

FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

**Marathon Garden Club, 5270 Overseas Highway, Marathon
Tuesday, April 15, 2008**

MINUTES

Members Present

Chris Bergh
Jeff Cramer
Jack Curlett
Jon Fajans
Dolly Garlo
Richard Grathwohl
Susan Hammaker
David Hawtof

Bob Holston
Jerry Lorenz
Martin Moe
Ken Nedimyer
George Neugent
Bruce Popham
Jim Trice

Alternates Present

Jason Bennis
Rob Bleser
Jana Fly
Peter Frezza
David Makepeace
Corey Malcom

Bob Smith
Cal Sutphin
David Vaughan
Donald Way
Scott Zimmerman

Call to Order/Roll Call/Approve Minutes from February 19, 2008 Meeting/Adopt Agenda for this Meeting/Chairperson's Comments, Introductions--Bruce Popham, Chair

Chair Bruce Popham called the meeting to order at 9:04 AM. Bob Holston moved that the minutes be approved, seconded by Commissioner George Neugent. The motion passed unanimously. Dolly Garlo moved that the agenda for this meeting be adopted, seconded by Ken Nedimyer. The motion passed unanimously.

Chair Popham recognized Leigh Espy, Chief of Staff for the Florida Keys National Marine Sanctuary, who was filling in for Superintendent CDR David Score, National Oceanic and Atmospheric Administration (NOAA). She provided regrets for CDR Score and Billy Causey. CDR Score and others are at a meeting related to small boat acquisition, maintenance and policy. Ms. Espy announced that the following people have been reappointed to the Sanctuary Advisory Council (SAC): Chris Bergh, member, Conservation and Environment [2nd of 2 seats]; Jerry Lorenz, member, South Florida Ecosystem Restoration; and Jim Sharpe, alternate, Fishing - Charter Sports Fishing. Two people have been appointed to initial terms on the SAC: Susan Ford Hammaker, member, Tourism - Upper Keys; and David Makepeace, alternate, Citizen at Large - Upper Keys.

Chair Popham commented on the commitment to both the sanctuary and to process in the group, and thanked everyone for their commitment. People around the table then briefly introduced

themselves; some highlights follow. Jim Trice, the member for the Recreational Fishing seat, noted he is a member of Bonefish & Tarpon Unlimited, and has interests in the Everglades general management plan revision and protecting seagrass, particularly a seagrass flat off of Islamorada, which may warrant discussion at a future SAC meeting. Susan Hammaker, the new Tourism - Upper Keys member, said she wears both a public and a private hat; she is a Key Largo Wastewater District commissioner, and chair of the Florida Keys Wastewater Assistance Foundation. She has dealt with tourism issues a lot in the past, including public water management and water rights across four states. David Vaughan, the alternate for Research and Monitoring, and director of Mote's Tropical Research Laboratory, will be hosting a directors' retreat the Florida Keys Eco-Discovery Center two days in April. Martin Moe, Education and Outreach member, said there will be a meeting April 29 at the sanctuary's Marathon office of the SAC Education and Outreach Working Group. Carrie Backlund, of the U.S. Navy, said she is representing the environmental division of the Navy at these meetings. Scott Zimmerman, Fishing - Commercial/Shell Scale alternate and Executive Director of the Florida Keys Commercial Fishermen's Association said one of the things they are working on right now is a best fishing practices video. Commissioner Neugent, the Elected County Official member, introduced two people in the audience, Mike McCleary, a new employee of Reef Relief; and Glenn Patton of the Sanctuary Friends Foundation of the Florida Keys. Chair Popham said one of his goals as Chair is to have alternates participate in as many meetings as possible; this participation helps in being up to speed if there is ever a need to vote. Also, alternates can participate in discussions, and communicate back out to constituents; they just cannot vote if the primary member is in attendance.

Superintendent's Report--Leigh Espy, Chief of Staff, FKNMS

Ms. Espy, on behalf of CDR Score, thanked everyone for their support in the weeks following the passing of staff member Rusty Mason. The support and friendship is much appreciated. Moving on to recent sanctuary activities, she said the *Lady Luck* and *Legacy* have both been removed. Restoration plans for the *Legacy* are pending. The sanctuary Education staff has had a busy month promoting the sanctuary at festivals season, and has some Earth Day events to attend. She recognized the SAC Ecosystem Restoration Working Group and sanctuary staff for their hard work on the March 25 workshop. There is a climate change workshop for resources managers at Pigeon Key April 18-21; all of the SAC is invited to a Friday evening reception. Mr. Holston added that RSVPs need to be made by April 17, and that the reception invitation was from the National Marine Sanctuary Foundation. Mr. Bergh noted managers from around the Caribbean, Florida and NOAA would be attending, and discussing how to deal with coral bleaching. Ms. Espy also announced that on April 22 and 23 the Florida Reef Resilience Conference will be held. Regarding the sanctuary regulatory process, things that came out of zoning workshop will be followed up on, and high on CDR Score's radar is the "no discharge" rule and moving forward with discussions on Wildlife Management Areas. Those were high priorities that came out. She encouraged the SAC to help him prioritize regulatory issues, resources, staff, etc. For upcoming SAC meetings, she asked the SAC to confirm locations and preferences. There was general agreement to have the December 2008 meeting in Key West again, at the Eco-Discovery Center, and to have the October meeting at the Ocean Reef Club again. Jack Curlett will check on making arrangements at Ocean Reef.

Agency Report Highlights:

NOAA Office of National Marine Sanctuaries, Southeast Atlantic, Gulf of Mexico, and Caribbean Region--Leigh Espy

Ms. Espy talked to Dr. Causey briefly prior to this meeting; he sent his regrets, as he had professional and personal conflicts to attending the meeting. One of the things happening in the region is the ONMS and the NOAA National Marine Fisheries Service are working together on the "Islands in the Stream" concept.

Florida Department of Environmental Protection (DEP) Report--Kent Edwards (DEP)

Mr. Edwards reported that there is a successor program to Florida Forever being discussed; the state Senate bill may get a vote this week; there is no state House companion bill yet. A successor program may be established by next year. There is another bill in the legislature, now on improving coastal water quality; it also may possibly become law next year. On December 2, there will be a Gulf of Mexico Alliance meeting in Corpus Christi, looking at such things as water quality, flow out of the Mississippi River, and the "Islands in the Stream" concept. Regarding the sinking of the *Vandenberg*, sanctuary staff members are in contact with Reefmakers and there are several agencies involved in making sure the vessel is cleaned up safely. It must pass U.S. Coast Guard and U.S. Environmental Protection Agency (EPA) inspections before it leaves Virginia. If all conditions in the agencies' permits are met, it will be a good place to dive. At this point, he is not sure that it will be towed to Key West and sunk this spring, as it is still being cleaned.

Mr. Holston asked about an issue in the Gulf regarding flushing an aquifer and salt reserves, which could produce discharge 10 times the salinity of the ocean, and wondered if Mr. Edwards had heard anything about it. Mr. Edwards said he saw the article, but does not know any more about it. Mr. Holston said there could be a direct upstream impact on us, and Chair Popham asked Mr. Edwards to follow up for the SAC on this.

Florida Fish and Wildlife Conservation Commission (FWC) Report -- Capt. Laurie Luher (FWC)

Capt. Luher reported that the Card Sound Road cleanup took place over the past weekend, with John Ricisak of Miami-Dade County. A number of traps and debris were removed, and approximately 50 volunteers assisted. The next phases will occur in May and June, and law enforcement issues will be addressed. She said Mr. Ricisak asked if he could come to the June SAC meeting to give a presentation on the cleanup. In response to a question, she said the plan is to charge Card Sound squatters with littering, squatting, stealing power, etc.; they are working with Monroe and Miami-Dade Counties on it. Eighty percent of the people have moved out; some have gotten lawyers but have not produced titles to the property. In response to a question from Mr. Curlett, she agreed at some point in time, they can legally remove the domicile.

The Historical Society out of Tallahassee is working with law enforcement officers to retrieve a historical anchor April 22 near the Coast Guard base. A "no discharge" meeting is planned on April 17 with Rich Jones of Monroe County on no discharge zones. May 3 is the FWC kids' fishing clinic, on Summerland Key. Last week, a special response team came and assisted a SWAT team in a domestic disturbance on a vessel, involving weapons; officers removed and

arrested the male suspect and made sure the female was OK. A drifting gill net, which was then secured to a buoy, was picked up and removed. It appeared to be a rogue net that drifted in. MySpace showed two people skinning an alligator; they were later arrested with alligator parts in their house. The *Vandenberg* sinking will absolutely not in be in May, as scheduled; she talked to someone from Reefmakers and confirmed this. Reefmakers knows they may not bring the vessel down after June 1, when hurricane season begins.

Richard Grathwohl said that the Florida Guides Association is quite concerned with budget cuts affecting FWC, and they have called upon themselves to endorse the raising of the vessel registration fees. Capt. Luher stated there are nine officer vacancies now; we will get four after they finish training (it will be after the lobster and hurricane seasons). Fifty three existing positions statewide were not funded by the legislature. Mr. Bergh said this is the first he has heard of the Fishing Guides Association supporting the raising of fishing registration fees to offset losses of state revenue. As it is a little complicated, he would like to get something to people about it to read and possibly vote on. Mr. Hunt said those kinds of things require legislative approval, and it is too late for this year. But planning for the 2009 session has already started. FWC has been consulting with stakeholders about recreational licenses, and the agency put in for the removal of the shoreline exemption for recreational licenses into the legislature request, but it did not do well. Mr. Lorenz added the same situation has been going on with Everglades National Park, and they have been working on it three years, but it is a tough fight to get fees raised, requiring a lot of work. Capt. Luher said that with the trickle down effect, they are getting more calls for service and are being asked to have law enforcement officers go farther. Fuel is expensive, too.

FWC, Fish and Wildlife Research Institute Report (FWRI) -- John Hunt (FWC, FWRI)

Mr. Hunt noted his written report and two power point presentations were provided to the SAC by Lilli Ferguson. He will give a mutton snapper stock assessment report later in the meeting.

U.S. Fish and Wildlife Service (USFWS) -- Anne Morkill, USFWS

Ms. Morkill did not provide a report at this point in the agenda as she was scheduled to provide an overview report on Refuge activities later.

U.S. Navy (USN) Report -- Carrie Backlund (USN)

Carrie Backlund said that people are welcome to come to the Navy's Earth Day cleanup on Geiger Key April 19 from 8 AM-12 PM.

Chairperson's Comments, Cont. -- Bruce Popham

Chair Popham announced that he and Ms. Ferguson are going to a national chairs and coordinators meeting next month, and he asked if there was anything the SAC wanted him to carry to the meeting, besides the money issue. Dan Basta will be there. Mr. Lorenz suggested that the website be discussed. He understands there are issues at the national level, and no funds for it. Mary Tagliareni said she is meeting with Karrie Carnes on April 17 about it. The standards come from Office of National Marine Sanctuary headquarters, and we need to work on posting documents and information, and we are making progress on it. Updates are influenced by bandwidth, format, file sizes personnel resources, etc. It is a big site, and it takes up a lot of space on the server. Mr. Bergh commented that the more dynamic the site, the better, and that

presentations would not need to be there forever, or possibly they could be posted on another organization's web site. Jason Bennis added that perhaps other sanctuaries' web sites, if innovative, could be mimicked.

Mr. Trice asked Chair Popham what the objective of the national meeting is. He said it is to share information, have time with Dan Basta, build relationships, learn what others are dealing with, share individual site concerns, etc. Leigh Espy added that one of the topics will probably be the Capitol Hill visits in February. There were record numbers of meetings with members of Congress this year, including a meeting Mr. Basta had with Congresswoman Nancy Pelosi. Capt. Luher asked if the number of meetings was because the program became the Office of National Marine Sanctuaries, and Ms. Espy did not know, but said it could be because constituent groups are being heard. She added that Capitol Hill Oceans Week is coming up in June, which is another chance for constituents to reach out. Commissioner Neugent noted that there is clearly a lot of cheerleading, but from the standpoint of funding, there have been budget cuts. Ms. Espy responded that it is encouraging that the initial marks are set high, but there are fiscal realities of where we are as a nation. The last few years have gone to the President's mark. Mr. Holston suggested if a list of House and Senate members supportive of sanctuaries were developed, maybe Chair Popham could talk to other Chairs who have contacts with them. Mr. Grathwohl noted that there was the case of a sunken shrimper that led to getting the *Gladding*. Mr. Moe added that sometimes numbers lead to getting things, and it would be good to compare and contrast money put into enforcement, research, etc. in this critical ecosystem. Ms. Hammaker brought up the issue of sewer projects, which are not being funded much. If the words "environmental restoration" were included in a water bill under consideration, it could lead to millions coming to communities later.

Chair Popham requested that Ms. Ferguson forward the topics of the agenda for the national meeting to the SAC. Ms. Espy summarized for the SAC that it is an information exchange and education meeting; not a lobbying meeting. Chair Popham and Ms. Ferguson also noted that there will be a regional case study presentation, focused on marine zoning. The main body of the presentation will be on Gray's Reef National Marine Sanctuary, but each of the sites in the region will be mentioned, and there will be a brief summary of the Florida Keys zoning status.

Public Comment

Joy Boyer of Florida International University provided an update on the Gulf of Mexico Alliance meeting. They are looking for input from groups like this and others on water quality criteria. Also, the EPA is reviewing the Reasonable Assurance Document (RAD). If it is not accepted, we will go into the Total Maximum Daily Loads (TMDLs), which will be difficult. Commissioner Neugent voiced his opinion that he wants to see this pushed forward, to get wastewater infrastructure implemented. Mr. Edwards noted it is not just the locals that are signing off; it is the EPA that will take all of that information from state and local governments to see if the RAD will be accepted in lieu of TMDLs; he has heard there are some concerns, though he does not know what they are, with the RAD. Chair Popham will send Fred McManus an email to ask about status. Mr. Hunt and Mr. Boyer further explained what a TMDL is. A TMDL is for a water body, based on the watershed, with a definition of how much nutrient loading can go into the water body without having deleterious effect on it.

Chair and Vice Chair Election -- Primary SAC Members

The officer election was held, for two year terms to begin in June. Ms. Ferguson announced that the vote for Chair was carried by Bruce Popham, while the vote for Vice-Chair was carried by Ken Nedimyer.

Sea Turtles in Waters Near the Key West Refuge and Marquesas Keys: Threats, Vulnerability, and Mysteries -- Mike Bresette, Inwater Research Group, Inc.

Mr. Bresette said Inwater Research Group, Inc. is a nonprofit organization, and its main focus is coastal species. They have been looking at sea turtles around Florida and in the Keys. His presentation reviewed results about quarterly sea turtle monitoring in the Refuge from 2002-2007. Talking with locals, they came up with a method to look at unit of effort, and ran haphazard, unmarked, nonlinear transects to look for turtles per kilometer of effort. They capture turtles, take data about them, and mark them with external tags, then release them back to area where they were captured. He reviewed data on loggerhead, hawksbills, and green sea turtles, including how many were captured and how many times, days at large, and average growth rate per year. Green turtles were found to congregate in water holes at low tide, possibly for protection. All species were recaptured near where they had previously been captured. The Key West National Wildlife Refuge and the Marquesas were found to be important for habitat, and the area west of the Marquesas is internationally significant for subadult and adult green turtles. The turtles have a low prevalence of fibropapillomatosis there. Future conservation measures that he advocated included special protection for this habitat; continued monitoring of sea turtles in the Refuge; continued study of fibropapillomatosis, and satellite tracking of turtles; and continued vigilance in protecting submerged aquatic vegetation, patch reefs and sponge habitat in the Refuge.

Jeff Cramer said he fishes in the middle Keys, and has not seen turtles with fibropapillomatosis in several years; in the past he saw turtles in Hawks Channel that had it. He sees turtles in the same place every year--there are hundreds at Alligator Reef.

Mr. Moe asked if the algae blooms would have any effect on turtles in Florida Bay. Mr. Bresette said he would have to defer to the people studying that area, but sponges provided habitat for lobsters and other things that loggerheads eat. Mr. Bergh asked if they saw evidence of high site fidelity for green turtles in seagrass, and Mr. Bresette said they did see evidence of that. Mr. Lorenz asked if the USFWS would be continuing the funding, and Mr. Bresette said it was a one-time program which is now completed. In-Water Research is looking for private funding, and will be approaching the National Marine Fisheries Service. If anyone has ideas, he asked them to let them know. A possible letter from support from the SAC was discussed.

Mr. Lorenz read and moved a resolution (drafted over lunch time and presented after lunch), seconded by Mr. Trice, in support of Inwater Research. It passed unanimously on roll call vote:

**FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL
RESOLUTION
April 15, 2008**

WHEREAS, Inwater Research Group Incorporated, a nonprofit, 501(3)(c), has conducted a three-year pilot study of the sea turtle use in and around the Key West National Wildlife Refuge, and has made several, unprecedented scientific discoveries regarding sea turtle biology and habitat use; and

WHEREAS, these discoveries indicate that this area of the Florida Keys National Marine Sanctuary is of regional and international importance to several species of sea turtle; and

WHEREAS, this project shows great promise to adding to our understanding of the importance of the Florida Keys National Marine Sanctuary and habitats for these protected species; and

WHEREAS, funding for these projects expires in September, 2008;

THEREFORE, it be resolved by the Florida Keys National Marine Sanctuary Advisory Council that a letter be drafted by the Superintendent in support of the Inwater Research Group in acquiring further funding from any governmental or nongovernmental funding source.

Passed unanimously on this date: April 15, 2008.

The Council is an advisory body to the sanctuary superintendent. The opinions and findings of this publication do not necessarily reflect the position of the Florida Keys National Marine Sanctuary, the National Oceanic and Atmospheric Administration, the Florida Department of Environmental Protection, or the Florida Fish and Wildlife Conservation Commission.

Education/Outreach Presentation -- Mote Marine Laboratory, David Vaughan, SAC and Mote Marine Laboratory

After a brief introduction by Mr. Moe, David Vaughan provided a brief review of Mote Marine Laboratory's facilities, then of its education programs. Mote's main campus is in Sarasota, and the Tropical Research Laboratory is on Summerland (originally established in 1993 on Pigeon Key). Mote has over 1000 volunteers in Sarasota, most doing public outreach in the aquarium. Mote focuses on three areas: Science, Education and Aquarium (SEA). Most visitors are familiar with the aquarium, some with education, and not as many with the science. Mote has a number of specialized science centers. The Center for Coral Reef Research is located in Summerland, and has programs in coral reef science, monitoring, microbiology, and reef restoration. They have education programs and summer camp programs, and lend support to other student programs. There are also advanced courses for professionals, and, in Sarasota distance learning and telepresence programs. Also, there is mobile aquarium, traveling exhibits, and the living reef exhibit at the Florida Keys Eco-Discovery Center in Key West. The Protect a Reef license plate fees provides funding for science, conservation and education and outreach. About 2/3 of the proposals in the past few years have been in the science area, so proposals for

education and outreach would be welcomed. Ms. Morkill mentioned a great collaboration Mote's Center for Ecotoxicology has with the Key Deer Refuge and the Mosquito Control District on mosquito control adulticide studies and ecological risk assessments, in both marine and upland areas.

FKNMS Algae Bloom Workshop Synopsis -- Scott Donohue, FKNMS

Scott Donahue provided handouts summarizing the recent algae bloom workshop (summary was a draft, to be finalized soon). The main goal of the workshop was to determine if FKNMS current natural resource damage assessment restoration and monitoring protocols need to adapt to changing conditions from algae blooms. Bloom histories and other issues need review. He explained what the algae, *Synechococcus*; it is a very small, one-celled cyanobacterium, and is free floating and widespread, and is always in the water column. It is not directly toxic, but can be harmful. The workshop also reviewed what scientists do know now, since the earlier blooms in the early 1990s, that can help the FKNMS staff make decisions now or in the future. Progress has been made in the climatology of Florida Bay, rainfall patterns, water flow, etc. He said that it is known that it is a natural system, and that fluxes from clear water to turbid water is expected. It would be a good idea to look at drought and how rainfall affects salinity in individual basins. One question is, how is salinity related to nutrients that algae can use as food? Another issue is the need to look at the impacts of light being blocked by the algae. Seagrass is relatively resilient in the benthic community over time, but the sponge component of the benthic community may not be. Scientists may want to investigate reintroducing sponges into areas historically hit, because they have just not recovered. An important point is that collectively, we don't know what conditions combine to make a bloom, but we do know it is not just one thing; it is a combination of things. Factors that could influence it may include such things as advection, atmospheric deposition, salinity, hurricanes, etc.

In answer to a question about seagrass restoration, Mr. Donahue said the sanctuary does seagrass restoration in vessel grounding areas during a bloom if staff members can see a secchi disk at the bottom. Mr. Moe mentioned he thought there was a program in Washington or Oregon where a mobile harvester is used on algae blooms, and the algae is used to create biofuels. He wondered if it could be the answer to the problem in the Florida Keys. Mr. Donahue said he was not sure, but it was something to think about; Mr. Boyer (from the audience) joined in and stated that it probably would not work here as it is a cell size issue. Mr. Hunt thanked Nancy Diersing for doing a great job with the workshop notes. Mr. Hunt added that scientists do not have much information about past algae blooms in Florida Bay, except to say there was murky water or turbid water. Mr. Grathwohl said that back in the 1960s, someone contracted by the University of Miami did transects from Marathon to Cape Canaveral, but no one can find the study now. Mr. Trice said he has heard anecdotally that seagrass is pretty resilient, and it does come back, even if it is a different species than what was there before. He wondered if too much sleep was being lost over propeller scars and groundings. Mr. Donahue responded that the sanctuary staff does not do a restoration unless there is scarring more than 20 cm below the surface, and that small "air cuts" are allowed to grow back naturally. He added that other species of organisms on hard bottom are also resilient, but the sponges are not. Sponges feed on the algae, but there is a tipping point that makes them die off. Mr. Bennis said droughts, rain and freshwater pulses seem to be interrelated in the workshop summary document, and he asked about the C-111 canal discharges and if they could be done at the wrong time and place after some of these events. Mr.

Boyer again responded that there were two blooms in past year; one occurred in 2005 after the hurricane season in the eastern part of the Bay. The other was in June 2007, in the western part of the bay, and was not influenced by any particular weather pattern. So the two blooms had different causes. Mr. Bennis also asked if there was a South Florida Water Management District person who attended SAC meetings, as he understood the workshop was a joint sanctuary-District effort. Mr. Donahue and Chair Popham responded that Cecilia Weaver does, and that the SAC has had multiple updates on algae bloom issues. In response to a question by Mr. Bergh, Mr. Boyer said that these blooms occur all over the world in similar areas, such as in the Adriatic Sea and the Mediterranean.

A public meeting about the algae bloom workshop is scheduled for 6-8 PM April 15 at the Key Largo Marriot.

Conserving Endangered Species in a Rising Sea: Management Challenges of the Florida Keys National Wildlife Refuges -- Anne Morkill, U.S. Fish and Wildlife Service

Ms. Morkill began by reviewing that the USFWS has four National Wildlife Refuges in the Florida Keys, which are part of a national system of refuges. Key West National Wildlife Refuge was established in 1908; Great White Heron National Wildlife Refuge was established in 1938; Key Deer National Wildlife Refuge was established in 1957; and Crocodile Lake National Wildlife Refuge was established in 1980.

Management challenges include habitat fragmentation fire management, invasive exotic plants, feral exotic animals, public use and climate change. The habitat in the refuges is fragmented, but they are working on strategic land acquisition, using different means. They are also dealing with fragmentation through restoration projects. She reviewed the threatened and endangered species they are especially trying to conserve. Regarding fire management, pine rockland is a fire-adapted habitat that needs fire to be maintained, or it will turn into tropical hardwood habitat. Maintaining pine rockland benefits the Key deer and a number of butterfly species in decline in the Keys. There are also three rare plants in that habitat. Issues they are concerned about include burning near houses and arson. The USFWS staff is working on invasive exotic plants issues, especially with private neighbors who have seed sources. They are also are dealing with feral animals, like feral cats, iguanas and pythons. Pythons eat native wildlife, and are found in the Key Deer and Crocodile Lake National Wildlife Refuges.

Once challenge the USFWS faces is that of increasing public use in the backcountry areas. Submerged lands are owned by the State of Florida. The Refuge has an agreement with the state on certain wildlife issues, particularly regarding protecting nesting birds, prohibiting some types of boats, and having some limited entry or no entry zones at some keys. Some islands important for certain species, like the white crowned pigeon, sea turtles, or Miami Blue butterflies. They recently acquired Wilma Key off of Boca Grande (popularly called Bruce Key). It is used by 26 species, some listed or declining. The public has been attracted to this island. The USFWS has been using some signage, and with nesting season coming up the staff is making a greater effort to close or maintain a closure to the island. Under federal law, all areas are closed until opened by federal regulations. Wilma Key could only be opened if compatible with the purposes of the refuge, and the staff has determined that it is not compatible with public use to

open this island. They will post signs and put a buffer zone around the island. All refuge islands are closed to dogs.

Ms. Morkill noted that sea level has been rising since data has been gathered, and per a study of Sugarloaf key, it is impacting pine rockland forest. She mentioned how Light Detection and Ranging (LIDAR) technology can gather useful data. LIDAR data can be used in sea level rise modeling, storm surge modeling, vegetation community change analysis, planning for impacts to rare species, planning for restoration projects, etc. Mr. Bergh noted that all lost land from sea level rise is new marine environment. Mr. Curlett asked if it is still a mission of the USFWS to trap feral cats in Key Largo. Ms. Morkill replied that State Parks is working on that, but not in the Crocodile Lake National Wildlife Refuge (and that it has not been done there for a few years).

Mutton Snapper Stock Assessment Report -- John Hunt, FWC

Mr. Hunt announced that Chuck Collins, the Southeast Region Director, is planning a climate change summit in August in Orlando. The LIDAR info would be useful at that summit. He then reviewed that, back in August of 2007, the FWC agreed to go through a stock assessment process and report back to the SAC. Mr. Hunt noted that Luis Barbieri knows more than he does, but was unable to attend today. The good news is that mutton snapper are not overfished, per data on age and growth of the fish. Even out to age forty, there are still a fair number of fish represented. Mortality from discards is not of much concern in this fishery; virtually all of it is from the recreational fishery. The commercial longline fisheries are far offshore, where there are no small fish. FWC scientists use various datasets to create indices of abundances. Some are fishery independent, and some are fishery dependent. The scientists ran assessment models from the data. The results of the stock reduction analysis shows over time, since the mid 1990s, the mutton snapper stock is, at worst, stable. He stated if there is a constant fishing pressure compared to what have today, we will basically be OK. The commercial longline fishery is not a growth fishery. If anything, it will be the recreational fishery for mutton snapper that grows. After three years, another assessment is recommended by the External Review Panel to ensure that the status has not changed. Mutton snapper is not in a crisis, but that does not preclude any kind of action.

Mr. Grathwohl asked if grouper being possibly shut down could create more pressure on mutton snapper. It could create a situation of being reactive rather than proactive. Mr. Hunt said it possibly could affect them, in a serial overfishing situation. Mr. Grathwohl said he would like to see bag limits decrease. Mr. Hunt said the presentation data presented the state of the stock, but again, it did not preclude any kind of action. Ms. Ferguson had also sent the staff a preliminary stock assessment. Mr. Trice commented that he appreciated the clarity of the presentation, and that the state's science is good. However, he felt that Mr. Hunt had kind of downplayed how much the kilograms have gone down for mutton snappers over time, and he does not know why it is allowed to catch ten mutton snappers, but only five mangrove snappers. He also asked why the bag limit cannot be lowered to five per person per day. Mr. Hunt replied that he could not answer that, but that his personal take is that it makes sense to find ways not to fish the spawning aggregation but he is not sure how to get there. Commissioner Neugent asked if there is any dispute over the numbers and decline shown in the graph. Mr. Hunt replied that if the harvest were reduced, the shape of the curve would go up more as it would allow more escapement. The

question is, how important is that, if it is not an overfished situation. Commissioner Neugent said though the level is sustainable, we won't ever get back to earlier levels, and Mr. Hunt agreed, saying that we will never get back to earlier levels for any fished species, unless fishing is stopped entirely. He said it is reasonable to address bag limit issues, and they would probably have some positive impact on the population, but what that would be, he does not know. Chair Popham noted that the SAC asked for the assessment to be conducted (Brad Simonds, along with Mr. Curlett), and were stimulated the process of evaluation. He said there are periodic closures during spawning for other types of fish at the Great Barrier Reef; that could impact decisions that we see here. Mr. Hunt replied that in that commercial long line fishery, mutton snapper are not the targets; the groupers are, and the mutton snappers are bycatch. Mr. Moe added that the strength of each year class needs to be considered; the fishery depends on the intangibles during the development of that class, such as a storm, etc. Protecting the spawning stock isn't everything. Mr. Cramer asked if the big fish congregate with the small fish in the spawning areas. Mr. Hunt replied that they are separated spatially. He presumed there are some spawning aggregations of the bigger fish.

Working Group Reports -- Jerry Lorenz, Ecosystem Restoration Working Group

Mr. Lorenz summarized outcomes of the SAC Marine Zoning Workshop, held March 25. The breakout groups functioned better than he expected, and there were no confrontational edges about what was discussed. He noted the breakout group summary was in the SAC packets and thanked the staff and Working Group members who helped put it together.

Mr. Lorenz summarized, from his own perspective as the Working Group did not have a chance to discuss it together, some of the major points he felt the breakout groups brought up. There were many comments on community knowledge, and there seems to be lack of knowledge of why zones were established and where they are. A user-friendly chart may be necessary. Regarding research results, he suggested an annual report card with specifics about how effective the zones are relative to their goals. There were many comments on the location of the research. Biological research should drive any thoughts of future zone changes. Research on zoned versus non zoned areas of great interest. He would be pleased if the sanctuary staff produced a prioritized list of research needs. The interaction of fishing and zoning was brought up during the breakout groups. Fishing regulation falls outside the sanctuary's purview. But, the zones can have an effect on fisheries.

The most common topic about zones, per Mr. Lorenz, was that larger zones work better as replenishment areas, and that buffer areas should be installed around existing zones. Also proposed were wildlife zones for bird habitats, and that zones should be flexible as conditions change. It was brought up how in some areas, such as Rodriguez Key, there is no motor zone, but not a no exclusionary zone. People are walking over seagrass and pushing boats in and out, damaging resources. Capt. Luher said it is not an enforcement issue as of now, but maybe, to address this, we need to look at the Code of Federal Regulations and how it is written. Mr. Lorenz continued, noting that it was brought up that there is a connection between Everglades National Park and the sanctuary, and that the agencies should work together on zones and sanctuary staff members should comment on the Everglades National Park Management Plan. There were several comments that hair-hooking in Sanctuary Preservation Areas (SPAs) should be eliminated. Other comments were about marking areas, which may be detrimental, as the

markings may draw more use to that area. Mr. Lorenz said he would circulate his summary of main points to the Working Group first, and then will circulate it to the SAC.

Mr. Lorenz asked what the SAC thought of the workshop and if it was useful. Mr. Grathwohl noted the hair-hook issue will be a consensus issue in Islamorada, and Mr. Lorenz said he thought hair-hooking in SPAs has been reasonably well accepted. In response to a comment from Mr. Grathwohl, Mr. Lorenz said there were twenty specific comments as to which fish to study. Chair Popham said he and CDR Score had talked about the workshop, and that it is important for the SAC to start prioritizing these lists, and how they want the sanctuary staff to go after some of these topics. He asked if the SAC Ecosystem Restoration Working Group could distill the issues down to a list for the SAC to consider at its June meeting. Mr. Bergh replied that this was not the idea behind the marine zoning workshop. It was for people to get their ideas, questions and concerns out there. He said he knows there is a public process the sanctuary will follow, and zoning will be among the most contentious of the regulatory issues the sanctuary may be addressing. He added that when the SAC knows what the public process is, that will be the time to know what ideas to push, but he understands it could be a year before the process starts. Chair Popham agreed that there is a lot of education and outreach to do, before the public process starts. Ms. Espy noted that may be the message that should come back to the sanctuary management team, that more education and outreach on zoning is needed. For example, it could be that the sanctuary staff needs to conduct x meetings on x topics, or needs to do better education on x areas. Then, if the sanctuary has done that educating, then perhaps that would be the time to focus on this type of zone versus that type of zone. Mr. Bergh noted that it would be hard to get consensus. Also, even if they were able to come up with a priority list, it would only be the priority of issues as noted at the workshop, and would not capture others' thoughts. Mr. Trice added that he hoped areas would not be closed just because there is a loophole in the law. Chair Popham reminded the SAC that we are just starting down this path. The recommendations, including those for closure, will need to be taken into consideration. Rob Bleser commented that the popular vote was "No" to the sanctuary in the very beginning. He suggested caution with any more closures or restrictions as the sanctuary staff proceeds, until it is better known what is actually working. He said he dives in some of the SPAs regularly, but there are some people fishing there in the middle of the night.

Mr. Cramer commented he would like the sanctuary staff to look into how the free public charts (more accurate than nautical charts) were developed and implemented at the Great Barrier Reef Marine Park Authority, to see if could the process could possibly be used here. Mr. Bergh said there is a translation gap between research results, the scientists and the rest of us. It would be good for the SAC Ecosystem Restoration Working Group and the SAC Education and Outreach Working Group to work together on this issue. Mr. Moe said he would be bringing it up at the next SAC Education and Outreach Working Group meeting. Chair Popham noted that the lack of dollars means we will not get more research, and that we need to deal with the science we have now. Mr. Lorenz said the point is that the community does not know if it is the right science, or what the science shows.

Chair Popham asked if there was a motion to accept the compilation of breakout group comments, and Mr. Nedimyer moved they be accepted, seconded by Mr. Moe. No objections

were noted and the motion passed. Chair Popham noted what a great job everyone did with this workshop, and that The Nature Conservancy supported bringing in the Australian speaker.

Public Comment

There was none.

***Acropora* Rule Update:** Ken Nedimyer, SAC

Mr. Nedimyer said that the *Acropora* Working Group did not meet. He feels the "critical habitat" issue is not as scary as the "4(d) rule." Mr. Lorenz asked what the 4(d) rule is, and Mr. Nedimyer replied it has to do with take of the coral, including breaking or otherwise damaging it, killing it, etc. He said the National Marine Fisheries Service (NMFS) will probably have another set of hearings before it is finalized; the most recent public comment deadline has passed. He feels the critical habitat issue will probably not affect most people and there is nothing for the SAC to look at now, but it will affect federal activities and federally-funded projects. Ms. Espy stated the national Sanctuary Program has provided comments to NOAA Fisheries (NMFS). Mr. Nedimyer announced that people can make comments by May 6, but he is content to let it go at this point. He said he and Mr. Zimmerman and Mr. Cramer are dealing with the 4(d) issues and that the commercial fishery would be the first to be affected by it. Mr. Cramer commented that it covers the trap fishery because it is federally funded, and asked if the reason it is not covering the dive industry or other activities like anchoring, since there are no federal permits on those things. Mr. Nedimyer, said they could, but that is the critical habitat issue, and that it is a complicated thing. The time to comment on the 4(d) rule has passed. There is also a section 7 permit covering things like restoration, but this is a big issue that is hard to get too far into at this time. Mr. Holston said he had recently talked with CDR Score, and asked if the sanctuary staff would ask for a consultation, so any activities under sanctuary guidelines would be exempt, and would fall under the sanctuary's purview. Ms. Espy replied that the sanctuary staff believes any activity in the sanctuary management plan is exempt, but NOAA Fisheries lawyers like to look at these things, and may, in future, provide feedback on their take on it. Mr. Edwards said there was some exemption in the 4(d) rule for restoration activities, so sanctuary restoration activities may possibly qualify for the exemption. He has also heard that NMFS is going to revise the critical habitat map, taking out some of the areas where there no appropriate habitat (i.e., places without a hard bottom). Some activities would require going back into consultation with the state, like wastewater and stormwater discharges. Mr. Nedimyer said both of the proposals are pretty well done, and are designed to protect corals. Any big activity will require consultation (like wastewater plant, beach nourishment, etc.). Mr. Bergh said he thinks they will focus on every potential impact in the critical habitat area. Jon Fajans asked about preexisting artificial habitat and routine maintenance. Mr. Nedimyer suggested he write a comment; Mr. Nedimyer wrote one for the 4(d) rule, and he got a call from the NMFS wanting clarification and to be sure the agency got it right.

Water Quality Protection Program Steering Committee Update -- George Neugent, SAC
Commissioner Neugent excused himself from the meeting prior to this agenda item, so no update was made.

Unfinished/New Business

David Makepeace, the new Citizen at Large - Upper Keys alternate, was introduced in the afternoon.

Mr. Grathwohl introduced a motion supporting a Florida Senate bill, and supporting development of a Florida House bill, on raising vessel registration fees. He also mentioned the shoreline exemption and the fact that the state is missing out on getting funds because of it. Chair Popham noted the language was in a bit of a gray area regarding lobbying and Ms. Ferguson concurred. Chair Popham suggested making the wording more general on supporting increasing boater registration fees, and Mr. Hunt advised dropping the shoreline exemption because that will dilute whatever effectiveness the motion might have on the fee issue. Mr. Grathwohl composed a new version, then moved it and read it, and Mr. Cramer seconded it. Mr. Bergh then suggested a friendly amendment, which Mr. Grathwohl accepted, that the superintendent forward it on to the appropriate parties. The motion passed unanimously.

The motion follows:

**FLORIDA KEYS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL
MOTION
April 15, 2008**

WHEREAS, the Florida Keys National Marine Sanctuary SAC supports the rise of vessel registration fees to retain positions and fund specific FWC activities. The council requests that the Superintendent forward this on to appropriate parties.

Passed unanimously on this date: April 15, 2008.

The Council is an advisory body to the sanctuary superintendent. The opinions and findings of this publication do not necessarily reflect the position of the Florida Keys National Marine Sanctuary, the National Oceanic and Atmospheric Administration, the Florida Department of Environmental Protection, or the Florida Fish and Wildlife Conservation Commission.

Adjourned, 3:45 PM

Submitted respectfully by Lilli Ferguson.