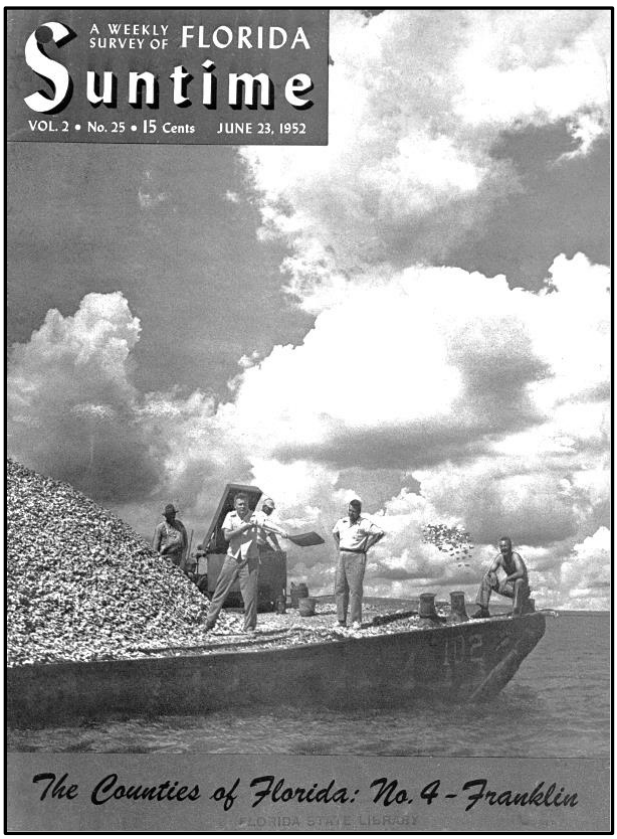

Figure 4. Marine Biologist Robert M. Ingle shovels the first oyster shells into Apalachicola Bay in the oyster rehabilitation project. To the right are W.P. "Skokie" Clark and George Kamak of Southern Industries, Mobile, Alabama. From the State Library and Archives of Florida (www.floridamemory.com)

As a mentor, Bob was insistent that good science should be published, without which the data would be lost on a shelf (see Ingle 1960). His insistence led to the creation of multiple in-house publication series: Florida Board of Conservation Educational Series, Florida Board of Conservation Technical Series, Florida Board of Conservation Marine Lab Special Scientific Reports, Florida Board of Conservation Marine Lab Professional Paper Series, and the Florida Department of Natural Resources Marine Lab Leaflet Series (a public outreach series). All eventually gave rise to the FWRI Technical Report Series. More importantly, Bob's legacy of emphasizing publication led to the development of an in-house editorial process at FWRI that includes both in-house, peer-review as well as an editorial review before most current FWRI papers are ever submitted to peer-reviewed journals. His devotion to publication also gave rise to an exhaustive library at FWRI, the Resource Information Center (https://myfwc.com/research/publications/ric/), which houses both digital and hard copies of many of the Institute's publications. Along with roughly 2745 publications by FWRI scientists, it also holds many historical documents, including some of Bob Ingle's correspondence and images.

That collection provides many side notes, including one set of particular interest to the National Shellfisheries Association (NSA). Several notes from Sammy Ray discuss the early research on dermo disease and the development of Ray's Fluid Thyoglycollate Medium, perhaps one of the

most well-known lab media in marine science. A handwritten note from 1952 begins "Dear Bob, I have decided to send a brief outline of a culture technique for the diagnosis of *D. marinum* in oysters in spite of your request not to do so." The note continues later "In case it does get out I would not hold you responsible for a number of people know about it now." The letter includes what must be one of the first images of *Perkinsus marinus*, annotated on the back by Sammy Ray (Fig. 5). The note also contains a postscript: "I've just found out that I am suppose to be a Candidate for a masters and I am busy writing a thesis that I had not planned on. s.m.r."

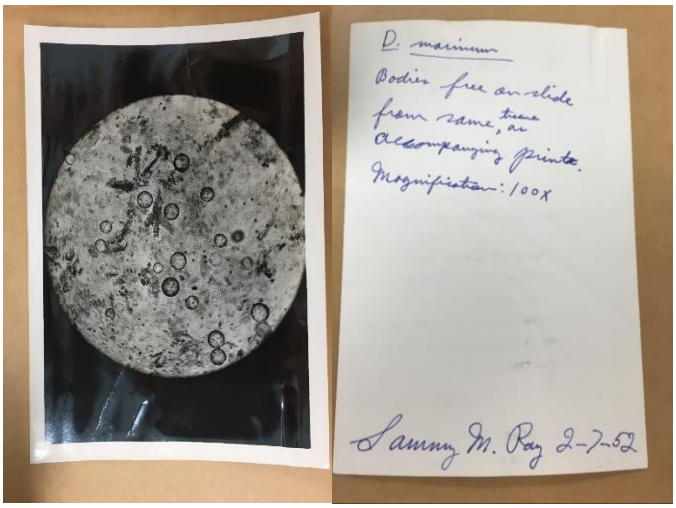

Figure 5. Original photograph of Dermocistidium marinum *(*Perkinsus marinus*) from Sammy Ray to Bob Ingle, 1952.*

As a lab director, Bob had a reputation for demanding hard work and quality writing. In the main hall of the research lab an overhead banner proclaimed "NEVER ASSUME ANYTHING" and on the back side "COMMUNICATE," often reminding staff that if there were a problem there was probably a failure in one or both of those two maxims (Jones, 2012). The message carries a second important meaning; Bob was adamant that science should never be conducted with a predetermined outcome. He would push new scientists to write and perform the first edits himself. Among graduate students, there are tales of novice science writers being handed Strunk and White (1979), Gordon (1984), or even O'Hayre (1966) and being told to figure out how to write better. That, however, was not Bob's style. Many memories of Bob's mentoring contain some version of the following as paraphrased: "He edited the draft while I stood by his desk, and by the time he was finished the red ink was dripping from the paper." As Bob handed the paper back the comments might range from "you're a helluva biologist but you can't write worth a damn" to simply "She can write!" and were often accompanied by a pertinent publication from the most recent journal. The latter was a personal memory of Karen Steidinger, who would not only obtain her M.S. and Ph.D. while working at the lab, but also become Director of the Marine Lab herself and eventually had the red tide dinoflagellate genera *Karenia* renamed after her. Asked to describe her impression of Ingle, Karen replied "Magnificent…. friend, mentor,

boss, smart, visionary, and he had faith in people" (Jones, 2012). Evidence would suggest Bob was perhaps less concerned with gender as was common in the sciences during that generation so much as an individual's worth. He would place truth over history as long as people were honest about their mistakes and then place deep trust in those who had proven their merit.

Fondly remembered escapades are plentiful. Bob was "the kind of man who you wanted on your side if a fight broke out at any watering hole frequented by men of the sea. He was the kind of a man you could ride with from St. Petersburg to Key West and never be bored by his scientific conversation or sage advice" (R. Jones, personal communication). Bob once rescued a sacrificial staff biologist from the city police department after the group had an evening of frolicking on a closed beach and is said to have jettisoned an overly rambunctious prize-winning bull mid-flight on a trade mission to Cuba. He is remembered as a steel worker in his youth and a Hemmingway in later days. He was passionately loyal but intolerant of mediocrity: "Flawed science used to accomplish a personal agenda is denigrating to the profession and always hurts the wrong people." To illustrate that point, one tale tells of an underperforming scientist who was ordered to participate in a 3-week cruise beginning the day after his marriage. This did not induce the employee to leave, so Bob assigned him to remain on the ship without leave or guests once it returned to port until such time as the crew returned from their leave. Apparently, the scientist finally read the writing on the wall and resigned. On dealing with the press, Bob's advice was to first take an extra water sample and then scratch one's chin rather than give a hasty reply to questions.

As an author, Bob was prolific. His subject matter was centered around oysters but also included a wide variety of topics such as red tide, oyster drills, mud chemistry, general ecology of estuaries, shrimp, calico scallops, sea turtles, spiny lobsters, pompano, and mullet. His work was published in technical journals such as *Science*, *Proceedings of the National Shellfisheries Association*, and *Journal of Parasitology*. Other works appeared in magazines geared to the public such as *Scientific American* and *Sea Frontiers* and also trade journals such as *Southeastern Fishing Association* and *Fishing Gazette*. But his efforts also gave rise to many in-house series, especially the Memoirs of the Hourglass Cruises (Joyce & Williams, 1969), a series of publications arising from a benthic ecological study conducted from the *R/V Hernan Cortez*. Bob was very proud of that research vessel, which was donated by L.C. Ringhaver, undoubtedly related to the close ties Bob maintained with the commercial fishing industry.

Oyster research included very fundamental studies such as distribution (Ingle & Dawson, 1953a,b), growth (Ingle, 1950), reproduction (Ingle, 1951), aquaculture (Ingle & Smith, 1956), status of the fishery (Ingle, 1949c, 1953c; 1962a) and nutrition (Gillespie et al., 1964; Ingle, 1967b). Bob was particularly interested in investigating the utility of corn starch as a supplemental feed for oysters. After he retired, he continued this pursuit as a mechanism for depurating oysters to improve their safety. He traveled to Oxford, Maryland in 1960 to learn about suspending strings of oyster shells as settlement substrate for juvenile oysters (a method widely used to monitor settlement rates to this day). In 1970, he participated in a trade mission to Japan to learn about mariculture (Fig. 6). Studies on the shrimp fishery included initial sampling (Ingle, 1957b) and several overviews of the fishery (Ingle, 1957a, 1959b; Eldred et al., 1961; St. Amant et al., 1966). His spiny lobster research began with two studies on the larvae (Witham et al., 1964; Sims & Ingle, 1966) followed by biology (Witham et al., 1968; Ingle, 1972b) and the fishery (Ingle & Witham, 1969). Bob also wrote some very broad perspective pieces including comments warning of the environmental damage caused by dredge and fill operations (Ingle, 1953b), as well as Darwin's Beagle voyage (Ingle, 1954b), estuaries (Ingle, 1954c, 1966c), marine labs (Ingle, 1955, 1963a, 1965, 1966b, 1967c), aquaculture (Ingle, 1970), and many other studies concerning fishes and red tides.

Figure 6. Trade mission to Japan, 1970.

Professional memberships and accolades were numerous. His memberships included honorary membership in Beta Beta Beta Biological Fraternity, Florida Academy of Sciences, Society of Systematic Biologists, American Society of Limnology and Oceanography, American Fisheries Society, Ecological Society of America, National Shellfisheries Association, American Microscopical Society, American Association for the Advancement of Science, Southeastern Association of Biologists, Sigma Xi Biological Fraternity, American Institute of Biological Sciences, and Society of Invertebrate Pathology. Under guidance of the State Department of the

United States, he consulted with the governments of the Bahamas, Cuba, Iran, Nicaragua, Turkey, and Venezuela. In 1959, President Eisenhower appointed him to a three-person scientific commission that arranged a fishing treaty with pre-Castro Cuba, although it's unclear if he actually met Che Guevara. Awards included the Florida United Press International Award for outstanding achievements in marine research (1969) and the Southeastern Fisheries Association award for development and understanding of marine resources (1971). A colleague once wrote "his contributions to science have been mostly unsung except by the men and women he touched and taught during his long and productive career" (Jones, 2012), but the NSA recognized him as an Honored Life Member in 1989, and this memorial hopes to provide some small documentation of his accomplishments.

During his 23-year tenure Robert M. Ingle (Fig. 7) laid the groundwork for one of the largest and finest marine science communities in the world. Local partners of the Fish and Wildlife Research Institute now include the University of South Florida College of Marine Science, Florida Institute of Oceanography, U.S. Geological Survey Coastal Geology, National Oceanic and Atmospheric Association, National Marine Fisheries Service Southeast Regional Office, U.S. Coast Guard, Tampa Bay Estuary Program, and numerous private environmentally focused organizations. They employ nearly 1000 marine science professionals with a combined budget of tens of millions of dollars.

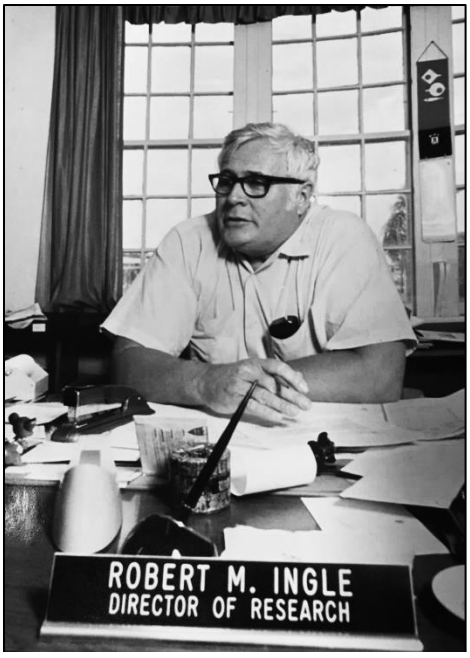

Figure 7. Bob Ingle circa 1972.

Bob continued to work as a consultant for many years after "retiring." As state biologist he had opposed the construction of a causeway across Apalachicola Bay, ultimately resulting in much of the causeway being constructed of raised bridges. He continued that advocacy as he promoted aquaculture and wrote columns as Editor of the *Apalachicola Times*, and he was honored as King Retsyo of the annual seafood festival in 1982 and 1983. He is said to have welcomed many visiting scientists to his home, often stopping for a beverage at "Trader Bob's" on his back porch. He could spin tales of yore for hours, then join in dinner at one of his favorite seafood restaurants. Having never acquired wealth but interacting with the rich and powerful circles of the Tallahassee capital

crowd while stumping for funding or later for his causes, Bob would occasionally host a crowd at his home for local seafood; in their youth his sons were asked to shuck oysters for hours at these events.

Bob was also honored in 1981 with the aforementioned building bearing his name on the St. Peterburg campus. That building still houses the shiny stainless-steel doors of the environmental control rooms in between sections of its ground floor hallways. The legacy of his tenure is much larger than many who benefit will ever realize. After a sudden heart attack took his life and his last breath passed in 1997, his ashes were cast back into the realm that he loved, Apalachicola Bay, to be joined by Anne's ashes in 2011. They were undoubtedly marked for safe passage across the bar.

> *Lives, like good stories, are punctuated. These pauses and demarkations provide emphasis, set aside successive phases, and provide needed pauses. Without these inflections, human experience would lack both interest and the records needed to document the procession of events.*
>
> *These rights of passage can be joyful and rewarding, as in nativity, graduation, convocation for honor, celebration of marriage, and the burning of a mortgage. But they can also be unpleasant, even tragic as in declaration of war, bankruptcy proceedings, or funerals.*
>
> *On rare occasions the events surrounding these ceremonies as well as the rites themselves are of such overwhelming nature futures of lives are in some degree effected, out-looks are redirected, attitudes are changed.*
>
> Robert Maurice Ingle–1981
>
> *From his speech at the dedication of the R.M. Ingle building.*

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