

**Joint 28th Boreal Partners in Flight & 26th Alaska Shorebird Group Annual Meeting
December 14-15, 2020 (Virtual)**

Monday, 14 December 2020

Opening and Introductions:

Melanie Smith (National Audubon Society), Audrey Taylor (UAA), and Rebecca McGuire (WCS)

Rebecca and Melanie listed all executive committee members within BPIF and ASG and provided an overview of the next two days.

- How do we make these meetings more accessible (virtual)
- Day one is a joint session with ASG and BPIF.
- Day two, morning is ASG and afternoon is BPIF

Three Billion Birds (3BB) & Road to Recovery (R2R):

Anna Lello-Smith, Cornell University, PhD candidate (aml442@cornell.edu)

- Summarized Rosenberg et al. (2019) paper on the loss of 3 billion birds since the 1970s. What is cause(s) of these declines?
- The Road to Recovery (R2R) initiative is currently a small group of biologists/scientists, but the hope is to expand and increase communications with others working on declining species. It is particularly important to coordinate efforts with groups in Latin America.
- The R2R goal is to develop ways to move from science to implementation of conservation and management initiatives that can lead to species recoveries. Before we can do this, we need to figure out where and when during the annual cycle threats are occurring.
- The R2R is leading a species-specific conservation approach, although a broad scale approach is also valuable. The threats that one species faces may not be the same across all discrete populations with that particular species.
- So far, there have been two R2R workshops (July and December 2020) and a roundtable during the virtual NAOC meeting in August 2020.
 - The first workshop introduced the goals of the R2R group. The second workshop focused on linking populations and migratory connectivity. The third workshop will focus on how to implement science as well as how to collaborate with scientists across Latin America.
- A “Species on the Brink” list has been developed using metrics developed by Partners in Flight (ACAD). This list identified 73 species with two sub-lists comprised of 39 species (e.g. data is available to estimate population trends), and 34 species (data is deficient but can be estimated by scientists). The species list can be found here:
<https://drive.google.com/file/d/1SBte0kOZwFB0zOiPAHnMPFkEtJhE1f8l/view>
- There is a third sub-list of common species that are in steep decline. This list includes 33 species with a >1 million loss in abundance and are in high urgency meaning that the species could be reduced by 50% in less than 50 years. This list is biome focused.
- The R2R group also developed a “Recovery Pyramid” that is used to evaluate our current understanding of factors limiting species populations.
- https://docs.google.com/spreadsheets/d/1YTYF_7J7NGrb9RnF5zDWxx858slAgugIDjIU_XgaAIS0/edit#gid=170504650

- Level 0: little to no thinking about a species (e.g. Pectoral Sandpiper).
- Level 1: a species is recognized as a priority, but no info on the causes of decline (e.g. Evening Grosbeak)
- Level 2: a conservation plan has been initiated, but is mostly descriptive (e.g. Yellow-billed Loon)
- Level 3, identified linked population and migratory connectivity across breeding and non-breeding regions (e.g. Lesser Yellowlegs, Semipalmated Sandpiper)
- Level 4, understand vital rates in breeding and non-breeding regions (e.g. Hudsonian Godwit)
- Level 5, specific causes of decline have been identified, integrated population model has been developed (e.g. Greater Sage Grouse, Lesser Prairie Chicken)
- Level 6, a conservation plan is complete and there is an investment strategy, adaptive management framework (e.g. Saltmarsh Sparrow)
- Level 7, conservation actions have been implemented to address limiting factors, recovery in progress (e.g. Kirtland's Warbler)
- Examples of species breeding in Alaska that fall within the Recovery Pyramid.
 - Olive-sided Flycatcher (Level 2): past decades have resulted in more research, but demographic data on the breeding grounds is still lacking. Migratory Connectivity work is currently in progress.
 - Lesser Yellowlegs (Level 3): We are beginning to understand how populations are linked, but need information on vital rates. We need information on vital rates from breeding and non-breeding regions.
 - Semipalmated Sandpiper (Level 3): Geolocators have been used link populations through migratory connectivity. Survival estimates are available, as well as nesting success and how success is influenced by environmental variables such as temperature. We need more information on temporal and spatial distribution and survival rates.
- Recordings of previous R2R meetings available at <http://marralab.com/r2rpart2/>.

Q&A Period

Melanie Smith: Who is the group collecting data for the R2R?

A: Just small group so far, Tom Will, Ken, Pete, Brent, Anna but they are wishing to expand.

Rick Lanctot: Is there a database to keep track of on-going work to allow collaboration and prevent duplication?

A: No, but in the future. R2R is currently working on funding to hire someone to work on this task and to make sure people aren't duplicating efforts.

https://docs.google.com/spreadsheets/d/1YTYF_7J7NGrb9RnF5zDWxx858slAgugIDjIUXgaAIS0/edit?usp=sharing

Rebecca McGuire: Is there any outreach being conducted to make people aware of the R2R efforts?

A: Mostly workshops so far to get the message out.

Jim Johnson: Are the R2R and ACAD lists published?

A: Not yet, Pete Marra is working on a publication, but the data is publically available.

Steve Matsuoka: Anything in addition to R2R that is in the works for recovering species?

- A. Yes, R2R hope to build partnerships with different Joint Ventures and agencies that are currently working on species in decline. Cornell is also promoting the Bird Friendly initiative to provide something tangible for the public.

Travis Booms: Is money better well spent on on-the-ground conservation focused on reducing broad threats that impact large groups of species?

- A. This recognized and the R2R group is not large enough yet which is why species-specific research is the focus. R2R realize that broad threats but can be difficult to focus on and species-specific recovery efforts are more efficient for recovery of species, at the present time.

Megan Boldenow: Is there an emailing list for R2R workshops?

- A. No, it is mostly by word-of-mouth.

Lynn Fuller: Which boreal birds in steep decline are on R2R list?

- A. Rusty Blackbirds, Blackpoll Warbler, Varied Thrush, etc.

Julie Hagelin: Can you provide an example of how a species-specific vital rate approach resulted in successful recovery.

- A. Saltmarsh Sparrow and breeding success changes due to sea level rise.

Jeff Wells: Does R2R intend to replace some functions of groups like BPIF, PIF, or just inspire them to provide recommendations to groups like PIF and USFWS?

- A. No, R2R initiative does not wish to replace current groups, but rather work on coordinating conservations efforts.

Melanie Smith: Are all 107 species considered in the R2R pyramid?

- A. Yes

Melanie Smith: Where are we going and what are the goals?

- A. The main goal is to have the 37 tier 1 species reach a 5 level on the pyramid. We need to get as many people working on these species as possible to move species up pyramid.

Steve Matsuoka: Can state and federal endangered species recovery programs provide guidance on effective recovery of species?

- A. The goal in R2R is to prevent species in decline from reaching endangered listing. It is important to include as many perspectives as possible.

Steve Matsuoka: Conservation efforts for some species have been going on for decade, but the species is still in decline. How will R2R be able to accomplish conservation when past efforts have failed?

- A. Unknown, but maybe this targeted approach to systematically determine limiting factors will work.

Audubon's Survival by Degrees report:

Brooke Bateman: Audubon director of climate science at national

- In October 2019 the "Survival by Degrees: Birds on the Brink" report was released and included 604 species, >140 million observations, >70 data sources and includes the largest dataset of bird observations.
- The species by degrees model included several covariates: climate, human land use, vegetation communities, and global surface water.
- The model included three different species distribution estimates based different warming scenarios (i.e. 1.5°C (Paris Agreement), 2°C, and 3°C).

- The model predicts that 2/3 of 604 species are at risk to range loss or extinction and the risk is not equally influencing groups of species within distinct biomes. The species occurring within the arctic and boreal forest biomes are most at risk.
- With any global temperature rise, there is a net loss or gain of species ranges and most are shifting their range northward.
- Although the influence of temperature on species range appears dire, we can improve the changes for 76% of populations if we keep global temperatures within the 1.5° C global temperature increase.
- Within the National Wildlife Refuge System, species turnover rates of 1/4 of birds across could be different in 30 years if emissions are not curbed. The Refuge system may no longer support a species due to range shifts.
- More species have improved climate suitability in winter than summer.
- With increased temperatures, more birds may overwinter than chose to migrate.
- Adaption recommendations: Alaska is going to see high colonization and high extirpation in the future. Climate change related threats in Alaska are high across the state, but most pronounced on St. Lawrence Island.
- In conclusion, climate change mitigation and adaptation are need for conservation of species.

Paper citations: <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.243> and <https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/csp2.242>.

Boreal Avian Modeling Project: Data Sharing and Open Science:

Teegan Docherty (Coordinating Scientists; Boreal Avian Modeling Project)

- The Boreal Avian Modeling project (BAM) is a collaborative project that supports conservation of boreal birds, address data gaps, and is data-driven.
- The project was developed in 2004 after it was realized that BBS data is lacking within the boreal forest due to associability. The project includes avian point counts, ARU data, and BBS data.
- All data is standardized and publically available following the BAMS open data strategy: WildTrax online data platform is used to share point counts and ARU data. The platform is easy to use and free. Data can be queried and includes automated detectability offset for species. The data within WildTrax can also be queried within the R package ‘WildRTrax’.
- The data from WildTrax can also be linked to larger databases such as NatureCounts and NA-POPS (i.e. population status and trends estimate open source database).
- The results from the Landbird Density Models can be viewed here: <https://borealbirds.github.io/>

Q&A

Steve Matsuoka: Is there a timeline for incorporating new data from Alaska?

A. The next round of density estimates will be completed in the next 2-3 months, but there will be subsequent updates.

Jeff Wells: Who funds WildTrax and does it have a long-term funding model to ensure its legacy?

A. WildTrax is supported by ABMI. This open data initiative to support this network and these databases is supported through a multi-year grant from ECCC. Longevity is one of our greatest concerns and part of the plan.

Audrey Taylor: Are citizen-science derived datasets of interest to BAM/WildTrax?

A. BAM is interested in citizen science data if it is point count data, our partners at Birds Canada have other types of avian data that they host.

Overview of Western Boreal Initiative:

Samuel Hache (Environment and Climate Change Canada)

- Pan-Canadian approach was developed as a means to determine how we are going to manage species at risk. This is a broad scale approach which includes many collaborators with the goal of making conservation and management more cost effective.
- The Western Boreal Bird Initiative outlines priority places, priority species, and priority sectors (i.e. agriculture, forestry, urban development). The current two-year workflow plan is to evaluate effects of climate change and simulate disturbances to lead to conservation. There are >40 staff working on initiative, plus 10 managers.
 - The initiative outcomes include 1) defining the cumulative effects of climate change and natural and anthropogenic disturbance on priority species, 2) spatiotemporal optimization to provide recommendations for other priority regions, 3) include engagement from indigenous people.
- ‘SpaDES’ R package can be used to build and run spatially explicit discrete event simulation models. <https://spades.predictiveecology.org/>;
<https://github.com/PredictiveEcology/SpaDES-modules/wiki/Current-modules-in-development>
- The existing model framework, 2018-2019 integrates spatially explicit models.
- https://drive.google.com/file/d/1BtMC9Ve_Tfwh2keBKSxrp_IHfwHyXd8Y/view?usp=s_haring

Q &A

Steve Matsuoka: What are the limitation for extending this into Alaska?

A. Capacity, many components go into these models.

Audubon’s Migratory Bird Initiative:

Melanie Smith (National Audubon Society)

- The goal of Audubon is to secure the future of migratory birds by protecting places, reducing threats, and engaging the public in the joy of migration.
- Audubon recently developed a geospatial platform for hemispheric bird conservation.
- An animated model was developed by Cornell University using eBird data and focuses on the species distribution (i.e. abundance and occurrence) of species during the annual cycle, but does not include any information of migratory connectivity or how populations are linked.
- The Audubon animated model includes bird tracking data (banding, automated telemetry, geolocators, GPS, Doppler) and hemispheric threat layers.
 - Product: annual cycle maps, local connections maps (outreach product), and threat exposure (e.g light pollution for Blackpoll Warbler during migration).
 - Local connections example: linking birds that breed in the NPR-A to other sites across the United States where the same birds occur during migration.
- Collaboration is essential for the success of this project and new data is always appreciated. Current species maps will be published in middle of 2021.

Management Subcommittee:

BPIF and ASG wrote and submitted seven letters since the 2019 meeting.

1. **Roadless Rule in the Tongass National Forest:** alternative 1=no change to the current rule, 2-4 some protections remain for wildlife, 5-6 protections of wildlife and the environment will be lifted. Our letter proposed the acceptance of alternative 1.
 - Current status: Tongass exempted from the rule. The rule is in litigation, wait and see mode.
2. **Proposed changes to NEPA rules:** signed onto a multi-group letter led by Audubon. Final regulation in July/August and it is unknown if changes have been implemented. BOEM still waiting on guidance from Washington.
 - Does not require cumulative effects analysis.
3. **NPR-A draft ESA integrated activity plan:** we recommend alternative B.
 - Current status: Record of decision but has not been signed. BLM waiting for consultations to be complete.
 - Comments on tract lease sales are due (hand-delivered) by December 17th.
 - There are organizations that will hand deliver them for you if you email them your letter: <https://www.refugeassociation.org/action-alert-arctic-call-for-nominations?eType=EmailBlastContent&eId=e2c797ea-2463-4ec5-8672-af4a32cd643a>
4. **Draft EIS Migratory Bird Treaty Act:**
 - Current Status: The federal action should strengthen the act rather than weaken. The M-Opinion was written to eliminate incidental take. The M-opinion was taken to court in August and ruled invalid, but the administration still finalized rule.
 - On November 27th, 2020, the Service announced the publication of the final Environmental Impact Statement (FEIS). The Final EIS is available for public review for 30 days, after which the Service will issue a Record of Decision.
 - <https://www.fws.gov/regulations/mbta/>
 - <https://www.washingtonpost.com/climate-environment/2020/11/27/migratory-bird-treaty-act/>
5. **Elimination of the UAA Geography & Environmental Studies program**
 - Current Status: Board of Regent chose to discontinue the program, but has a 4-year teach-out. Biology picked up environmental signature offerings, but the NEPA writing course removed.
6. **ASG commented on Fraser River Estuary in Canada**
 - Current status: The project has been paused because the proposal included inadequate protections for orca and chinook salmon
7. **ASG commented on use of personal watercraft (i.e. jet skis) in Kachemak Bay and Fox River Flats Critical Habitat Areas.**
 - The definition of the term "personal watercraft" was relocated in 5 AAC 95. The Lieutenant Governor signed and filed the regulation on December 10, 2020, and they become effective January 9, 2021.
 - The regulations can be found at: <https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=200742>
 - For further questions, please email rick.green@alaska.gov or call 907-267-2228

2021 & The Future:

1. BLM Central Yukon Resource Management Plan EIS

- Dalton Highway Utility Corridor
- Central Arctic Management Area (CAMA) Wilderness Study Area (WSA)
- A segment of the Iditarod National Historic Trail
- Include portions of the Gates of the Arctic National Park and Preserve, the Koyukuk, Innoko Northern Unit, Nowitna, and Kanuti National Wildlife Refuges, and the U.S. Army Tanana Flats and Donnelly training areas.
- **Public comment period is 11 Dec-11 March, virtual public meeting starting in mid-Jan 2021** <https://www.blm.gov/programs/planning-and-nepa/plans-in-development/alaska/central-yukon-rmp>

2. Marsh Creek East Seismic Exploration, 1002 Area, Arctic National Wildlife Refuge

- This a seismic exploration project in the 1002 area of Arctic NWR. BLM is preparing an EA to allow authorization of the exploration. Seismic exploration generates acoustic waves that are picked up by sensors as the waves bounce off subsurface formations. From this information, images can be created that show subsurface topography and formations including those areas of potential hydrocarbons. Exploration occurs during the winter but also involves spring/summer actions to pick up trash, etc.
- The environmental assessment and draft finding of no new significant impact are available to review for 14 days and can be viewed: <https://eplanning.blm.gov/eplanning-ui/project/2003258/510>.
- **Public comment period: December 15-28**
- This project (DOI-BLM-AK-R000-2021-0001-EA) is listed on BLMs ePlanning site: <https://eplanning.blm.gov/eplanning-ui/project/2003448/510>

More information:

- https://eplanning.blm.gov/public_projects/2003258/200392048/20028533/250034735/KIC%20Marsh%20Creek%20Seismic%20Proposed%20Action.pdf
- https://eplanning.blm.gov/public_projects/2003258/200392048/20028534/250034736/KIC%20Marsh%20Creek%20East%20Plan%20of%20Operations.pdf

3. West Susitna Access Project

- The Alaska Industrial Development and Export Authority (AIDEA), in partnership with the Matanuska-Susitna Borough, has a development project to provide road access to the western half of the public land between the Little Susitna and Susitna River. An Online Open House provides information about the West Susitna Access Project and solicits public input. Visit the following website: <https://westsusitnaonline.org/>
- **Public comment period: November 13 to December 20, 2020.**
- More information:
- <https://www.matsugov.us/projects/west-susitna-access>
- <http://www.aidea.org/Programs/ProjectDevelopment/WestSusitnaAccess.aspx>

4. Cook Inlet Lease Sale (Sale 258)

- The Outer Continental Shelf (OCS) Oil and Gas Program for 2017-2022 includes one lease sale in the Cook Inlet Planning Area, Sale 258, scheduled for 2021. BOEM will be releasing a Draft EIS as early as January. It only has a small onshore component but there are phalaropes in the Inlet plus all the migratory bird fly-overs.
- For more information: <https://www.boem.gov/ak258>
- 5. Oil and Gas Drilling Project south of Nuiqsut**
 - This is an oil and gas exploration project in NPR-A south of Nuiqsut and is being proposed by Accumulate Energy Inc. and is entitled AEA Oil and Gas /exploration. BLM is conducting an EA-level analysis on the project and it will be out on the NEPA register soon.
 - The project (DOI-BLM-AK-R000-2021-0003-EA) is listed on BLMs ePlanning site: <https://eplanning.blm.gov/eplanning-ui/project/2003448/510>
- 6. Copper River Basin Management Plan**
 - State of Alaska Department of Natural Resources is seeking wildlife information for the Copper River Basin Management area. Data on habitat associations would be especially useful.
 - **Scoping will begin in February.** You can send your data to Julie Hagelin (julie.hagelin@alaska.gov) for compilation.
 - For more information: <http://dnr.alaska.gov/mlw/planning/areaplans/crbap/>

Discussion:

Ted Swem, Rick Lanctot, and others...

- We need to think strategically about long-term/broad scale impacts on birds.
- Individual letters will likely not have an impact on the industry, but having a record of comments could help in subsequent legal proceedings.
- Many of the member of this meeting (BPIF and ASG) would appreciate training/assistance on how to navigate the NEPA process.

Additional Information:

- A Citizen's Guide to NEPA: https://www.blm.gov/sites/blm.gov/files/A_Citizens_Guide_to_NEPA.pdf
- BLM Plans in Development: <https://www.blm.gov/programs/planning-and-nepa/plans-in-development/alaska>
- US Forest Service Schedule of Proposed Actions for Alaska
 - Chugach NF: <https://www.fs.fed.us/sopa/forest-level.php?111004>
 - Tongass NF: <https://www.fs.fed.us/sopa/forest-level.php?111005>
- BOEM Environmental Impact Statements and Major Environmental Assessments Page <https://www.boem.gov/about-boem/environmental-impact-statements-and-major-environmental-assessments>

Tuesday, 15 December 2020

Welcome and Introductions:

Rebecca McGuire (WCS)

- 26th annual meeting and thanks to Zak Pohlen for the new website
- Email Zak and Rick a PDF of presentations to add on the website
- Make sure to contact Rick Lanctot (richard_lanctot@fws.gov) to be added to the listserv, if you are not already.

Announcements and Updates:

Alaska Bird Conference (Dan Ruthrauff)

- The meeting was supposed to be in Homer, but has postponed until December 2021.
- The steering committee will begin planning efforts in February or March, 2021.
- <https://www.alaskabirdconference.org/>

CAFF's Arctic Migratory Bird Initiative (Rick Lanctot)

- The initiative began in 2015 and 2nd work plan began in 2019 (2019-2023).
- The goal is to improve the conservation status and secure the long-term sustainability of declining Arctic breeding migratory bird populations.
- The initiative is comprised of 4 different flyways
 - *Americas Flyway*: support for the development of the Midcontinent Shorebird Conservation Initiative. Scott Fleming is conducting a review of plastics in shorebirds and trying to understand the vulnerability of shorebirds.
 - *East Asian-Australasian Flyway*: renamed the Central and East Asian Flyways; Gyrfalcon, Yellow-breasted Bunting, and Asian subspecies of Whimbrel were added as focal species. The flyway partnership supported the EAAF shorebirds science meeting.
 - *Circumpolar Flyway*: mostly comprised of seabirds and the Northern Fulmar was recently added as a focal species.
 - *African-Eurasian Flyway*: not of focus for migratory birds breeding in Alaska.
- <https://www.caff.is/arctic-migratory-birds-initiative-ambi>

CAFF's State of the Arctic Terrestrial Monitoring Report (Casey Burns)

- Circumpolar Biodiversity Monitoring Report, terrestrial group. Currently in the final round of edits and will be presented for final approval and published in May. The report included trends by birds, arthropods, plants, and mammals. Casey asks, "How can we implement this plan in conjunction with our counterparts across the Arctic".
- <https://www.caff.is/terrestrial>

CRIMBI update (Erin Cooper)

- CRIMBI provides money to international organizations to conserve waterbird species including shorebirds.
- The International programs office supports many different international programs including:
 - Aves Argentina, Point Blue, Manomet - Laguna Mar Chiquita Wilson's phalarope abundance study
 - Amazon basin shorebirds project focus in the Peruvian Amazon
 - Urban outreach projects for migratory birds in Lima, Peru in collaboration with CORBIDI
- Community engagement is a large component of CRIMBI: many international virtual festival have taken place, but local and indigenous communities can be hard to reach because internet access is not always available.

- The Cordova Shorebird Festival was virtual in 2020: Included Facebook steamed events, virtual shorebird counts, and a plenary presentation on Hudsonian Godwits by Nathan Senner and Diego Luna. 11,600 people actively engaged in the festival!
- <https://www.fs.fed.us/global/wings/birds/crimbi/welcome.htm>

Pacific Shorebird Conservation Initiative (River Gates)

- The initiative is focused on providing capacity support for partners and grant opportunities via USFWS aid.
- River coordinates proposals submitted by partners and provides technical writing support.
- The initiative works closely with Atlantic and Midcontinent flyway shorebird initiatives and there is a landing page (website) that talks about three Americas Shorebird Conservation initiatives.
- A primary goal of the initiative is to deliver education and training to partners by developing a webinars on migratory species and the conservation of species in different geographic regions. The first webinar will focused on the nuts and bolts of conservation and will be followed by webinars with more targeted aims for establishing relationships and collaborations. Webinars are co-produced with Manomet.
- Future goals of the initiative are to update the website and distribute newsletters more frequently.
- <https://pacificflywayshorebirds.org/conservation/>

Midcontinent Shorebird Conservation Initiative (Rick Lanctot)

- The initiative was just started in the hopes of filling gaps between Atlantic and Pacific flyway initiatives.
- This initiative covers the central Arctic and boreal regions, and the central portion of North America including the Great Plains, Central and Mississippi flyways. It also includes central portions of South America.
- There are currently 26 focal species and the main goal is to place local action in a flyway context and integrate efforts and focus on collaborative efforts.

Shorebird Science and Conservation Collective (Rick Lanctot)

- This collective was just recently established and grant money was provided by the Knobloch Family Foundation. Autumn-Lynn Harrison at the Smithsonian Migratory Connectivity Project will be supervising 3 new fellows and Rick Lanctot will be chairing an Advisory Group to help direct their work.
- The goal is to fill analytical needs to summarize shorebird tracking data across multiple species to look for super hotspots and gaps in our knowledge, and then use this knowledge to implement on the ground conservation. The summary of tracking data will take place throughout the Western Hemisphere but the focus of on-the-ground conservation will be in the North American midcontinent.
- The Advisory Group will be composed of both conservationists and scientists working with shorebirds, and as such will help direct the fellows to work on issues that the shorebird community deems most in need.
- The initial webinar was held in November and can be seen here: <https://bit.ly/3601F1D>
- The next meeting is January 5th, 2021 at 10AM AKST, wherein a discussion of the Collective and two other initiatives that require tracking data (National Audubon, Smithsonian's Migratory Connectivity Project) will be presented.

Western Hemisphere Shorebird Group (Rick Lanctot & River Gates)

- The WHSG was launched in 2006 in Boulder, Colorado.
- The group promotes awareness of shorebirds and holds meetings to promote range-wide management and conservation for migratory waterbirds.
- The annual meetings include 4 days of talks/workshops and 1 field day.
- Travel grants for students and Latin American professional are made available through generous donations. This helps promote a larger attendance from multiple countries. At the Panama conference there were 150-200 attendees. The meeting is held in English and Spanish.
- The next meeting is at Puerto Madryn, Argentina in 2022 (combination of virtual and in-person)

International Wader Study Group (Dan Ruthrauff)

- 2020 marked the 50th anniversary, but this year's meeting was virtual. All the talks can be seen here: <https://www.waderstudygroup.org/conferences/>
- This is an established group that helps connects people to small funding sources.
- The group supports the international journal *Wader Study* (formerly *Wader Study Group Bulletin*) and has also published the *International Wader Studies*.

Global Flyway Network and Yellow Sea Issues update (Lee Tibbitts)

- A summary was provided by Hebo Peng
 - Reclamation has almost stopped along Chinese coast and a new world heritage site will be established.
 - Benthos densities continue to be very low in Yulu Jiang where Bar-tailed Godwits stage and additional surveys are in the works.
 - The Chinese government is very interested in the conservation of wetlands and some have been restored for waterbirds in the Yellow Sea by removing sea cucumber farms.
 - The rapid invasive of *Spartina* remains the biggest issue, but how to control it remains a challenge.

East-Asian-Australasian Flyway (EAAF) Partnership (Rick Lanctot, Dan Ruthrauff, Lee Tibbitts)

- This is an international framework to manage all migratory bird species along this major flyway. There is a Secretariat in Inchon, South Korea. There are 39 partners from 18 countries, 6 intergovernmental agencies, 13 international NGO, and 1 international private enterprise.
- The partnership has a network site of important areas. Currently there are 144 designated sites of conservation importance including two in the, USA (Alaska): Yukon Kuskokwim River National Wildlife Refuge and Qupaluk in NPR-A.
- This partnership meets every two years, and has 7 working groups and 9 task forces, including the Shorebird Working Group. Details of the Shorebird Working Group and their priorities can be found at: <https://www.eaaflyway.net/project/shorebird-working-group/>.
- There shorebird group has an active Facebook page (East Asian-Australasian Flyway Shorebird Conservation Network)
- The 1st EAAF Shorebird Science Meeting was held in November 2020 (see <http://www.eaafssm.com/>) This virtual meeting had >400 registrants from 39 countries.
- Next meeting of the EAAF partnership will be in Brisbane, Australia in March 2022.

- The EAAF Partnerships website is: <https://www.eaaflyway.net/>

EAAF Partnership’s Technical Committee and Outreach Committee (Casey Burns)

- This was a quite this year due to Covid-19, but they continue to build a strong partnership with the Forestry Division in China.
- The next planning session will occur at the next meeting in March. 2022. There will be a session focused on shorebirds and indigenous communities.
- Conversations with Japan continue to progress to promote a sister site to the Qupaluk network site in Alaska where Dunlin are the focal species of concern.

Arctic Breeding Birds Conditions Survey Annual Forms (Rebecca McGuire)

- This survey databases keeps track of avian studies conducted in the arctic and includes two datasets: site and general bird data, and specific information on individual species.
 - Information collected includes detailed bird observations, lemming abundance, and predator occurrence.
 - www.arcticbirds.net

Annual Summary Compilation (Laura McDuffie)

- 2020 marks the 21st summary report, which includes abstracts from all field projects conducted annually.
- This year the report includes 8 summaries and 20 publication citations.

AOS and Canadian Ornithological Society (Colleen Handel)

- This year’s conference will be virtual and it is an excellent opportunity to present research without the need for travel approval.
- The conference announcement will come out soon.
- Research grants will be offered for people or organizations financially influenced by Covid-19.

Election of Officers – the following were nominated and accepted.

- Katie Christie (ADF&G)=chair
- Emily Weiser (USGS)=member
- Callie Gesmundo (USFWS, WCS)=member
- Lindsay Hermanns (MS student Virginia Tech)=member
- Jenell Larsen Tempel (ADF&G)=member

Scientific Talks:

Harvest exposure of Lesser Yellowlegs (Laura McDuffie)

- Lesser Yellowlegs are experiencing a precipitous decline and are influenced by many potential threats, but harvest is prevalent.
- Not all breeding and post breeding populations are exposed to harvest equally.
- Collaboration is essential for successfully conserving species in steep decline.

Dunlin subspecies exhibit regional segregation and high site fidelity along the East Asian-Australasian Flyway (Ben Lagasse)

- Different sub-species of Dunlin are indistinguishable in body structure and plumage, but stage in different areas in some instances.

- The objective of the study was to identify overlapping staging/wintering site for Dunlin subspecies in the China Sea, Yellow Sea and Japan, and precludes to the strength of migratory connectivity.
- In the Yellow Sea, there been 65% of habitat loss and the population decline in Dunlin is through to be due to threats in non-breeding regions.
- Capture/resighting records of color banded birds were used to differentiate staging/winter site use among subspecies.
- Results:
 - *Arcticola* subspecies of Dunlin likely only occur in Japan and there is low migratory connectivity meaning that there is mixing of subspecies. There are movements between the China Sea and Yellow Sea.
 - Most subspecies occur at the Yellow Sea, so conservation in this region is needed.
- Caveat of results
 - Sample sizes of subspecies were different across sites
 - Observer effort changed over time
- The future goals and direction is to compare findings with geolocator information.

Abundance and distribution of wintering shorebirds along the Pacific coast of Guatemala
(Callie Gesmundo)

- Information on the presence and abundance of migratory birds occurring in Guatemala is lacking.
- A recent shorebird survey project was initiated to help fill knowledge gaps along the Pacific coast of Guatemala. Many collaborators were involved in the project (including local scientists) and the work was recently published in Wader Study: DOI 10.18194/ws.00200
- One of the main goals while working in Guatemala was to promote education and outreach among the public and local scientists. A local biologist, Varinia has used the survey and monitoring training she received to build local capacity and mobilize shorebird conservation efforts in Guatemala. Varinia was recently names a Coastal Solutions Fellow and is working with Guatemalan salt and shrimp farmers to create and implement a plan for best management practices to enhance shorebird habitat.
- Ecotourism and bird watching is beginning to take hold in Guatemala and locals are participating in ecotourism training.

Migratory movements of Red Phalarope in the Beaufort, Chukchi and Bering Seas (Sarah Saalfeld)

- Red Phalarope breed in the arctic and are pelagic migrants, meaning that they use marine environments during the non-breeding period. The species is declining and the cause may be link to the marine environment.
- Objectives of this study:
 - Document migration
 - Compare the species distribution to oceanographic conditions (phytoplankton, primary productivity, sea surface temperature (SST), distance to coast)
 - Compare distributions informed by tracking data to observations during at-sea surveys.
- 92 PTT transmitters were deployed from 2017-2020 in Alaska (mostly Utqiagvik), including 9 in Canada.
- Results:

- Birds originating in Alaska took a western migration (Pacific) route to the Aleutians, Russia, and South America, and Russia and Alaska. Birds originating in Canada followed an eastern migratory route.
- Timing of migration was not consistent for all individuals and females departed breeding sites earlier than males.
- Many birds used the Bering Strait region and used near-shore areas more than expected (phytoplankton more prevalent along the coast) and were not using the ice shelf.

Tying up the day

Important Issues:

1. When should the next meeting occur?
 - Best option seems to have a business meeting prior to the Alaska Bird Conference, and have scientific talks during the full conference.
 - If ABC needs to go virtual, that will be ok and ASG could be virtual again.
 - We should increase participation by holding a hybrid virtual and in-person meeting/conference from here on.
 - We need to determine the bandwidth capacity at facilities in Homer (Islands and Oceans Visitor Center).
 - Kristine Sowl will send out a poll within the next 5 months to determine where members are located and if agencies are now allowing travel.
2. Mary Anne Bishop: Copper River Delta Motus tracking tower (automated tracking tower) will be set-up next year. Is there any interest in setting-up towers in other parts of Alaska?

Thoughts:

- Motus is valuable to increasing capacity of local movement data, but not questions of migratory connectivity.
 - Could be an excellent way to engage coastal communities in migration ecology, but towers need to be maintained regularly.
 - Land manager needs to be included on the planning team, we don't want too many organizations involved or it could get messy.
3. Katie Christie: Should our goal in 2021 be to increase our public outreach? Any ideas?

Thoughts:

 - Rick: it is always important for ASG members to present on research topics to engage more people in shorebird conservations. We also need to provide layman's presentations to the general public and kids.
 - Kristine Sowl: Katchemack Bay Shorebird Festival, Friends of Alaska Refuges Group, and the Arctic Bird Festival are always looking for presenters.
 - Casey Burns: We need to maintain synergy among resources agencies when it comes to outreach.
 - Steve Matsuoka: We should establish an outreach committee and they can present outreach case studies.
 - Erin Cooper: A researcher Instagram takeover may be of interest or we could start a Facebook page.

- We decided to hold an outreach subcommittee meeting in January 2021.

Full meeting participant list:

Anna Lello-Smith (Cornell University)
Audrey Taylor (University of Alaska Anchorage)
Autumn-Lynn Harrison (Smithsonian Migratory Connectivity Project)
Becca Young (Alaska Songbird Institute)
Ben Limle (USFS, Ketchikan Misty Fjords Ranger District)
Ben Lagasse (USGS)
Brian Robinson (USGS)
Brent Jamison (USFWS)
Brooke Bateman (National Audubon)
Callie Gesmundo (USFWS)
Courtney Amundson (NPS)
Carline Van Hemert (USGS)
Casey Burns (BLM)
Catherine Pohl (independent biologist, Juneau)
Chris Barger (ADF&G)
Chris Harwood (USFWS, Kanuti NWR)
Carol McIntyre (NPS)
Colleen Handel (USGS)
Dan Ruthrauff (USGS)
Danielle Gerik (USGS)
David Iles (Environment & Climate Change Canada)
Diane Granfors (USFWS)
Debbie Nigro (BLM)
Emily Weiser (USGS)
Emily Williams (Georgetown University)
Erin Cooper (USFS, Cordova)
Garrett Savory (Center for Environmental Management of Military Lands)
George Matz (Kachemak Bay Birders)
Gerald Frost (ABR)
Gwen Baluss (USFS)
Hannah Vincelette (USFWS)
Jamie Welfelt (USFWS)
Jeff Ball (WCS)
Jeff Wells (National Audubon, VP Boreal Conservation)
Jenell Larsen Tempel (ADF&G)
Jim Johnson (USFWS)
Joanna Wu (National Audubon)
Joe Delabrué (USFS)
April Harding Scurr (Alaska Songbird Institute)
John Pearce (USGS)
John Shook (ABR)

Julie Hagelin (ADF&G)
Justin Smith (Center for Environmental Management of Military Lands)
Katie Christie (ADF&G)
Katie Aitken (Yukon University)
Kim Jochum (NPS)
Kristin DuBour (USFWS)
Kristine Sowl (USFWS)
Laura McDuffie (USFWS)
Lisa Pajot (USGS)
Lee Tibbits (USGS)
Lynn Fuller (Pacific Birds Habitat Joint Venture)
MaryLisa Mahon (Environment and Climate Change Canada)
Marci Johnson (NPS?)
Mark Bertram (USFWS)
Mark Romano (USFWS)
Mary Ann Bishop (Prince William Sound Science Center)
Maureen de Zeeuw (USFWS)
Megan Boldenow (USFWS)
Melanie Smith (National Audubon)
Melissa Burns (USFWS)
Melissa Cady (USFWS)
Nick Docken (USFS)
Pam Sinclair (Environment and Climate Change Canada)
Philp Martin (USFWS)
Rachel Gingras (UAA)
Rachel Richardson (USGS)
Rebecca McGuire (WCS)
Reese Brand Phillips (USFS)
Rick Lanctot (USFWS)
River Gates (National Audubon)
Robin Corcoran (USFWS, Kodiak NWR)
Sadie Ulman (Alaska Sealife Center)
Samuel Hache (Environment and Climate Change Canada)
Sarah Saalfeld (USFWS)
Sheila Dufford (USFWS, Yukon Flats)
Shiloh Schulte (Manomet)
Stephen Brown (Manomet)
Steve Lewis (USFWS)
Steve Matsuoka (USGS)
Teegan Docherty (University of Alberta)
Tracey Gotthardt (ADF&G)
Travis Booms (ADF&G)
Ted Swem (USFWS)
Tricia Blake (Alaska Songbird Institute)
Wally Johnson (Montana State University)
Wyatt Egelhoff (biologist)

Zak Pohlen (USFWS)