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Mote Marine Laboratory—Exploring the Secrets of the Sea Since 1955

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By the time this manuscript is published I hope to have been a part of Mote Marine Laboratory (MML) for 33 years. That's about 60% of MML's history, and 53% percent of my own, and MML is celebrating its 55th anniversary. Upon receiving my invitation to report on the history of our remarkable institution, I was reminded of John W. Gardner's remark that ''history never looks like history when you are living through it.'' So it is with pleasure that I offer this brief narrative history of Mote Marine Laboratory as part of an accounting of marine science in the Gulf of Mexico.

The present annual operational budget of the laboratory is $18.3 million. It has a staff of 191, including 126 college student interns annually and 1,300 volunteers, who donate about 200,000 hours each year (equivalent to about 100 full-time staff). More than 300 extramurally funded research, education, and public outreach (aquarium) projects are administered through the laboratory, and today our campus and field stations include 31 buildings, about 300,000 square feet of research and outreach space on 211 acres at five locations, and 1.8 million gallons of seawater systems (Fig. 1).

According to the National Association of Marine Laboratories, MML is one of about 120 marine research laboratories in the country. Although we are much smaller than organizations such as Woods Hole Oceanographic Institution, Scripps Institution of Oceanography, or the University of Rhode Island School of Oceanography, we are still considered one of the larger institutions. Within Florida, we are similar in size to the Florida Wildlife Research Institute, Florida Atlantic University's Harbor Branch Oceanographic Institution, the University of Miami's Rosenstiel School of Marine and Atmospheric Studies, and the University of South Florida's College of Marine Science.

MML remains distinctive in the way we have seamlessly combined and incorporated education (K–12, adult) and public outreach (Mote Aquarium) as part of the research mission. Our most recent strategic plan clearly integrates the three components. While marine research is MML's core function, we emphasize the importance of providing current information about our work through education and public outreach programs. Our newest division, the Marine Policy Institute, is a natural extension of the synthesis of research and outreach.

Being independent has its strengths and weaknesses. One weakness is that financially the laboratory is more difficult to operate, which is probably why fewer than seven of the nation's 120 labs operate independent of a university or a governmental agency and also why only a few aquariums operate independently.

Whether independent or affiliated, each marine laboratory or aquarium has an individual history that traces its beginnings, opportunities, adversities, and major accomplishments. At the same time, the enterprise of marine science and education since World War II bears common features regardless of age or venue. The mixture of specific and general experiences at MML may illuminate the manner in which marine science has developed in the United States and help to frame the prospect for new science in the Gulf of Mexico. My account considers MML's two main eras: from its inception in 1955 through 1978 and the period from 1978 to the present.

The Postwar Era: 1955–1978

World War II interrupted the early development of marine science throughout the Gulf of Mexico and particularly on the Florida peninsula. During the 1930s two marine research endeavors laid the groundwork for MML's postwar emergence. One was the Palmetto Key (Lee County, FL) field station of the American Museum of Natural History, directed by Dr. Charles M. Breder, Jr. A larger endeavor that persisted throughout the 1930s was Englewood's (Charlotte County, FL) Bass Biological Laboratory, a year-round, nonprofit and coeducational facility that granted fellowships, maintained a sea-going research vessel, operated a biological supply company, and focused on the natural history of Florida's coastal ecosystems. Both laboratories made indelible contributions to MML's early years. The Bass family, for example, collaborated with Dr. Eugenie Clark and Dr. Breder, who was her mentor, and donated supplies to help build the Cape Haze Marine Laboratory, which was later renamed Mote Marine Laboratory. Dr. Clark was also able to get a good idea of the wealth and diversity of marine invertebrates in the region from the collections of the Bass Biological Laboratory.

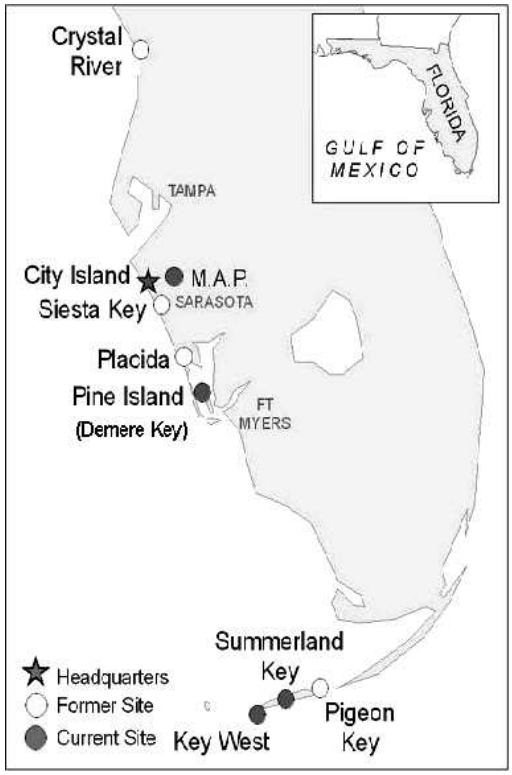

Fig. 1. Map of Florida with former and modern Mote locations.

Two circumstances led to the creation of MML (and many other marine and scientific enterprises) after the war. The first was growth in the interest of philanthropists to foster new research centers, and the second was the availability of government-related postwar funding for scientific research—especially defense-related research.

MML was initially the germ of an idea in the mind of philanthropist Anne Vanderbilt, who became fascinated with the idea of starting a small marine lab on Florida's west coast after reading Dr. Eugenie Clark's book *Lady with a Spear* (Clark, 1953) and her description of a small laboratory in Egypt.

Anne Vanderbilt's husband William and his brother Alfred owned 36,000 acres of land near Placida, a sleepy little fishing village on Gasparilla Bay. In addition to raising Santa Gertrudis cattle on the vast property, they planned to build beautiful homes on land bordering the bay, an area they dubbed the ''Cape Haze Development.'' The climate was gentle, the sea fascinating, but the milieu dull, too dull to attract the kind of buyers they envisioned. Intuitively they saw that Anne's dream dovetailed with their own designs. They would import culture: a scientist to stimulate the brain and an artist-musician to stimulate the soul.

Fig. 2. Cape Haze Marine Laboratory (inset Dr. Eugenie Clark), 1955.

In 1954, William Vanderbilt approached Dr. Clark. ''It's Anne's idea,'' he said. ''She thinks it would be just great if we had a marine lab here something like the little one you described in your book.'' Just like that. No demands, no strings, no contracts, just a ''place where people can learn more about the sea,'' he said.

Dr. Clark was intrigued, and before half a year was over, in Jan. 1955, she, her orthopedic surgeon husband, and two baby daughters moved to Placida, FL. The original Cape Haze Marine Laboratory (Fig. 2) was a little one-room building, placed on skids for easy removal, equipped with one sink and a few shelves for specimens. The use of the Vanderbilts' boat *Dancer* (named after Alfred's famous race horse, Native Dancer), a dock, and some friendly and enthusiastic fishermen were all Dr. Clark needed to transform this simple cabin into a lab that almost instantly attracted scientists from near and far.

Dr. Clark had no need to advertise. She had been in the public eye for years: expert scuba diver, talented author, and exceedingly able ichthyologist. When scientific papers began to appear from the Cape Haze Marine Laboratory, scientists began to apply for space to work at this new lab. In addition, reporters in search of a different story, laymen in search of more knowledge of the sea, and many local people out of pure curiosity surged to the fledgling laboratory.

Much of Dr. Clark's work focused on the biology and behavior of sharks, including sharks' ability to learn, a groundbreaking concept at the time. That earned the lab a reputation for shark research, which it still enjoys today for its

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continued emphasis on studies of the biology and ecological importance of sharks and their relatives, the skates and rays. Subsequent projects covered the spectrum of the marine world, for Dr. Clark saw that this was just the start of a new and increasingly productive inquiry into the prolific marine life in the estuaries and on the wide, rich southwest Florida continental shelf.

By 1960, the growing success of the Cape Haze Marine Laboratory made it clear that expanded facilities were needed. Meanwhile, Sarasota County, the City of Sarasota, and Chamber of Commerce officials had mounted a campaign to attract a research facility to Sarasota. As a result, Cape Haze Marine Laboratory moved to its new home on the southern tip of Siesta Key in Sarasota County. Visiting scientists from prestigious institutions traveled to Sarasota to take advantage of the lab's facilities and to collaborate with its scientists. An international scientific advisory board, which included the famed explorer Jacques Cousteau, provided counsel to Dr. Clark and the Vanderbilts in the development of research programs.

Profound changes occurred between 1965 and 1966 that would have a lasting effect. Dr. Clark took a professorship at the University of Maryland and was succeeded by interim directors Drs. Sylvia Earle and Charles Breder. At this juncture, a unique man stepped forward. William R. Mote was a Tampa native, a successful transportation executive, and an avid fisherman, who wanted to use his retirement and energies to do something worthwhile connected to the sea he loved so much. A co-owner of Republic Carloading, Inc., a New York company that invented standardized containerization for railway transport of goods, Mote sport fished all over the world and met many ichthyologists, Dr. Clark and Dr. Perry Gilbert (a renowned Cornell University ichthyologist and professor) included. Mote's retirement dream was to build a large barge and continually cruise it along the Gulf of Mexico shores. He and his buddies would fish off one side while scientists would collect samples on the other side as they worked in labs on the barge! Thankfully, Dr. Clark convinced Mote to direct his energies toward Cape Haze Marine Laboratory, which by 1965 had lost the interest of the Vanderbilts and was in serious financial straits. With Dr. Clark's continued counsel, he turned his drive, business acumen, and vision to making Cape Haze Marine Laboratory a thriving facility. (The early history of the laboratory [1955–1967] is well documented by Dr. Clark in her book *The Lady and the Sharks* [Clark, 1995], which was updated and reprinted this year by Peppertree Press. After her retirement from the University of Maryland, Dr. Clark returned to Sarasota in 1997, and to this day continues to be active in ichthyological research at the laboratory. The State of Florida recently honored her by inducting her to the Florida Women's Hall of Fame.)

Fig. 3. Perry Gilbert, Sylvia Earle, Genie Clark, and Bill Mote, 1967.

The year 1967 brought much change to the laboratory. Bill Mote and sister Elizabeth Mote Rose, as a result of their involvement in lab activities and financial support, were elected president and secretary of the corporation. (The laboratory was renamed in honor of the Mote family: Bill and wife Lenore Mote and sisters Elizabeth and Frances). Mote recruited Dr. Gilbert, whom he had met at the American Museum of Natural History's Lerner Marine Lab in Bimini, to transform the lab from a field station into a major research center (Fig. 3). An external ad hoc advisory committee recommended that the laboratory broaden its research focus and address issues relevant to the local community, such as red tide and Sarasota Bay.

Under Dr. Gilbert's direction, MML's research expanded in breadth and was organized into five program areas: microbiology, neurobiology and behavior, estuarine ecology, the biology of sharks, and biomedical studies. For more than a decade, significant studies followed on estuarine ecology, red tide, and toxicology. Studies on dolphin–shark interactions, shark repellants, and shark behavior, along with biomedical studies, were funded by the U.S. Navy and National Institutes of Health. A new shark holding tank and other experimental tanks were built (Fig. 4). Dr. Gilbert believed that ''the size of a watch does not matter so much as the accuracy of the time it keeps.'' This philosophy kept the laboratory's emphasis on quality and not on size. Mote, the entrepreneur, and Dr. Gilbert, the scientist, made a perfect team to

Fig. 4. Mote Marine Laboratory, Siesta Key, 1971.

move the laboratory onto the international stage in a short period of 11 years. The pair laid the foundation for much of the successes that the lab still enjoys today.

An interesting event of potentially historical magnitude happened in 1969. Dr. Gilbert and Mote embarked on a scientific expedition to British Honduras to study feeding patterns of sharks. They invited an acquaintance from the American Museum of Natural History, Seward Johnson, Sr., an avid boating enthusiast, to join the expedition. Their plan was to spark the Johnson & Johnson magnate's interest in MML so that he would support the lab's research activities. Johnson agreed to join the expedition, brought his boat the *Ocean Pearl* and also brought his friend Ed Link and his boat the *Sea Diver*. As the story goes, Gilbert and Mote wined and dined and fished with Johnson and believed that he was going to support the laboratory. Link, however, had the last word. He successfully interested Johnson in beginning the Harbor Branch Oceanographic Institution and providing a $100 million endowment and several hundred acres of land on the Indian River Lagoon. Mote and Gilbert anguished for years that they lost out to Link in getting some major support for the laboratory! The lab's growth in size and reputation during Dr. Gilbert's leadership is well documented in *The Perry Gilbert Era* (Johnson, 1990).

With the expiration of the laboratory's lease on Siesta Key in 1978 and the continual erosion of land and the filling of Midnight Pass, the time was right for relocation. Bill Mote had a perfect answer; he would donate about 15 acres of land in Placida with a boathouse, a dock, deep-water channel, and a beautiful house on Gasparilla Sound, Charlotte Harbor. Serious architectural renderings were undertaken, and plans for a fund-raising campaign to build a new laboratory in Placida were prepared. The scientific staff was visibly unhappy at the prospect of moving to a mosquito-laden ''boonies'' of an area. When news of the pending move filtered through Sarasota, the community was quite upset that they could lose so great an asset as MML. Jim Neville, a respected journalist, former county commissioner, and well-known community leader, challenged the city to keep MML in Sarasota. With the leadership of Bill Mote, Dr. Gilbert, and MML Trustee Bob Johnson, Sarasota and Arvida Corporation agreed in 1976 to provide 6.7 acres of land on City Island on a 50-year lease at the exorbitant rate of one dollar per year. Immediately, a feverish fund-raising campaign began that raised about $1.2 million to build the main research building, a U-shaped 18,000 square foot

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two-story building. As planned, we had enough money to finish the insides of a quarter of the space, with the rest of the space designated for future growth. In June 1978, the laboratory moved to its current location on City Island, Sarasota, FL (Fig. 5).

Fig. 5. Perry Gilbert and Bill Mote, City Island, Sarasota, FL, 1978.

The Next 30 Years

A new age for the lab dawned when it moved from Siesta Key to City Island (Slimak, 2003; Slimak, 2005a; Slimak, 2005b). Dr. Gilbert turned 65, retired as director to conduct full-time research at the laboratory, and Dr. William H. Taft was appointed President. Dr. Gilbert actively conducted shark research until his death in Oct. 2000 (obituary in Hueter, 2001) and was a great mentor, friend, and advisor to me. The subsequent influx of new resident scientists combined with the lab's veterans, such as Drs. Gilbert and William Tavolga, resulted in a considerable broadening of the laboratory's research under the new enthusiastic leader. MML became a full-fledged marine laboratory conducting research, adding and reemphasizing studies of marine mammals and sea turtles, aquaculture, coastal resources, chemical fate and effects, and environmental assessment. A formal library was also established, adding the books, journals, and staff reprints to the earlier collection that made up the smaller library at Siesta Key. As Dr. Gilbert said, ''This, in essence is the Lab's immortality. Bricks and mortar perish after a given number of years, but 2,000 years from now, if there is still a library, the papers will still be there and the name Mote Marine Laboratory.''

A former director of sponsored research from the University of South Florida, Dr. Taft brought new knowledge and skills in competitive extra-mural funding for research, as well as MML's first expertise in coastal geology. He led the lab in an era of unprecedented work with a new emphasis on environmental assessment projects, many of them focusing on Sarasota and Florida issues. In Oct. 1978, thanks to my good friend Dr. Ernest Estevez's insistence and recommendation, Dr. Taft hired me with the words: ''You bring in extra-mural funds for your salary and research activities, and I'll provide you lab space. You are here as long as you have those funds.'' No contracts, no time limits, and no guarantees! I then focused on conducting my own research in benthic ecology and leading new environmental projects. My first project at the laboratory was funded by the U.S. Environmental Protection Agency (through my good friend and mentor Delbert Hicks) to review a series of biological assessment reports on Florida Power Corporation's Anclote Plant. This was followed by a Florida SeaGrant project reviewing benthic ecology studies, a series of studies related to the effects of power plant discharges in Tampa Bay under the sponsorship of Tampa Electric Company, and benthic studies of the Southwest Florida shelf under the sponsorship of the Minerals Management Service.

These extramurally funded projects garnered about $1 million in grants and contracts and brought together a corps of young biologists and chemists to work together as the Environmental Assessment Division with me as the first director of the division. This multidisciplinary research complemented the ongoing studies at the laboratory in shark biology, marine biomedicine, red tide, and the ecology of Sarasota Bay. Specific expertise on coastal ecology, especially as it relates to freshwater withdrawal, was added in 1979. After a 2-year shakedown period, 1980 would become a landmark in both my personal and professional lives. On Sept. 27, Dr. Taft performed the ceremony in which I wed my beloved Linda Goggin. We were married on the grounds of the laboratory, and our reception followed at the newly built Marine Science Center.

In the early 1980s, MML was called upon to help provide basic data and information for one of the largest environmental studies underway in the nation—a comprehensive investigation of a coastal power generating station's impacts on its estuarine environment. This $2.3 million project sponsored by the Florida Power Corporation focused on the utility's Crystal River generating station, a complex of one nuclear and three fossil fuel plants. I led the staff of MML scientists during this project, and we lost many hours of sleep as days passed into nights and dawned again before a specific task was finished.

Fig. 6. City Island facilities, 1983.

MML officially opened the Marine Science Center on Saturday, Oct. 18, 1980, just minutes after staff rounded up the remaining stray rattlesnakes living close by. The Marine Science Center (which later became known as Mote Aquarium) was a significant step forward for MML as its first major outreach facility geared toward the general public. While maintaining its leadership in marine science research, the laboratory became involved with teaching youth and supporting the community in various environmental activities, most of which were originally staged at the Science Center. In addition to a public aquarium showcasing sea life in Sarasota Bay, the Marine Science Center housed a small gift shop and a meeting room. It was in this meeting room that the inaugural Monday Night at Mote lectures were held during the winter of 1980–81. This lecture series, playing initially to packed houses of 15 to 20, has evolved into a much-anticipated event, often with standing-room-only crowds of 300 or so.

In 1981 the laboratory made a renewed commitment to red tide studies and marine biomedicine (especially research in cancer and other diseases and the immunity of elasmobranchs). It also brought in new expertise in ''chemical fate and effects'' in the marine environment. During Dr. Taft's tenure (1978–1983), extramural funding for research through the Environmental Assessment Division and programs of red tide, marine biomedicine, riverine ecology, and chemical fate and effects totaled more than $6 million, and the number of staff increased from seven to 55.

Once our public outreach efforts began, they grew. What started with the Marine Science Center expanded to include formal summer camps, open house programs, and ''Monday Night at Mote'' lectures for the general public. This period also included a phenomenal growth in the number of volunteers working at the lab and the formalization of our volunteer program. Two volunteers, in fact, took on the role of coordinating these efforts: Marvin Tinsky handled research, and Marge Gilbert handled the aquarium.

During Dr. Taft's tenure, the laboratory grew in stature and reputation and became better known in the local community. He was truly a mentor, an avid cheerleader, and a friend to me and to my colleagues at the laboratory.

By 1983, as a result of the efforts of Drs. Clark, Gilbert, Taft, and benefactors, such as the Vanderbilts and the Motes, the laboratory (Fig. 6) had a solid reputation in research both nationally and internationally and was making headway in education and public outreach. The

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foundation was laid, and the lab was poised for extraordinary growth by modifying its total ''soft money'' dependence to a diversity of funds from donors, members, aquarium income, and extramural foundation and governmental grants.

In late 1983, an external committee of distinguished scientists convened at the laboratory and provided recommendations for future research direction and the strengthening of our public support. This blueprint for growth was endorsed by our board of trustees which would serve to guide our activities for the ensuing 7 years. Dr. Richard Pierce and I served as interim directors in 1984, caretaking the gains we had made and leading the search for a new director.

Dr. Robert F. Dunn was appointed director in early 1985. His professional interest was in the mechanisms of sensory systems in marine animals, and his basic research explored the organic channels of ''nerve networks'' by which animals sense and respond to environmental conditions. Dr. Dunn's aim was to enhance the laboratory's national and international reputation and to continue its programs in environmental and marine biology, especially to broaden MML's commitment to basic biomedical research. Dr. Dunn resigned in late 1985 to pursue his research interests.

The end of that year also coincided with the genesis of the Southern Association of Marine Laboratories (SAML). I participated in an informal meeting of several marine laboratory directors from the southeast U.S. led by Dr. Harold Howse at the Gulf Coast Research Laboratory. Since SAML's first meeting in March 1986, my active participation in the organization has helped me connect with other lab directors and learn from their experiences. As a consequence, MML has been able to implement many changes that have helped us be more efficient and cost-effective, but the greater benefit has been in the connections MML scientists have made. SAML's existence has helped MML staff build partnerships with colleagues from other marine labs, enabling innovative science and education programs, and avoiding duplication.

I began serving as director with Dr. Pierce as associate director on March 1, 1986. It was a reluctant and apprehensive decision compelled only by the hope that I could partially continue my research activities (which I loved the most) and contribute to the greater good of a fine organization. Bill Mote—the reinforcement from Dr. Perry Gilbert—was very persuasive. Bill Tavolga and all of the other senior staff also felt it was a good move, and they pledged their support. No one wanted to search for another director! In our first official message, Dr. Pierce and I emphasized our philosophy: ''We must continue in the same spirit to strengthen our community service, maintain our independence in marine research and continue to prove that research excellence can be attained in a small independent lab such as Mote.''

During MML's fourth decade (1986–1995), the laboratory saw a period of major expansion in facilities (Table 1). A long-term plan was created by the staff in 1986 that set the stage for research to flourish in a number of fields by identifying areas of emphasis (red tide, marine biomedicine, fisheries stock enhancement, marine mammals and sea turtles research, and coastal pollution). The plan drew heavily from our Scientific Advisory Council's recommendations that had identified areas of improvement necessary in our public outreach and education.

The transition in leadership was smooth, and Dr. Pierce and I concentrated on implementing short and long-term plans. Some of our priorities were (1) expand the board of trustees to include more community leaders; (2) educate our local, state, and federal elected officials on the importance of the marine environment and seek their support; (3) expand our donor base; (4) expand the numbers, role, and scope of our volunteers; (5) increase public outreach and support; (6) revamp and redirect the red tide research program; (7) recruit two new postdoctoral scientists, (8) expand some of our basic research programs by aggressively seeking National Science Foundation and National Institutes of Health funding; (9) renovate and add a large animals exhibit to the Science Center; (10) ensure that the Science Center was self-sufficient and in a position to generate revenue for use in research and education activities; (11) expand our K–12 education programs; (12) improve existing and add new research seawater systems; and (13) upgrade roads within the campus and connect to central sewer and water.

Bill and I were committed to encouraging and fostering the excellent team spirit, camaraderie, and the family-type atmosphere that existed among the staff, trustees, and volunteers. The friendship and mentorship of Bill Mote, Dr. Gilbert, and trustee Wes Loomis molded my early development and transition from scientist to administrator. Senior scientific staff and I hit the road, speaking to any group, from civic groups to women's associations and garden clubs—that wanted us to talk about the lab and its great programs. I believe that this activity helped us the most in getting our community engaged and supportive of the lab's activities.

Through the generosity of David Fletcher, in Sept. 1987, the laboratory recommitted itself to

TABLE 1. Mote Marine Laboratory Facility Milestones (with annual operating budget for that year).

Year	Milestone	Annual operating budget
1955	Cape Haze Marine Laboratory opens in Placida, FL (two-room building and a shark pen)	$25,000
1960	Cape Haze Marine Laboratory moves to southern tip of Siesta Key with new laboratory building, docks, and shark pens	$16,973
1967	Additional laboratories added to Siesta site—name changed to Mote Marine Laboratory—Navy shark tanks added	~$200,000
1978	Mote Marine Laboratory moves to City Island (Ken Thompson Park), City of Sarasota—new laboratory building with one of four wings completed, filter system, pens, and dock	$430,295
1980	Mote Marine Science Center opens, later named Mote Marine Aquarium	$1,064,444
1981	Upstairs east wing completed	$1,108,556
1983	Downstairs east wing completed	$2,110,162
1984	Marine Terminal Building on New Pass completed	$2,364,702
1986	Downstairs west wing completed	$2,050,955
1988	Shark tank added to Mote Marine Aquarium, later named George Jameson Aquarium	$2,514,447
1989	National Estuary Program Building completed	$2,867,561
1991	Martin-Selby Education (Conference) Center added	$4,634,764
1992	Rivers, Bays, and Estuaries Wing in aquarium completed, Mote Mobile Exhibit acquired	$4,822,494
1993	Mildred and Donald Stein Building completed	$5,191,423
1994	Ann and Alfred Goldstein Marine Mammal Center Phase I completed	$5,404,481
1995	Mote Aquaculture/Stock Enhancement Facility completed	$6,162,276
1996	Roy and Susan Palmer Sea Turtle Center opens, Marine Education Resource Center (Keating Hall) opens	$6,179,590
1997	Jane and David Allen Manatee Exhibit opens, Phase II Steigerwaldt Rehabilitation Lagoon of the Goldstein Marine Mammal Center completed	$7,022,679
1999	Lab Connector Building opens with expanded aquarium exhibits, Gilbert-Mahadevan Sea Cinema opens	$10,109,007
2000	Center for Tropical Research opens at Summerland Key, FL, R/V *Eugenie Clark* commissioned	$11,251,038
2001	Kenneth and Myra Monfort Giant Squid Exhibit, and Sanford Reis Mollusk Hall opens, Mote Mobile Exhibit replaced	$13,523,238
2002	Construction begins on Mote Aquaculture Park	$16,416,414
2004	Keating Marine Education Center opens, Immersion Cinema opens	$20,364,331
2006	Ann and Alfred Goldstein Marine Mammal Center Building II and Jean Purcell Hendry Conference Hall opens at the aquarium	$21,729,880
2007	Shark Tracker and Shark Zone exhibits open, Deep Sea Diner opens	$23,081,482
2009	Barry J. Kingman Sea Turtle: Ancient Mariners Exhibit opens, Seahorse Conservation Laboratory Phase I completed	$21,565,910

multidisciplinary ecological research in the region by starting the Southwest Florida Coastal Research Center. Then U.S. Senator Lawton Chiles, Florida Senate President Bob Crawford, and other dignitaries were on hand to inaugurate the center that would help address marine ecological issues facing the region from Tampa south to Naples, FL.

In 1988, thanks to the generosity of Bill Mote, the Marine Science Center was upgraded with a 135,000-gallon shark aquarium, renovation of existing exhibits and improvements to the property included new roads. With these improvements, the Marine Science Center became a full-fledged aquarium, showcasing research being conducted at MML. This set the stage for the center to grow its visitorship and volunteer force significantly. On the day the shark tank opened, 22,000 visitors arrived and caused a traffic jam all the way to the mainland. Known today as ''Mote Aquarium,'' the public outreach facility has continued to grow (Fig. 7) attracting 400,000 visitors annually and providing over $1,000,000 annually in revenue that supports research and education efforts. In the 1980s, the lab's scientific leadership came from a corps of

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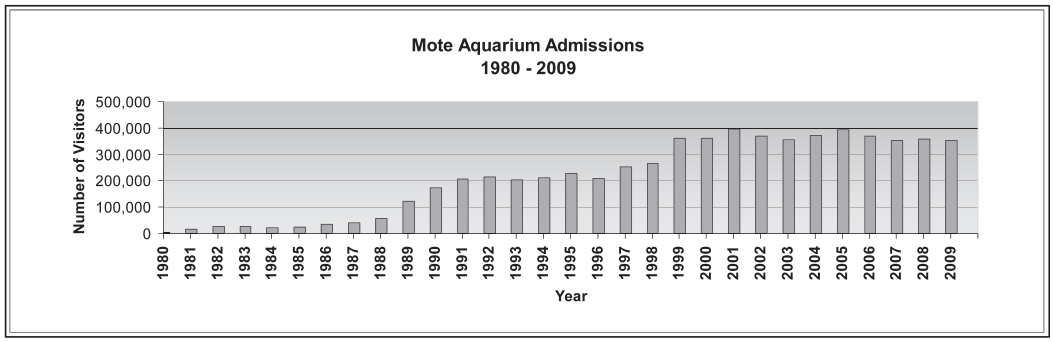

Fig. 7. Mote Aquarium attendance, 1980–2009.

young and hardworking researchers who continue working at the lab in advanced management roles today. This pattern of sustained individual leadership and growth has been evident in all aspects of MML's organization and has been a key to our success. This trait, along with MML's continually growing group of volunteers and trustees, has helped fuel MML's growth in a positive manner. It especially set the stage for MML to enter into off-site partnerships and eventually led us to establish our own physical and virtual satellite centers.

An important reason for our success in the 80s and 90s was the continued involvement of Dr. Eugenie Clark and Dr. Sylvia Earle, who had served as an interim director at MML between the tenures of Dr. Clark and Dr. Gilbert. Both are eminent scientists with masterful communication skills who have helped support and promote the laboratory. Both graciously served in whatever capacity we needed, whether giving lectures to members, having dinner with donors, or mentoring research staff. They continue to serve on our board of trustees and contribute much to our mission. Personally, they have provided me with wise counsel, friendship, and guidance whenever needed. Mote and Dr. Gilbert admired and adored both these explorers, and they helped me numerous times to convince Bill Mote of the important support we needed to fulfill our research mission (Fig. 8).

During that period, we made important strides toward large-scale snook stock-enhancement with state funding support, and we broke ground in July 1986 on a hatchery at Port Manatee. We established a partnership between the State of Florida and MML to meet the stock enhancement challenge. As a result of Bill Mote's passion for fishing, our fisheries research took a leading and central role at the laboratory. In 1988, Mote committed $1 million over 3 years to boost our research on his favorite sport fish, the common snook. He tripled this support in 1994 to ensure that the snook program will remain a priority for the lab.

In 1986, we put long-range plans in place that specifically called for an expansion of our K–12 education efforts. Three years later, the initiation of the JASON Project helped us raise the level of our educational activities, and we expanded our on-campus summer camps and special programs with schools. It was like manna from heaven when Dr. Bob Ballard, discoverer of the Titanic wreck, invited us to participate in the JASON project. His plans called for taking students on an electronic journey to remote locations in the world using interactive videoconferencing techniques. His first exploration was to ancient shipwrecks in the Mediterranean. We signed on as the twelfth site to receive live broadcasts. Local excitement was high, and within 3 weeks, the William G. and Marie Selby Foundation agreed to fund all of the equipment, with Manatee and Sarasota county school districts bringing 10,000 students to participate and funding the operational costs. The JASON project helped us arrive on the K–12 education scene in Southwest Florida.

In 1989 MML also took a leadership role in nominating Sarasota Bay for inclusion in the

Fig. 8. Genie Clark, Kumar Mahadevan, Bill Mote, Sylvia Earle, and Perry Gilbert, 1998.

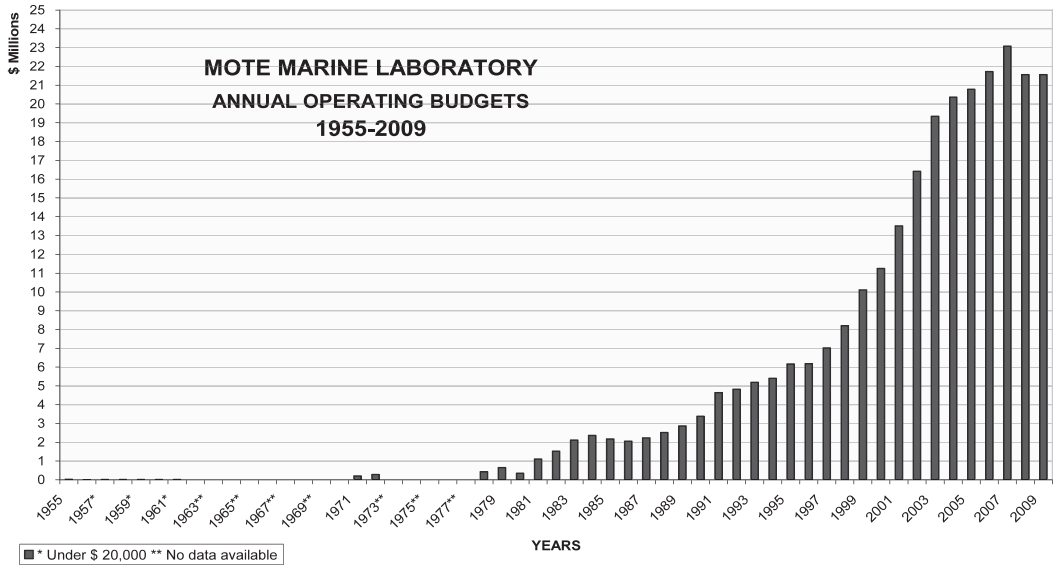

Fig. 9. Mote Marine Laboratory annual operating budgets, 1955–2009.

Environmental Protection Agency's National Estuary Program and hosting it on our campus. While the laboratory had a long history of varied research in Sarasota Bay, the NEP designation brought new resources for multidisciplinary and comprehensive ecological studies.

MML's growth continued at a steady pace. Thanks to the generosity of Michael T. Martin, the Selby Foundation, Henry and Pauline Becker, and the State of Florida, the next big step for MML came in 1991 in the form of the construction of a conference facility capable of hosting more than 400 people. This enabled us to host many scientific conferences and enhance our ''Monday Night at Mote'' lecture series. Florida Education Commissioner Betty Castor was on hand in 1991 to dedicate the lab's new Martin-Selby Education Center. Also in 1991, the U.S. Congress, thanks to then Congress members Andy Ireland and Connie Mack, designated the lab as a center for shark research and provided funding. By then, MML's annual budget and net assets had more than doubled from about $2 million to about $4.6 million and from $1.6 million to $4.6 million from 1986 to 1991 (respectively) (Figs. 9 and 10). The number of research projects in the lab had grown, and a marine mammal rehabilitation and research program was underway in earnest in 1992. Since then, 62 cetaceans and 168 sea turtles have been brought in for rehabilitation, 25 cetaceans and 108 sea turtles have been released, and much valuable information on the diseases of these animals has been gathered. Also in 1992, through a cooperative agreement with the Chicago Zoological Society, we were able to bring in a leading marine mammal scientist, who was interestingly enough a previous high school intern at MML, to guide our marine mammal program and lead the planning for new facilities. The same year, the number of visitors to Mote Aquarium grew when we decided to stay open 7 days a week and add a mobile exhibit that could visit schools and public events. An upgraded version was put into service in 2001. The mobile exhibit helped educate more than 250,000 people in 2006 alone.

In 1993, responding to the growth in marine mammal research and rehabilitation efforts of the lab, Sarasota generously provided an additional 3.5 acres to our leasehold to build new marine mammal facilities. At the same time, we established our presence in the Florida Keys with a facility on Pigeon Key (Monroe County, FL) in partnership with the Pigeon Key Foundation. This was the beginning of our commitment to coral reef research in the national arena. The William R. and Lenore Mote Eminent Scholar Chair in Fisheries Ecology and Enhancement was established at the Florida State University in 1994 with a generous gift from Bill Mote. This endowment was created to enhance research collaborations between Florida State University and MML to further the understanding and management of our dwindling marine fisheries. The endowment provides funding for eminent scholars in residence annually, a biennial international symposium, and a college internship. Also in 1994, White House officials traveled to MML in April to dedicate the first phase of the

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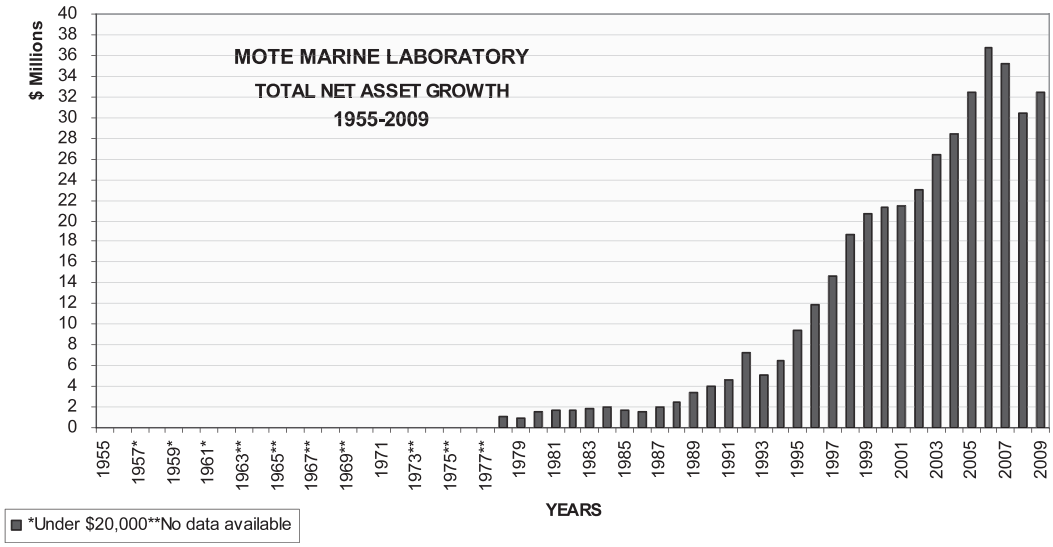

Fig. 10. Mote Marine Laboratory total net asset growth, 1955–2009.

Ann and Alfred Goldstein Marine Mammal Research and Rehabilitation Center.

The Charlotte Harbor National Estuary Program was established in 1995, largely due to the championship role the laboratory played and the strong nomination case made by MML scientists. Thanks to the generosity of Priscilla Breder and Bill Mote, the Charles M. Breder Chair was established in 1996 to support the study of the biology, behavior, and conservation of fishes. This enabled us to recruit a leading scientist to head our fisheries program.

Building on our experiences in the early 1990s in distance learning and the JASON project in 1996, we launched SeaTrek, a premier distance learning program to connect students from all over the world to our research—a big step for education at Mote. A high level of interactivity in a classroom setting built enthusiasm for SeaTrek's varied programs from shark migrations to coral reefs that reached more than 15,000 students worldwide in 2006.

In 1997 the Sylvia and Mel Levi Endowed Chair for Ecotoxicology Studies was established, thanks to the generosity of the Levis. Also that year, thanks to Donna Steigerwaldt and Jockey International, a 200,000-gallon rehabilitation lagoon was added for our marine mammal rehabilitation efforts, and thanks to Jane and David Allen, a habitat for our resident manatees was added at the Goldstein Marine Mammal Center.

A MML tradition has been to assemble panels of external authorities to provide our science, education, and aquarium programs with independent peer reviews of performance and to make recommendations for coming years. In response to such recommendations, in 1998 our research was reorganized into five centers. Today we have seven centers for research on sharks, coastal ecology, ecotoxicology, fisheries, coral reefs, aquaculture, and marine mammals and sea turtles. Also in 1998, thanks to Bill Mote and Sanford Reis, The Perry W. Gilbert Chair in Shark Research was established to support a leading resident scientist in the field of shark biology. Successful fund raising in 1998 for a three-story building connecting the one-story Mote Aquarium building and the two-story MML research building led to the formal dedication in 1999 of a renovated and enlarged Mote Aquarium and added much-needed research space and a new library.

Over the years, we have also found that adversity can create opportunities. After our Pigeon Key Laboratory in the Florida Keys succumbed to Hurricane Georges in 1998, we were able to acquire property at nearby Summerland Key and move our coral reef research to the new site in 2000. Also in 2000, planning began for a 5-year, $5 million comprehensive study of Charlotte Harbor, funded by the Mote Scientific Foundation, Mote's private family foundation. The study would add greatly to basic and applied knowledge concerning this large but relatively unstudied Florida estuary, and it would honor the memory of William Mote, who died on July 18, 2000. The 52-foot R/V *Eugenie Clark* was

Fig. 11. R/V *Eugenie Clark*.

commissioned in 2000 following in the tradition of the laboratory's first vessel built for research in 1963, the R/V *Rhincodon* (Figs. 11 and 12). From 2000 to 2006 another significant growth spurt for the laboratory occurred—notably the establishment of a field station on Pine Island (Lee County, FL), its loss to Hurricane Charley in 2004, and its subsequent move to Demere Key, thanks to the generosity of Don and Dorothy Gulnac.

The establishment and development of Mote Aquaculture Park (MAP) beginning in 2001 marked another milestone for our institution. MAP is a $20 million world-class center for sustainable marine and freshwater aquaculture technologies and stock enhancement that is, interestingly, located 17 miles inland from the Gulf coast. The Mote Scientific Foundation provided funding to support the majority of the facility construction costs and the Siberian Sturgeon Commercial Demonstration Program. State-of-the-art commercial and research scale aquaculture recirculating facilities were designed, constructed, and evaluated at MAP to support expansion of the U.S. aquaculture industry. A fire at MAP in 2006 set the Sturgeon Program back somewhat; however, MML was the first aquaculture facility in Florida to produce and market caviar in 2006, and rebuilding of the sturgeon growout facility lost in the fire is nearly

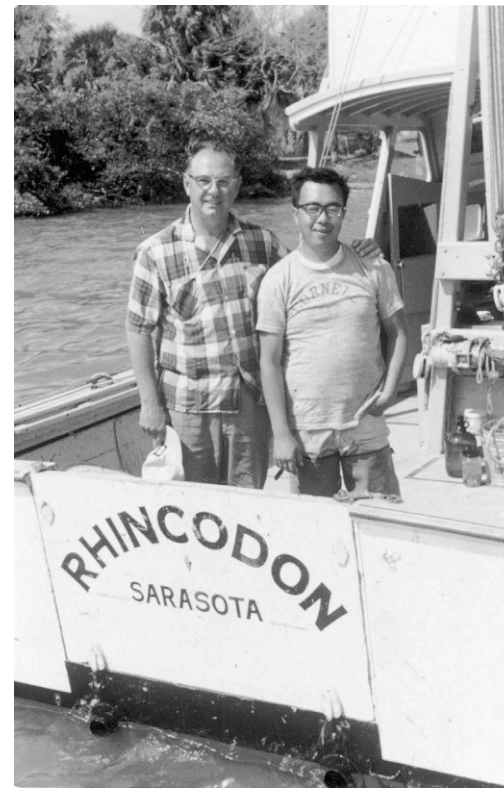

Fig. 12. R/V *Rhincodon*.

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complete. Another major milestone for marine aquaculture and stock enhancement was achieved in 2006 when snook were matured and spawned in captivity. This accomplishment is helping us close the life cycle of this important recreational species and expand restocking studies in Florida.

A Blue Ribbon Committee comprised of distinguished educators provided recommendations to the lab for strengthening its K–12 and college internship programs in 2002. This led to the recruitment of a leading marine science educator and subsequent reorganization of our education programs into functional centers. Planning and evaluation elements were added to strengthen programs such as SeaTrek, summer camps, and overnight field trips.

Beginning in 2003, the laboratory developed an in-house capability to file for patents to protect innovative discoveries developed through efforts of MML staff. The first two patents assigned to MML were issued in 2005. As of 2009, a total of six patents have been issued to MML, covering a variety of novel technologies, including aquarium filtration, specialized sensors for detecting red tide blooms, and novel antitumor compounds from the shark immune system.

MML's coral reef research programs were strengthened through the addition of the State of Florida specialty license plate ''Protect Our Reefs'' in 2004, which provides dedicated funding for reef research, conservation, and education at Mote, and through a granting program to other organizations. The Tropical Research Laboratory in the Florida Keys has become a major research center in its own right, attracting dozens of investigators from around the world, as well as hundreds of undergraduate and graduate students annually.

In 2004 a comprehensive strategic plan was approved by our board of trustees. The plan was prepared through teamwork among the staff, board, and volunteers to serve as a blueprint for our growth through 2010. A distinguished group of scientists and educators served as an external advisory council and reviewed the strategic plan in 2005. Two of their significant recommendations, the recruitment of an executive vice president for research and the establishment of a Marine Policy Institute, have already been implemented.

MML has recently formed a major collaboration with the University of South Florida (USF), College of Marine Science. Called the Mote/USF Joint Center for Coastal Ocean Studies, the partnership provides a structure for cooperation between the two institutions on a wide range of programs, beginning with enhanced biosensing in ocean waters, particularly to identify and understand the ecological effects of *Karenia brevis*, which causes red tide in the Gulf of Mexico. The Joint Center points to another key

TABLE 2. Mote Marine Laboratory's involvement in associations, consortia, and partnerships (partial listing).

Association of Marine Labs of the Caribbean
Association of Zoos and Aquariums
Blue Crab Advanced Research Consortium
The Chicago Zoological Society
EarthEcho International's Coral Reef Restoration Initiative
Environmental Defense Fund
Florida Aquaculture Review Council
Florida Coastal Ocean Observing Systems Consortium
Florida Institute of Oceanography
Florida Ocean Alliance
Florida Saltwater Hatchery Network
Florida Sea Grant
Florida Sea Turtle Stranding and Salvage Network
Florida State University, the William R. and Lenore Mote Eminent Scholar Chair in Fisheries Ecology and Enhancement
Florida Wildlife Research Institute (Fish and Wildlife Conservation Commission)
Georgia Aquarium
Gulf of Mexico Coastal Ocean Observing System Regional Association
Harbor Branch Oceanographic Institution (Florida Atlantic University)
International Association of Aquatic and Marine Science Libraries and Information Centers
The Mirage Hotel and Casino
Mote Marine Laboratory—University of South Florida College of Marine Science Joint Center for Coastal Ocean Studies
National Aquarium
National Association of Marine Laboratories
National Shark Research Consortium
National Wildlife Federation, King Abdulaziz University, Jeddah, Saudi Arabia
The Nature Conservancy
NOAA—Florida Keys National Marine Sanctuary
Ocean Tracking Network
Science Consortium for Ocean Replenishment
Sea Research Foundation, Inc. (Mystic Aquarium)
Southeast Coastal Ocean Observing Regional Association
Southeast Region Marine Mammal Stranding Network
Southern Association of Marine Laboratories
Tampa Bay Library Consortium
University of Jordan, Amman, Jordan
University of South Florida
University of West Indies
U.S. Marine Fish Aquaculture Consortium

in MML's evolution during the past decade, namely, our role as a leader or partner in research consortia and collaborations (Table 2). In addition to the Center, USF and Mote have executed a broad affiliation agreement on various research and educational initiatives and a specific partnership in aquaculture (Fig. 13).

Fig. 13. Mote and the University of South Florida announce a landmark affiliation that will promote new science ventures and expand learning opportunities and economic development opportunities for the region and the state. Pictured here from left: Mote president Kumar Mahadevan, USF president Judy Genshaft, Mote board chairman Arthur Armitage, USF vice president of research and innovation Karen Holbrook, and USF provost Ralph Wilcox.

Conclusions

Entering 2010, MML found itself with an annual budget in excess of $18 million, a professional work force of 25 scientists with Ph.D. degrees, 28 staff with Master's degrees, 78 staff with Bachelor's degrees, and a support staff of 60. The hallmark of the laboratory has been the staff's longevity of service (Table 3), ingenuity, teamwork, camaraderie, entrepreneurship, and emphasis on quality. MML enjoys the crucial support of more than 1,300 dedicated volunteers and 10,000 members/donors, and the patronage of 350,000 Aquarium visitors annually. The laboratory has experienced phenomenal growth since it moved onto City Island (Ken Thompson Park) in Sarasota in 1978 (Table 4) and now has a visible presence along the Southwest Florida coast and in the Florida Keys, generating an annual direct economic impact of $71 million in Sarasota County. Research accomplishments have been tremendous, with visiting investigators playing the primary role in the earlier years (1955–1978) and resident scientists taking over in recent years (1978–present). Their successes are clearly articulated in the many publications over the years (*Collected Papers from Mote Marine Laboratory* [MML, 1957–2008] and *Mote Technical Reports* [MML, 1971–present). One lesson from MML's experience that should be a clarion call to those who might follow our example: Support from the local community through active trustees, advisory boards, visiting and adjunct scientists, volunteerism, and donations is essential for growth and operations. Throughout the history of the laboratory, donors have played a major role in providing much-needed support, especially for infrastructure (Table 5). Fundraising events have helped the laboratory build bridges to the community and raised much-needed unrestricted funds for research and education. While Bill Mote's passion for fund raising was always tied to fishing and fish frys (with smoked mullet and grits, of course), he once reluctantly allowed local community leaders to have a black tie affair (chaired by Mary Gonzmart and Patricia Schlesinger) at the lab to raise funds. Subsequently chaired by Ms. Judy Graham, over the last 14 years, these galas were planned and executed by a vibrant group of community leaders and have raised more than $1.7 million. Great leadership has been provided by previous board chairs and CEOs, in large measure because of the model Bill Mote, Genie Clark, and Perry Gilbert established for leading the organization to success (Table 6).

An important part of our success has been our ability to serve as a ''window to the sea'' for our local community and its visitors and to develop the grassroots support for our programs. We do this very well with the help of the local media and the support of local, state, and federal elected officials. Every Florida governor, Florida U.S. senator, and southwest Florida congress member since 1984 has personally visited the laboratory and met with several of the scientific staff. Former Vice President Al Gore visited the laboratory twice. Numerous state senators, representatives, county commissioners, and city commissioners have routinely toured the laboratory and visited with staff. Several state senators and representatives, congressional delegates from our district (13-Florida), U.S. senators, and local mayors and commissioners have either served on our board or advisory council or been part of fundraising events (e.g., five roasts of elected officials organized by the former U.S. Representative Katherine Harris, before her political career, and Abe Shames raised more than $250,000) at the laboratory over the last 30 years. Two of our district's retired congressmen (Representatives Andy Ireland and Dan

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TABLE 3. Mote Marine Laboratory Staff 2009—Years of Service (10+ Years).

Staff member	Position
30+ years	
Clark, Eugenie	Director and trustee emerita
Tavolga, William	Program manager, sensory biology and behavior
Wells, Randall S.	Program manager, dolphin research
Hull, Peter T.	Vice president, marine operations and president, Mote Aquaculture Park
Dixon, L. Kellie	Program manager, chemical ecology
Mahadevan, Kumar	President and CEO
Culter, James K.	Program manager, benthic ecology
Luer, Carl A.	Program manager, biomedical research
Estevez, Ernest D.	Center director, coastal ecology
25+ years	
Pierce, Richard H.	Center director, ecotoxicology
Blum, Patricia C.	Senior biologist, chemical fate and effects
Wiese, Vicki	Director, special events
Bebak, Daniel F.	Vice president aquarium division and special projects
La Belle, Neil	Senior aquarist
20+ years	
Neidig, Carole L.	Project manager, stock enhancement
Minotti, Patricia J.	Staff chemist, chemical ecology
Henry, Michael S.	Program manager, chemical fate and effects
Hueter, Robert E.	Center director, shark research
Kirkpatrick, Gary J.	Program manager, phytoplankton ecology
15+ years	
Gaffney, Joyce C.	Coordinator, gift shop
Traxler, Lyn S.	Business manager, accounts payable
Walsh, Catherine J.	Program manager, marine immunology
Smith, Dena J.	Vice president administration and CFO
Nissanka, Ari	Laboratory manager, center for coastal ecology
Basso, Donna M.	Chief executive assistant
Kosik, Timothy	Maintenance assistant
Nickelson, Joseph L.	Manager, video services
Bassos-Hull, Kimbrough	Senior biologist, dolphin research
Simms, Karen	Staff accountant
10+ years	
Paetsch, Richard H.	Manager, facilities and grounds maintenance
Dougherty, Dean A.	Fleet manager, senior captain
Collins, Michael P.	Aquarist, offsite coordinator
Leber, Kenneth M.	Director, center for fisheries enhancement
Traxler, Charles A.	Maintenance assistant
Stover, Susan M.	Director, library
Fowler, John A.	Master carpenter
Barton, Sheri L.	Senior biologist, manatee research
Bebak, Deanna L.	Manager, human resources
Clark, Paula M.	Events coordinator
Kirk, Elizabeth K.	Center director, distance learning
Myers, Michael L.	Facilities coordinator and systems technician
Brennan, Nathan P.	Assistant program manager, stock enhancement
Luciano, Henry J.	Director, information systems
Smith, Roger E.	Security guard, maintenance
Tidwell, Debra	Executive assistant, education
Wetzel, Dana	Senior scientist, aquatic toxicology
Kirkpatrick, Barbara	Senior scientist, environmental health
Bartels, Erich	Staff scientist, coral biology
Davies, Joel	Security guard, maintenance

TABLE 4. Statistical history of Mote Marine Laboratory, 1955–2009.

	1955	1967	1978	1986	2009
Staff	2	2	12	52	178
Volunteers	1	2	5	100	1,550
Volunteer hours	~600	~2,800	~4,000	~26,000	~200,000
Members	0	0	300	750	10,500
Aquarium visitors	500	800	16,743[a]	34,465	317,328
Publications[b]	0	69	129	93	196
Buildings	1	5	2	3	31
Air conditioned space (square feet)	0	~3,000	5,500	24,484	135,382
Other space (square feet)[c]	~800	~6,000	14,484	1,344	161,865
Land (acres)[d]	2.5	3.5	6.5	6.5	211.5
Seawater system (gallons)	~6,600	~6,600	~70,000	~200,000	~1,800,000
Small boats/vehicles	1/1	1/1	3/3	7/5	27/28
Locations	1	2	1	1	5
Budget (million $)	~0.025	~0.2	~0.43	2.1	21.5
Net assets (million $)	0	0[e]	1.2	1.6	21.6

[a] 1980.
[b] 1978, since 1955; 1986, for 1979–1986; present, for 1987–2006.
[c] Roofed non–air conditioned space.
[d] Owned and leased.
[e] Less than 100,000.

Miller) have served on the Board of Trustees along with our present U.S. Representative, Vern Buchanan. This interaction, I believe, was critical in providing the best scientific information to our policymakers, enhancing both their decision making and their support of the laboratory programs. Our recently formed Marine Policy Institute is an extension of this philosophy.

As a mission-based organization, our biggest strength is our ability to define our own agenda and research based on our communities' needs and our scientists' expertise. The weakness, of course, is the ability to raise enough funds on an annual basis to support the basic operations of the laboratory and the aquarium. Such funds would be guaranteed in a university or governmental setting through an appropriation or educational revenue. Therefore, to remain independent, organizations like ours need to have a secure source of income (e.g., endowment) so that at least 15% to 20% of the annual operating budget is funded through a dependable source, as needed in a particular year, or adding to the endowment in years not needed. In our case, that endowment today should be between $60 and $80 million, not the $11 million we have. In the last 5 years, we have focused on raising funds for infrastructure, annual operation funds needed due to an economic downturn after Sept. 11, hurricanes, and a fire that consumed a major structure and caused more than $3 million in loss. We are getting ready to launch a major campaign to boost our endowment funds to adequate levels in the next 5 years, and we are confident that we will be able to do so.

Many marine laboratories are multidisciplinary organizations that combine hands-on marine research with education and community service. Often they are located in remote places and serve as field stations for universities' teaching programs. Others are federal or state labs, and a very few, like MML (Figs. 14, 15), are independent, nonprofit organizations. Many of today's leading marine scientists, oceanographers, and ecologists received their ''scientific spark'' at a marine laboratory. MML has been one of the labs that has excited and educated thousands of young minds and helped the surrounding community to become better stewards of the coastal environment through public outreach and education.

The next 100 years can be MML's best. I hope that marine laboratories will always exist as places where ''people can learn about the sea,'' for I was one among many who derived great inspiration, satisfaction, knowledge, and enjoyment from small marine laboratories along the coast of south India (Porto Novo) at the Center for Advanced Studies in Marine Biology, Annamalai University, Florida State University's Turkey Point Marine Laboratory, and the Naval Research Laboratory in Point Barrow, AK. The marine lab in India where I studied as a university student and the writings of Rachel Carson (especially *The Edge of the Sea*) and Jacques Cousteau's films inspired me to become an avid enthusiast of macroepifauna that live in the ocean's pressure-crunching depths of more than a mile. After all these years, my excitement for the sea, our last frontier, has not waned.

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TABLE 5. Mote Marine Laboratory major donors and foundations for infrastructure, projects, and endowments. Thousands of patrons of the laboratory have given generously over the years to support Mote's mission. Obviously, we cannot list all of them. We have selected a few to highlight.

Roland Abraham
David and Jane Allen: David and Jane Allen Manatee Exhibit
Appleby Foundation
Scott B. and Annie P. Appleby Trust
Arvida Corporation: land (main campus, City Island)
Bank of America Charitable Foundation
Barney and Carol Barnett Fund
Ted and Grayce Bartels: New Pass dock
Vernal W. and Florence H. Bates Foundation: Biomedical Program
Henry and Pauline Becker:
Henry Becker Memorial Scholarship Fund
Becker Scholarship for student interns
Stock Enhancement Facility
Library
Martin-Selby Conference Center
Ongoing annual support for more than 20 years
Joe and Nancy Berkely: ongoing support of research activities
Priscilla Breder: Charles M. Breder Chair
Frank Brunckhorst
Cabbadetus Foundation
Ronald D. Ciaravella: ongoing annual support through in-kind donation (air travel)
Susan Gilmore Clark:
Ph.D. Education Program for Women
Capital Campaign, Florida Keys Program
Ongoing annual support
Howard and Nancy Cobin: Aquarium Courtyard
Community Foundation of Sarasota County
Darden Restaurants Foundation
Dart Foundation
Arthur Vining Davis Foundation:
Library
Distance Learning Program
Goldstein Marine Mammal Building II
Ruth DeLynn Fund
Frederick M. Derr
Paving (main campus, City Island)
Excavating, paving (Mote Aquaculture Park)
Ongoing annual support
Disney Worldwide Conservation Fund
Henry L. and Grace Doherty Charitable Foundation:
Biomedical Program
Distance Learning Program
Original building at City Island
Richard O. Donegan: Capital Campaign support
Robert W. Fiedler: fisheries stock enhancement support

TABLE 5. Continued

David Fletcher: Southwest Florida Coastal Research Center
Thomas Franeta
The Gardener Foundation
Marge Gilbert/Golder Foundation:
Gilbert Scholarship for student interns
Gilbert-Mahadevan Sea Cinema
Ann and Alfred Goldstein:
Ann and Alfred Goldstein Marine Mammal Research and Rehabilitation Center
Connector Building/aquarium
Gilbert-Mahadevan Sea Cinema
Biomedical Research Program
Rivers Bays and Estuaries Wing (Mote Aquarium)
Fisheries Gallery (Mote Aquarium)
RV *Eugenie Clark* (large vessel)
Ongoing annual support
Judy Graham
Deep Sea Diner
Oceanic evening events
Ongoing annual support
Gulf Coast Community Foundation of Venice
Donald and Dorothy Gulnac: Demere Key Field Station
Jean Hendry: Jean Purcell Hendry Conference Hall
Hurlburt Foundation
Mark and Carol Hyman Fund
George Jameson: shark tank renovation
Michael V. Janes Trust
Jane's Trust/Jane B. Cook Foundation
Karp Family Foundation
Elaine and Ed Keating:
Keating Marine Education Center (New Pass Building)
Endowment and other annual ongoing support
PhD. Education Program for Women
Penelope Kingman
Knox Family Foundation
Mel and Sylvia Levi: Ecotoxicology Endowment
Libra Foundation
Wesley and Polly Loomis: Biomedical Research Endowment, JASON Project
Marisla Foundation
Michael and Jean Martin
Marine Education Resources Center
Martin-Selby Education Center
Sea Turtle Run
Ongoing annual support
Ray and Margaret Mason
Ray and Margaret Mason Sturgeon Aquaculture Building
Ray and Margaret Mason Library Technology Hub
Ongoing support for various education projects
Mike B. McKee Family
Remarkable Rays Exhibit

TABLE 5. Continued

Ongoing annual support
Curtis W. Miles Charitable Trust
James Milligan: general endowment

Ronald B. Morris

Marine Policy Institute support
Ongoing annual support

William R. Mote and Betty Mote Rose/Mote Scientific Foundation:

Shark Tank
Roads and landscape
Mote Aquaculture Park
William R and Lenore Mote Endowment in fisheries ecology and enhancement
Charlotte Harbor Field Station
Pine Island, FL, and research funding for 5 years
Devil Fish Key (Charlotte Harbor)
Perry Gilbert Chair
Charles M. Breder Chair
Marine Terminal Building
City Island Laboratory Building
Marine Science Center
Ongoing annual support

Curtis and Edith Munson Foundation
National Geographic Conservation Trust
National Geographic Research and Exploration
Robert and Mollie Nelson: Aquarium Theater, oceanic evening events

New Amsterdam Charitable Foundation:

Marine Policy Institute support
Ongoing annual support for various projects

New York Times Company Foundation
Roy and Susan Palmer: Roy and Susan Palmer Sea Turtle Exhibit
Rhoda Pritzker
Publix Super Markets Charities
Sylvia Radov Trust
Sanford Reis: Mysterious Mollusks Exhibit, Perry Gilbert Chair
Christopher Reynolds Foundation
ROS Foundation
Estate of Marcia Rubin

Myra Monfort Runyan:

Ph.D. Education Program for Women
Giant Squid Exhibit
Ken Thompson Traffic Light
Support for various education projects

City of Sarasota: land lease (main campus, City Island)

William G. and Marie Selby Foundation:

Laboratory at Siesta Key
Martin-Selby Education Center
Red tide research
Sea Turtle Hospital
Education scholarships
Mote Marine Laboratory
Mote Aquaculture Park

TABLE 5. Continued

JASON Project equipment and many other capital projects
Thomas and Kathleen Sherman
Bill Steigerwaldt/Jockey International: Donna Wolf Steigerwaldt Dolphin Lagoon
Donald and Mildred Stein: Donald and Mildred Stein building
Roberta Levanthal Sudakoff Foundation
SunTrust Bank of Florida Foundation
Triad Foundation

William, Alfred, and Anne Vanderbilt:

Cape Haze Marine Laboratory
The Dancer (collections boat)
House for Dr. Eugenie Clark and family

Verizon Foundation
Volvo Cars of North American Foundation
Wachovia Wells Fargo Foundation
Fran Warren: endowment support, Dolphin Research Program support
Joe Warren: endowment support, ongoing support for research expenses

Robert and Jill Williams/Genova Products

PVC materials
Monday at Mote Lecture Series

Wohlers Foundation
Robert and Jeanne Zabelle Charitable Foundation

TABLE 6. Leadership history of Mote Marine Laboratory, 1955–2009.

Directors/CEOs

Eugenie Clark 1955–65
Charles M. Breder 1965 (interim)
Sylvia A. Earle 1966 (interim)
Perry Gilbert 1967–78
William H. Taft 1978–83
Kumar Mahadevan, Richard Pierce 1984 (interim)
Robert F. Dunn 1985
Kumar Mahadevan 1986–present

Board Chairmen

William H. Vanderbilt 1955–66
William R. Mote 1967–86
Bob Johnson 1986–90
Richard Angelotti 1990–93
Michael T. Martin 1993–96
Alfred Goldstein 1996–99
Frederick M. Derr 1999–2002
Myra Monfort Runyan 2002–04
Mike McKee 2004–07
Judy Graham 2007–09
Arthur L. Armitage 2009–2011
Robert E. Carter 2011–present

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Fig. 14. Aerial view of the Laboratory's main campus, Ken Thompson Park, City Island, 2010. 1. Boat Docks. 2. Goldstein Marine Mammal Center. 3. Dolphin, Whale and Sea Turtle Hospital. 4. Aquarium (marine mammals). 5. Main Research Laboratory. 6. Martin-Selby Immersion Theater. 7. Chickee. 8. Fish Stock Enhancement Experimental Center. 9. Elasmobranch Experimental Center. 10. Stein Fisheries Center. 11. Aquarium. 12. Martin-Selby Education Resource Center. 13. Keating Marine Education Center.

What still thrills me the most is that as a graduate student in India in 1970, I knew about the reputation of Mote Marine Laboratory as the ''leading institution in ichthyology and shark research'' from the great scientific publications that Eugenie Clark, Perry Gilbert, Stewart Springer, Charles Breder, Bill Tavolga, and other scientists at the laboratory produced. When I moved to Anna Maria Island (10 miles from the laboratory) in 1975, I aspired, and was fortunate enough, to become part of the Mote Marine Laboratory family in 1978. Thirty-four years later, I am still grateful to be part of this great institution.

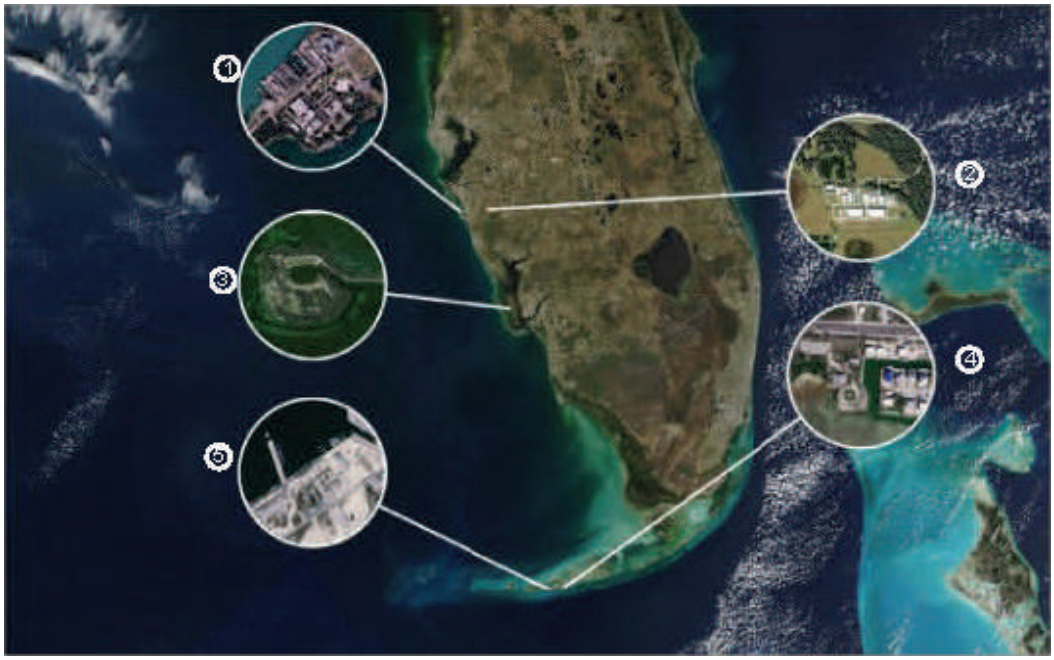

Fig. 15. Recent aerial views of Mote's main campus and its field stations, 2010. 1. Mote Marine Laboratory and Mote Aquarium (City Island) Sarasota, FL. 2. Mote Aquaculture Research Park, Sarasota, FL. 3. Demere Key, Pine Island, FL. 4. Tropical Research Lab, Summerland Key, FL. 5. NOAA Eco-Discovery Center, Key West, FL.

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