



GRAY'S REEF NATIONAL MARINE SANCTUARY ADVISORY COUNCIL MEETING – MARCH 28, 2018

Sanctuary Advisory Council (SAC) Attendees

Michael Denmark, Chair
Scott Noakes, Vice-chair
Peter Auster
LTJG Jerry Brown
Mary Conley
Rick DeVictor
LT Warren Fair
Pat Geer
Monique Gordon
Tim Henkel
Warren Hupman
Capt. Bob Lynn
Mark Padgett

SAC Members Absent

Mona Behl, Secretary
Anna George
Kevin Mitchell
Jene Nissen
Tim Tarver
Suzanne VanParreren

Gray's Reef National Marine Sanctuary (GRNMS) Staff

Elise Georgeff (GRNMS intern)
Mandy Harvey (GRNMS volunteer and today's notetaker)
MaryBeth Head
Jody Patterson
Michelle Riley
Kim Roberson
Becky Shortland
Jessica White

GRNMS Foundation (GRNMSF) Staff

Amy Riesinger

Public in Attendance

Bob Crimean
Tom Wright
Phillip Vanderweit

Council chair Michael Denmark called the Gray's Reef National Marine Sanctuary (GRNMS) Advisory Council meeting to order at 10:05 AM. He welcomed members, staff and public in attendance. Following group introductions, Michael reviewed the agenda and outlined the meeting objectives. The summaries of the November 29, 2017 SAC webinar, the January 31, 2018 SAC webinar, and the February 27, 2018 SAC conference call were unanimously approved with no changes.

Michael Denmark recognized Pat Geer, who is leaving the SAC due to his upcoming relocation to Virginia, for his outstanding service on the council. On behalf of GRNMS staff and the GRNMS Foundation, Kim Roberson presented Pat with a pair of virtual reality goggles so that he can continue to "dive Gray's Reef". Pat expressed his appreciation to the group. Michael also thanked Rick DeVictor and Anna George for their leadership during their recently-expired terms on the SAC Executive Committee.

SAC Seat Vacancies in 2018 – Becky Shortland alerted the group that several terms will soon expire: non-living resources research, university education, charter/commercial fishing, sportfishing, diving, and both conservation seats. The diving seat is the only of these that is currently unoccupied. All current members are eligible to reapply for their seats.

GRNMS Announcements – Jessica White, Acting Superintendent of GRNMS, introduced herself to the group. Jessica will serve in the acting role for another week and a new Acting Superintendent will be designated in early-April while the search for a permanent superintendent continues. Jessica informed the group that Chris Hines, Deputy Superintendent for GRNMS, has accepted a position with the National Geographic Society. The Deputy Superintendent position will be posted soon through University of Georgia Higher Education. Jessica asked SAC members to alert any potential candidates of the opening.

Council Working Groups

Science Advisory Group – Peter Auster reported on the key discussions and outcomes of the Science Advisory Group meeting that took place the previous day (March 27, 2018). Topics discussed by the group included: research projects focused on CO₂ monitoring at GRNMS, fish and structural habitat surveys from the GRNMS research area and the open management zone, echinoderm survey updates, piscivore ecology (including the use of VR cameras to observe predator/prey relationships), and chevron trap/fishery independent monitoring at GRNMS. Also discussed were hydrophones and acoustics, characterization of soundscapes, invasive species (lionfish) management, visitor use data, and the climate vulnerability assessment. Peter stated that the Connectivity Working Group is still in existence but that several team members are currently involved with the development of the Research Area Synthesis Report. Once this report is completed, the working group will resume its efforts. A meeting report detailing the proceedings of the SAG meeting is forthcoming.

The SAG also discussed the Research Area Synthesis Report. This approximately 150-page report includes contributions from 32 authors and will be submitted to *Conservation Science Series* for publication. The document is currently undergoing editorial and formatting revisions based upon feedback from the lead authors and will then be reviewed by all contributing authors. The report demonstrates how the research area is currently being used and the discussion section will include an examination of how the research area may be utilized in the future. Kim Roberson stressed that the report is not intended as a historical overview of all research and does not represent a comprehensive look at all research conducted to date. Ideas discussed at SAG relative to the report included approaches to compare the research area with the open management zone, time processes relevant to reef status, opportunities for greater synergies with existing activities, and the need to identify gaps in the research.

Given the length of the report, Mary Conley recommended that the introductory chapter summarize the key points contained within the document. Peter confirmed that there is an abstract at the opening of the report that will accomplish this objective. Additionally, there will be a fact sheet and perhaps a brief presentation developed as part of a public outreach plan to disseminate the key findings outlined in the report. Michelle Riley pointed out that formal guidance on the rollout of the outreach component of the report will come from Office of National Marine Sanctuaries (ONMS). Michelle will forward the authors' recommendations to ONMS for consideration. The report will be published electronically, but a limited number of printed copies may be produced to distribute to the public in conjunction with speaker bureau presentations and other events. Michael Denmark suggested that the K-12 Education seat evaluate the potential to reformat the document for use with students.

Visitor Use – The impact of visitor use on GRNMS was initially discussed during the February 28, 2017 SAC meeting, where concern was expressed regarding the challenges inherent in identifying the degree of present and future human activity in GRNMS, any related impacts, and the identification of human-use and associated ecological indicators when patterns of use significantly impact GRNMS resources. This issue was further evaluated and discussed during subsequent meetings of the SAC and ultimately the group developed a letter addressed to John

Armor, Director of ONMS. This letter was approved by the SAC during the November 29, 2017 webinar and was sent to John Armor shortly thereafter. In discussions with Michael Denmark, John Armor challenged GRNMS to determine if there is a mechanism that can deliver results with confidence and whether this tool or method could be applicable to other sanctuaries.

Present efforts are centered on strategies to quantify the amount and frequency of visitation to GRNMS. LTJG Marybeth Head updated the group on her work identifying and evaluating current sources of visitor use data and her research into other technologies that could be employed in the future. Marybeth has obtained satellite observations from NOAA's National Environmental Satellite, Data, and Information Service (NESDIS). These observations showed 30 satellite passes of GRNMS with a total of 4 vessels observed from May through October 2017. Staff at NESDIS will soon process the data from October 2017 through May 2018 and will provide this information to Marybeth. Limitations of the NESDIS data include the lack of daily satellite passes, the fact that the resolution is affected by atmospheric conditions, and that it is not capable of detecting smaller vessels. Virtual Infrared System (VIRS) Boat Detection is another approach. This technology takes a snapshot every night. Marybeth has reviewed October 2015 through August 2016 and no vessels were detected.

The most available data source thus far is automatic identification system (AIS) data obtained from MarineTraffic.com. Marybeth receives notifications from MarineTraffic.com when vessels enter and leave GRNMS and when their speed changes significantly within the boundaries of the sanctuary. AIS detected 131 vessels within GRNMS in 2017 and 26 to date this year. It seems that most of these vessels are traveling through GRNMS while transiting north and south. However, most vessels that carry 'users' of GRNMS (i.e., anglers or divers) do not have AIS, so are not detectable through MarineTraffic.com. Peter Auster suggested cross referencing the vessel data from MarineTraffic.com with the *Nancy Foster* logs. Marybeth will do this with the log data from the upcoming 2018 GRNMS research cruise.

Marybeth outlined the next steps she is pursuing relative to visitor use data including requesting historical AIS data from the United States Coast Guard (USCG) and positioning an AIS receiver and/or a shore-based vessel monitoring radar station on Sapelo Island to improve tracking. She is currently researching high-quality radar systems that can accomplish what is needed at an affordable cost for GRNMS. Jerry Brown offered to contact radar experts within the USCG to provide insights and Michael Denmark suggested that Marybeth contact Jene Nissen regarding potential US Navy resources.

In addition to the historical AIS data, Jerry Brown will work with Marybeth to share other USCG data and will inform Marybeth when USCG cutters are transiting through GRNMS and will report any observations. These aircraft can take pictures of any observed vessels, but they do not run time-lapse photography. In addition, he will request that USCG Air Station Savannah consider overflights of GRNMS. USCG law enforcement boats can also check when they are performing patrols close to GRNMS. Mary Conley asked if there is anything that can be done to determine in advance when we most need to monitor so that efforts can focus on periods of maximum use instead of spreading efforts equally across the entire year.

Pat Geer offered that the recently-completed Georgia Department of Natural Resources (DNR) angler satisfaction survey could provide some additional insights into visitor use. The survey found that 27% of surveyed anglers fished offshore. Of this 27%, 18% had fished at Gray's Reef an average of 5.7 days with a median of 3 days. This indicates that approximately 4.9% of the surveyed anglers are fishing at Gray's Reef. Based on the number of registered recreational anglers in Georgia, this could be extrapolated to show that 10,206 people are fishing GRNMS within a 12-month period. In addition, 11.4% of survey fishing guides stated that they fished within the boundaries of GRNMS. The survey did not assess the seasonality of these visits. Becky Shortland will provide a link to the final survey results to all SAC members. Pat Geer also suggested that drones could have potential for monitoring and could fly transects over GRNMS on a regular basis.

Kim Roberson summarized the discussions on visitor use from yesterday's SAG meeting and noted that other offshore sanctuaries grapple with this issue as well. In the case of GRNMS, it is important to understand how people are using GRNMS to help understand the science within the research area. This includes assessing compliance with regulations and, more broadly, developing a better understanding of the patterns and consequences of visitor use. Peter Auster stated that it is also important to determine how much use would be too much. For example, at what threshold does resource quality begin to degrade due to overuse. Also, it would be beneficial to understand why people visit the sanctuary currently and why they may be motivated to visit in the future. All of these items could help demonstrate both the intrinsic and the economic value of GRNMS.

This work should include experts in areas such as social science and other specialties not currently represented on the SAG or SAC. As such, it is recommended that a workshop be conducted to bring together relevant experts, sanctuary representatives, and other interested parties. The output of this workshop would be a plan for how GRNMS should move forward relative to visitor use, as well as the identification of strategies that could have application at a national level. The workshop would likely not occur until next year due to the need to identify and invite participants and make logistical arrangements. The SAC agreed to the following next steps:

- A small group comprised of Peter Auster, Mary Conley, Michael Denmark, Rick DeVictor, MaryBeth Head, and Kim Roberson, as well as Chip Collier of the South Atlantic Fishery Management Council (SAFMC) will develop a rough proposal for the workshop
- Michael Denmark will contact John Armor to gauge his interest in the workshop and potential sources of funding
- If there is interest, this same group will craft a thorough proposal and outline for the workshop
- If there is not, other parties will be contacted to gauge their interest in participating in and funding the workshop. This could include entities such as fishing groups or NGOs.

Recreational Fishing Working Group Update – Reporting on behalf of Tim Tarver, Becky Shortland provided an update on the recent activities of the Recreational Fishing Working Group, which is charged with finding better ways to communicate and promote collaboration with recreational fishing interests and the sanctuary. The current project focus is outreach to reduce catch mortality, raise awareness of GRNMS, enhance compliance, and obtain more visitor use information. A proposal has not yet been submitted to the National Marine Sanctuary Foundation for funding, but it is in the works.

Warren Hupman, in conjunction with Georgia DNR, developed a video of three different descending devices that was shared with the group. One device tested (SeaQualizer) was determined to be the most promising for use by recreational anglers. Warren stated that the SeaQualizer was deemed superior because it actually grabs the fish, is versatile and easy to use, and can be used with a fishing pole meaning no special gear is required. He also noted that it was the most expensive of the 3 devices tested, at a price of approximately \$100 each. The working group has contacted the manufacturer and may be able to obtain the SeaQualizer at a reduced price. Michelle Riley has approached ONMS regarding the ability of GRNMS to distribute the video and will submit a formal request in the near future. Warren is considering posting the video on YouTube.

Law Enforcement Working Group Update – LT Warren Fair of the US Coast Guard stated that the Joint Enforcement Agreement (JEA) calls for 4 patrols per quarter in GRNMS but that many more are conducted. USCG Sector Charleston makes a point of incorporating GRNMS into planned patrols, when feasible, but is careful not to harass the public. Future patrols of GRNMS will be streamlined to coincide with periods of high use, such as the red snapper mini-seasons and fishing tournaments. USCG cutters have been dedicating more time to living resource patrols. Cutters traverse GRNMS when possible, or deploy radar. Overflights by Air Station Savannah and the Coast Guard Auxiliary are also ongoing as possible.

Captain Bob Lynn of Georgia DNR Law Enforcement stated that several patrols have been conducted since the beginning of the current Joint Enforcement Agreement (July 2017). DNR will be doubling patrols with the new agreement as of July 1, 2018 because NOAA Office of Law Enforcement and GADNR see GRNMS as a priority.

Council Member Reports

NOAA Fisheries Update – Rick DeVictor updated the group on several items. The South Atlantic Fisheries Management Council (SAFMC) met two weeks ago and there are proposed changes to charter vessel fishing reporting requirements. If the new regulations are enacted, charter captains would be required to report electronically on a weekly basis. One reporting parameter contained in these potential regulations is location by one-minute grid. This is intended to help with stock assessments and tracking catch limits but it could also potentially provide an additional source of visitor use information for GRNMS.

An exempted fishing permit will be issued for lionfish on April 3. This permit is for a two-year study employing up to 1,000 spiny lobster traps and purse traps per year. The location of the testing area was determined by programmatic environmental impact assessment and the traps will generally be placed in areas where lobster traps are currently used in order to minimize risk to marine mammals. Warren Fair asked how USCG will be informed of the exempted permit, so that Coast Guard patrols don't mistake the traps for illegal poaching activity. Rick will get back to Warren on this issue.

In other actions, the SAFMC is considering a requirement for the use of descending devices by all recreational anglers. Also, preliminary opening dates for a Red Snapper season in 2018 have been proposed. Commercial opening could be the first Friday of July and the recreational season would open on the second Friday of July, assuming regulations are in place by this time.

BOEM Letter – Michael Denmark provided an update on the SAC letter that was submitted as part of the Bureau of Ocean Energy Management (BOEM) public comment period for the Outer Continental Shelf Oil and Gas Leasing Program. This letter was approved by the SAC during a February 27 conference call and submitted to BOEM shortly thereafter. The public comment period closed on March 9 and it is anticipated that the draft programmatic environmental impact statement (PEIS) will be published soon. Following publication, there will be a 90-day comment period. The SAC may elect to comment again during this period.

In preparation for the comment period, the following process was outlined and agreed to:

- A small committee (Mark Padgett, Becky Shortland, and others TBD) will evaluate the PEIS upon publication and make a general recommendation on the appropriate SAC action/response
 - Experts outside of this committee (i.e. SAG members) may be assigned relevant sections of the PEIS to review
- The committee's assessment and recommendation will be reviewed and discussed by the SAC during a teleconference
- If the consensus outcome of this teleconference discussion is that the SAC should comment, the committee will draft a letter for submission to BOEM
- This letter will be reviewed and voted on by the SAC via teleconference no more than 85 days into the comment period

Becky will forward examples of comment letters provided by Mary Conley to the SAC. Mary suggested that the SAC might want to consider developing a formal process for future analyses and responses of this nature.

Other Business

Demonstrating the Value of GRNMS – Michael Denmark reintroduced a topic first discussed during the January 31 webinar—the idea of the “Blue Economy.” The Blue Economy is defined by the World Bank as the “sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health”. The National Ocean Service (NOS) has identified four areas of focus: 1) improving efficiency of the marine transportation system, 2) fostering U.S. blue technology businesses, 3) promoting coastal and Great Lakes tourism and recreation, and 4) reducing risk in coastal communities. Along these lines, each sanctuary has been encouraged to factor in the need to demonstrate the significant economic and cultural importance of marine sanctuaries to their local and regional areas moving forward. In addition, Jessica White noted that demonstration of economic value is key to obtaining program funding. Michael posed the following questions to the group: GRNMS obviously has substantial value, but how are we communicating its value? Can we do more? How can we better communicate economic value?

Group discussion centered on the need to consider all measures of value, not just financial parameters. These include existence value, intrinsic value, and educational value. Caution was urged when using visitor use data to extrapolate economic impact due to gaps in our understanding of visitor use at GRNMS. If visitation is found to be low, this could devalue GRNMS in the minds of some. It was suggested that the value message should not be so specific to one site, but rather encompass the sanctuary system.

Several resources were suggested to aid in developing a valuation for GRNMS including a Nature Conservancy website called MappingOceanWealth.org, ecological valuations developed by Bob Costanza which are available on his website, and new models from the team at the University of Vermont. Michelle Riley will ask if she can share the ONMS value quantification spreadsheet with the SAC.

SAC Action Plan – Becky Shortland provided an update on the action plan. This action plan is a product of a questionnaire that was completed by 13 SAC members in July/August of 2017. The initial plan was reviewed during the November 2017 SAC webinar, where several recommendations for refinement were made, and the document was updated accordingly and sent to SAC members for review and comment prior to the January 31, 2018 webinar. Several SAC members have volunteered to lead specific initiatives, but others are still needed. Please contact Becky to register your interest.

GRNMS Report

Superintendent's Report – Acting Superintendent Jessica White conveyed her great appreciation for the partnership with the SAC and reviewed the transition plan for the arrival of the next Acting Superintendent and the search for a permanent Superintendent and a new Deputy Superintendent.

Climate Vulnerability Assessment – Kim Roberson updated the group on the process and output of the climate vulnerability assessment for GRNMS. A workshop evaluating the potential impacts of climate change on Gray's Reef and resident organisms was conducted in November 2017 and a summary report from the workshop will be available soon.

Resource Protection Plan Implementation – Becky Shortland stated that the new resource protection plan is now in place and activities in support of the plan objectives are underway. Recent examples include a laminated card outlining GRNMS regulations for anglers and interagency collaboration to evaluate the status of the North Atlantic Right Whale. Becky will update the SAC regularly on the implementation of the plan and related key programs.

Savannah St. Patrick's Day Parade – Jody Patterson reported that GRNMS once again participated in the St. Patrick's Day Parade with a splashy reef scape float and costumed characters. This year saw record attendance and the crowd was very enthusiastic about GRNMS and the float.

ROV Competition– Jody Patterson informed the group that the Southeast Regional MATE ROV Competition will take place on April 21 at the Chatham County Aquatic Center in Savannah. This full-day competition is the largest GRNMS educational event of the year. The winning team will move on to the international competition in Washington state this summer. The Rotary Club of Southern Georgia (69 chapters) is a partner this year. If any SAC members are interested in volunteering or attending the event, please contact Jody. Michelle Riley stated that this competition will be included as part of the overall GRNMS value proposition.

Savannah Boat Show – Michelle Riley reported that GRNMS had a staffed information booth at the Savannah Boat Show March 2 – 4. Booth staff provided clarification on fishing and diving regulations. In addition, the GRNMS virtual dive was featured in the booth and seemed to encourage people to spend more time learning about GRNMS. Michelle noted that there was a substantial increase in attendees over previous years. Final attendee figures will be available soon.

GRNMS Foundation Update - Amy Riesinger, the new Gray's Reef NMS Foundation Chapter Director, introduced herself to the group and provided an update on Foundation activities. She is currently working on budgeting for July through December 2018, as well as for all of 2019. Capacity-building and fund raising are her key areas of focus for this year. Amy recently had her first meeting with the GRNMSF Board of Trustees and a full-day board retreat has been scheduled for May 24 to establish priorities. Amy encouraged SAC members to attend *A Fishy Affair* on Friday, September 21 at the Landings. Tickets will be on sale in June.

GRNMS on National Public Radio – Kim Roberson and Todd Recicar were recently interviewed by NPR about the soundscape of GRNMS. The interview aired across Georgia today and may be aired nationally in the near future.

Next Meetings

The next two meetings will take place via webinar on either May 22 or 23 and on either July 24 or 25. Both meetings will be 2 hours in duration. The next in-person meeting will take place in Savannah on September 21 to coincide with *A Fishy Affair* so that SAC members can attend the event if they wish.

Public Comment

- Tom Wright complimented the GRNMS website for having more information than in the past. He informed the group that he and Jene Nissen are working together to try to obtain survey information from the Navy. This information is available, and he recommended GRNMS speak with Jene about submitting a request. Tom suggested that, given the objective of the current administration to eliminate two existing regulations for every new regulation enacted, GRNMS should talk to West Coast partners to see if any existing regulations could be used rather than making new ones. Tom encouraged the SAC to submit comments on the outer continental shelf oil and gas leasing program even if the comments do not reflect any criticism.

The meeting was adjourned at 4:05 PM.