

**FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY**  
**Sanctuary Advisory Council**  
**Meeting Minutes**  
**April 13, 2022**

**VIRTUAL MEETING**

**Meeting Attendance Roster:**

Sepp Haukebo, Recreational Diving, Present  
Janavi Mahimtura Folmsbee, Recreational Diving, Present  
Andy Lewis, Diving Operations, Present  
Kristen Maples, Diving Operations, Present  
Ruth Perry, Oil and Gas Industry, Present  
Steve Hamm, Oil and Gas Industry, Present  
Scott Hickman, Fishing - Recreational, Absent  
Robert Kirschner, Fishing - Recreational, Present  
Shane Cantrell, Fishing - Commercial, Present  
Harris “HD” Pappas, Fishing - Commercial, Present  
Adrienne Simoes Correa, Research, Present  
Michael Dance, Research, Present,  
Brian Shmaefsky, Education, Present  
Sharon Kamas, Education, Present  
Joanie Steinhaus, Conservation, Present  
Jake Emmert, Conservation, Present  
Tarice Taylor for James Sinclair, BSEE (non-voting), Present  
Alicia Caporaso, BOEM (non-voting), Present  
Adam Peterson, USCG (non-voting), Present  
Rusty Swafford, NOAA Fisheries (non-voting), Absent  
Brooke Shipley, TPWD (non-voting), Absent  
G.P. Schmahl, Sanctuary Superintendent (non-voting), Present

**Total voting member attendance:** 15 of 16 of voting members; 8 votes needed

**Others in Attendance:**

Leslie Clift, Kelly Drinnen, Kelly O’Connell, Ryan Hannum, Justin Blake, Irene Olivares-Arthur, Michelle Johnston, Raven Blakeway, Kaitlin Brogan, Marissa Nuttall, Ryan Hannum, Sara Hutto, Katie Denman, John Embesi, Colleen Maynard, Will Heyman, Frank Burek

**9:00 Welcome and Announcements – Kelly Drinnen/G.P. Schmahl**

Today’s virtual meeting is being run through a webinar and is not being recorded.

### **9:13 Administrative Business – Jake Emmert (Chair, Conservation)**

Call to order @ 9:13am.

Adoption of Agenda – Motion from Brian Shmaefsky, second from Shane Cantrell. No objections on the draft agenda, motion approved.

Adoption of Minutes – Motion to approve minutes from January 18, 2022 meeting from Shane Cantrell, second from Brian Shmaefsky. No objections on the draft minutes, motion approved.

### **9:15 Public Comment**

No public comment.

### **9:32 Condition Report – Dr. Michelle Johnston (FGBNMS)**

Dr. Michelle Johnston, FGBNMS Research Ecologist, provided an overview of the Condition Report process, content, and progress, as well as shared information regarding climate assessments and how the advisory council can be involved. Condition Reports are tools NOAA uses to assess the status and trends of sanctuary resources by answering a series of 15 questions, uniform across the National Marine Sanctuary System (NMSS). Workshops began last week on April 6 and will conclude on May 10. Michelle shared a few slides from some of the presentations given in the workshops, illustrating the data compilation and analyses conducted by FGBNMS staff. Michelle shared preliminary expert ratings for the 7 workshops conducted thus far, with most questions assessed as Good/Fair, with a couple of Undetermined rankings for the expansion banks where fewer data exist. Michelle thanked experts who have attended the workshops, and provided a quick overview of how some of the data used in the Condition Report can feed into the Rapid Climate Vulnerability Assessment.

Discussion followed. Adrienne Correa (Research seat) asked about adding corallivores (coral-eating fish) as a trophic group. Sepp Haukebo (Recreational Diving seat) asked about the tipping points for coral formation related to increasing pH and increased temperature. Michelle responded pH is closely tied to aragonite saturation but temperature will be the big driver that influences bleaching severity.

### **10:02 Sanctuary Update - G. P. Schmahl (FGBNMS)**

FGBNMS Superintendent G.P. Schmahl outlined NOAA COVID-19 protocol and guidelines: all offices and visitor centers remain closed, in-person meetings and travel are restricted to “mission critical” only, vaccination requirements for all staff and contractors, and NOAA is considering a “phased” reentry process. NOAA’s “Return to Workplace” timeline was issued on March 25, 2022 with a 30-day reintegration notice. Beginning April 25, NOAA will have a 2-week staggered plan, returning to 100% occupancy levels, and buildings open to the public. A flexible

reintegration period remains in effect until June 26.

G.P. thanked Dr. Raven Blakeway, Research Operations Specialist, who has been with FGBNMS since 2016, and recently accepted a position with US Army Corps of Engineers in Galveston.

NOAA's Women's History Month webstory, "Women in Ocean Careers," in March 2022 featured FGBNMS Michelle Johnston.

Dr. Richard Spinrad (NOAA Administrator) and John Armor (ONMS Director) visited Flower Garden Banks NMS on March 29, 2022, when on tour visiting NOAA's Galveston Lab. Dr. Spinrad and John Armor also toured the R/V *Manta*, and joined sanctuary staff at Texas A&M University at Galveston to observe the formalization of the Memorandum of Understanding with the sanctuary.

G.P. recently presented to the Society for Environmental Journalists, hosted at Moody Gardens, and also to Texas Scuba Adventures/Fling Adventures, hosted at Tremont Hotel.

FGBNMS is reconstituting its dive team with trainings and recertifications. A water quality research cruise was conducted recently. A detailed inspection of the R/V *Manta* was conducted on March 24, 2022, as part of NOAA's annual fleet inspection. Minor adjustments on the R/V *Manta* are being made to accommodate a new requirement following the *Conception* disaster on the west coast, whereby all spaces below deck can be evacuated quickly. A contract is in process for the vessel to enter its annual shipyard service period. Research cruises will begin after the shipyard service period, starting with long-term monitoring efforts.

#### Executive Order 14008 ("30 by 30 Initiative" or "America the Beautiful")

This report recommends steps the U.S. should take, working with State, local, Tribal, and territorial governments, agricultural and forest landowners, fishermen, and other key stakeholders, to achieve to the goal of conserving at least 30 percent of U.S. lands and waters by 2030. The report will propose guidelines for determining whether lands and water qualify for conservation, and will establish mechanisms to measure progress toward the 30 percent goal.

#### Mesophotic and Deep Benthic Communities (MDBC) Restoration Projects

The Deepwater Horizon disaster resulted in quantified injury to over 2,000 km<sup>2</sup> of injured benthic habitat and substantial losses to resident corals and fish. Active management and protection are underway, as part of the efforts for restoration to injured resources. One of the components, Mesophotic and Deep Benthic (MDBC) Communities Restoration Projects has 4 goals: 1) mapping, ground-truthing, and predictive habitat modeling; 2) habitat assessment and evaluation; 3) coral propagation technique development; and 4) active management and protection. FGBNMS has been assigned this last goal with four objectives identified: 1) extend

the education and outreach components of existing protected area management frameworks; (Scott Jones hired); 2) coordinate with the agencies and stakeholders involved in establishing protections; 3) assess opportunities to manage and protect sensitive MDBC; and 4) reduce threats to MDBC and increase ecosystem resilience. Estimated duration: 7-8 years with an estimated budget of \$20.6 million. DWH funding will support analysis of historical ROV data from FGBNMS, and will also support two remotely operated vessel (ROV) cruises in 2022, with deep-water corals slated for collection and propagation at the new facility at NOAA's Galveston Lab.

### Education/Outreach

FGBNMS 2022 "Seaside Chats" engaged 2,363 participants through four virtual presentations on Wednesday evenings in February: 1) February 2 – Sex Lives of Corals: From Spawning to Conservation by Dr. Sarah Davies (Boston University); 2) February 9 – Paradise Lost? Future Fisheries in a Climate-Driven Gulf by Sepp Haukebo (advisory council member, Environmental Defense Fund); 3) February 16 – Discovering Climate History in Coral Skeletons by Dr. Kristine DeLong (Louisiana State University); and 4) How Humpback Whales Feed Hawai'i by Jeannine Rossi (Hawaiian Islands Humpback Whale NMS).

Janavi Mahimtura Folmsee (Recreational Diving seat) hosted an opening of her "Calm Water Color Storm" fine art exhibit at the Heidi Vaughn Galleries in Houston.

NOAA's Ocean Guardian School program is going strong in Texas, with Yorkshire Academy in Houston developing and implementing a carbon dioxide measurement device for the school's car line.

Capitol Hill Ocean Week (CHOW) will be held June 7-9, 2022 in Washington DC, and is sponsored each year by the National Marine Sanctuary Foundation.

Flower Garden Banks NMS is working with Bakfish Brewery in Pearland to develop a sanctuary-oriented craft brew in June 2022, with associated events planned.

This year, the sanctuary was added to the City Nature Challenge. FGBNMS Kelly Drinnen will give a presentation next week to two dive shops that will soon visit the sanctuary. Divers will tally underwater creatures via photos through the iNaturalist phone app.

### Research

Dr. Dan Otis with University of South Florida developed a "Data Dashboard" for Flower Garden Banks NMS, using satellite data from the Gulf of Mexico. Updated to include newly expanded bank locations as well as key features, such as downloadable satellite data, the dashboard now includes time series back to 2003. This tool can be used to detect water masses approaching the sanctuary. The dashboard link is <http://fgbnms-dashboard.marine.usf.edu:3000>

Raven Blakeway et al. 2022 published a new article titled, “Key Life History Attributes and Removal Efforts of Invasive Lionfish (*Pterois volitans*) in the Flower Garden Banks National Marine Sanctuary, Northwestern Gulf of Mexico” in *Frontiers in Marine Science*. This paper includes data collected by volunteer “citizen scientists” at Flower Garden Banks NMS from the “Lionfish Invitational” cruises. The paper describes key life history attributes and suggests East and West Flower Garden Bank may present ecological resilience to invasive lionfish, affording these reef systems the ability to absorb impacts.

Discussion followed. Sepp asked about 30 by 30 Initiative, and asked about the process of identifying places to be included in recommendations. G.P. responded existing processes, such as ONMS sanctuary designation, is one possible avenue. Steve Hamm (Oil & Gas Industry seat) has been connecting with NOAA to identify potential ways oil and gas companies can assist such as providing monitoring locations and equipment. Ruth Perry (Oil & Gas Industry seat) echoed Steve’s comments regarding Offshore Operators Committee, and building partnerships with NOAA. Jake Emmert (Conservation seat) said Moody Gardens is building a Technical Dive Plan, in collaboration with NOAA.

### **11:00 Rapid Climate Vulnerability Assessment – Sara Hutto (NOAA)**

<https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/20190207-rapid-vulnerability-assessment-grnms.pdf>

<https://www.cakex.org/MPAToolkit/rapid-vulnerability-assessment-tool>

Sara Hutto, Climate Change Coordinator with Greater Farallones NMS, provided an overview of Climate Vulnerability Assessments. In 2014, the sanctuary system’s first Climate Vulnerability Assessment was conducted with Greater Farallones NMS, followed by five or six more sites since then. Climate vulnerability is a function of the sensitivity of a particular resource to climate changes, its exposure to these changes, and its capacity to adapt to those changes. In other words, what things are most vulnerable and least vulnerable are assessed, as well as why they are vulnerable or not. Management actions can then be tailored to address vulnerabilities. Vulnerability assessments can help: prioritize species and systems for management actions; inform management strategies to address climate changes; and efficiently allocate resources. Climate Vulnerability Assessments deal with likelihoods (exposures) and consequences (sensitivities), and adaptive capacity. Both intrinsic (ecological potential) and extrinsic (social potential (e.g., staff capacity)) factors are considered. Gray’s Reef NMS held a 2-day in-person workshop with 18 participants (sanctuary staff included) to assess 9 species using a “rapid” CVA methodology (3 stressors only). Together, the Condition Report and the rapid Climate Vulnerability Assessment will fold into a climate-informed Management Plan with action and strategies that directly address climate change.

Discussion followed. Michelle reported the Climate Vulnerability Assessment workshop is scheduled for late July. The sanctuary has identified assistance with report writing from a climate

expert with this project through a PhD student, Larissa Diaz, working under Dr. Hu at Texas A&M University. Jake asked about needs from the advisory council. Michelle responded advisory council members will be invited to join workshops, and potentially asked to help with writing sections of the report. Sara added advisory council members could also assist with review, such as workshop rating worksheets. Michelle suggested an advisory council working group could be formed.

### **11: 45 Advisory Council Recruitment - Leslie Whaylen Cliff (FGBNMS)**

In order to streamline recruitment periods for advisory council seats, Leslie presented an updated council member timeline that results in one recruitment period each year instead of multiple. However, some of the current members' seat expirations will be extended to accommodate this transition towards efficiency.

### **12:00 Works of Art Featuring Flower Garden Banks NMS**

Two local artists from Houston presented their work of art featuring Flower Garden Banks NMS. First, Colleen Maynard presented her artwork titled "Calyxes and Polyyps: Celebrating Coral from the Flower Garden Banks National Marine Sanctuary" currently on exhibit at the downtown Houston Public library. She provided information from her background, training, and experiences and how they led to drawing botanical illustrations and collections. After a collaboration with UTMB in Galveston in 2018, Colleen learned about Flower Garden Banks NMS, and began site-specific drawings focused on biodiversity and anatomical structures of corals and their relationship with other sea life. Colleen worked with FGBNMS staff on site specific recommendations for her drawings. Her work has created a greater sense of urgency to document the changes in our marine world. She is next focusing on toxic algal blooms.

Janavi Mahimtura Folmsbee (Recreational Diving seat) presented her artwork titled "Calm Water Color Storm" currently on exhibit at the Heidi Vaughn Galleries in Houston. She wanted to create art as an immersive experience, similar to diving. Each wall of the exhibit is inspired by different dive locations. Featured in her paintings are sea creatures inspired from her dives in Flower Garden Banks NMS. Her series examines how humans are connected through time and art in the marine world. Janavi will next be installing an installation at IAH (Intercontinental Airport in Houston) titled "Aquarius Art Tunnel." She invites all council members later this summer to attend the ribbon cutting ceremony and musical performance inspired by the ocean.

### **12:30 Future Meeting Logistics – Leslie Whaylen Cliff (FGBNMS)**

With NOAA's planned reintegration into the workplace this month, Flower Garden Banks NMS is planning for the next advisory council meeting in September to be in-person (while still maintaining a virtual component). Because this advisory council has never held a retreat and in-person connections halted during covid for two years, Leslie introduced the idea of holding an advisory council retreat prior to the next meeting. Discussion followed, with several council members voicing support for in-person meetings.

**1:00 New Business**

Jake asked for volunteers from the advisory council for a Climate Change Working Group. The goal for this working group is to complete a Rapid Climate Vulnerability Assessment, which would then lead into the Management Plan Review. Ideally, the rapid CVA would be completed before the updated FGBNMS Condition Report is completed. Volunteers: Sepp Haukebo (co-Chair), Jake Emmert (co-Chair), Janavi Mahimtura Folmsbee, Shane Cantrell, and Kristen Maples. This working group will be open to other interested advisory council members. Motion from Janavi Mahimtura Folmsbee and seconded by Shane Cantrell to create a Climate Vulnerability Assessment Working Group and include aforementioned advisory council members.

**1:15 Meeting Adjourned**

Shane Cantrell motioned to adjourn, seconded by Brian Shmaefsky. All in favor. Approved.

Next SAC Meeting scheduled for Wednesday, September 14, 2022.

## **FGBNMS Advisory Council**

### **Constituent Updates and Updates from FGBNMS Working Groups and Subcommittees**

#### **Jake Emmert (Conservation)**

Moody Gardens recently hosted the American Academy of Underwater Scientists (AAUS) event, a week-long conference. Did workshops in conjunction with NOAA. Beginning planning for Gulf Coast Dive Expo (August 19-20, 2022). Has begun ramping up infrastructure and divers to assist with NOAA's dive season.

#### **Adam Peterson (USCG)**

Coast Guard District Eight (Gulf of Mexico) has been seeing a slight increase in domestic vessels fishing in closed areas/marine protected areas. Although NOAA has not authorized a catch seizure and these cases have been an anomaly only off the coast of Florida, federal agencies and partners should be aware of this trend. Accordingly, as always if you suspect any vessels are fishing within any closed or marine protected area where fishing is prohibited, please call your closest Coast Guard Sector and report it so we can investigate the report.

#### **Sepp Haukebo (Recreational Diving)**

EDF conducted a Climate Vulnerability Workshop in early March 2022, focused on Caribbean recreational fisheries and guiding livelihoods. Included 6 reef species, 6 pelagic species, and 3 nearshore species. Report should be completed in early summer 2022. Reef fish were most vulnerable due to coral habitat sensitivity and spawning thresholds and requirements. The Society for Environmental Journalists, in partnership with Rice hosted a week-long conference recently, including presentations regarding plastic pollution and from Superintendent G.P. Schmahl.

#### **Adrienne Correa (Research)**

Will be talking to Representative Dan Crenshaw's office regarding regulations surrounding reefs and how to protect them using common sense legislation.

#### **Kristen Maples (Dive Operations)**

Texas Scuba Adventures, Fling Adventures, and Andy Lewis hosted an event at Tremont Hotel in Galveston for local divers and enthusiasts. 120 people attended. A portion of proceeds donated to Foundation.

#### **Shane Cantrell (Commercial Fishing)**

Fly Fishing Film Tour April 29-30 will be held at Moody Gardens.

#### **Joanie Steinhaus, Conservation (Conservation)**

Message on ocean conservation/FGBNMS to 135 students and 1042 members of the general public since Jan. 2022. Spoke with 40 Environmental Journalists attending a conference in Houston on March 31. Partnered with the American Bird Conservatory staff for the program on the beach at the Galveston Island State Park. Topics were terrestrial environment, species in the Gulf, FGBNMS, the proposed coastal spine and sea level rise and impacts on the Texas coast.