

Gulf of Mexico Science



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FOREWORD

Gulf of Mexico Marine Labs

JOHN W. TUNNELL, JR. AND GEORGE F. CROZIER

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Marine laboratories have been recognized by the National Association of Marine Laboratories (NAML, see www.naml.org/) in the United States as our nation's "windows on the sea." Their coastal locations provide ready access for marine scientists and students to study coastal environments or to study live animals in flowing seawater systems in coastal facilities. Also, many professional marine scientists of today developed their first interest in marine studies by taking summer classes at a marine lab. Like the rest of the United States, many marine labs on the shores of the Gulf of Mexico were established in the late 1940s and early 1950s. In Mexico and Cuba, similar early labs, centers, or institutes of study started in the 1960s and 1970s. Today, there are 35 marine labs along the shores of the Gulf of Mexico: 27 in the United States, 6 in Mexico, and 2 in Cuba (Fig. 1 and Table 1). They vary in size from a single building or two to large campuses, and they vary in location regarding their parent organization, some being on the same campus, others being many miles or hours away. We have also included one lab not on the Gulf but with a strong Gulf focus (SEFSC Miami Lab).

UNITED STATES

Of the 27 Gulf of Mexico, U.S. marine labs, 12 are located in Florida, 10 in Texas, 2 in Louisiana, 2 in Mississippi, and 1 in Alabama. Most U.S. Gulf labs are academic (15), but some are federal (4), some state (6), and a few are private or not-for-profit (2). The SEFSC Miami Lab, located on the Atlantic, is also federal.

MEXICO

There is only one true marine lab in Mexico dedicated solely for marine science studies, the Estacion de Investigaciones Marinas El Carmen of the Instituto de Ciencias del Mar y Limnología (ICML) of the Universidad Nacional Autónoma de México (UNAM), located on Isla del Carmen on Laguna de Terminos, Campeche, in the extreme southern Gulf of Mexico. Most research there is conducted by visiting marine

scientists from Mexico City, the headquarters of the ICML.

In addition to the ICML marine lab on Isla del Carmen, there are five other facilities that conduct marine research on or near the Mexican coast (Fig. 1, clockwise): 1) Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV-IPN) in Merida, Yucatan; 2) Centro de Ecología, Pesquerías y Oceanografía del Golfo de México (EPOMEX) at the Universidad Autónoma de Campeche in Campeche, Campeche; 3) Instituto Oceanográfico of the Secretaría de Marina in Antón Lizardo, Veracruz; 4) Instituto de Ciencias Marinas y Pesquerías (ICIMAP), Veracruz; and 5) Instituto de Ecología, A.C. (INECOL) of the Universidad Veracruzana.

CUBA

In Cuba there are two primary marine labs: 1) Centro de Investigaciones Marinas (CIM) at the Universidad de La Habana, the primary marine science academic training institution in Cuba; and 2) Instituto de Oceanología within the Ministerio de Ciencia, Tecnología y Medio Ambiente (CITMA). Both of these are located in Havana.

SPECIAL ISSUE

Twenty-one of the 35 marine labs mentioned above are written up in this Special Issue of *Gulf of Mexico Science*. We started this Special Issue call for papers in 2007, but several labs were still recovering from the 2005 hurricane season or were hit in 2007, so we decided to wait a few years to get better coverage. This allowed our coverage of labs to increase from 10 in 2007 to 21 in 2010. The BP Deepwater Horizon blowout and oil spill (April–July 2010) eliminated a contribution by one lab this time, as they were too busy to put together their history.

We asked authors to write their lab retrospective or history in the first person, where possible, to give a personal touch. Some articles are written by former directors of the labs, some are written by lab historians, and others are written by current directors or their designee.

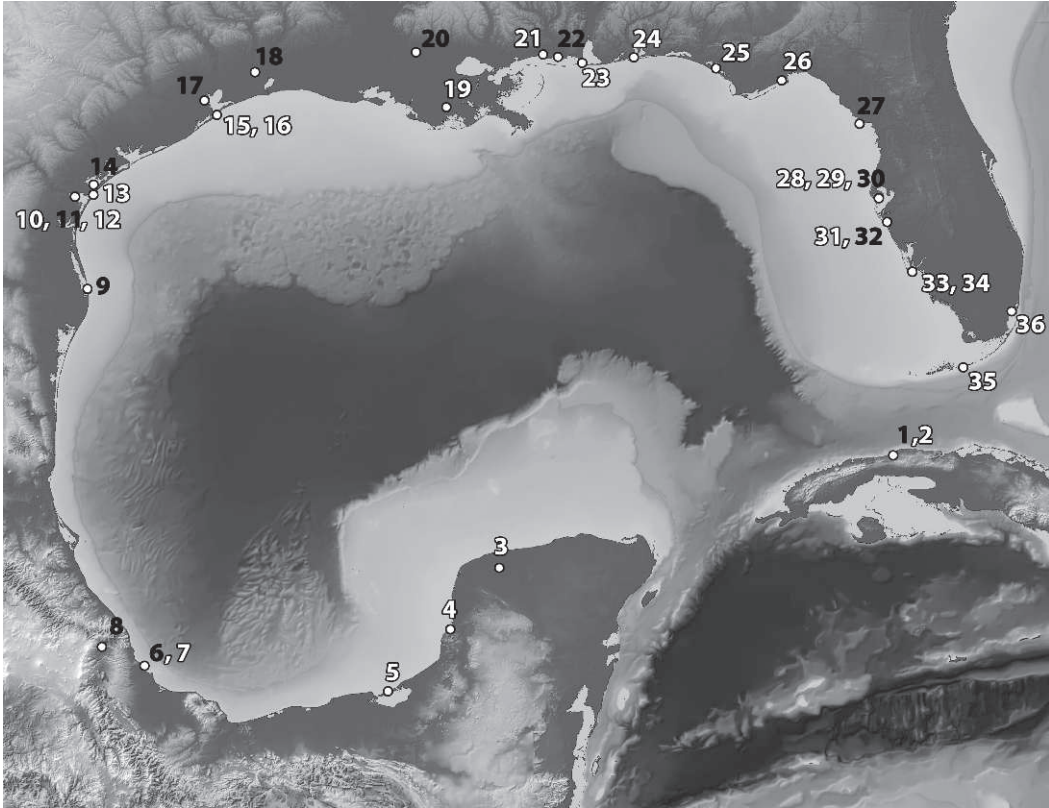


Fig. 1. Location of Gulf of Mexico marine labs and research institutes/centers. White numbers on the map indicate the 21 labs covered in this Special Issue: (1) Centro de Investigaciones Marinas (*CIM; Center of Marine Research*); (2) Instituto de Oceanología (*IdO, Institute of Oceanology*); (3) Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (*CINVESTAV-IPN, Center for Research and Advanced Studies of the National Polytechnic Institute*); (4) Centro de Ecología, Pesquerías y Oceanografía del Golfo de México (*EPOMEX; Center for Gulf of Mexico Ecology, Fisheries, and Oceanography*); (5) Estacion de Investigaciones Marinas El Carmen (Marine Research Station El Carmen), Instituto de Ciencias del Mar y Limnología (*ICML, Institute of Marine Science and Limnology*); (6) Instituto Oceanográfico (*Oceanographic Institute*); (7) Instituto de Ciencias Marinas y Pesquerías (*ICIMAP; Institute of Marine Science and Fisheries*); (8) Instituto de Ecología, A.C. (*INECOL; Ecology Institute*); (9) Coastal Studies Laboratory; (10) Center for Coastal Studies; (11) Conrad Blucher Institute for Surveying & Science; (12) Harte Research Institute for Gulf of Mexico Studies; (13) Marine Science Institute; (14) Rockport Marine Lab; (15) NMFS- Galveston Lab; (16) Texas A&M Marine Laboratory; (17) Seabrook Marine Laboratory; (18) Center for Coastal & Marine Studies; (19) Louisiana Universities Marine Consortium (*LUMCON*); (20) Lyle S. St. Amant Marine Laboratory of Louisiana; (21) Gulf Coast Research Lab; (22) NMFS-Pascagoula Laboratory; (23) Dauphin Island Sea Lab; (24) EPA- Gulf Ecology Division; (25) NMFS- Panama City Laboratory; (26) Coastal and Marine Laboratory; (27) Seahorse Key Marine Laboratory; (28) College of Marine Science; (29) Florida Marine Research Institute; (30) Galbraith Marine Science Laboratory; (31) Mote Marine Laboratory; (32) Pritzker Marine Laboratory; (33) Marine Laboratory; (34) Vester Field Station; (35) Keys Marine Laboratory; (36) SEFSC Miami Laboratory.

TABLE 1. Marine labs of the Gulf of Mexico (number in parentheses after each lab denotes location on Figure 1 image of the Gulf of Mexico; listed alphabetically by country and state).

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|--------------------|---|
| Cuba | Centro de Investigaciones Marinas (1) (<i>CIM; Center of Marine Research</i>), Universidad de la Habana (<i>University of Havana</i>), Havana Instituto de Oceanología (2) (<i>IdO, Institute of Oceanology</i>), Ministerio de Ciencia Tecnología y Medio Ambiente, (<i>CITMA; Ministry of Science, Technology, and the Environment</i>), Havana |
| Mexico | Instituto de Ciencias Marinas y Pesquerías (7), (ICIMAP; <i>Institute of Marine Science and Fisheries</i>), Universidad Veracruzana (<i>Veracruz University</i>), Boca del Rio, Veracruz Centro de Ecología, Pesquerías y Oceanografía del Golfo de México (4) (<i>EPOMEX; Center for Gulf of Mexico Ecology, Fisheries, and Oceanography</i>), Universidad Autónoma de Campeche (<i>UAC; Autonomous, University of Campeche</i>), Campeche, Campeche Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (3) (<i>CINVESTAV-IPN, Center for Research and Advanced Studies of the National Polytechnic Institute</i>), Merida, Yucatan Estacion de Investigaciones Marinas El Carmen (5) (<i>Marine Research Station El Carmen</i>) Instituto de Ciencias del Mar y Limnología (<i>ICML, Institute of Marine Science and Limnology</i>), Universidad Nacional Autónoma de México (<i>UNAM; National Autonomous University of Mexico</i>), Isla del Carmen, Campeche Instituto de Ecología, A.C. (8) (<i>INECOL; Ecology Institute</i>), Xalapa, Veracruz Instituto Oceanográfico (6) (<i>Oceanographic Institute</i>). Secretaria de Marina (<i>Secretary of the Navy</i>), Antón Lizardo, Veracruz |
| U.S. | |
| Alabama | Dauphin Island Sea Lab (23), Marine Environmental Sciences Consortium, Dauphin Island |
| Florida | Coastal and Marine Laboratory (26), Florida State University, St. Teresa College of Marine Science (28), University of South Florida, St. Petersburg Florida Marine Research Institute (29), St. Petersburg Environmental Protection Agency (EPA), Gulf Ecology Division (24), Gulf Breeze Galbraith Marine Science Laboratory (30), Eckerd College, St. Petersburg Keys Marine Laboratory (35), Florida Institute of Oceanography, St. Petersburg Marine Laboratory (33), Sanibel-Captiva Conservation Foundation, Sanibel Mote Marine Laboratory (31), Sarasota National Marine Fisheries Service (NMFS), Panama City Laboratory (25), Panama City Pritzker Marine Laboratory (32), New College of Florida, Sarasota Vester Field Station (34), Florida Gulf Coast University, Fort Myers Seahorse Key Marine Laboratory (27), University of Florida, Cedar Key National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC) Laboratory (36), Miami |
| Louisiana | Louisiana Universities Marine Consortium (LUMCON) (19), Chauvin Lyle S. St. Amant Marine Biological Laboratory (20), Louisiana Department of Wildlife Fisheries, Grand Terre |
| Mississippi | Gulf Coast Research Laboratory (21), University of Southern Mississippi, Ocean Springs National Marine Fisheries Service (NMFS), Pascagoula Laboratory (22), Pascagoula |
| Texas | Center for Coastal & Marine Studies (18), Lamar University, Beaumont Center for Coastal Studies (10), Texas A&M University—Corpus Christi, Corpus Christi Coastal Studies Laboratory (9), University of Texas—Pan American, South Padre Island Conrad Blucher Institute for Surveying & Science (11), Texas A&M University—Corpus Christi, Corpus Christi Harte Research Institute for Gulf of Mexico Studies (12), Texas A&M University—Corpus Christi, Corpus Christi Marine Science Institute (13), University of Texas at Austin, Port Aransas National Marine Fisheries Service (NMFS), Galveston Laboratory (15), Galveston Rockport Marine Lab (14), Texas Parks and Wildlife Department, Rockport Seabrook Marine Laboratory (17), Texas Parks and Wildlife Department, Seabrook Texas A&M Marine Laboratory (16), Texas A&M University at Galveston, Galveston |

The history of research at these marine labs follows the history of marine science research in the Gulf of Mexico. Many leading marine scientists of today got their start at marine labs, and marine labs continue to be our nation's "windows on the sea."

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