

**Gulf of Mexico Alliance
Identification and Characterization of Gulf Habitats
Priority Issue Team (PIT) Meeting
March 18-19, 2008, Austin, TX**

Meeting Notes

Welcome and Introductions

Larry McKinney, State lead for the PIT, hosted the meeting and kicked it off by welcoming the attendees.

Purpose and Goals of Workshop

Federal PIT co-lead Diane Altsman (EPA) reviewed the goals for the meeting. Altsman indicated that the team needed to consider expanding the conceptual PHINS design to go beyond seagrass and start inputting data on all habitat types. Altsman gave an overview of past activities.

Gulf GAME

Dave Reed and Cristina Carollo, Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, staff for the Gulf GAME, indicated that over 2000 emails with link to online surveys were distributed for data discovery purposes and that they had completed conference calls with each of the Gulf States. They indicated they had been uploading records into MERMAid, were continuing data mining efforts to determine locations of known data to populate the data catalog and updating the mailing list, which currently has 2238 names. About 1200 records are now captured in the GAME Catalog and more than 1000 of these records are already searchable through the PHINS Digital Library. It was noted that MMS reports have been accessed but not actual data. Of the records currently within GAME, 1127 are from Florida and only 313 from the remaining Gulf States. There was a question regarding the coverage of GAME. Response was that GAME runs 'shore to shelf' and is inclusive of coastal resources, e.g., coastal wetlands, watersheds. Some records from the east coast of Florida have been "erroneously" transferred from the GAME Catalog to PHINS. Feedback from GAME meetings with the Gulf States indicated that users would like to see a spatial search capability (already in place; however there is some conflict with Internet Explorer 7) for the PHINS digital library and more options in the search criteria. Users also indicated a desire for more results sorting options. Gulf GAME staff gave presentations at GCOOS, Dauphin Island Sea Laboratory, Gulf Coast Research Laboratory (University of Southern Mississippi), Texas Parks and Wildlife, Harte Research Institute, and Fisheries and Aquatic Science Department (University of Florida). They also have a meeting planned for April in Louisiana with LUMCON and LSU.

Following the Gulf GAME presentation, there was discussion on the next steps. There was mention of a Harte Research Institute proposal submitted to NOAA that would

include maintenance of the Gulf GAME survey, a quantitative gap analysis for Florida and a qualitative gap analysis for the other Gulf States. Jim Gibeaut with HRI and Principal Investigator on the proposal gave a brief description of the proposal. It would be a 3 year project following actions within the Governor's Action Plan and would provide subawards to all Gulf States for data discovery, compilation of metadata, and submission to HRI. HRI would ensure the data were GIS server compliant with the PHINS map viewer and would either store the data at HRI or find suitable servers and provide links to PHINS. Finally, Gibeaut indicated that, if funded, project participants would seek review and feedback from the PIT members for continued work in years 2 and 3.

Additional discussion following the Gulf GAME presentation included identifying a mechanism to maintain the ongoing work. It was suggested that the PIT members needed to identify a plan to sustain ongoing efforts, including a strategy to keep data fresh/updated. One consideration would be to institutionalize a requirement to upload and refresh data for any grant recipients. Dave Palandro, Fish and Wildlife Research Institute, Florida Fish and Wildlife Conservation Commission, indicated that there will be continuity within the Florida GAME and that Florida is considering instituting a requirement as part of the permitting process to input data within 24 months. The main point was that there must be some enforcement angle to ensure data are uploaded and maintained to make PHINS useful.

PHINS

Chris Cretini, USGS, gave an update presentation on PHINS. He indicated that uploading records from GAME was the first significant contribution of records. PHINS also worked to upload records from the South Florida Information Access (SOFIA) and US Seabed (Woods Hole). Approximately 40 records have been mined at NWRC and staff continue to work with contributors. However, there has not much activity for past six months. Metadata records have been an issue, especially with historical records because there is a need to identify someone familiar with the records. Cretini indicated that the US Army Corps, Mobile District, was working on about 200-300 records and that NOAA NCDDC was working on about 600 records. The Northern GOM Deepwater Habitat Communities contacted PHINS staff regarding their data cataloging efforts. This data set includes video data which presents a new challenge for establishing metadata. Cretini indicated the PHINS technical team was reviewing search capabilities and will add additional filters for sorting. Maintenance of PHINS includes digital library scripts to check for duplicate records and removal or updating broken links. The issue of interoperability was raised to address the idea to implement web services to allow for data sharing. This was noted as a possible next step for the digital library and geospatial viewer integration. There was a suggestion that the technical team may want to consider bringing in a social scientist to help with further development.

Cretini and Scott Wilson, USGS, confirmed that Cretini's role as the technical team lead for PHINS would be changing. Cretini will maintain some level of involvement in a data coordination role but the degree of his involvement is uncertain. Wilson emphasized that

while USGS, and DOI in general, is committed to supporting GOMA, it is critical that involvement in any future activities not over-commit staff and remain within existing resources. USGS is still interested in moving forward with PHINS and the work is considered a priority for new funds but they are seeking additional support from State agencies.

It was noted that NOAA's National Estuary Restoration Inventory (NERI) and Restoration Center Database (RCDB) databases should be linked to PHINS.

MERMAid

Joe Stinus, NOAA NCDDC, gave a brief update on MERMAid. He indicated that there is a new release planned for the end of the month. There was mention of an upcoming MERMAid training for USGS in Baton Rouge, LA, April 1-3. On April 1, there will be a 'train the trainer' course followed by metadata and FGDC training on April 2-3. It was indicated there were spaces available if anyone was interested in attending the training.

GoMRC

Tom Gulbransen, Battelle, gave a presentation on the Gulf of Mexico Regional Collaborative. The focus of GoMRC was on habitat decision methods, using existing needs assessments and workgroups to identify the need. The project was designed to facilitate analyses, provide forecasts, and help decision makers evaluate tradeoffs. GoMRC was intended to build on Federal data catalog(s). This project was funded through NASA as a discovery application and was expected to demonstrate the full life cycle, i.e., 'line-of-sight' demo from 'discovery to decision support'. Feedback was solicited through a user committee (about 16 members). The feedback indicated a need for more data, greater coverage, and an ability to monitor trends. The models were determined to be credible at the regional scale. Noesis is a domain-specific search engine developed for GoMRC. The search return provides associated or related terms and categories as identified by the conceptual model in addition to the searched term. There is also a definition of the searched term(s) provided in search results. GoMRC was developed to present a restoration prioritization strategy whereby users could evaluate current conditions and run future scenarios of land use change. Recommendations from potential users suggested a need for GoMRC to be driven by shared issues and that it should have a broader range of relevant data. Project facilitators are interested in offering regional training emphasizing local content. They would also like to identify additional topic areas to better serve a broader audience. Ideally, GoMRC should be capable of data mining and transport to/from other portals, e.g., PHINS, and should have an ability to push data into other models. Noesis uses OWL (ontology web language) to link different ontologies. There was a question regarding how GoMRC would work with PHINS. Gulbransen indicated GoMRC provided an opportunity to identify terms to drive into PHINS and form queries in PHINS. He suggested the interaction would be two ways, providing 'raw' and 'issue-driven' searching capabilities.

CMECS

A brief overview on the current status of the Coastal and Marine Ecological Classification Standard (CMECS) was given by Becky Allee, NOAA GCSC. Allee stated that CMECS Version III was near completion and that its release was targeted for the end of March. She also informed the group that a proposal to have CMECS adopted as the National standard for coastal and marine habitat classification had been submitted to the Federal Geographic Data Committee. There was a question regarding the 'x, y, z' coordinates and the mechanism for storing habitat units classified using CMECS. Allee indicated that a spatial database has not been developed yet. She mentioned that NOAA's Coastal Assessment Framework would provide the geographic context for CMECS but acknowledged that CAF would not provide specific habitat unit coordinates, but just a polygon for which habitat data can be attributed.

Larry Handley, USGS, discussed the FGDC National Wetland Mapping Standard that was recently published for review. He indicated that CMECS will 'marry up' with wetlands on shore.

National Fish Habitat Action Plan

Joe Stinus and Becky Allee provided a brief overview of the National Fish Habitat Plan. Both Stinus and Allee participated in the NFHAP Science and Data Committee meeting in San Antonio, February 2008 and Allee participated in the NFHAP Assessment workshop in Phoenix in March, 2008. The relevance of this activity to the PIT includes identifying variables to be considered for habitat assessments and mining for data that can be used for these assessments. Allee committed to sending the URL for the NFHAP web site to the group.

There was also a brief mention of the Southeast Aquatic Resources Partnership (SARP). SARP is one of the NFHAP recognized partnerships. The group represents 14 States and Federal agencies. An Action Plan was recently completed for habitat assessment and conservation in this region. Information on this group can be accessed at <http://www.sarpaquatic.org/>.

Habitat Status and Trends Reports

Handley gave an update on the Gulf of Mexico Seagrass Status and Trends report, which was released on the USGS web site in September 2007. He indicated that the report is currently at the printers and that 1k copies were ordered. This report evolved from the EPA's Gulf of Mexico Program habitat focus team and was completed through all in-kind services. Handley indicated the need for a report on emergent wetlands and presented a proposal for analysis and synthesis. He suggested that the PIT needed to think of developing reports or specific projects for the next Governor's action plan. The proposal presented by Handley could serve as a framework for the white paper for the next action plan. There was acknowledgement that establishing such reports as priorities could possibly help secure funding. Handley suggested that the States could more

actively participate in developing these reports through in-kind services, for example, through writing assignments and that perhaps the Federal agencies could provide the funding. The PIT should consider proposing this work through the GOMA funding from NOAA. Handley estimated that the fresh/saltmarsh emergents report would take about \$700k over three years. There was some discussion on whether emergent wetlands are the right habitat type to focus on next. Handley indicated that NWRC currently has data on emergent wetlands for most of the Gulf coast from 50s, 70s, 80s, some areas 90s and 2000s. Other habitat types do not have such readily available data.

There was a suggestion that the PIT needed to consider focusing on evaluating ecological services and stacking those services to assess habitat value, i.e., there is a need to assess habitat values for all uses.

Bathymetry

Robby Wilson, NOAA SPO, gave a handout showing the bathymetry database that he recently compiled. The database is available at <ftp://spo.nos.noaa.gov/public/wilson>. It is a compilation of the best available 30m data that currently exists. Wilson stated that only about ½ of the NOAA data is digital and probably > ½ of these data are pre 1950s. The handout indicated the US EEZ boundary, the locations for primary, secondary and tertiary tidal stations and some shoreline data, e.g., v-datum for Tampa Bay, Louisiana coast, Mobile Bay. There was a comment that seamless v-datum for the Gulf of Mexico is needed and is considered a priority by the resiliency team.

Open Discussion

Discussions were opened with a reminder to the group that the early goals of the PIT focused on data inventory and discovery. At this point, the PIT has focused exclusively on those goals and has not addressed the assessment needs. Recognizing this, it was suggested that the group direct more attention to analysis products and that next steps focus on Gulf-wide classification and decision support tools.

State Comments

Jeff Marx, Louisiana New Iberia Marine Fisheries Office, LADWF, indicated that his current priority is to identify the data needs and compile data from various state agencies. Marx indicated that he plans to request that LA DNR GIS help with getting data in the Gulf GAME project. Essentially, Louisiana needs some catch up time.

Grant Larsen, MS Department of Marine Resources, stated that the ‘managers’ that the PIT needs to include currently participate in the Conservation and Restoration PIT. The original idea was for the focus of this PIT to be data. However, there are a lot of overlaps among PITs, e.g., bathymetry and V-Datum are also important to resiliency. For Mississippi, specific habitat types of importance include seagrass, emergents, and oysters but more importantly are uplands. Coastal uplands, e.g. maritime forests under pressure as buffers to wetlands, are currently more imperiled than wetlands.

Robert Barron, TX General Land Office, as a new participant, indicated that he found the discussion to be interesting and acknowledged that a lot of energy and time has apparently gone into applications. He stated that his need was to first identify the data custodians and then determine how to better coordinate among those custodians on a Gulf-wide basis. There is a need to know who's doing what and where the data are.

Becky Allee commented that the PIT has heard from constituents in the past that this is a need, i.e., who's doing what and where are the data.

Who is the 'Client?'

- It is not clear who the team is trying to serve or what the end-product should be.
- The PIT should attempt to reach municipalities, not just GOMA participants.
- The PIT needs to have managers tell the team what they want/need to make better management decisions.
- Expectations of the Alliance need to be identified. Individual States do not necessarily care about habitats in other Gulf States but the goal of the GOMA is to prioritize regionally.
- The PIT needs to expand to include activities within other teams, e.g., water quality, nutrients, development scenarios.

What is the Product

- It was acknowledged that managers and decision makers need to be able to visualize resources, i.e., there needs to be a map showing the resources.
- Managers need to have the ability to prioritize using the decision support tools.
- There needs to be a visualization tool available to present to the user for demonstration purposes.
- Evaluations should include socioeconomics and should assign dollar values to the habitats. Decision makers and the public in general can relate to dollar values.
- Managers need to be able to translate information into something politicians understand, e.g., how does the product translate to votes?
- There needs to be measures of comparison developed for regional prioritization, perhaps an ability to overlay different resources with criteria for priorities.

Marketing

- The team needs to work on marketing to get more users to input data and use PHINS.
- The PIT should work with the education team.
- The PIT should take PHINS 'on the road' to expose it to the other PITs
- The PIT should consider hosting a series of testing products with the users involved.
- The PIT should offer its current work to the other groups and establish liaisons from other groups to attend meetings & vice versa.

PIT Direction

- The PIT should consider using SeaGrant research priorities in second action plan.
- The PHINS map viewer needs to be retooled to provide user needs. Klay Williams, Army Mobile District, indicated that the Corps does want to maintain their role supporting the map viewer.
- The PIT should develop IT infrastructure to provide support and consistency among all PITS and avoid having all the PITs develop separate IT support groups.
- The PITs' name needs to be changed to something more appropriate, e.g., focusing on the ecosystem integration aspect and the idea of bringing all things together.
- The new action plan should be based on mapping priorities of the other PITs.
- Identify focus questions for PHINS.
- Mappable data on sediments and freshwater inflow would help with the Conservation and Restoration PIT.
- Move toward developing an interactive map with DSS applications. This is necessary to demonstrate usefulness and capabilities of the tools to the end users.
- The PIT should not just consider the past three years but must consider the next five years.
- The PIT needs to establish clear goals and accomplishments.

Forming a Habitat Protection and Restoration PIT

- There was a recommendation from the Alliance Management Team to combine this PIT with the Conservation and Restoration PIT.
- The PITs have joint objectives, e.g., bathymetry and a seamless DEM for the Gulf of Mexico.
- The PIT was not in favor of combining the two teams.
- Combining the teams would become a logistical issue because getting such a large number of people together would be difficult.
- The PIT is just beginning to fund the States for portal work and should remain independent of the Conservation and Restoration PIT.
- The PITs should not be joined and the technical team should not be separated from this PIT.
- The technical team should remain within the PIT, seeking guidance from those team members focused more on habitat assessment.

Priority Habitats by State

Louisiana – oysters

Florida – seagrass and corals; priority is new data

Mississippi – coastal uplands

Texas – seagrass and offshore hard bottoms

Outcomes

- PHINS will stay as is re: USGS host, NOAA products, Army Corps map viewer
- HRI will build on/support PHINS through NOAA grant, if funded

Five Year Action Plan Recommendations

- Interactive maps for federal, local manager use – continue to ID and fill gaps
- Assessment and valuation of ecosystem services – inventory of ecological and socioeconomic services provided by each habitat type
- Data collection for bathymetry updates (need is greater in-shore)
- Develop Gulf-wide v-datum
- Emergent wetlands status and trends reports
- ‘Best practices’ document to record work invested in developing GAME and PHINS
- Develop plan for habitat prioritization – locations; gaps
- ID existing conservation lands and restoration sites
- CMECS finalization

ACTIONS

- Diane, Becky notes out to group
- Diane, Becky, Larry develop ‘white paper’ for April meeting
- Post all presentations be uploaded to the GOMA website
- Add GCOOS to e-mail list for PIT
- Tech team regroup to address incorporation of REDM, revamp of map viewer
- Recommend renaming the PIT - Ecosystem Integration and Assessment Team