

# 2014 Atlantic and Gulf Coast American Oystercatcher Working Group Annual Meeting

27-30 October 2014

Gulf Coast Bird Observatory  
Lake Jackson, TX

Sue starts off with Welcome to Texas and logistics (and AMOY in cowboy hat)

Shiloh:

Game Plan and Introduction:

14<sup>th</sup> meeting, but this is one of the first to have such a strong presence of the Gulf states.

Discussion of meeting agenda

## **State of AMOY recovery initiative: Shiloh**

**Summary: We are currently at a rate of 0.53 chicks/pair/year. It's important to continue to move forward look at population trends, estimates. We will look forward to more involvement with new members, especially partners in Mexico as we work towards the meeting for next year.**

-The goal of 30% population increase (~.5 chicks/pair/year). After the start of the campaign, and funds from NFWF, reproductive success improved as active management and research increase. Now we are seeing 0.53 chicks/pair/year.

-2014 shows variable rates, high rates of success in the north east. 462 chicks, 795 pairs. Some gaps in the data highlight that we might need to use some system better than Google docs. Possibly a breeding and reproductive success database. Need a more effective tool. In general, 2014 seemed like a successful year. In MA they had high numbers, which could be a result of the number of people on the ground, no vehicles on the beaches, and a lesser amount of predators. More community based management, and experienced people helping.

-Are people still concerned with AMOY eating PIPL? In New York it seems to be a concern. Possibly because of density, they are much bolder. In New York the PIPL population is decreasing significantly, and even though they might have been view negatively, there are now more partners in NY that are supporting AMOYS.

-Productivity is important, but of course population trends are what we are interested in. Numbers from FL and GA lined up with the model results showing population declines with no mgmt efforts. We can project population increases with 50% and 100% increases in fecundity. When we look at population compared to these projections, the numbers fall onto the trend for 100% population increase after a recorded decrease. Shiloh suggests that there was a decline and then recovery, or at least no decline over the last 10 years. This is a very significant trend.

-Hopefully we can repeat the survey in the next 5 years.

-The 2009 population estimate used the reproductive success model to project the population, which matched up with aerial survey from GA and FL.

-Are we looking at how long term mgmt. actions impact these trends? Yes, created a best mgmt. plan document, including disturbance mgmt. and predator mgmt.

-Are there places where we are monitoring but not managing? Yes, when you compare areas that are managed versus those that are not but monitored there is a distinct difference in reproductive success.

-Other vital signs: there are other things that we are looking to get to that level of success. Communication and BMPs are successful and done well. Available to new members so you can use plans that already exist. We have coordinated management and monitoring. We can look at how much effort and how much habitat is managed, 850 miles. We are looking at how our efforts benefit other species. We have many partners and many supporters, and there is also a Mexico AMOY WG meet.

-3400 individuals (approx.) in Mexican surveys, mostly non-profits and private groups. We are hoping that there will be more exchange esp at the Waterbirds meeting. Less comprehensive surveys at the Gulf side of Mexico. Hope for more engagement at Waterbirds.

In summary AMOY WG is great, and successful and friendly and committed.

#### **Atlantic Flyway Shorebird Plan update-Shiloh, speaking for FWS**

**Summary: There are funds available especially into the future. Working together in multi-state partnerships, multi-species focus will be useful, but despite a flyway approach by FWS, NFWF is committed to supporting the AMOY WG for the 10 year period as originally promised.**

-Slowly moving forward, trying to expand our success to the entire flyway. Pacific flyway is currently in development. We need to work at the appropriate scale, this is largely an administrative breakdown. The area is quite large, the business strategy is developed, but there are not funds coming forward quite yet, despite projects being outlined. NFWF and FWS saying that in the spring or fall there is funding that will be focused on the flyway. There is talk of linking databases and management in a more formal way, and that way we be able to input data and analyze success upfront, which demonstrates a good level of commitment.

-How does that influence the AMOY WG? Well if they roll us into the flyway that might affect us. But, NFWF has stated that they will continue to support AMOY for the next ten years like they originally committed to. Both Atlantic flyway and AMOYWG will work together moving forward, and then after those ten years, moved into the Flyways likely.

-If you are applying to NFWF under the keystone initiative, that is where the 10 M comes from. Power of Flight grants are different

-Moving forward in applying for grants under the keystone initiative it might be helpful to include other spp that benefit from AMOY conservation. NFWF is especially interested in knowing how mgmt. for AMOY influences migrants and other breeding birds. Manage for AMOY and then very clearly discussing how that benefits other spp.

-Ruth said she applied for a grant and was told that the money is only for the Atlantic coast. Shiloh said he'll talk to Ian about that, but he said that in the past they've supported gulf coast work. He might be confused because he thinks that oil spill money might be used in the Gulf, and Shiloh said he'll talk to him. Right now there is not a lot of funding floating around for FWS, but it seems that there is an immediate gap.

**-There is a meeting coming up to look at the gulf coast monitoring network to see how NFWF and Restore funding will be used. This will ultimately be important, especially for long term monitoring. Meeting is 8-10 December in Rockport, it's a long process and anyone who is**

involved in conservation and wants to be involved is welcome. Interested people should try to get involved. The funding for that is still unclear. Again, we need to get NFWF on board with the gap in funding Ruth mentioned.

-So overall, there is real money that needs to get distributed. There is funding through the Gulf Benefit fund, so its important to be engaged with FWS and NFWF. This goes across several states, so partnerships are really important. But, some states like LA have a statewide plan, but it can be tricky to work together if states want their state prioritized. These states have different levels and plans that can cause gap situations and a lack of flexibility. Some of the gaps are because the restoration is focusing on barrier islands, but the AMOYs are nesting on bay islands that are very expensive to restore. Some politicians and community members are pushing for restoration and protection of these areas.

-Ian and NFWF are talking to folks in FL, but they are serious about population trends and that is their main focus. The WG has been able to show these results. Going forward they might shift efforts to WIPL because they are easier to manage and monitor than a migrating shorebird. Easier to see results. AMOY and WIPL are more tangible, and easier to show return on investment.

-Several times we've talked about looking a multispecies management. NFWF and FWS do seem to be looking at a larger scale, but they (NFWF) wants to have measureable results that come from single spp focus. Woody asked if there's a way to get more information about what NFWF is looking for specifically. Shiloh said that in the Atlantic Flyway Plan there are around 18 spp that are identified specifically. So it's kind of at a crossroads of wanting to do large scale conservation while still have measureable results.

#### **Website updates**

**Summary: NY is on the website. LA is coming. NJ is doing a great job of being updated. Affiliations and member list have been updated. Shilo Felton will take over once Tracey leaves.**

#### **Repeated count surveys help standardize multi-agency estimates of AMOY abundance**

##### **Ted Simons and Nathan Hostetter**

**Summary: Repeated count methods seem promising for an accurate breeding survey, using two different groups, "pairs" and "territories". Important to account for detection in these estimates which comes into play with using areas of known activity for comparison.**

-Follow-up on Nathan's presentation from last year. The 2013 project involved trying to use repeated counts and modeling to try to estimate breeding population in a less labor intensive and more accurate way. Always try to monitor during the breeding season because there is less variability in terms of movement and state. This is preferable to monitoring during migration or wintering. In 2003 and 2013 there were comprehensive wintering roosting surveys, but we are still working on how to better estimate breeding populations.

-Large scale efforts always involve lots of people, agencies, efforts.

-There are some serious challenges in defining what we are measuring and how we can measure it, without having to visit sites so many times like we do when we monitor nesting sites. What can we use to give us a high level of confidence when we are doing a survey in a more rapid way? Issues with detection probability and how to best estimate numbers, and what metrics are we most interested in.

-Overall, we think there are two 'groups' that we typically see when we are monitoring- territorial pairs and simply pairs. If birds are showing direct signs of breeding or territories, birds copulating or defending, have nests or chicks: all territorial pairs. Others are just pairs hanging out. We thought that distinguishing between these two groups would be useful. Detection probability is an important consideration. Detection is a process that involves sampling and observation. There is bias in both elements. How do we account for places we don't look in? Often, when we don't account for how the birds are stratified on the landscape. Second, what is the observational process, is there a systematic bias? We know there is random detection variability (Ex: is there a systematic bias associated with levels of behavior, habitat, is there something causing out counts to change that are not related to the population changing?) We need to account for these two biases. We can measure the detection probability to account for these biases. The best way we can monitor for AMOY is a repeated count method, allows us to get a running total of visits, and how many times we've seen an individual which allows us to estimate detection.

-So, during 2013 they did field surveys in NC and VA, some with known activity and some with no known activity.

-Used the two groups "pairs" and "territories"

-Repeated counts varies from a single visit to up to 6 visits.

-Used N-mixture models developed by Royle and put into practice by Jim Lyons to estimate abundance, and detection probability. Allows us to include covariates that might influence estimates. Estimated pairs and territories differently.

-Attempted to validate models with 13 plots where there was already intensive monitoring going on. Compared this to the estimates. The repeated count is significantly less effort than nest monitoring. Mostly there were unbiased observers running those validation repeated counts.

-Results: averaged about 0.7, but there was a significant range with a peak of detection around early June. There is a lot of variability over the nesting period, but it would be possible to try to narrow windows to highest detection. High tide is the best for detection. Some of the variation in this data set may be because winds and other factors can significantly impact tidal amplitude.

-When we look at the comparison between the nest survey on the ground estimates and compare them to the model estimates, in general it does match up pretty well. 10/13 matched in the credible interval. So in general, we find this encouraging, but this is a small estimate and a small geographic area. We weren't able to get as much replication, and there was some variation in survey effort with volunteers, but overall it seems that these estimates are pretty good.

-There needs to be a lot of discussion early on with collaborators to plan and keep things systematic, set clear goals. There could be significant biases with detection which is why we need to include an estimation that allows us to estimate detection as well, and we can adjust our counts with this detection probability. We need a way to standardize count methods especially over a long range where there are behavioral differences.

-Would want to investigate how many visits are the best in terms of estimation.

-We also need to look at how sampling biases might impact our estimates as we try to expand these methods more broadly. As you expand the geographic scope, the more important design

becomes. It can be straightforward if you look at how much money and effort you have, then randomize and stratify your sampling locations

-Question: if you went to a site where you knew how many oystercatchers were, you looked at how close your estimated survey results were to that? Yes.

-Question: in the N-mixture model that estimates are looking that the probability that you are picking up a bird? Yeah, it's looking at birds, not at the plot unit.

-Question: if you had banded birds, it probably helped improve the accuracy of the estimates right? Yeah probably, but the repeated counters were not reading bands and putting in a huge amount of effort.

#### **AMOY Rangewide Breeding Survey Redux- Ruth Boettcher**

**Summary: Goal to scale up breeding surveys with repeater measures method as a pilot study to determine efficiency and success. Need to decide on a metric that the group will use, and a methodology. Need to monitor areas of high, medium and low abundance. Looking for volunteers to carry out surveys this breeding season. Talk to Ruth by the end of the year.**

-Trying a new tactic! In 2011 sent out a survey to gauge interest of states and partners in a rangewide survey. Allowed her to determine the shared objectives. Included a resighting component.

-So, in general we all recognize this a huge undertaking. But we need to re-evaluate the approach. Might be better to take smaller steps so that we can create a robust estimate. So, we aim to expand the NC study over the next 2-3 years as a pilot study and see how it works in other places. Ruth says they are going to run one in VA.

-There are still some issues that need to be resolved. First we need to pick a metric to use: pairs vs territories. What is our overall objective? How to define this metric needs to be worked out. Likely we would count everything we see, so we would probably categorize birds, but we need to define this.

-We need a consistent methodology, account for spatial bias and survey areas with low, medium and high areas so we can get detection probabilities for these three strata. Also, need to look at detectability across habitat types.

-Ruth is proposing in the next couple years for expand range of pilot studies, so we can look at how much effort and variability exist in each state or region. Need to survey areas with low, medium and high abundance, and also would need to include intensive validation survey.

-Applying the results from Ted's NC work create some methodology: surveys should be done when there is the highest amount of detection: at highest activity, at high tide, using three surveys at a minimum, conduct validation.

Question? A minimum number of plots? Probably 30 or 40 plots or about 10 at each strata. The more the better of course.

-But there are some huge benefits for each state to participate in this. It will help you design other surveys and learn your own detection correction factor. Right now there wouldn't be any money and it would be just what the states can do.

Discussion about issues that need to be resolved:

-Ted: we have made good progress as a group, but this will really help us to be in a good position for future opportunities. In the Netherlands they've had a long term, large scale effort that came out of a disaster. By doing this large scale monitoring we

will be demonstrating that we are ready to receive funding when money does become available.

-Lindsay: Its not that bad, it doesn't add that much to your workload. Many places are already doing monitoring.

-Ruth: allows you to cover areas you may not have surveyd, which is cool right?

-Any interest in developing a citizen science protocol similar to Christmas bird counts to cover more areas? If you train them properly, yeah, but it would probably require a lot of initial training which could be intensive. Well if it was wintering it might be less disturbance? Yes, but this focus is all about breeding. Well we are worried about volunteers causing disturbance? Yes, some places are able to do this.

-Shiloh: the timing is good, it may take a couple years, but there's money coming through oil spill and Atlantic flyway. Many agencies are trying to figure this out, and we need to stay actively engaged, we could potentially have this protocol built in to a long term plan for a large scale area.

-Kacy: Citizen science is absolutely crucial, but her biggest concern is finding people that you can retain. FSA uses a lot of citizen science and they are struggling right now to interpret the data they've gotten, especially with training and using citizen scientists.

-Ted: AMOY is probably a great spp to use for citizen science because they are big and easy to see, and boating access can help limit disturbance.

-Ruth: need to balance the time and resources you'd have to dedicate to training and how that can impact your own budget for surveys.

-Ruth: VA has a good idea already of which areas are high, medium, and low abundance, and so that makes things easy. There are some areas she knows they never really search, and so even though it seems like there wouldn't be, you still want to search there.

-Ted: it doesn't have to be consistent effort if you know it's a low area

-Tim: metrics: what about if its an area that you know theres a pair there, you can probably assume its going to nest. What if you have a pair you really never see nesting?

-Shiloh: yeah, we needed to define these metrics. Yeah, that's why we had the territorial pairs and nesting pairs. We could probably define these metrics empirically using existing data. Match this sort of rapid survey with the intensive survey.

-Theres a lot of bias, and maybe theres a pair at the tideline. It seems like the pairs might be easier to count.

-On the data sheet, Ruth says you collect all of that information on the data sheet and then you can categorize them however you want.

-Ted: almost always if pairs are there they are trying to breed.

-Lindsay: but we had some pairs that never laid eggs.

-Shiloh: you also can have young birds that are not nesting, especially in July.

-Shiloh: what is the narrow window we are talking about. Days or weeks?

-Ted: A few weeks

-Shiloh: accounts for when birds might lose a nest and disappear

-What about birds that island hop? Who counts those birds.

-Ruth: narrow window will help with that

-What about birds that are just out foraging.

- Tracy: Doesn't this only matter depending on what we are interested in figuring out?
- Ruth: yeah, in the original objectives we want to figure out how many breeding birds are on the ground.
- So, in summary, think about it and if anyone is interested in doing this next year, let Ruth know. We will get set up for next season, and whatever you can do would be great. We will try to do this over the next couple years.
- Ted: yeah at any scale it will be interesting to see at more site, anything you could do would be helpful.
- Ruth; get in touch with me by the end of this year.

### **Amoy Symposium at joint Waterbird Society/AMOYWG meeting in Bar Harbor Aug 2015**

**Summary: Logistics will be fully figured out after this year's meeting is over, but things are looking on track so far. International committee has gotten serious funds from NFWF and National Audubon to bring international participants in. Symposium and publication is getting organized now, looking for commitment from participants by Dec 1 and abstracts around Jan 15. Need to decide on a theme.**

- Walker is on the phone. Last year we decided to pursue this joint meeting.
- Traci: logistics: tried to contact the College with the logistics of the meeting and structuring it. Prob. More feedback once this year's Waterbird meeting is over. In general, its definitely happening. Waterbirds people are on board and so are the people at the college. Having a meeting the day before, then a symposium during the meeting. Need to contact the science chair, who is the president-elect at Waterbirds.
- Stephanie: Head of the international committee. 14,000 and 7,000 from National Audubon and NFWF. A list of international participants has been compiled and group email has been sent, but response has been limited and personal connections would be great, so if you know anyone, that'd be awesome.
- Question: who are you looking for? People from research, Mexican AMOY WG, people that can contribute papers.
- Any other contributors would be really helpful, especially easier to sell with some funds in the bank. There is a gmail account for the international meeting at [AMOY2015InternationalMeeting@gmail.com](mailto:AMOY2015InternationalMeeting@gmail.com)
- Pam: Symposium and Publication: some background: the symposium is separate from the Waterbirds special edition. Stephanie Jones, the editor, is not going to be involved at the symposium, she wants to be involved in the special edition. You can present at the symposium but it doesn't have to be included in the special edition, and vis versa. We can put anything in there that we want. We will be the editors of the special issue, Stephanie will be in charge of a final run through. If you do want to get published, it might or might not get accepted. As a group we have to pay for this, about 14,000.00 which could be made up by page charges. If we work on the timeline of coming to the meeting with papers, they wouldn't be published until 2016. Need to select a theme for the symposium: 1)Biology of all oystercatcher 2)translating to multi-focal 3) Biology and conservation of AMOY. Need to start collecting ideas of what would be published, need more feedback in order to move forward. If you know someone who couldn't be here that's interested we might want to contact them. We could have a broad theme symposium with subsections.

Ted: needs to be an incremental process, people have said we are a great WG and forge connections, so this is one major goal of the meeting. We could have a full day or a half day symposium, a more ambitious goal is to publish, and once we get more feedback we can assess what we think we want to do in terms of numbers and quality of papers to publish, could do as few as 6 papers and as much as 12 for a full volume.

-Pam: Need to set a deadline for getting papers and abstracts to gauge what we might be able to pull together.

-Ted: We want to aim high and produce a good collection of all the good work that's going on.

-Shiloh: we will have our own day, but if we set a wide theme for papers, we could likely get enough for a solid publication. There's a lot of good research that's gone on, but that has not been published. We could work on a large scale publication that helps to quantify that, might be good, trying to gauge interest in that.

-Ted: I think that kind of overview or even a well done presentation on some of the challenges that we've had, and even though that's not a traditional scientific paper, it would probably be of interest. Waterbirds publishes a wide range of papers, from theoretical to applied. There is room for history and background but prob 75% would need to be research papers. They could still be applied, but they have to be original and scientific.

-Felicia, do we need to have a discussion on the topic.

-Todd: focal species to multi species is cool, but does not define the group.

-One idea is to have several sections, and have one theme building off the others, maybe start with the morning as AMOY biology and conservation and then building off that to talk about multi spp.

-Don't want to pick a topic that might discourage international participants from attending.

-Although having a long list of potential topics might help bring people in.

-Might need to have a preregistration date and a form.

-Ted: the taxonomic thing is something we can decide right now. He thinks the idea is to bring everyone together, and that there's no downside to inviting all oystercatchers.

-Shiloh: don't think there's a downside, but we might want to focus and break it down to several sections. But, it's also important to not lose the focus. We might need to filter it in some way.

-How many international participants so far? 4 (2 on AMOY directly, 2 on other shorebirds).

They are involved in Mexico AMOY WG

-Shiloh: if we include the Black OY it might double in size.

-At least 10 from the AMOYWG are interested in publishing. So, we are looking at about 20 presenters, which would be a whole day.

-Ted: Any concerns about expanding to a wide ranging meeting? It can take a long time. Primary objective is to have meeting forge connections, etc. and then if we can get a publication and have an end product even better. There was just an international volume of international oystercatcher conservation including status assessment and projections on a global scale. We don't want to duplicate that. But that was great.

-Are we on board with inviting BL Oystercatchers? Yes.

-Ideas for the meeting:

- 1) Western hemisphere AMOY
- 2) Multi spp from focal spp



- 3) All oystercatcher
- 4) Divide conservation vs ecology
- 5) Here's what's going on

- In general, a broad look at what we've done and how it had impacted AMOY. Making this publishable would be a challenge, but it would be valuable and in demand.
- Broadcast emails are easy to miss, announcements on North American Ornithological Society, personal emails.
- need a deadline and to create a form that asks for level of participation and need for funding. Full abstract by January 15, interest and participation by Dec 1.
- So, going forward, we will get forms of interest by Dec 1, and then abstracts by January 15. We have to get deadlines from Waterbirds and we haven't gotten anything yet because their meeting hasn't happened yet.
- We are looking to Waterbirds for handling the registration as part of Waterbirds.
- Is everyone still happy to continue working on their subcommittees? Yes but if anyone wants to help any subcommittees we need to.
- Can be very difficult to manage the sort of fund that we need to think about for funds. Easier to ask NGOs to sponsor people directly.
- Any additional costs associated with this? Not sure yet, we will let you know.

#### **Fish, Swim and Play from 50 Yards Away campaign: Kacy Ray**

##### **Powerpoint available**

- Showed the 30 sec PSA video, purchased airtime and internet and mobile phone advertising.
- Level of advertising depends on funding
- In TX, many birds nest on islands, so the majority of the efforts focus on outdoorspeople, boaters and fishermen
- Also interested in looking at results to see if advertising and outreach impacts behavior.
- during the surveys, they also looked at where people check the weather and the news, and targeted these times.
- survey results show that, in general, people are not aware of disturbance behavior
- and saw that people over time said they'd get as close as possible to without disturbing birds (but no one knows what a disturbed bird looks like).
- signs are important and a good way to deter people
- this was modeled after Texas' sea grass campaign, using PSAs and clever slogans, which was successful.
- Can be challenging to spread this throughout a broad region especially due to differences in costs.
- Looking forward to creating a coast-wide proposal that will focus on a variety of coastal species, besides just birds, which has been pre-approved to receive oil spill money.

##### **Questions:**

- Question: is the high cost of airtime worth it because there are so many people watching tv in Houston? There are services to distribute PSA for reduced costs for distributing PSA.
- Question: Where are the people who are boating a fishing coming from? All over, Dallas, San Antonio etc.
- Question: You had 15k to create or disperse the PSA? 15K to disperse it.

-Question: the psychology of changing behavior, petrified forest example. It's important to think about. Looking for funding to get in touch with a marketing firm to tailor the message to the audience that they are looking at. Can help show what people know, and why or why they don't care, and then help to tailor the message to those results.

**Update: Social media and the AMOY Working Group: Shiloh**

**Summary: We plan to add social media presence through Facebook, which will add to our great website and database as ways to involve the general public.**

- We have a great website and a great database, but at this point we don't have a presence on media.
- there was some concern about backlash, but it can be a great way to improve communication and increase traffic to website.
- Shiloh's spoken to a lot of other groups, and in general there's been a consensus that there's not a lot of negatives.
- Shiloh and Todd are interested in starting one, but request that members of the WG contribute content and help that facebook page stay updated
- Terrapin facebook page has it set with one administrator.
- A couple ways to gain interest: Make sure other larger involved share your AMOYWG updates, in the beginning might want to consider putting up advertising money to increase exposure, and where and when to post.
- Shiloh: not envisioning a huge concern with those details.
- Any objections? No? Okay, done.
- One important thing: we don't want it to become a repository for band resights. We can make this clear on the facebook page.

**Opportunity to participate in mercury assessment: Shiloh**

**Summary: If you are interested in participating in this, talk to Shiloh.**

- Biodiversity Research Institute has been taking blood samples in the Arctic to look for mercury.
- They are interested in expanding that to look at AMOYs across the range, and asked Shiloh if we would be interested
- If you're interested in doing this, talk to Shiloh. Looking at it for 2015
- Sue has blood samples from three years if anyone has money to fund the analysis
- Question: Hard to find a relationship between mercury levels and survivorship... Shiloh: probably wouldn't be looking at that. Is there concern with that? Well, in the Arctic, it was low cost, just exploratory at first, if there are certain high areas, we might want to look at it in a more indepth way.
- Question: looking at climate change increasing mercury levels in the environment and how that impacts the birds...(?)

Wrap-Up for the Day:

- Meet at the bar. This is important. Talk to the symposium people at the bar.

**AMOY MEETING DAY 2:**

**Effects of off-road vehicles on AMOY nesting at Cape Hatteras Natl Seashore: Tracy Borneman**

### **Powerpoint available**

Question: When you were talking about the driving period did you mean the whole session or just the period when you drove? Just that period.

Question: Flushing versus departure? Departure is just when they leave, flush is flying off because of cars

Question: How did your experimental driving compare with real amounts of driving? There is more traffic in real life, but this was feasible.

Question: For each pair did the flush rate change over time? It would be interesting to look at, it did seem that anecdotally, they did seem to get used to it. Small sample size is problematic.

Question: Same vehicle for all driving passes? Three vehicles, it is possible that they got used to our truck.

Question: Are they marked birds that might be used to traffic? Yes they can look at this

Question: So how do you actually close the beach? Signs and postings, there is still the highway on the backside people can use.

Question: How do people like that? They don't like it. It's been no driving on the beach since 2008. It's under the consent decree. Enforcement can be tricky, if pedestrians keep their feet wet, they are usually okay.

### **Discussion: Analysis of genetic connectivity of the AMOY population- Shilo Felton and Lindsay Addison**

#### **Powerpoint available**

**Summary: Lots of ideas about how we can use the database were discussed. Some ideas about recording survey effort were brought up, and this is an important consideration to making the database even more useful, but we don't want to unnecessarily clutter it, as well.**

Question from Lindsay to group: What questions do you want to ask the database?

- broad movement pattern throughout range

- site fidelity, pair fidelity, survival

(Yes these sorts of questions would be easy to answer, but detection probability would be useful to have)

- gender (would want to know how that was assessed)

- Without relatively consistent effort, it can be tricky to run a true multistate model.

- a spatially explicit survival map. Migrating versus resident birds having differential rates of survival?

- could update the map that we have

- using database in education and outreach opportunities (ex NJ story map product)

- we've been paralyzed by the imperfections in the data, but really we have a huge resource in this database. We can find many useful subset that are useful, and help fill in the gaps.

- even though we are professionals, detection and effort vary, there are still problems with our data, but we can continue to move forward with it.

- over time, moving forward incrementally, our confidence will improve.

- VA has six years of doing standardized high tide surveys that will be useful to look at.

- juvenile survival rates have been tough to get it

- we might in the future look for states to supply rough survey effort estimates

- would it be useful to record survey effort? Yeah, and focusing future analysis on areas with standard effort

- making it possible to record areas where standardized surveys are going on and then linking the observation back to the formal observation period
- going back to the citizen science component. Is there a better way to engage them? As a group we need to do a better job. Why?
- making sure its accurate, and stressing that, it might put off people from reporting bands
- people post pictures on facebook and social media, which can be frustrating
- there are people that appear to be birders that are using the database
- maybe encourage it as a school activity, maybe more educational postings at beaches are in areas where AMOY
- have a targeted time like AMOY week, and have people go out and look during a set time, and sell that
- what about certificates? An emailed certificate might be a good incentive.
- People who report bands do seem to love the information that they get back.
- Also, Lindsay encourages the group to enter a resight through the public side of the website
- Is there a way to link Christmas Bird Count survey effort with wintering public survey effort? Maybe, good possibility, but we have relatively few public observation?
- What about how eBird has the effort on part of their form?
- Master Naturalist- they have pins and maybe that would be a good incentive
- How many volunteers do you need? Maybe make it more structured and have set teams
- This is kind of a different: looking at how engage the public and motivate citizen science.

**A time activity budget of AMOY and investigation of factors affecting breeding adult behavior during the incubation and chick rearing periods: Amanda Anderson**

**Powerpoint available**

-Question: Only LAGU? Yes, also Brown Pelican

**AMOY and WIPL Reproductive Success in Georgia: Abby Sterling**

**Powerpoint available**

**The factors affecting daily nest and brood survival and body condition of AMOY- Amanda Anderson**

**Powerpoint available**

Question: Is there any way that there's a tradeoff between LAGU presence and less predators in impacting nest success? A lot of sites aren't accessible to mammals. No other types of predation when there is no LAGU

Question: Can't get rid of LAGU, density dependence and important to consider long term management implications

Question: How much would it cost to manage that? 20,000 a year from the Army Corps to maintain a veg free dredge spoil island. Or burn and spray the dredge spoil island for less.

Question: In any of your analysis were you able to look at parental age or site fidelity? We looked at fidelity but we did not find significance. We didn't include adult characteristics.

Question: What was the average distance between nests and colonies? 1-2 meters on the larger and more dense islands. Farther on less dense islands.

**Nest Site Selection of AMOY on the Upper Texas Coast- Sasha Munters**

**Powerpoint available**

Question: Do have a sense of what else you might have included in your models? Yeah, vegetation might influence the presence of predators and didn't think about that. Also interested in looking at fitness. Needed more precise elevation data.

Question: Do you think that distance to suitable foraging habitat matters? Yes that's why we included distance to oyster reef

Question: Why do you think that beach access points fell out? Too far from nests to matter, and boaters and fisherman matter more. Todd had a similar problem, but he had too many beach access points to make a difference

#### **Mass Audubon program update- Kathy Parsons c/o Shiloh Schulte**

##### **Powerpoint available**

Question: Mostly beach nesters or a bit of everything? A bit of all nest locations, mostly on little beach strands, and the barrier islands around Monomoy, Nantucket and Martha's Vineyard. A few on rocks.

Question: Pairs on Tuckernuck and Nantucket had snowy owls, one pair in May! Could account for low numbers this year

#### **Harnessing a Collaborative Database for Demographic Modeling of AMOY: Shilo Felton**

##### **Powerpoint Provided**

Extension of looking at broad scale population, want to pull in genetics and gene flow information. Someone is currently looking at feather samples from NC. Also interested in looking at blood samples. Learning that feather samples are a great way to get genetic material. Looks like you need to take about ten feathers, keep the feathers in paper envelopes and freeze them. Even if you do blot papers. That's all you need for sexing them. For genetic work, how much do you need? Genetic work means what? Population structures. Shilo is going to get more information. Do you know what primers you're using for sexing AMOY. What feathers are using? Body feathers, no one wants to pull wing or tail feathers especially during development. There's some evidence that pulling feathers can damage the site and causes deformities. Blood seems better. Some connection to Sean Murphy and Oregon State for analysis. Want whole dead birds? Ummm, probably not. Need to play that by ear.

-Talking about trying to update the database with gender of bird. Ted: look at dispersal and some other movement questions. If you have samples that could be used to identify sex, that could be useful.

-Shiloh: there might be an opportunity to work with Ian to get permitting text and the specifics of getting blood drawing added to the banding permit. Getting blood for genetics and sexing birds. Over the next couple of years we could do this all on the same permit.

-Are there specific cards? Yeah they are called DNA savers or protein savers, and it covered with something that protect the samples. The cap tubes are a little different.

-Ted- we talk about this routinely. The biggest cost is catching the bird. We should consider making this a group policy to take these samples.

-Tim: Okay, well what about training.

-Shiloh- there should be enough people that have the experience to train everyone and make sure everyone is all set to do that this field season.

-Felicia- we need to know what we need to buy, where you'd get them.

-Shiloh: We need to talk about that and get that information to the group

#### **Database Administration: Walker Golder c/o Lindsay Addison**

##### **Powerpoint provided**

Big discussion about when to assign breeding and non-breeding versus unknown. This gets tricky when you are trying to do queries in the database. Local habitat use is too fine scale for

database. Basically if you see a bird not acting like its breeding when you see it, you might say unknown. The database is not designed for territory mapping. If we are reporting bird, and we know that its breeding somewhere, but we see it at a different spot, it should be classified as unknown.

- Any ideas and suggestions let Lindsay know

- Talking about survey effort reporting. Lindsay suggests having two levels of surveys: coordinated survey effort versus opportunistic

- Ted: do we have enough information to report on band loss? Are people reporting band loss? There are a few records like that.

### **Discussion: AMOY Working Group next steps and Wrap-Up**

**Summary: Some upcoming projects: 2015 Waterbirds meeting, Breeding season survey, Breeding database? A draft of the BMP should be reviewed, and anyone interested in helping with that should get in touch with Shiloh. Banding BMPs would be useful, and we will set up training with bleeding birds for people interested in helping with the contaminant study. Shiloh and Todd will set up a Facebook page. Also, going forward we should all make an effort to document any additional species that benefit from AMOY management.**

- forming subgroups to accomplish specific tasks

- coming up in 2015 is the Waterbirds meeting and where we stand with that:

  - need group members to contact international and west coast partners to solicit titles (Dec 1) and abstracts (Jan 15). Get in touch with Stephanie before contacting people.

  - Pam and others in writing committee, if you need help let us know.

  - The Steering Committee is Shiloh, Ted, Felicia, Walker and Ruth. Responsibilities include advancing goals of WG and being in contact with sub-groups. If anyone else is interested or if anyone wants to step down speak up. Might be nice to have someone from the Gulf.

- breeding season survey work: expand pilot study to other sites, and there are a fair number of people interested. Ruth, parts of MS, MA, NJ, possibly SC. Coordination is important, Ruth do you want to be responsible for that. Around Dec 1 she will contact interested people and send out protocol and data sheets and spreadsheets and plan a conference call. Then after the field season, NC will get the analysis done, along with Nathan's powerpoint and manuscript. Ruth and Ted will discuss what metrics and logistics and realistic goals at this conference call.

- Collating summary data from across the states across the years, Shiloh brings up that a breeding database which would require some funding and structure, it might be good. If we keep it less complex and keep it like the summary data site by site, it would be easier to create a database.

  - Do we have interest in having WG members enter nest survival data into a database?

  - Shiloh is thinking about looking into structuring and funding through the same database as the banding database.

  - Using the polygons from the banding database would add a spatial component to link the banding database, and would be a good starting place.

  - Shiloh and Lindsay think it will easy and they will persue it

- Other projects going forward: A first draft of BMP for AMOY was presented at Cedar Key, Shiloh recommends the WG look at it and review it. When it was created theres been change and

growth in the group, some of it might not be relevant to everywhere, we need to update and expand that. If anyone is interested in helping with the writing and distribution of this, let Shiloh know.

-Also, Brita asked about a banding best management practice for AMOY and there isn't anything like that to date. Right now all we have is the statement of banding chicks just before fledge, but more details about when to band, what to use to trap birds, consolidate a document with the WG's knowledge. Need a volunteer to help with that. Banders should write up the bullet points for what you do, and what you think is important, and we can consolidate this. Include citations for box traps, how to get woosh nets, etc.

-Also, we need training and protocols for blood sampling. These exist for the Arctic shorebird demographic network. Shilo new will distribute stuff well in advance

-Todd and Shiloh are going to get facebook started. Lindsay will be an administrator as well and anyone else.

-Alex and Felicia, overlap between multi spp and focal spp conservation. Going forward we should document use of other species are using AMOY habitat. This is something many of us do, and this information that funding agencies will be look at. Even migrating shorebirds, so if there is overlap between staging and wintering shorebirds and nesting shorebirds, this needs to get documented. Right now, our interest is just shorebirds, but waterbirds and wading birds is still good to document. Next year when we put in our end of year AMOY summary information, we should include this information. This sort of information will be really useful going forward. Going forward we will try to incorporate some spatial information, but to start this is a good first step.

-Any thoughts or questions or anything about next year we haven't talked about

**-Next year:** Bar Harbor. So what about 2016, where do we want to go. Ocean Springs or LA?? Then in 2017 NJ. In 2018 it'll be VA.

-Later meeting dates are easier to have sharable results. October/November, but we do need to plan around Waterbirds, holidays and snow.

-What about Meixco? In reality is would be nice to invite at least one representative from Mexico each year. Travel funds for next year will remain safe at the university for five years. Todd is volunteering.