

**National Sea Grant Advisory Board
Virtual Meeting
April 13-15, 2021
Meeting Minutes**

Tuesday, April 13, 2021

OPEN TO THE PUBLIC – 1:00pm – 5:00pm

Ms. Holmes (DFO) read an official federal statement explaining her role to the group and took roll call of the members of the Board. Ms. Holmes (Designated Federal Officer (DFO)) thanked everyone for their diligent work in preparing for the meeting. Read an official federal statement explaining her role to the group, discussed the ground rules of the meeting, and welcomed everyone to the meeting. She also stated that the next meeting is tentatively scheduled to be held in June/July 2021. She then turned the meeting over to Dr. Helmuth who called the meeting to order.

Roll Call

Members of the National Sea Grant Advisory Board (Board):

Mr. Dale Baker, Dr. Peter Betzer, Dr. Paulinus Chigbu, Dr. Carole Engle, Dr. Rosanne Fortner, Dr. Gordon Grau, Ms. Judith Gray, Dr. Brian Helmuth (Chair), Dr. Amber Mace, Dr. Jim Murray, Ms. Kris Norosz, Ms. Deborah Stirling (Vice Chair), Dr. Jonathan Pennock – (*ex officio*) Director of the National Sea Grant College Program (NSGCP), Dr. Susan White (*ex officio*), President, Sea Grant Association (SGA),

Other National Sea Grant Office (NSGO) staff in attendance:

Ms. Susan Holmes - Designated Federal Officer (DFO) for the Board, National Sea Grant Office, Ms. Donna Brown – Project Administrator, Dr. Rebecca Briggs - Program Officer, Ms. Brooke Carney - Communication Lead, Ms. Elizabeth Rohring - alternate DFO

1:00pm – 1:15pm - Approval of Agenda and Minutes (Brian Helmuth, Board Chair)

Agenda

Dr. Helmuth gave an overview of the agenda and asked for a motion to approve it.

Motion to approve the April 13-15, 2021 agenda: Ms. Kris Norosz

2nd Dr. Dale Baker

Vote: All in Favor

November 2020 Meeting Minutes

Dr. Helmuth asked for a motion to approve the November 2020 meeting minutes.

Motion to approve the minutes from the November 13, 2020 Board meeting: Dr. Jim Murray

2nd Dr. Dale Baker

Vote: All in favor

1:15 – 1:30pm – Board Chair Update (Dr. Brian Helmuth, Board Chair)

Dr. Helmuth welcomed the Board. He mentioned that it has been a busy couple of months so the meeting will have many topics over the next couple of days. He thanked everyone for being in attendance and introduced Dr. Murray.

1:30 – 2:00pm – Independent Review Panel Update (IRP) (Dr. Jim Murray, Board)

Dr. Murray introduced himself as the Chair of the Evaluation Committee and provided an update of the Evaluation Committee Charge, the purpose of the Independent Review Panel (IRP), IRP panelists, development of review guidance, and the schedule.

Charge – Dr. Murray reviewed the charge for the Evaluation Committee, which was to help coordinate the quadrennial evaluation of the state programs and the NSGCP as a whole, including the IRP. The goal of the IRP review was to provide an assessment, with suggestions and recommendations for improvement when applicable, of the NSGCP and the management of the program by the National Sea Grant Office (NSGO).

IRP Panelists – Dr. Murray mentioned that they were able to get an outstanding committee, which include Dr. Nancy Targett (Chair), Dr. Amber Mace (Co-chair), Mr. Don Kent, Ms. Mary Erickson, Dr. John Cortinas, Dr. Jim Hurley and Dr. Jim Murray.

Development of Review Guidance – The charge provided by Dr. Pennock was a high-level program review and more structure was needed, so the team spent a few months developing guidance, including having the IRP become a regular part of the NSGCP review cycle. The goal of the evaluation is to provide an independent assessment of the strengths and areas of growth for the NSGCP, and to serve as a baseline for future improvements.

Schedule – The IRP had to be rescheduled from May of 2020 due to the pandemic to the current date of May 2021. The NSGO sent a request for input, and any constituents who would like to add input have the ability. Once the IRP is completed May 3-7, the committee will plan on having the final report by early June.

Dr. Mace expressed her gratitude for the team, especially Dr. Murray and Dr. Targett's leadership and Ms. Holmes' work in supporting the IRP.

Ms. Gray concurred and said the Board needed to make certain that the IRP was not too onerous in the future, and consider the structure moving forward.

Dr. Pennock said that he was pleased with the IRP structure and guidance, and that the NSGO has focused on the last five years - since he became the NSGCP director. He said that he was looking forward to the report to see the recommendations and understand what the NSGO and NSGCP can do better.

Dr. Murray commended Ms. Holmes for the support she provided for the entire quadrennial evaluation process.

Dr. Mace asked how to ensure that the IRP would become a formal part of the quadrennial evaluation process. Ms. Holmes said that it was captured in the meeting notes and would be considered a formal recommendation from the Board. Dr. Pennock said that he could create another charge for the Board, but would wait for the final board report to make that determination.

Dr. Murray said that the chair of the next round of evaluation, particularly for the IRP committee, needed to be selected carefully. He has experience working for the NSGO, so he has institutional knowledge, so the committee chair in the future may have more learning to do.

Dr. Helmuth said that the Board should wait for the final report, but make sure to talk about it during the Summer meeting. The Board can then make an additional recommendation to ensure the IRP happens along with the rest of the quadrennial evaluation.

2:00 – 2:30pm – Break

2:30 – 3:15pm – Information Services and Publications Review Sub-Committee Report Out (Dr. Gordon Grau and Dale Baker)

Dr. Helmuth reminded the Board that they need to vote on the Information Services and Publications Review recommendations and reports.

Mr. Baker discussed the charge of the committee and the historical context.. Mr. Baker said that the part of the review was to determine how the NSGCP could implement the federal requirements for publishing and access to federally funded research, including the new Public Access to Research Results (PARR) requirement. The committee looked at those requirements and the current state of how the NSGCP collects and organizes information and publications, including through the National Sea Grant Library (NSGL). The committee surveyed the state programs on how they used the library, and also analyzed reports from the NSGL, the NOAA library and the NOAA Information Repository (IR). Additionally, the committee met with Jan Woogd (NSGL), Dee Clarkin (NOAA Library), Sarah Davis (NOAA Library-Bibliometrics), and Jennifer Fagan-Fry (NOAA IR).

The committee found that the NSGL holdings included peer-reviewed literature, gray literature including reports, fact sheets, curricula and manuals, and also included ephemera (items such as bookmarks or marketing materials). The survey responses from the state programs showed near agreement that the Library is valued, especially the collection of gray literature and historical ephemera.

The NOAA central library provides NOAA personnel access to scholarly publications as well as to a variety of its own resources and the information network consisting of 20 other NOAA libraries, however it requires a noaa.gov email address for access. The NOAA IR is a digital library of scientific literature including research produced by NOAA, and the public science for NOAA and IR is web-searchable. The committee examines three possible options for the future model for the NSGL: maintain the current NSGL and bring it into current state-of-the-art capabilities merge the current NSGL into the NOAA library

and the NOAA IR, and develop a hybrid model which maintains the NSGL but merges it to the extent possible with the NOAA library and NOAA IR which maintains the NSGL.

Mr. Baker turned the discussion over to Dr. Grau who spoke on what the committee concluded.

Dr. Grau said that the committee concluded that the current software employed by the NSGL is inadequate and cumbersome, and thereby reduces the NSGL's utility and value. The NOAA library and IR infrastructure is cutting edge and user friendly. But the only problem we encountered is that the NOAA library is not accessible by the SG network or the public but the NOAA IR is. The committee is recommending a hybrid model for the NSGL and to merge the NSGL with the NOAA library and IR. A series of additional recommendations which are equally important is that Jon Pennock delegates appropriate responsibility, authority and appropriate resources to a direct report who would manage personnel involved in day-to-day operations of the NSGL and who would liaise with the NOAA library and IR. Currently it is unclear with whom responsibility lies -- is it with a program officer or in the NSGL, or with the national director? This uncertainty is likely a major reason for the NSGL's current state of affairs.

Dr. Grau discussed some other recommendations. The NSGCP should continue to employ one or more professional librarian(s) to undertake day-to-day NSGL operations, and consider one at the NSGO. Some holdings which may not be easily transferable, such as photographs and outreach ephemera, should continue to be held at the NSGL for their historical value. All "gray literature" including extension and other outreach materials, should be digitized and made accessible and this would avoid duplication of efforts since it's already been done. Currently the NSGL is being underused. The new NSGL should be marketed to the SG network and its stakeholders and partners which is a benefit of acquainting audiences with the high impact and productivity of the network's scholarship and outreach in delivering NOAA's mission.

The committee recommends that the NSGO and NSGL should streamline and clearly identify the process and requirements for reporting by the SG programs to the NSGL and NOAA. In order to increase the use and value of the library they should engage in training programs across SG personnel from collecting, managing and archiving documents. Additionally, the NSGL should establish an advisory group that meets regularly to provide strategic planning and guidance for optimizing the value of NSGL's operations.

Dr. Grau asked if the Board had any questions.

Dr. Fortner agreed that retaining the information at the NSGL would be beneficial and can be of great use to students and others looking for historical research.

Dr. Engle noted that having a librarian is essential but to make this available to the public you would need IT services. So this is a full process of making this discoverable and usable and needs IT people to

make it a high priority. The question is how do we evaluate it – did the committee discuss whether they would be monitoring or is it based on downloads, etc.

Dr. Pennock said that the NOAA library has been significantly upgraded over the last 4 years. The library now sits in OAR and the few times I've used the library it has been very good.

Dr. Briggs said that when NOAA created the IR they created full staff support from the information contained section 506 to NOAA regulations. This was a big undertaking, so they have the staff support without support from us, and the foundation (IT, etc). NOAA already has those services so there should not be a problem supporting Sea Grant . But Sea Grant will need to provide support to help with this merge.

Ms. Carney said that she has spoken to the NSGL and NOAA and that they are willing to work with Sea Grant.

The Board discussed how much funding and effort it would take for the NSGL to get up to necessary standards, coordinate with the NOAA Library and IR, and ensure that the NSGL had the organizational support needed. Ms. Carney said that the NSGO is waiting for the committee recommendations, but there are concerns with each of them. Dr. Briggs said that the biggest issue was the Sea Grant is not currently compliant with PARR, so a temporary process may be needed.

Dr. Helmuth thanked the committee for their efforts, and asked the board for a vote on the report and recommendations.

Motion to approve report and recommendations: Peter Betzer

2nd Carole Engle

Vote: All in favor

3:15 – 4:00pm – Review Committee for the 40% Competitive Research and Education Policy for Base Funding (Brian Helmuth)

Dr. Helmuth read the background of the charge to the board and discussion of topics:

- (1) Charge to the Board,
- (2) Important aspects of the review,
- (3) Further details and timeline and
- (4) the board voting on committee membership.

Dr. Helmuth said that this committee and its charge has received a lot of attention from the Sea Grant Association. The committee is to look at the NSGO competitive research and education policy for base funding. The committee will assess existing and historical NSGO policies and the board reports which discuss the proportion of base funds focused on competitive research. The goal is to recommend the most impactful balance between research, extension and education that is core to the SG model and develop clear recommendations for how SG programs should allocate competitive funds to ensure that

they maintain an appropriate balance while providing a proper level of flexibility to accommodate differences between programs.

The timeline is to approve the committee members today, and have the committee present findings and recommendations no later than the Fall 2021 meeting.

Dr. Murray said that this issue came up frequently during the recent quadrennial site visits. It needs to be addressed so that it can be consistently applied across the 34 programs.

Dr. Helmuth said that the committee members to be voted on are for the Board: Paulinus Chigbu (Chair), Carole Engle and Kristine Norosz; NSGO representatives: Nikola Garber, Joshua Brown, Rebecca Briggs and staff support Donna Brown and SGA representatives: Darren Lerner (HI) Sarah Whitney (PA) and John Downing (MN).

Dr. Pennock said that he is hoping for recommendations by Fall 2021 but would be willing to move the date if the committee needed more time.

Dr. Helmuth then asked for a motion to accept the committee and nominated individuals.

Motion to accept committee and nominated individuals: Judy Gray

2nd Amber Mace

Vote: All in favor

4:00-4:30pm – Review Committee Nominations for Guam Sea Grant Institutional Program Status (Brian Helmuth)

Dr. Helmuth provided background on the need for this committee. Guam Sea Grant has been a coherent program for 8 years so the charge is that the board establishes a committee to oversee a review process for the potential establishment of an Institutional program for Guam. The NSGO submitted a required Federal Register Notice for qualified applicants, and now the Board will need to discuss more details as to the timeline and get the board's vote on committee membership.

Federal Register Notice: The Federal Register Notice was published on February 19th inviting qualified applicants to submit a letter of intent, but there were eligibility requirements in that an institution must have been the host entity of a SG Coherent Area Program for a minimum of three years. So the Board will vote to approve the committee that will begin work with those who submitted a letter of intent for institutional status.

Charge to the Board: The SG Director requests that the Board establish a committee to oversee a review process for the potential establishment of an Institutional SG program for Guam. The review will be based on the necessary qualifications of Sea Grant Colleges which is laid out in the regulation 15 CFR 918.3(b), and then the committee will submit their letter of recommendations for approval to the Board. If approved, the final recommendation from the Board will be sent to the Director who will then

determine whether or not to forward the recommendation to the OAR Assistant Administrator who is delegated from the Secretary of Commerce.

Timeline: The Board should plan to initiate this review after the committees members are approved by the full Board and then a virtual site review is tentatively planned for late summer into early fall 2021, and the formal review will preferably include an in-person site visit depending on whether or not travel restrictions have been lifted and where we are regarding the Covid-19 pandemic.

Nominated Committee Members: The Board needs to vote to approve the committee members that volunteered to be on the committee which includes: Board Representative: Peter Betzer (committee chair), Jim Murray (NSGAB) and Judy Gray (NSGAB). The former SG Director Rick DeVoe and NSGO staff support Rebecca Briggs and Brooke Carney. The committee then needs to submit their letter of recommendations based on the virtual site reviews by early fall which may be virtual.

The Board discussed why the institutional status needed to be competed, and asked who could apply. Dr. Pennock said that the Sea Grant rules state that you can apply if you meet the criteria, but that the University of Guam was the only applicant. He added that Guam could compete for college status in the future.

Dr. Pennock said that the committee's recommendation would need to get concurrence through NOAA, but now NOAA is required to provide congress with at least 30 days' notice of our intent to change Guam's status. Additionally, if Guam is given institutional status NOAA needs to let Congress know of any additional resources needed.

Dr. Helmuth asked for a vote to accept the slate of nominees for the committee.

Vote on motion to accept the slate of nominees for committee: Kris Norosz

2nd Roseanne Fortner

Vote: All in favor

Dr. Pennock added that it is likely this will be a virtual review.

4:30-5:00pm – Discussion and Next Steps (Brian Helmuth)

Dr. Helmuth reviewed the accomplishments of the day's session, including the upcoming IRP, the recommendations from the Information Services and Publications Committee, the new 40% competitive research and education policy committee. He said that the next day's agenda will be more informational, with updates from the NSGO, SGA, OAR and NOAA. There will also be time to discuss the strategic directions for Sea Grant. The business meeting will start at 12:15pm. He asked if there were any topics for discussion before they adjourned for the day.

Dr. Mace asked about the status of new members for the Board. Dr. Pennock said that they have a package in process, but with changes in the administration the NSGO has been waiting to ensure that the candidates will meet new priorities.

Dr. Engle asked if the NSGCP was encouraging their researchers to use open access journals as that seems to be increasing in the scientific community. Dr. Briggs said that was something that the new research committee could discuss. Since open access usually has an associated cost, many programs don't have the resources for that. It would be good to publish in open access so that the public has access to our work.

Meeting Adjourned at 4:40pm

Day 2 - Wednesday, April 14, 2021

OPEN TO THE PUBLIC – 1:00pm – 5:00pm

1:00-1:15pm – Call to Order and Agenda Review (Brian Helmuth)**Roll Call**

Members of the National Sea Grant Advisory Board (Board):

Mr. Dale Baker, Dr. Peter Betzer, Dr. Paulinus Chigbu, Dr. Carole Engle, Dr. Rosanne Fortner, Dr. Gordon Grau, Ms. Judith Gray, Dr. Brian Helmuth (Chair), Dr. Amber Mace, Dr. Jim Murray, Ms. Kris Norosz, Ms. Deborah Stirling (Vice Chair), Dr. Jonathan Pennock – (*ex officio*) Director of the National Sea Grant College Program (NSGCP), Dr. Susan White (*ex officio*), President, Sea Grant Association (SGA),

Other from the NSGO in attendance:

Ms. Susan Holmes - Designated Federal Officer (DFO) for the Board, Ms. Donna Brown – Project Administrator, Ms. Elizabeth Rohring – (alternate DFO)

Ms. Holmes welcomed the Board, provided a few updates regarding the virtual platform and then turned the meeting over to Dr. Brian Helmuth, who explained that most of the meeting today will be more informational and went over the agenda for the day.

1:15-1:45pm – National Sea Grant Office Update (Jonathan Pennock – Director, NSGCP)

Dr. Pennock mentioned that his update would focus mostly on the National Sea Grant Office budget processes, FY2021 Budget Appropriation and Sea Grant alignment with the Biden administration priorities.

FY2021 Appropriation - The FY2021 appropriation for Sea Grant included \$75M for the Sea Grant Core and \$13M for aquaculture totaling \$88M. Including aquaculture, \$18.5M of the appropriations is directed to Aquaculture (\$13M), American Lobster (at least 2M), Amberjack and reef fish extension (\$2.5M), and emerging contaminants/Green Infrastructure (\$1M).

Fiscal Year 2021 Budget – In maintaining the state program base, there is now \$58.7M including the \$3.4M in base increase committed in FY20. There is \$19.6M that is congressional directed and commitments to aquaculture, lobster, amberjack and emerging contaminants/green infrastructure. We were able to sustain Knauss, The Bridge, NSGL and the Sea Grant Academy as well. The national office will continue to limit out administrative expenses to 5% in FY21.

Network Liaisons Competition - The Network and National Office were interested in continuing to support the network liaisons competition, and therefore budgeted for a new liaison competition. A lot of good proposals were received and decisions were made to fund six, because of the quality of them.

Knauss Fellowship - Increased Knauss Legislative fellows from 14 to 17 positions. We have a new partnership with FEMA for \$50K, so will hopefully be able to build a sponsorship with those communities.

FY21 Notice of Funding Opportunities (NOFOs) Closed – Dr. Pennock provided an update on FY2021 NOFOs, and which NOFOs have already closed or in processing. There is \$19 million in partnership dollars that partners are bringing to us, so the partnership program is quite a success. The NOAA Marine Debris program reached out to the National Office because of the work Sea Grant does with addressing marine debris; asked to partner to grow the program. Shellfish Aquaculture has been driven by conversations with the community and industry and is primarily focused on the ocean acidification programs. Finally, the Covid Impacts on Seafood Resources NOFOs are all closed and moving right along even though it's a lot of work for our office.

FY21 Notice of Funding Opportunities (NOFOs) Released and Currently Open – Currently open NOFOs include the following: National Sea Grant Reef Fish Extension Program, SG Lobster Initiative, Young Fisherman's Development Act and Food from the Sea, National Centers for Coastal and Ocean Science national aquaculture extension coordinator, Northeast Fishing Communities, and Offshore Wind Extension. The Department of Energy reached out because they are interested in engaging with Sea Grant programs. For many of these, the national office is scoping what we can and cannot do to meet the mandate of congress.

Administrative Transition Priorities – There are currently 4 major priorities for the new administration, they include: COVID response, economic recovery, climate and resilience and equity and racial justice. The NSGO has been working on identifying opportunities to meet these priorities.

The Board discussed the strategic areas in which Sea Grant could take leadership roles, including wind energy, sustainable coastal development, and diversity, equity and inclusion. These were identified since Sea Grant already has expertise in these areas.

1:45-2:00pm – Sea Grant Association Update (Susan White, President, Sea Grant Association (SGA))

Dr. White provided the Advisory Board an update on Sea Grant Association and network activities. Last fall the SGA had a series of meetings and webinars which some of the Board members participated in and these opportunities to hear from the Board were much appreciated.

Sea Grant Program Director Changes - With the retirements of directors in the past few years, there has been a shift with the directors coming in (23) to younger staff. There are acting directors for Rhode Island and Louisiana and there are others coming up within the next year, so we'll see more change within the next year. An update on the breakdown of genders, there are 20 male and 14 female Sea Grant program directors, so we're getting better in regards to gender. If there's opportunities for making changes then we should do so, because we have lots of new talent onboard.

Sea Grant Association Priorities - The diversity, equity inclusion and justice (DEIJ) and safe meeting space has grown significantly. The resilience two-pager and white paper are complete and we are continuing to work with partners. There is a FY2022 budget proposal of \$107.9 million for SG college programs and \$15M for aquaculture, so resilience is a large piece from last year. I give thanks to all the federal science partners and lobbyists for how those numbers came to be. We had a joint congressional briefing recently. We recruited another retired director, Dennis Nixon, who is willing and able to take his old Sea Grant hat off and we have lots of pre-budget briefings scheduled and are hopeful that good conversations will come from them. Another external group, friends of NOAA, have a letter going to the Hill to support NOAA with a request for money.

Sea Grant Association Activities - The SGA Program Mission Committee (PMC), which is led by Stephanie Otts, has been working on professional development within the network. The Ethic Committee, led by Mark Risse, has been working on the DEIJ activities including setting up a viewing and discussion around the video, "Can We Talk?". Discussions are underway on how we can do Knauss engagement virtually. Preparation for the Independent Review Panel (IRP) is underway and can bring some good context for review panels. Bi-Laws are outdated and in conflict with one another in different spaces so, the ethics committee, prompted by counsel, said they had to work on these. There are match challenges, but there are also great opportunities that Dr. Pennock outlined; enrolling in core technical review panels; Visioning Efforts and how that continues to drive funding.

Dr. White provided an update on the Fall SGA meeting, it will be a hybrid of in-person and virtually. It will be held in North Carolina. Sea Grant week is on schedule for fall 2022 in Ohio.

Dr. Helmuth - Thanks for being so inclusive with the Board.

2:15-2:30pm – Break

2:30-3:30pm – Update from NOAA and NOAA Research Strategic Directions for Sea Grant (Craig McLean (AA) and Ko Barrett (DAA))

Mr. McLean congratulated the Board on the completion of the State of Sea Grant report. The content and continuation of activities from the previous report reaffirms that Sea Grant is headed in the right direction. With the newly elected administration, DEIJ is a priority and because of the guidance of the advisory board Sea Grant can become even stronger.

Mr. McLean provided an update on acting positions in NOAA while the agency waits for political appointee nominations and confirmation. Ben Friedman is in charge of NOAA until an Administrator is confirmed. Mr. McLean returned to the role as acting Chief Scientist. General Counsel in NOAA is Walker Smith, a career attorney in the Justice Department. Chief of Staff is Karen Hyun, who is a former Knauss fellow. Letise LeFeir is a Senior Advisor.

With the former governor of RI as the Secretary of Commerce nominee, the blue economy will be a priority. Sea Grant's role is front and center, with an understanding of the impacts and needs with

coastal resilience and climate change; and with research, extension, education and outreach. Mr. McLean said that he appreciates the work that the Board has done in advising the Sea Grant program and then he turned the conversation over to Ko Barrett.

Ms. Barrett said that, on the climate front, NOAA is sprinting every day but it's an exciting time. From a Sea Grant perspective it's good to have an administration that not only focuses on climate but resilience as well. NOAA feels that the efforts of the Sea Grant program have real resonance with the new administration. There is an executive order on racial equity, evaluating who NOAA is and where the gaps are. Sea Grant is one of three programs in NOAA which was surveyed.

Dr. Murray asked about NOAA's potential budget with the new administration. Mr. McLean said that the Hill does seem interested in NOAA, but nothing is certain until the budget is released and appropriations are in place.

Mr. Stirling asked about providing more equity in the federal granting process. Dr. Pennock said that the NSGO is currently trying to determine where there are inequities.

Dr. Helmuth said that there needs to be a connection between resilience and DEIJ. Identifying metrics to include social justice are important.

Mr. McLean reminded the Board of the work from Virginia Sea Grant that developed a coastal plan in an underserved area. It was about equitable distribution of services. Having a means of counting where and how we have an effect on these communities is important. Seeing how Sea Grant can distribute their efforts will be very helpful.

Dr. Grau asked if NOAA would be looking at the migration to the coast and the pushing out of communities and the increasing exclusion both socially and economically. The fishing community is being pushed out. In terms of resilience and equity and inclusion, this is a major area that Sea Grant should be looking at. Ms. Barrett said that the Department of Commerce would be interested in that perspective.

Mr. McLean said that an important consideration is looking at the eventuality of their current satellite detection and a model to see hurricanes before they form - a better warning; if they don't see it then they don't trust it. Many private industries are working on this, so someone needs to look at the government regulations about providing clearer public information.

The Board continued with a conversation on increasing DEIJ and working more closely with Historically Black Colleges and Universities and Minority Serving Institutions. Dr. Pennock said that this would be a large part of the discussion for tomorrow's meeting with the Board.

3:30-5:00pm – Strategic Directions for Sea Grant (Brian Helmuth and Jonathan Pennock)

Dr. Helmuth and Dr. Pennock began the discussion by thinking about the impacts of Sea Grant's work through the CARES Act. He said that the funding was useful, but capacity across programs will continue to be an ongoing issue and "one and done" funding is not sustainable.

Ms. Stirling said that natural disasters were also increasing and Sea Grant needs to find a way to address those. She suggested focusing on partnerships with FEMA and HUD to address sustainability for coastal communities dealing with extreme weather. Dr. Grau suggested adding someone with that type of expertise to the Board - such as someone from HUD or World Resources Institute.

The Board discussed ways in which the pandemic increased the use of technology and the ways in which Sea Grant operates. It identified new opportunities through technology, but also gaps and problems. Concerns with increased use of digital technology can leave many communities behind. Sea Grant has always been "on-the-ground" so it must not rely solely on that until there is good broadband capacity for all stakeholder communities. This led to a conversation about ensuring the work you're doing, and the partners with whom you are doing it are effective. There was consensus that Sea Grant needs many more extension people on the ground, and ways to efficiently get relevant information to *all stakeholders*. Sea Grant has been a leader in DEI, and needs to do even more so now. Partnerships with FEMA at the national and local level are important, but lack of capacity gets in the way of this.

Dr. Helmuth asked how Sea Grant can find its niche and the right partners to help communities in need. The Board agreed that Sea Grant should continue to invest in graduate fellowships and education to train the next generation of Sea Grant/NOAA employees. The Knauss Fellowship trains outstanding coastal science and policy graduates, but there is still a lack of diversity in the program. Dr. Mace said that the idea is looking at fellowship programs and arranging for additional tours of duties. Get funding from agencies to pay for fellows, then there's a direct hire of savvy people who have already had experience and being brought back as another opportunity how Sea Grant plays with other agencies. Dr. Pennock said that this was the idea behind the direct-hire language, but the addition of additional tours of duty is intriguing.

The Board then discussed how to continue to keep Sea Grant as the established trusted source for convening all stakeholders to encourage co-production of solutions. Dr. White said that some universities were hiring community engagement staff to do that. The Board agreed that this is what Sea Grant does effectively and should continue to engage with community leaders, researchers and other stakeholders to identify the best strategies for inclusion.

Meeting Adjourned at 5:00pm

Day 3 - Thursday, April 15, 2021

OPEN TO THE PUBLIC – 1:00pm – 5:00pm ET

Roll Call:*Members of the National Sea Grant Advisory Board (Board):*

Mr. Dale Baker, Dr. Peter Betzer, Dr. Paulinus Chigbu, Dr. Carole Engle, Dr. Rosanne Fortner, Dr. Gordon Grau, Ms. Judith Gray, Dr. Brian Helmuth (Chair), Dr. Amber Mace, Dr. Jim Murray, Ms. Kris Norosz, Ms. Deborah Stirling (Vice Chair), Dr. Jonathan Pennock – (*ex officio*) Director of the National Sea Grant College Program (NSGCP), Dr. Susan White (*ex officio*), President, Sea Grant Association (SGA),

Others NSGO staff in attendance:

Ms. Susan Holmes - Designated Federal Officer (DFO) for the Board, National Sea Grant Office, Ms. Donna Brown – Project Administrator, NSGO, Ms. Elizabeth Rohring – (alternate DFO), National Sea Grant Office (NSGO)

Ms. Holmes welcomed the Board and opened the meeting with a few reminders about the virtual meeting platform and provided guidance for the public comment period being held later in the day. She then turned the meeting over to Dr. Helmuth, who called the meeting to order and went over the agenda for the day.

1:15 – 1:30pm – Board Executive Committee Nominations (Brian Helmuth and Deborah Stirling)

Dr. Helmuth kicked off the first order of business, which was a review of how the Board selects nominees for the Executive Committee. There will be three open positions on the Executive Committee come January 2022. In order to fill these positions, the Board will first need to nominate and vote for representation on the Nominating Committee for determining Executive Committee membership. The Nominating Committee, of which Dr. Helmuth is the chair, should be made up of three representatives (a chair and two reps) so I need at least two other people to volunteer. The Executive Committee positions that will be opening up in January 2022 include the Current Chair, Past Chair, Vice Chair and one Member-at-Large position. The positions serve a two year term starting January 1, 2022. Those who volunteer to be on the Nominating Committee can't be considered for one of the positions of the Executive Committee.

Volunteer's include: Ms. Gray, Dr. Chigbu, Dr. Mace, Dr. Baker and Dr. Helmuth (Chair).

Dr. Helmuth asked for a motion and then vote to approve the volunteers for the Nominating Committee:

Amber Mace

2nd Brian Helmuth

Vote: All in favor

Ms. Gray asked for clarification of the process. Ms. Rohring explained that the Sea Grant legislation and Congress states that the Board should have this committee. There are five positions on the Executive

Committee – current Chair, Vice Chair, past chair and two members at large. The past Chair rolls off and the current Chair becomes the Past Chair. The Vice Chair becomes the Chair. The past Chair has to select the new Vice Chair. The Executive Committee participates in one monthly meeting. The Chair and Vice Chair participate in two monthly meetings, one is the Executive Committee meeting and the other is with leadership from the SGa and the NSGO. As Chair and Vice Chair, you become a part of the SG leadership discussions with Jon Pennock, Kola Garber (NSGO), Susan White and Darren Lerner (SGA). The DFO also participates in these calls. The Executive Committee will need to do a little more leadership whenever the national office sends a Charge to the Board. For the Biennial reports to Congress - the Chair will be responsible for writing that letter to Congress. So it's more than just going to two meetings, there's an element of responsibility involved but the NSGO assists with those tasks.

Dr. Helmuth asked those interested in serving to let him know and he will share the names with the committee.

Dr. Helmuth had to leave the meeting, so Ms. Stirling (Vice Chair) took over. She then turned the meeting over to Ms. Gray for an update on the Biennial Report Hill Visits..

1:30 – 2:15pm – Biennial Report Hill Virtual Visits (Judith Gray)

Ms. Gray thanks everyone who worked on the Biennial Report, particularly during the pandemic. The Biennial Report to Congress was released the week of March 16. The report indicates the progress made toward meeting the priorities identified in the current strategic plan. Several briefings are planned to be scheduled for the Senate Commerce committee, House Resources, House Science Committee and the Appropriations Committees, in addition to DOC and NOAA leadership. Ms. Rohring said that the Board is looking for people who want to meet with folks on the Hill and would open the discussion for volunteers..

Ms. Stirling said that she and Dr. Helmuth had spoken about going to the Hill and welcome anyone that would like to come along. She added that the Board would like to work with other Sea Grant directors and staff members to do so. The NSGO will work with the Executive Committee to determine who the Board should visit, and will ask that Board members volunteer to meet with representatives from your states.

Ms. Rohring added that the report is currently only in digital form due to the pandemic, but as the visits will likely be virtual, that is fine for now.

Ms. Gray and Ms. Stirling said that they would provide high-level talking points, including the themes of the report for those doing the visits. Ms. Stirling said that she planned to visit Sens Graham and Scott.

Dr. White said that the Directors have found that bringing in stakeholders or students to talk to the Hill staff is very effective. Ms. Stirling said that is a great idea as long as it is not seen as lobbying - but since the stakeholders would be emphasizing what is in the report, the Board could do this.

Dr. Murray suggested that the NSGO do a news story about the report to coincide with the Hill visits.

The Board discussed the changes from a biennial report to a “periodic” report. Dr. Pennock said that the next report will be due in four years, however the reauthorization language discusses intermediate reports. Ms. Norosz said that it would be beneficial to talk to the Hill staff to ensure that the report is providing the information that they need.

Ms. Gray said that she would be available to the next Report Committee chair. Ms. Stirling thanked her for her strong leadership, the final product, and for continuing to raise the bar of excellence for the report.

2:15 – 2:30pm – Public Comments (Susan Holmes)

Ms. Holmes stated that FACA rules require the Board meeting to have a public comment period. There were no comments submitted virtually, and no one on the virtual call asked to submit a question. Ms. Holmes ended the comment period after 15 minutes without response.

2:30-2:45pm – Break

2:45 – 3:15pm – Education Discussion (Rosanne Fortner)

Dr. Fortner brought up the question of equity in environmental literacy education in Sea Grant. Dr. Fortner described some characteristics of K-12 and Informal Community Education within Sea Grant, including who the Sea Grant educators are and how the Educators are positioned within their programs.

There are 77 Sea Grant educators in 34 Sea Grant programs. In a fall survey they received 73 responses. More than twice of the respondents say they directly report to an extension leader (33%) than to an Education Director / Coordinator (13%). Sea Grant programs have different funding structures and in those programs you would expect that the educator's salary is covered. In most cases it is, but that varies depending on the program. As many as 37% of the educators have to cover part of their own salary.

How long have these people served Sea Grant? There's lots of talent, but many are new to Sea Grant and professional development and networking would help in their new roles. Because of the level of funding, they are able to do some internal networking, but outside the region is rare and a few say they get that cooperation. Outside of the regions they partner with other agencies when possible, for partnerships and other collaborations to get external funding.

Travel for Networking and Professional development – Only 32% and 21% of respondents typically received support to attend National Marine Educators Association (NMEA) and Sea Grant Week meetings because of travel restraints. It is not uncommon for them to share rooms and rides in order to attend these meetings because of no funding. This is a sad situation and still Sea Grant is making a huge impact. The National Science Foundation (NSF) didn't have enough money to support COSEE Great Lakes

Literacy in 2012. They put together a story map and the stories demonstrated that the networked program not only affected people, but resources.

Environmental Literacy Development – People’s stories have a great impact. The metrics of Sea Grant education are always under scrutiny. Educators know these metrics are an issue, so there will be a lot of attention to this in the future. Educators are in search of better metrics; counting is easy but the impact is deeper than that, so they and Sea Grant continue to search for better metrics. We don’t need to reinvent the wheel, we need greater support (time and funds are a priority) in order to do these to make us strong and better networked. The terms that educators use to describe work in a word-cloud include meaningful, relevant, and everything important to a child, including creativity and innovation.

How can we optimize the potential of environmental literacy education in Sea Grant? Renew commitment to education as the way to grow a program and elevate the education for that work-force in the future. There is a need to bring in an education voice to the network Directors’ Advisory group, clarify the valued role for the program and expectations. Sea Grant needs to support professional development and networking for K-12 community educators, they need to be at the SGA meetings and NMEA at a minimum.

Summary: Status of environmental literacy in Sea Grant – There are a cadre of great educated and dedicated leaders in Sea Grant. The range of experience requires sharing and networking, including professional development. The hope for this session is to recommend a program-wide system in environmental literacy, to put in place a program that would give their support.

Dr. Helmuth thanked Dr. Fortner and opened the meeting up for questions from the Board.

Dr. Pennock said that the educators need to follow-up on some of the things that Dr. Fortner discussed and it's really critical to the programs to get engaged. He added that he knows that the NSGO does not have the capacity currently to provide the support that the Sea Grant Education Network (SGEN) needs, but that they are leaders in their field. The NSGO is currently looking at planning for increasing the capacity, but he would like to see this conversation with the Board develop into more action - something that the program directors would listen to.

Dr. White said that the director’s may be aware of this in reference to the professional development survey and it’s a good way for the SGA to build on that.

Dr. Grau said that the pandemic offered an opportunity to show that teachers are greatly overworked. He suggested that the NSGO can partner with the NOAA Office of Education to get funding for this and engage other partners as well.

Dr. Helmuth thanks Dr. Fortner for her presentation and efforts.

3:15 – 4:45pm - Resilience and Social Justice Discussion (Deborah Stirling, Paulinus Chigbu, Dionne Hoskins-Brown (NOAA/NMFS SEFSC) and Mona Behl (GA SG Program))

Dr. Helmuth said that the next session has resulted from a number of conversations about how the Board can implement action on resilience and social justice. There have been a lot of suggestions since the executive orders on both resilience and social justice, but Sea Grant needs to see how they are hand-in-hand. Several members of the Board reached out to experts in the network and beyond to discuss the current state of affairs to make sure that everyone on the Board better understand the situation, and can help Sea Grant move forward with a path to implement action.;Dr. Helmuth then turned the meeting over to Ms. Stirling.

Ms. Stirling set the context of the resilience discussion session by a review of the Executive Order (EO) entitled: Tackling the Climate Crisis at Home and Abroad - Executive order 14008. The EO takes a comprehensive and forceful approach, it marshals resources across all agencies , and focuses on resilience and adaptation, prioritizes environmental justice along with economic development & environmental cleanup across all sectors and it sets the deadlines for measuring accountability. EO 14008 created a climate Policy Office within the Executive Office of the President and created a national climate task force, who has asked everyone to put together a climate action plan, NOAA to provide improved climate forecasting and other public information products.

Securing Environmental Justice and Spurring Economic Opportunities. section 219 is focused on achieving environmental justice as part of all agency missions; addresses adverse human health, environment, climate, and other cumulative impacts on disadvantaged communities, it creates a White House Environmental Justice Interagency Council in the Executive Office of the President and a separate White House Environmental Justice Advisory Council in EPA which is citizen-based and recommendatory.

Environmental Justice (E.J.) Interagency Council Mission - Is to address the current and historic environmental injustice with the Advisory Council and local environmental justice leaders. Develop clear performance metrics to ensure accountability. Publish an annual public accountability scorecard by February 2022, that will include all agency performance measures. There is a great deal of focus on metrics embedded in that order.

Dr. Pennock added that the NSGO is deeply engaged and in line with a lot of the bullets Ms. Stirling talked about.

Dr. Helmuth then turned the meeting over to Dr. Chigbu.

Building Coastal Resilience and Delivering Environmental Justice in All Communities (Paulinus Chigbu)

Dr. Chigbu gave an overview of the conclusions he found when building coastal resilience and delivering environmental justice to communities.

Natural and Anthropogenic Impact of Coastal Hazards will increase with climate change. The greatest impact will be in under-served communities. To build coastal resilience, there needs to be collaboration

with experts in various disciplines, engagement of stakeholders and input from all communities, and education and outreach to the communities.

In addition to using education and outreach to inform communities, our mission is to prepare a diverse student body for careers in marine and fisheries sciences. The first goal is to prepare the future workforce for marine and fisheries sciences, and the second is to strengthen collaborations across universities. Our students experience many center-wide educational opportunities and their education continues beyond the workshops. Through these various workshops, it has helped to create relationships with other programs which is a requirement of our funding that every student must spend some time at NOAA facilities. So we have many scientists over the years who have taken advantage of those opportunities. We established a hub for training a diverse coastal and marine science workshop and have partnered with several universities (University of MD Eastern Shore, Delaware State University, Hampton University, etc.) and have been supported by the NOAA Educational Partnership Program with Minority Serving Institutions under the Cooperative Agreement No: NA16SEC4810007.

Four NOAA EPP Cooperative Science Centers - there are four of them (1) Living Marine Resources Cooperative Science Center (LMRCSC). The Center for Coastal and Marine Ecosystems (CCME) – (Coastal intelligence, coastal resilience, place based conservation, NOAA Center for Atmospheric Science & Meteorology (NCAS-M) – (Resilient Communities, weather extremes and climate). Center for Earth System Science & Remote Sensing Science Tech. (CESSRST) – (Coastal resilience, weather prediction and ecosystem services). Our mission is to prepare a diverse student body for careers in marine and fisheries sciences through exemplary academic and research collaborations and to focus on areas such as stock assessment, climate and ecosystems, safe seafood and aquaculture, etc. (Goal 1) – Prepare the future workforce for marine and fisheries sciences, (2) Strengthen collaborations across universities to enhance academic programs in marine and fisheries sciences, (3) Develop an exemplary capacity for scientific collaborations among partner institutions in the fields of marine and fisheries sciences and (4-6) Effective and efficient management, communication, assessment and evaluation of center programs and activities.

We have set up a lot of opportunities for students in order for them to have a wide range of experiences. We have programs such as the Cohort Experience Workshop for graduate students, NOAA Experiential & Research Training Opportunity (NERTO), lots of student internships, professional development seminars and on-campus research opportunities for undergraduates. The Cohort Workshop is a 5-day workshop with a joint collaboration with NOAA & LMRCSC scientists who trains students in four NOAA-Fisheries focused areas. So we have lots of engagement with NOAA Scientists in training these students. Dr. Cisco Werner who is the LMRCSC Technical Monitor and Technical Advisory Board (TAB) Chair. Sam Rauch, Deputy Administrator for Regulatory Programs is the LMRCSC Technical Advisor and fifty-three (53) NOAA science collaborators who mentors students during NERTO, student thesis committee members, TAB members and instructors, etc.

LMRCSC Accomplishment and Impacts on the Society - LMRCSC has accomplished a lot and some of the examples of the impacts it has had on the society is that the program has graduated 600 students and

some now work at the universities, NOAA, EPA and other agencies. So we've had 388 who have graduated with a B.S./B.A., 158 M.S./M.A. and 54 Ph.D. Over 130 research projects have been funded since 2004, which has enhanced our knowledge of the biology and ecology of 20 spp. of finfish, shellfish and protected species. Since 2015, 10 students have received Knauss fellowships and worked at various agencies and 12 LMRCSC alumni employed at NMFS.

Contributing to Diversity in NOAA Related Sciences - 54% of all African-Americans were awarded PhD degrees in atmospheric sciences, 35% of African Americans awarded PHD degrees in marine science, 30% of African-Americans awarded PhD degrees in environmental science, 21% of all Hispanic PhD degrees in atmospheric sciences, 39% of all Hispanic PhD degrees in marine science and 19% of Hispanic PhD degrees in environmental science. We can end with the process for building coastal resilience is important from project selection, engaging stakeholders, and representatives from communities.

Building Coastal Resilience and Delivering Environmental Justice - The process for building coastal resilience is important. Projects are selected based on restoration or remediation needs. Build partnership with MSIs (students, scientists) to reach under-served communities. There is a selection of experts and stakeholders, as well as representatives from communities. There are independent and diverse panel of experts to review project plans. There are an adequate number of Sea Grant Extension Agents to reach under-served communities, but are interested in partnership with Land Grant Extension Agents.

Dr. Helmuth then turned the meeting over to Dr. Hoskins-Brown.

The Gullah Geechee Cultural Heritage Corridor NHA and the Imperative of Economic Resilience for Cultural Preservation (Dionne Hoskins-Brown, Fishery Biologist, NOAA SEFSC)

Dr. Hoskins-Brown said that Sea Grant has supported her throughout the years, including support from the GA Sea Grant board, who has also helped her throughout her career. She said her presentation was to give some examples of issues around environmental injustice surrounding Executive Order 14008. Gullah Geechee Corridor (A National Park Service National Heritage Area) was sponsored in 2007 by Senator Jim Clyburn and was passed by Congress to establish the Gullah Geechee Corridor. If you sat around a campfire roasting marshmallows, then you've been introduced to speaking Gullah. Gullah being identified as its own language came about by Dr. Lorenzo Dow Turner and it wasn't familiar to him but the students learned from it. In 1929, he taught summer courses at SCSC, in 1933 he recorded Amelia Dawley in Harris Neck, GA and in 1949 he published "Africanisms in the Gullah Dialect".

Part of our management plan is our implementation of that plan. Impacts that are coming into communities are not just sea-level rise but also coastal re-identification. The impact of this conversation is how to look at resilience and what's the impact – (hurricane Katrina case study) Areas heavily impacted by hurricanes include NC, SC, GA and Florida. After hurricane Irma in 2017 Sapelo Island there were hurricanes emerging in Florida countries such as Cosmo and St. Augustine. So there's a need for resilience in these communities and to foster conversations if they aren't already having them.

Dr. Hoskins-Brown provided background on some of the Gullah Geechee traditional lands and how gentrification has impacted the residents. Sapelo Island was bought by Thomas Spaulding in 1802. The consequence of coastal gentrification is that there were now no schools, no services, but a 500% tax hike on the island – so you have a lot of communities fighting just to stay on the land. Private Docks Bypassing Review became an immediate threat to the historical Hogg Hummock Community on Sapelo Island.

Dr. Hoskins-Brown also talked about how traditional areas were not set up to receive funding from organizations like FEMA. People lived on family lands, and the title transfer of these was more of a social agreement than legal one. When a hurricane would hit, people would load up their vehicles and wait until you could return. If you needed federal assistance, you may not have had the documents needed to get it. So when FEMA sets policies in place that works against economic resilience when dealing with disaster assistance, such questions are asked as - Why do I have to prove who owns my home, how does FEMA verify home ownership, what documents can I use to prove home ownership and what must those documents show, and if you don't have any of these documents then what's next. If people in these communities didn't have it, they didn't recover - policies like this work against social resilience. This is not an unusual case; inequities like this that have met challenges in the midst of the power struggles. This group developed an educational program for Social Science Research Documenting Community Resilience. It worked with the class collecting histories and management plans that would accommodate all the goals being met. What they found while listening to folks in Harris Neck is that ideas of self-sufficiency are key in being able to work on your own. In order to encourage work within a network that supports community organization, cultural, coastal and environmental preservation is key. Georgia Sea Grant has been great in this area. If we support cultural interpretation and policies that assist business owners and collaborate with them, we can recognize mistakes we made in the past, and we can help support changing environmental injustices.

So there is a great need for resilience strategies for ALL communities and not just some.

Resilience and Social Justice Discussion (Mona Behl, GA Sea Grant)

Dr. Behl gave an overview of SGA and Georgia Sea Grant activities, including the network diversity, equity and inclusion (DEI) visionary process and report. Sea Grant cultivates a culture of belonging wherein every Sea Grant professional and program is committed to promoting diversity, equity, inclusion and justice (DEIJ). This vision is achieved by proactively recruiting, retaining, advancing and preparing a diverse workforce; removing barriers that have historically limited access to Sea Grant opportunities in research, extension and education; progressing equitable access to resources and decision-making processes; and engaging and serving communities, partners and stakeholders that are representative of the demographics of the places where our programs operate. There is also a community of practice to continue the work.

Dr. Helmuth opened the meeting for questions from the Board. Ms. Gray said that, while Sea Grant doesn't have all of the answers, we have incredible mechanisms for engaging with communities and in partnerships. Dr. Mace thanks the panel for the tremendous work that they are doing to work through

these barriers. She said that the conversations and materials provided expanded her knowledge, and she looks forward to continuing the discussion to move forward in a supportive way.

Dr. Helmuth said that the Board would like to create a committee to work with the DEI network, experts like Dr. Hoskin-Brown and Dr. Behl, and others in the Sea Grant network and academia, to move this conversation and subsequent actions forward. In Sea Grant reporting structured metric and resilience is not officially a part of the process – so the Board will need to look into these and help define better ways to support the network.

Dr. White said that there are great barriers for enhancement and improvement. There's a lot going on in the network and this practice is very much engaged, but what the SGA does not want is "just more reporting". If Sea Grant, as a whole, can become integrated in communicating, then she believes that the network will look forward to working with the Board on this.

Dr. Helmuth said that he would work with the Executive Committee and Ms. Holmes to put together a charge to the Board. Dr. Helmuth also asked what the next steps were to move forward on developing recommendations on Dr. Fortner's education concerns. Dr. Pennock said that Dr. Fortner is already engaging with the NSGO and SGEN to move the topic forward, and that it is important for the right people to be on the same page.

Dr. Engle said that it is important to include aquaculture educators in the conversation as well.

4:45 – 5:00pm – Discussion – Next Steps (Brian Helmuth)

Dr. Helmuth thanked the participants and looks forward to seeing everyone during the summer meeting.

5:00pm – Meeting Adjourned