Shiloh Schulte, Manomet – State of the AMOY Report

- Number of oystercatcher talks at Panama WHSG conference; similar threats and issues; Shiloh plans to network with them going forward.
- PPT with extent of WG activities, accomplishments, history/context, 2019 productivity summary, population trend since 2003
  - Note: ‘Accomplishments’ slide missing Special Publication of Waterbirds?
- Current Objectives
- Question about productivity data presented – was this from monitored/managed sites?
  - Number of pairs is from sites that were monitored closely enough to track productivity
  - How well does reported productivity reflect overall reproductive rates of AMOY throughout the range? We don’t actually know how this relates but we think we are monitoring about 50% of the total population.
  - Acknowledge that summary of productivity across the range comes from a highly variable set of protocols and monitoring schemes
- Aside from productivity what other variables are collected when productivity is monitored?
  - Google sheet shows other variables and site specific information that is asked of WG members when they enter data
  - Information that is in the Google sheet is highly variable and different levels of quality, etc.
  - **Important point that these metrics need some structure to be more representative of what’s happening with the population.
- Has anyone looked at how PIPL management efforts have benefited AMOY?
  - Abby and WIPL presentation from last year.
- Data sharing question – topic for discussion later? Ruth, Sara S. and others are working with colonial waterbirds data sharing via an online database, e.g. Avian Knowledge Network. All sorts of data – abundance, habitat parameters, etc. Waterbirds group is still working out details. Will allow for regional assessments.
  - These efforts will cost money so group needs to evaluate what the Group wants in the long term. Contractor who would be database manager. Current NFWF RFP probably too soon.

Pam Denmon, USFWS – Review and Discussion of Breeding Season Metrics

- History and context of discussions that group has had surrounding metrics
- Currently – USFWS Regional protocol for nesting PIPL; Northeast refuges developing Inventory & Monitoring protocols; will all be following this eventually. Can we use the PIPL protocol for AMOY? Pam due to discuss this at January 2020 PIPL meeting. Meanwhile, Pam has been discussing this with Rachel Katz and Erin King from USFWS.
• Presented Revised Breeding Metrics that group landed on.

Rachel Katz & Erin King (USFWS) – PIPL Database and Metrics Discussion

• Lots of AMOY on refuges so makes sense for USFWS to consider that and work to standardize these things;
• Important to remember that a “Protocol” is the soup to nuts of what gets done, not just what is done in the field at the site level details which are details that come in at the “Standard Operating Procedure” level;
• Protocols often missing the ‘why’, objectives, sampling design, data management, operational requirements. Many people may be collecting data because that’s what’s been done and they don’t want to have a gap in long term datasets. But to what end?
• PIPL Regional Protocol Framework – anchored by Recovery plan goals and objectives. Thresholds from plan drove the ID of metrics that were the focus of protocol.
• What are AMOY objectives? Reference Business Plan and also AFSI Business Plan.
• Detailed overview of attributes and comparison of data collection tools/apps.
• PIPLweb – USGS. Intra-agency agreement between USFWS and USGS.
• Data sharing levels can be set and customized – similar to AKN.
  o How would non-USFWS partners feel about entering data into a USFWS database?
  o What is the potential for PIPLweb to accommodate for AMOY and WIPL without much modification?
  o PIPLODES, AMOYodes – how will all this align?
  o AKN? Can AKN accommodate nest check level of data? There is a federal node in AKN – so these databases could be uploaded. AKN has same concept of data sharing options. State agencies have open access to AKN information.
• What are the standard reports that we could automate? Trying to build in functionality for PIPL protocol to bring in R mark down reports. Upload data then auto generate reports. These reports could be customized. Reports can facilitate managers ability to think through/interpret/evaluate the results.
• Questions
  o Frequency of visits – how is that measured? Especially at a broad scale? Do we have detection rates for finding nests? Hostetter et al. paper has some information.
  o We have summary data for years and lots of sites and the raw data is there somewhere but not synthesized or workable
  o Texas concerns – huge areas, few people. How would this translate to that? Would need to accommodate for varying abilities for survey frequency, etc. and what’s realistic.
    • Doesn’t matter how much you survey, that will just impact your error.
  o What are the metrics that we are most interested in? that will impact how often you need to survey. We need to agree on most important metrics.
  o Repeated survey data showed large variability with weekly surveys.
  o Is there any work being done with temperature loggers and PIPL to monitor nests? Has been successful with arctic nesters. No one knows of any of this work happening with AMOY.

FOLLOW UP DISCUSSION
Do we want to move forward with this standardized protocol?

Challenges – sample of sticky notes

1. Lack of context/ representative data
2. Multiple orgs and agencies with different goals and capacity
3. Standard metrics/field methods
4. Effort (variable)
5. Analysis/summaries
6. Balancing researcher disturbance with data needs

Would a protocol framework be useful in solving these challenges? Difficult to answer for all of these ideas combined. Think big. You could break it apart – banding, breeding, wintering. But if they are all after the same objective then it could be rolled into one.

- Protocol won’t magically solve all these challenges. Protocol needs to have a guidance document. Yes – the basic protocol framework should account for this, in the true definition of a “protocol”.
- Different objectives for all of those activities so folks stumbled with voting in the general sense
- Let’s just focus on productivity. Yes – 24; No – 0; Maybe – 6

Why did people choose maybe? What are the obstacles?

- Is the effort worth it?
- As a non-manager, what about when birds are not at your sites. Important to have ongoing research to inform management. How does a protocol address that.
- Regional sub framework would help the reality of implementing this at a broad scale.
- From Zoom: questions about how useful small numbers of nesting AMOY would be to overall effort; different protocol might change monitoring efficiency and commitments, would like to hear more
- From Zoom: Protocols might be most useful if they allow for the different levels of effort that each agency might be able to provide

This discussion can continue via the Working Group to gauge interest and dive into how AMOY may be integrated into PIPL monitoring protocol. Would Rachel be willing to do a Zoom or webinar to continue this? Yes.

- Rachel will provide further information about the PIPL protocol.
- Pam will work with Rachel to: 1) distribute comments from group during this discussion, 2) set up Zoom/Webinar to continue discussion, 3) evaluate how work from Hostetter et al. may guide/inform these discussions.

Alex Wilke, TNC – Using nest cameras as an essential tool for managing AMOY and PIPL on Metompkin Island, VA

- PPT available
- Intro to Guidance and Best Practices for coordinated predation management to benefit temperate breeding shorebirds in the Atlantic Flyway (Hunt et al. 2019)
- Camera work in VA is demo project associated with that document, one of three (others in MA and NC) – reports from these project will eventually be available on the AFSI website
- Sara mentioned paper comparing cameras
- Kathy asked about 2019 level of PIPL abandonment being normal
STATE UPDATES

- MA demo project looking at human disturbance
- TX continues to have fishing line issues; Sue Heath has worked on a variation of a net gun technique to help with captures
  - Use list serve to communicate incidents; interest in time spent to recapture birds that are entangled; FL with AMOY, SNPL and PIPL, has some methods to increase effectiveness of catching entangled birds; NY has experienced this as well
  - Possibility of sharing a net gun or at least net sharing how to use one
- NJ – Rutgers started camera work at breeding sites to characterize predator communities; to be done July/August 2020.
- FL-using game cameras -maybe potential for collaboration. Avian predators seem to key in on cameras quite easily. Greater distance from nest and time interval setting as opposed to motion trigger can help reduce predators targeting cameras – if you are only looking at predator community rather than nest success. No-glow is important. Even low glow can attract predators.
- Shilo – in her experience camouflage has been more to prevent people from seeing it.
- Shiloh brought up concern with cameras making predation easier; has anyone tried to get around this? Dummy cameras outside of nesting season is an idea. Pam tried to sweep tracks for crows. Pam’s camera nests hatched. Would be good to compare results with camera vs. non-camera nests – See Denmon et al. 2013
- Is there a direct link in information from cameras one year to what is changed in management the next year or in real time? Yes and No. Both scenarios are playing out across Working Group members.
- If predation rates are really high you might not even have the opportunity to get a camera on a nest because the nests don’t stay around long enough
- Electrical fencing – Kathy wondering who has experience using these
  - Cumberland trouble with coyote; trouble with chargers; AMOY adults flew into the enclosed area; chicks able to get out? Yes. You can also ground out the bottom line – FL has not had good luck with this, opossum getting in.

Tim Keyes, GADNR – GA Restoration sites

- PPT
- Beneficial Use of Spoil – workshop last year to get BMPs for shorebirds into permitting process and get Corps to consider other beneficial use options as a practice
- Future Beneficial Use – DMMA plan being developed for use until 2080. GADNR a part of that conversation.
- Essential Fish Habitat has become an obstacle; Brunswick harbor they argued rock was creating more fish habitat but idea is to get away from using those hardening practices.
- Offshore bar restoration – losing bars, all three significant bars gone; still exposed at low tide. Multiple options - nesting platforms, sand fencing, can’t just bulldoze because of sand liquefaction.
- Shell rakes – 40% of GA nesters on shell rakes. Fair amount of overwash at these sites. Predators are a problem, less pairs per spatial unit. To be pitched as a shoreline stabilization project to fast track state permitting potentially.
- Initial elevation measurements to guide restoration efforts. GADNR has lots of infrastructure to do some of these projects.
- TX – projects to come up with AMOY platform designs; replicated substrate based on what AMOY are already choosing, using limestone.

**Lindsay Addison, Audubon NC – Banding database update**

- Contact Lindsay for help with anything database related
- Dark Blue now shared between SC and Alabama
- Summary of database stats
- What is the biggest challenge for Lindsay when administering the database?
  - Getting capture data from people
  - Public reports take time to respond and connect with banding records if not entered yet
  - Database currently being modified to accommodate for international resights; may also include a few attributes that not everyone will use but that will be available, like sibling/family information. Also looking into how to capture effort in a category, would like input from modelers if/how this would be useful.

**Kate Goodenough, Univ. of OK – Deployment of data loggers on AMOY in NC**

- PPT available
- How are AMOY using different habitats, what influences reproductive success, habitat or distance to foraging?
- AMOY bills an issue with outfitting individuals with movement tracking equipment; working on GPS tags with remote download with all sorts of capabilities that are down to 3.5 grams
- 2 data loggers out in 2019, modified harness, AMOY haven’t shucked them so far, improvement over 2013’s 6 PTT units which were much less accurate (250 m vs within 18 m)

**Kathy Parsons, Mass Audubon – Shorebird Habitat Restoration on Dead Neck Sampson’s Island**

- PPT available
- Mass Audubon co-owns the site with another conservation group
- Questions:
  - Veg maintenance on new nesting habitat? Yes, probably every 5 years new sand will be deposited.
  - How quickly did birds respond after nourishment; nourishment finished at end of January and birds set up in late March
  - Avicide, did that work well. Yes – in years when they don’t do that crows are a problem. Would be great to quantify the effectiveness for PR. Crows will begin to learn which eggs are good and which are bad (LETE work in CA).

**Shiloh Schulte – Mobile Data Collection Options**

- Wasn’t cost an important driver when considering Nest Story? The model at this point is not to charge and make it as available as possible.
- Using NestStory, you can still have multiple outputs. For example, use Nest Story to collect data but then output to PIPLweb, PIPlodes, etc.
● Bottom line is that there are multiple options for mobile data collection and the Group needs to figure out what are the most important metrics that everyone should be collecting and where should that be sent, how should it be archived, etc.
● Working Group could coordinate to offer assistance and guidance for those that need to get set up and/or access. Annual licenses can always be worked into grant proposals;
● Rachel – don’t forget that Nest Story has a lot of desktop tools that aren’t related to data collection in the field. You can upload data into Nest Story that was collected in a different way and get that desktop functionality;
● AMOY Website would be a good place to consolidate information about these potential options; USFWS (Rachel) has a summary of comparisons that is a jumping off point
● Rachel – is there nest data that they could play with to do a power analysis and say something about survey frequency and error; there is likely a ton of data to access. This is also what repeated survey work looked at.

Ben Clock, Clock Conservation Multimedia

● Examples of work photographing and filming shorebirds across the world.
● Beginning stages of a project with Manomet to think about filming AMOY – natural history, research, threats/conservation, successes.
● Will tell the tale of AMOY successes through Manomet lens. Modest funding to get the ball rolling.
● Group thoughts on education/outreach goals and funding suggestions.
● Kathy – need for footage to assist with training.
● Lindsay – staff watching these birds in the field have insight into individual birds that could benefit these efforts, telling specific stories about birds that we ‘know’
● Might be interesting to contrast more natural sites with more urban or heavily used sites
● State agency magazines and success stories
● Stakeholder analysis to figure out who are the audiences that are barriers to our work and what kind of media would bring them on board; human dimension folks out there who might be interested in combining these
  o PIPL have communication strategy that does some of this

Janell Brush, FL FWCC – FL update

● PPT available with details

Eduardo Palacios, CICESE and Guillermo Fernandez, UNAM – AMOY in Mexico

● PPT via Zoom

Shiloh Schulte – final discussions

● 5 Year Goals and Priorities and Funding Strategies
  o Habitat creation/restoration/management is relatively new to list of common activities
  o NFWF took 23% increase information and incorporated that into their internal business plan for AMOY as one of several focal species. They determined the 0.55 threshold that has been mentioned today and set a new population increase goal. That plan was not public at first but it is now.
- Shiloh will send link to Business Plan to list serve.
- Kathy – within PIPL world, emphasis on getting durable management plans from landowners is an idea (all sorts of landowners).
- Todd – example of municipal efforts to incorporate AMOY into their priorities. Tricky since AMOY aren’t listed
- Looking ahead in the context of SLR, what are our best management options going forward. What will their opportunities be? Tie into SECAS (Southeast Conservation Adaptation Stategy), potential for predictive habitat modification and change. AMOY are more adaptable to certain conditions which might open up more management options in the future.
- Engage coastal planners, easily marketable bird. Capitalize on birders, ecotourism, etc.
- Remain relevant
- Scott Johnson – Where NFWF is related to AMOY conservation and support for this work. New RFP highlights NFWF’s current commitment to AMOY. Coastal resiliency RFPs have potential for more shorebird participation.
- What is USFWS’s goal with AMOY over the next 10 years and how does that overlap with NFWF’s goals?
- Shiloh to follow up with Working Group with some sort of summary of discussion of initiatives that the group is thinking about and layout what to expect over the next year

2021 Meeting

- **Steering committee will follow up via list serve to gauge opinions for next year.** Options could include: 1) Plum Island area in MA, 2) Florida. Also gauge group’s interest in combining meeting with another to facilitate participation vs. going solo.