



# FRENCH-AMERICAN WORKSHOP ON SARGASSUM

January 17-19, 2018

Galveston, Texas



*The critical evolution of massive landings of Sargassum over the past few years has raised concerns from economic and scientific standpoints. Several scientific initiatives in France and the USA were undertaken to understand the origins of Sargassum landings in unusual areas, forecast and model the travel routes of Sargassum rafts, evaluate the impact of Sargassum overgrowth on marine ecosystems, as well as engineer the collection and the processing of Sargassum.*

*In order to share insights and approaches to the multiple issues of Sargassum and to encourage the coordination of French-American scientific collaborations, the Office for Science & Technology of the Embassy of France in the United States, Texas A&M University at Galveston (TAMUG) and the French National Research Institute for Sustainable Development (Institut de Recherche pour le Développement - IRD) are organizing a two day workshop on the campus of Texas A&M at Galveston on January 17-19, 2018.*

*The purpose of the workshop is to bring together scientists (marine biologists, oceanographers, algologists, physicists, remote sensing scientists) working on Sargassum from different perspectives in order to share expertise, develop mutual awareness and foster French-American collaborative research.*

*The joint organizing committee wishes to all participants a very fruitful workshop and a pleasant stay in Galveston, Texas!*

# AGENDA

DAY 1 - Wednesday, January 17, 2018

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18:00 - Welcoming Reception at Tremont House

*Roof garden (weather permitting) or in enclosed banquet room*

## *Welcoming & Introductions*

Local authorities' representative

**James D. Yarbrough**, Mayor of Galveston

TAMUG contingent

**Colonel Michael E. Fossum**, Vice President, Texas A&M University at Galveston

French contingent

**Minh-Hà Pham**, Counselor for Science & Technology, French Embassy

## AGENDA

DAY 2 - Thursday, January 18, 2018

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07:30 - *Bus pick up of participants staying at the Tremont House*

08:00 - *Breakfast – TAMUG campus*

08:45 - **Convene Workshop – Introductions**

Frédéric Ménard, Director of the Scientific Department OCEANS at IRD, Marseille, France  
Thomas Linton/Dr Gilbert Rowe, Texas A&M University at Galveston

09:00 - **SESSION 1: “Sargassum in the field: species and forms”**

*Moderator:* Frédéric Ménard, Director of the Scientific Department OCEANS at IRD, Marseille, France

09:00 - **KEYNOTE: Sargassum inundations. Multidisciplinary approach, with a focus on species identification**

Thierry Thibaut, Mediterranean Institute of Oceanography, Université Aix-Marseille, France

09:30 - **Productivity and Nutrition of Pelagic Sargassum: Evidence of Nitrogen Enrichment in the Gulf of Mexico**

Brian Lapointe, Florida Atlantic University, FL, USA [*Remote presentation*]

09:55 - **Identification, in situ observations of distribution, and mobile fauna community composition of the common Sargassum morphotypes**

Amy Siuda, Sea Education Association, Woods Hole, MA, USA

10:20 - **The role of Sargassum as a source of organic matter and habitat of pelagic fishes**

R. J. David Wells, Marine Biology Department, Texas A&M University at Galveston, TX, USA

10:45 - *Coffee Break*

11:00 - **The fate of Sargassum in the deep sea, with emphasis on the Gulf of Mexico**

Gilbert Rowe, Marine Biology Department, Texas A&M University at Galveston, TX, USA

11:25 - General discussion

11:55 - **SESSION 2: “Sargassum Distribution: observation and modelling”**

*Moderator:* Léo Berline, Mediterranean Institute of Oceanography, Université Aix-Marseille, France

11:55 - **Monitoring pelagic Sargassum in the Intra-Americas Sea and Atlantic Ocean from space**

Mengqiu Wang, College of Marine Sciences, University of South Florida, FL, USA

12:20 - **Multiscale observations of Sargassum from ships and satellites**

Anouck Ody, Mediterranean Institute of Oceanography, Université Aix-Marseille, France  
Léo Berline, Mediterranean Institute of Oceanography, Université Aix-Marseille, France

- 12:45 - Modeling the seasonal distribution of Sargassum**  
Maureen Brooks, Center for Environmental Science, University of Maryland, MD, USA
- 13:10 - Lunch – TAMUG Campus**
- 14:10 - Current developments of the Sargassum Early Advisory System (SEAS)**  
Thomas Linton, Texas A&M University at Galveston, TX, USA
- 14:35 - Update on Landsat 9 and Sentinel 2-Landsat data harmonization efforts**  
Bruce Cook, NASA Goddard Space Flight Center, MD, USA
- 15:00 - Pelagic Sargassum and ocean dynamics of the North Atlantic and Inter-American Seas**  
Donald R. Johnson, Gulf Coast Research Laboratory, The University of Southern Mississippi, MS, USA
- 15:25 - Sensitivity of the western Tropical Atlantic upper ocean biogeochemistry to Amazon and Orinoco rivers runoff variability**  
Julien Jouanno, Laboratory of Space Geophysical and Oceanography Studies, Toulouse, France
- 15:50 - General discussion**
- 16:35 - Coffee Break**
- 16:50 - SESSION 3: “Impact and prediction of Sargassum landings on coastal ecosystems”**  
*Moderator:* Victor Viser, Department of Liberal Studies, Texas A&M University at Galveston, TX, USA
- 16:50 - The Captain of Sargassum Sea**  
Brandon Hill, Shoreline Department for the City of South Padre Island, TX, USA
- 17:15 - Caribbean regional approach to Sargassum**  
Sandrine Pivard, Director of Regional Activity Center for the SPAW Protocol, Saint-Claude, Guadeloupe
- 17:40 - Sargassum invasion process in the West Africa marine waters and management approaches in the framework of the Abidjan Convention**  
Jacques Abe, Thematic Coordinator, Biodiversity, Habitat and Water Quality, Canary Current Large Marine Ecosystem Project (CCLME), Abidjan Convention, UN, Côte d'Ivoire
- 18:05 - State and local regulations affecting Sargassum management in coastal tourism areas**  
Kelly de Shaun, Executive Director of the Galveston State Park Board
- 18:30 - General discussion**
- 19:00 - Dinner on TAMUG campus**

## AGENDA

DAY 3 - Friday, January 19, 2018

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07:30 - *Bus pick up participants staying at the Tremont House*

08:00 - *Breakfast – TAMUG campus*

08:45 - SESSION 4: “Perspectives”

08:45 - **Ongoing French projects**

Frédéric Ménard, Director of the Scientific Department OCEANS at IRD, Marseille, France

Thierry Thibaut, Mediterranean Institute of Oceanography, Université Aix-Marseille, France

09:05 - **Ongoing US projects**

Antonietta Quigg, Associate Vice President for Research & Graduate Studies, TAMUG, TX, USA

Gilbert Rowe, Marine Biology Department, Texas A&M University at Galveston, TX, USA

09:25 - Discussion on future collaborative projects

10:10 - *Coffee Break*

10:20 - Closing remarks

10:20 - Françoise Gaill, Director of Research at CNRS and Scientific Coordinator of the Ocean & Climate Platform, France [*Remote presentation*]

10:35 - TBA, NOAA

10:50 - Patrick Louchouart, Executive Vice President for Academic Affairs at TAMUG and Associate Provost at TAMU, TX, USA

12:00 – *Farewell banquet at Fisherman’s Wharf Galveston*

15:00 – Visit of the Coastal Engineering Lab - Dr Jens Figlus:

- Presentation: “Sargassum and Dunes – A Field Experiment on Galveston Island”
- Demonstration of the compaction of Sargassum into “seabales”
- Drive (15’) to East Beach / Apffel Park on Galveston Island to see the test dunes

– Visit of the Galveston Island Brewery – Get together around Sargassum beer

## BIOGRAPHIES

### Jacques Abé

Director of Research and Thematic Coordinator, Biodiversity, Habitat and Water Quality, Canary Current Large Marine Ecosystem Project (CCLME), Abidjan Convention, UN



Dr. Jacques Abé is the Thematic Coordinator of Biodiversity, Habitat and Water Quality within the Canary Current Large Marine Ecosystem project of the Abidjan Convention, a United Nations program for environment. He graduated with a Doctorate degree from the University of Bordeaux, France in 1984 and holds a State Doctoral degree from the University of Cocody in Abidjan, Côte d'Ivoire, in marine sedimentology. Dr. Abé currently serves as Head of the Environment Division, including the laboratory of Physics and Marine Geology, at the Research Center for Oceanology in Abidjan, Côte d'Ivoire.

### Léo Berline

Associate Professor, Mediterranean Institute of Oceanography, Aix-Marseille Université



Dr. Léo Berline research interests are the biogeochemical and trophic fluxes through the planktonic ecosystem, the zooplankton distribution through time and space and the hydrodynamic connectivity. Regarding Sargassum, he is interested in the distribution of Sargassum rafts in relation with the surface mesoscale circulation and in the interannual fluctuations of Sargassum algae in relation with the physical environment. During the Sargasses cruises, he was involved in the routing of the cruise using satellite and Lagrangian simulations. He is working on Sargassum modeling.

### Colonel Michael E. Fossum

Chief Operating Officer, Texas A&M University at Galveston

Vice President, Texas A&M University

Executive Professor of Maritime Administration, Texas A&M University at Galveston



Michael E. Fossum was selected as an astronaut in 1998. He is a veteran of three space flights has logged more than 194 days in space, including seven spacewalks. He was commissioned as an officer in the U.S. Air Force and earned a Bachelor of Science degree in Mechanical Engineering from Texas A&M University and Master of Science degrees in Systems Engineering and Physical Science from the Air Force Institute of Technology and the University of Houston - Clear Lake, respectively. After completing graduate work, he was detailed to NASA's Johnson Space Center, where he supported space shuttle flight operations and retired as a Colonel from the U.S. Air Force Reserves in 2010. In January 2017, Fossum left NASA and accepted a position with Texas A&M University at Galveston as Vice President and Chief Operating Officer.

## Françoise Gaill

Director of Research at CNRS and Scientific Coordinator of the Ocean & Climate Platform



Dr. Françoise Gaill is currently the Scientific Committee Coordinator of the Ocean & Climate Platform and Scientific Advisor for the Ecology and Environment Institute (INEE) of the French National Center for Scientific Research (CNRS). Françoise has been involved in the field of marine biology, with a specific interest in the thermal adaptation of deep-sea animals. She is the author of more than 170 scientific publications. She was in charge of Foreign Affairs at CNRS' Life sciences department and also served for several years as Director of the CNRS Institute of Ecology and Environment.

## William E. Kiene

Regional Science and Policy Analyst, NOAA Office of National Marine Sanctuaries



Dr. William Kiene is Marine Science and Policy Analyst for the Southeast, Gulf of Mexico and Caribbean Region of NOAA's Office of National Marine Sanctuaries. Bill's work has focused on developing international marine conservation strategies, particularly through marine protected area science and management in the Gulf of Mexico. He pioneered efforts to establish sister sanctuary relationships between marine protected areas in Mexico, Cuba and the US, as well as supported science and conservation programs for coral reefs and deep water ecosystems in the Gulf. Bill has an interdisciplinary 35-year career in marine research, conservation and management working on initiatives in the South Pacific, SE Asia and Caribbean. He has served NOAA's Office of National Marine Sanctuaries since

2005 as Science Coordinator and subsequently Superintendent of Fagatele Bay National Marine Sanctuary in American Samoa before moving to Galveston, Texas in 2007 to support regional initiatives from the offices of Flower Garden Banks National Marine Sanctuary.

## Thomas Linton

Department of Marine Science, Texas A&M University at Galveston



After graduating from University of Oklahoma and finishing his PhD in University of Michigan, Dr. Thomas "Tom" Linton taught in his alma mater before joining the North Carolina Department of Natural and Economic Resources where he officiated as a Commissioner and eventually as the Director of the Office of Marine Affairs. After working several years in Australia, he settled in the Houston area, leading the Environmental Programs of the Gulf Universities Research Consortium. Since 1981, he has been a Lecturer and Professor at Texas A&M University, specialized in Marine Science, Wildlife and Fisheries Sciences.

## Patrick Louchouart

Department of Marine Science, Texas A&M University at Galveston



Dr. Patrick Louchouart is Executive Associate Vice President for Academic Affairs, Chief Academic Officer (TAMUG) and Associate Provost (TAMU). He graduated from the University of Québec in Montréal in Environmental Sciences (geochemistry). Dr Louchouart was appointed Associate Professor of aqueous geochemistry in Columbia University's Dept. of Earth and Environmental Sciences in 2002. In 2006, he joined Texas A&M University-Galveston/Texas A&M University as an Associate Professor of marine sciences and oceanography, where he became Head of the Dept. of Marine Sciences in 2010 and Full

Professor in 2011. Dr. Louchouart maintains a multidisciplinary research program in environmental and organic geochemistry, especially as applied to understanding the impacts of environmental perturbations on biogeochemical cycling at ecosystem interfaces.

## Frédéric Ménard

Director of Research, Director of the Scientific Department OCEANS at Institut de Recherche pour le Développement



Dr. Frédéric Ménard is a marine ecologist working on the trophic functioning of marine ecosystems. His activity focuses on large fish predators (mainly tunas) in the tropical Indian and Atlantic oceans. He published papers on the feeding ecology of marine predators using stomach content data and/or trophic tracers (such as stable isotopes and lipid content). He was one of the Co-chair of the WG3 « Trophic pathways in open ocean ecosystems » of CLIOTOP, a regional program of IMBER, and contributed to investigations on trophodynamics of tunas at global scale. He is the French ministry contact of the Sargassum program.

## Minh-Hà Pham

Counselor for Science & Technology, French Embassy



Dr. Minh-Hà Pham was appointed Counselor for Science and Technology at the Embassy of France in the United States in Washington, DC on September 1, 2013. She previously served as Director of the European Research and International Cooperation Office of the French National Center for Scientific Research (Centre National de la Recherche Scientifique, CNRS). Dr. Pham graduated from the Institut National Agronomique de Paris-Grignon (now AgroParisTech) and obtained a PhD from Pierre et Marie Curie University. Her scientific background lies in neurobiology and the risk assessment of GMOs and pesticides on beneficial insects.

While serving at the French National Institute of Research in Agronomy (INRA), Dr. Pham was the head of a laboratory on honeybee biology investigating the impact of GMOs on beneficial insects. She served as a member of various national expert committees for the French Ministries of Agriculture, Research and Environment.

## Sandrine Pivard

Director of the Specially Protected Areas and Wildlife Regional Activity Centre - UNEP - Caribbean Environment Program



Dr. Sandrine Pivard is Director of the Regional Activities Centre dedicated to the Specially Protected Area and Wildlife protocol of the Cartagena Convention, an international organization hosted by France under the authority of the United Nations program for environment. She previously served as Department Head for Biodiversity, Water resources and Landscapes in the Franche-Comté regional office of the French Ministry of Ecology. Dr. Pivard graduated from Ecole Polytechnique and holds a PhD in Ecology from University Paris Sud – Paris Saclay. As Director of RAC-SPAW, she is based in Guadeloupe.

## Gilbert Rowe

Marine Biology Department, Texas A&M University at Galveston



Since his PhD in Zoology at Duke University, Dr. Rowe has pursued a long career working on benthic ecology, ecosystem functions and structures, carbon and nitrogen cycles, food chain models, environmental quality and sustainable development.

Spending more than a decade in the Woods Hole Oceanographic Institution, he went on to work in and then lead the Oceanographic Sciences Division of the Brookhaven National Laboratory. Since 1987, he has been a cornerstone of oceanography and marine biology in Texas A&M University, where he now leads the Marine Biology Department and is Regent's

Professor of Marine Biology and Oceanography.

## Thierry Thibaut

Associate Professor, Mediterranean Institute of Oceanography, Aix-Marseille Université



Dr. Thierry Thibaut is a phycologist, expert of changes in macrophyte ecosystems in the Mediterranean sea. He graduated with a PhD in Oceanology from Pierre et Marie Curie University. His research works include the modelling of algae blooming in the Mediterranean sea. He served as Associate Professor in Nice Sophia Antipolis University where he ran the Macrophytes group within the laboratory of Ecology of Marine Ecosystems and Responses to Stress. Dr. Thibaut served as a French expert for European council directives such as the Water Framework Directive and the Marine Strategy Framework Directive.

## Victor Viser

Assistant Instructional Professor of Communication, Assistant Head, Department of Liberal Studies, Texas A&M University at Galveston



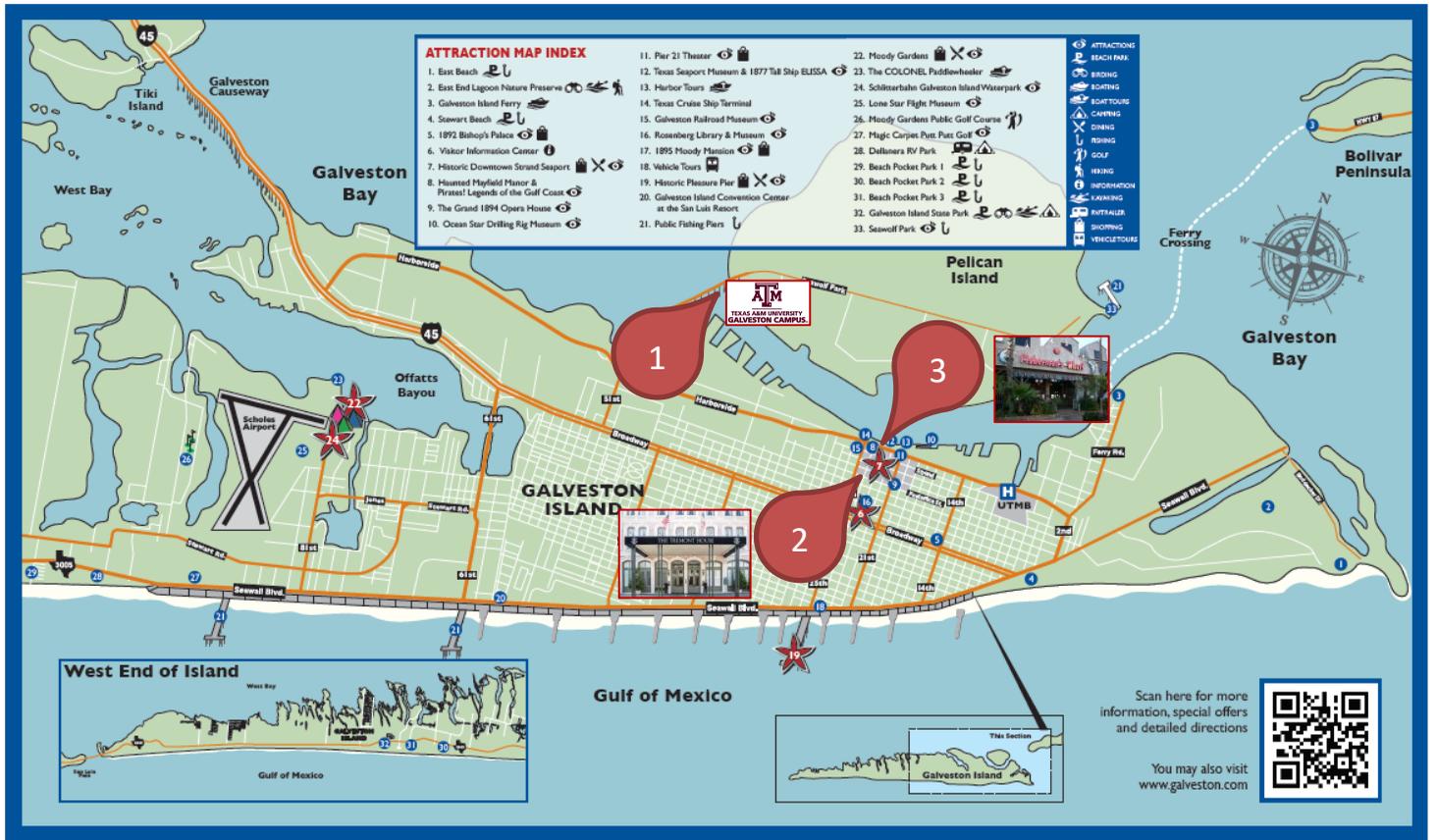
Victor Viser is Assistant Department Head of the Department of Liberal Studies (Communication) at Texas A&M Galveston. In addition to the many courses he gives on Communication, he has coordinated academic and cultural events over several decades and received awards from the Advertising Federation of America for his work. His high-level community work in numerous civic organizations in the Galveston area and the United States at large complete his strong involvement in the cultural and social life of the region.



Cafeteria: 3004 (Mary Moody Northern Student Center)

Workshop Venue: Building 3029 – Pavilion Room





- 1: Texas A&M University at Galveston Campus (workshop venue)
- 2: Tremont House (hotel)
- 3: Fisherman’s Wharf Seafood Restaurant (farewell banquet)