

MULTI-NATIONAL NON-BREEDING WATERBIRD MONITORING PROTOCOLS AND PROGRAMS IN THE WESTERN HEMISPHERE: OPPORTUNITY FOR GREATER IMPACT THROUGH COORDINATION AND COLLABORATION – *SUMMARY AND NOTES*

February 19-20, 2016
Panama City, Panama



Bienvenido y Gracias!!



“In the long history of humankind
(and animal kind, too) those who
learned to collaborate and
improvise most effectively have
prevailed.”

—Charles Darwin

Target

Generate alignment among multi-national waterbird monitoring programs in the Western Hemisphere on strategies to leverage survey efforts to maximize the value of the data being collected to inform conservation and the sustainability of the monitoring through time.

Objectives

- Develop common understanding of objectives of each monitoring program, protocols applied, data management, and analysis/application of the data.
- Develop list research questions or information objectives (e.g. population trends) that could be achieved with collaboration.
- Develop list of efforts needed to enable cross-program integration to achieve identified objectives.
- Compile input to draft strategy to facilitate collaboration among programs.

Agenda – Day 1

TIME	DESCRIPTION
	DAY 1 - FEBRUARY 19, 2016
0900-0930	Welcome, Introductions & Overview
0930-1015	Workshop Background
1015-1030	Monitoring Program Background
1030-1045	BREAK
1045-1300	Monitoring Program Background - cont'd
1245-1400	LUNCH
1400-1500	Going Big – What are the objectives we want to achieve with monitoring data? (Breakout Groups)
1500-1515	Report Back
1515-1530	BREAK
1530-1615	What data are needed to achieve the objective? (Breakout Groups) – break in middle
1615-1630	Report Back
1630-1650	Matching Programs with data and objectives
1650-1700	Summary of day 1 and prep for day 2
TBD	Group Dinner

Agenda – Day 2

TIME	DESCRIPTION
	DAY 2 - FEBRUARY 20, 2016
0900-0925	Morning inspiration – 50 years of the International Waterbird Census
0925-0940	Day 1 recap – Day 2 set-up
0940-1015	Where we already overlap
1015-1115	What do we need to do more? (Breakout Groups)
1030-1045	BREAK (fit in during discussions)
1115-1145	Synergies and Prioritization.
1145-1200	Next Steps – Action Items
1200-1230	What can we achieve through collaboration and why is it important?
1230-1245	Workshop evaluation - ADJOURN
1300	Lunch



Migratory Shorebird Project

Connecting Communities Across the Americas through Research for Conservation



Atlas de las Aves playeras del Perú

SITIOS IMPORTANTES PARA SU CONSERVACIÓN



Program for Regional and International Shorebird Monitoring

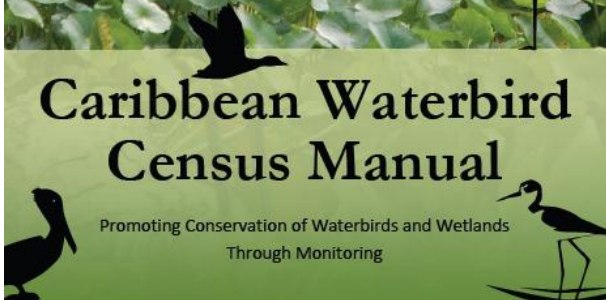


Atlantic Canada Shorebird Surveys



Caribbean Waterbird Census Manual

Promoting Conservation of Waterbirds and Wetlands Through Monitoring



The Neotropical Waterbird Census (NWC)



Improvement through Innovative Thinking and Collaboration



Group Juggle - Rules

- **Rule 1:** all three balls must start and end with the starter
- **Rule 2:** The balls must be passed in the order of people that you have now established
- **Rule 3:** The balls must be passed sequentially (first one passed first to everyone, second one passed goes second to everyone, etc.)
- **Rule 4:** Ten second penalty for any dropped balls
- **Rule 5:** The facilitators are the sole arbiters of the rules, we will let you know if you violate them

Principles for meeting

1. Here to maximize and leverage information and resources
2. No one way is “right” and other ways “wrong”
3. No program is required to change
4. Suggesting changes to programs is not criticism
5. Respect the value, identity, and history of individual programs
6. Open to learning from each other
7. Open to enhancing (“augmentar”) our own work
8. Open to innovative collaboration
9. “Solution-oriented” – when identifying challenges make sure to consider solutions
10. Do not focus on funding limitations
11. Have fun!

Program Background

See workshop dropbox folder for all Program presentations

What aspects of other programs do you find new and interesting?

Which data are similar and/ or complementary to your own?

How could collaboration lead to better knowledge and increased efficiency?

Step 1

- Define the big objectives
- Initial prioritization

Step 2

- What data are needed for each objective?

Step 3

- Which programs currently collect data to help meet objectives?

Step 4

- What is needed to help potential collaboration occur?
- What is needed for programs to contribute to the objectives? – If interested

Step 5

- Why is collaboration important?
- Strategy for advancing collaboration

Name	Country	Affiliation	Objective Group
Eduardo Palacios	Mexico	CICESE	2
Daniel Blanco	Argentina	Wetlands International- Argentina	2
Cynthia Pekarik	Canada	Canadian Wildlife Service	1
Lisa Sorensen	Caribbean	BirdsCaribbean	1
Heraldo Norambuena	Chile	ROC	3
Carlos Ruiz	Colombia	Calidris	3
Diana Eusse	Colombia	Calidris	3
Luis Sandoval	Costa Rica	Unión de Ornitólogos de Costa Rica	3
Diego Ocampo	Costa Rica	Unión de Ornitólogos de Costa Rica	3
Alvaro Moises	El Salvador	Salva Natura	2
Salvadora Morales	Nicaragua	Quetzalli	
Rosabel Miro	Panama	Panama Audubon	1
Kark Kaufman	Panama	Panama Audubon	1
Rob Clay	Paraguay	Manomet / WHSRN	2
Fernando Angulo	Peru	Corbidi	3
Catherine Hickey	USA	Point Blue	2
Jim Chu	USA	U. S. Forest Service - International Programs	2
Maki Tazawa	USA	National Audubon	
Matt Jeffery	USA	National Audubon	1
Matt Reiter	USA	Point Blue	3
Nathan Senner	USA	University of Montana	1
Brad Winn	USA	Manomet	2
Isadora Angarita	Ecuador/Latin America	Birdlife	3
Ghisselle Alvarado	Costa Rica	?	2

Step 1. Going Big - Objectives

What are the big objectives that we want monitoring data to be able to achieve?

Objectives should be **specific** considering the following details -

- Species groups
- Seasons
- Causes
- Habitat
- Geography
- Audience

Example Objective

Understand the impacts of climate change (specifically sea-level rise) on the non-breeding, wetland dependent shorebird populations in the Pacific Americas Flyway.

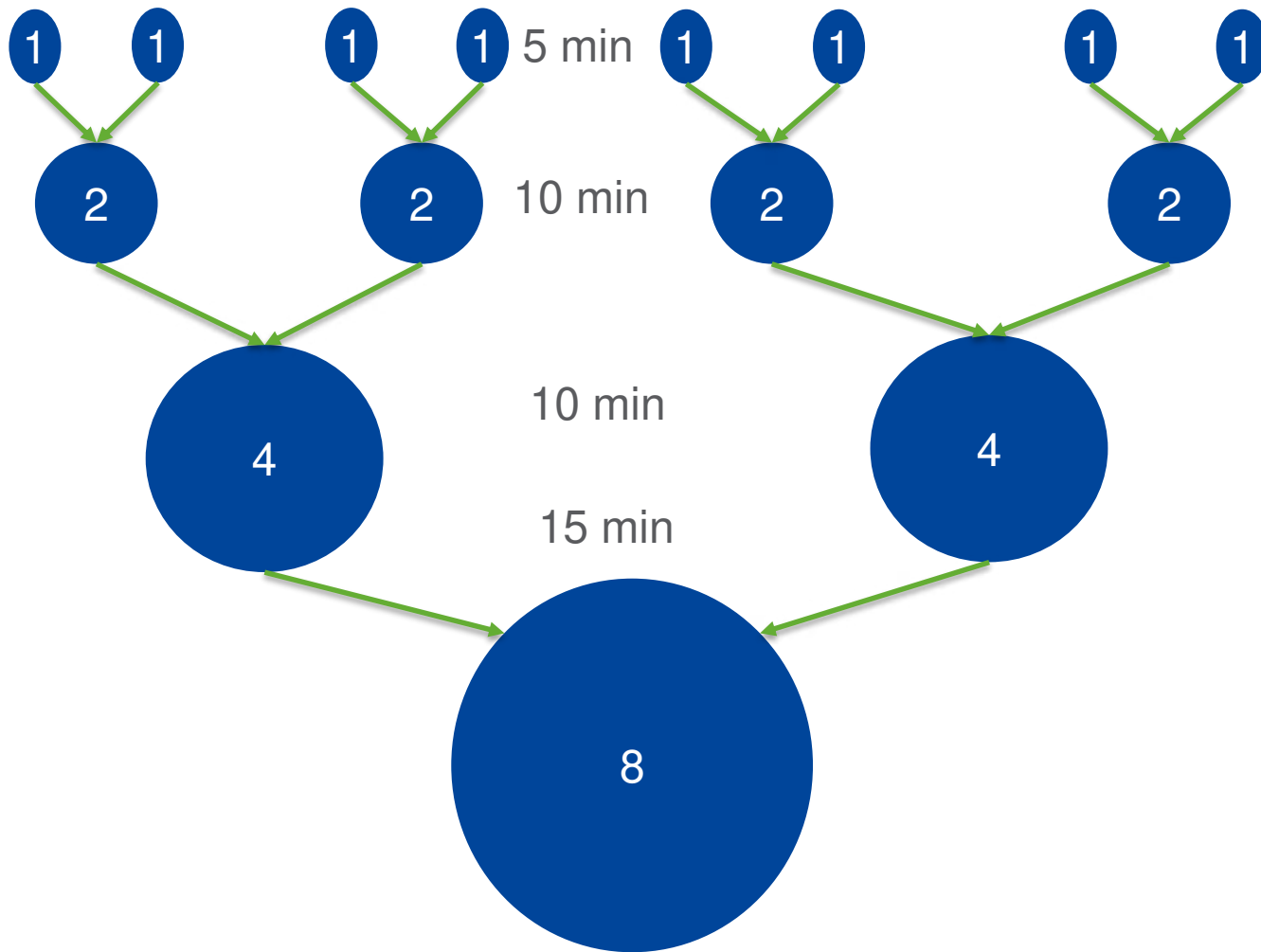


Step 1. Going Big - Objectives

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Step 1. Going Big - Objectives



Prioritize – Dot Vote

10 min

Objectives Group #1	Votos
Estimates populations sizes of waterbirds at multiple spatial scales	3
Estimates trends in relation to environmental variables	2
Identify the priority sites at various temporal and spatial scales	4
Use monitoring to inform, engage and empower constituencies and raise awareness	3
Use monitoring data as indicator of ecosystem health and associated economic benefits	5
Determine habitat associations during non-breeding season	2
Monitor to assess the effectiveness of management at conservation actions.	1
Use data to inform management decisions	1

Objectives Group #2	Votos
Better understand and evaluate threats to waterbird populations. A. At key sites	4
Better understand habitat use over time and space	4
Measure population size and trends (including natural fluctuations)	4
Increase participation (build constituency) in monitoring and conservation	-
Increase public awareness (including decision makers)	2
Synchronize efforts. Power of many	2
Identify priority sites and habitats (specially interior wetlands)	1
Support conservation planning processes (efficient use of \$\$) and capacity	1

Objectives Group #3	Votos
Determine the impact of agricultural incursion on waterbird populations in coastal and inland wetlands	1
Determine changes in the size of populations of migratory and resident shorebirds along the Pacific Americas Flyway (PAF)	4
<i>Understand the impacts of changes in the use / habitat management on migratory and resident waterbirds in natural grasslands</i>	-
Raise awareness of the importance of conservation and monitoring of waterbirds and their habitats in communities surrounding key sites	1
Assess the impacts of conservation actions in wetlands and birds in the PAF	3
Identify distribution, at the species level, along the PAF, to highlight key sites for migratory and resident shorebirds	4
Generate baseline information and monitor studies on habitats for migratory and resident waterbirds under climate change scenarios	4
<i>Highlight the importance of natural grasslands to maintain migratory and resident waterbirds</i>	-
Understand population trends and conservation status of waterbirds in the Western Hemisphere	4
Understand the impacts of climate change (sea level rise) on shorebird populations that are dependent on wetlands in the PAF	-

Themes Across Groups

Population trends

Habitat use and effect of change (natural/managed/conservation)

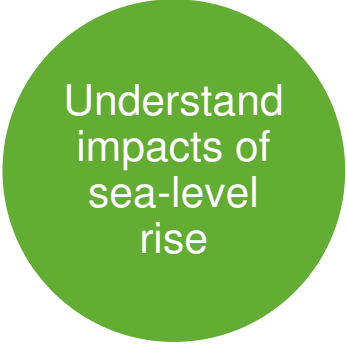
Priority site identification

Public awareness

*Economic/Ecosystem services

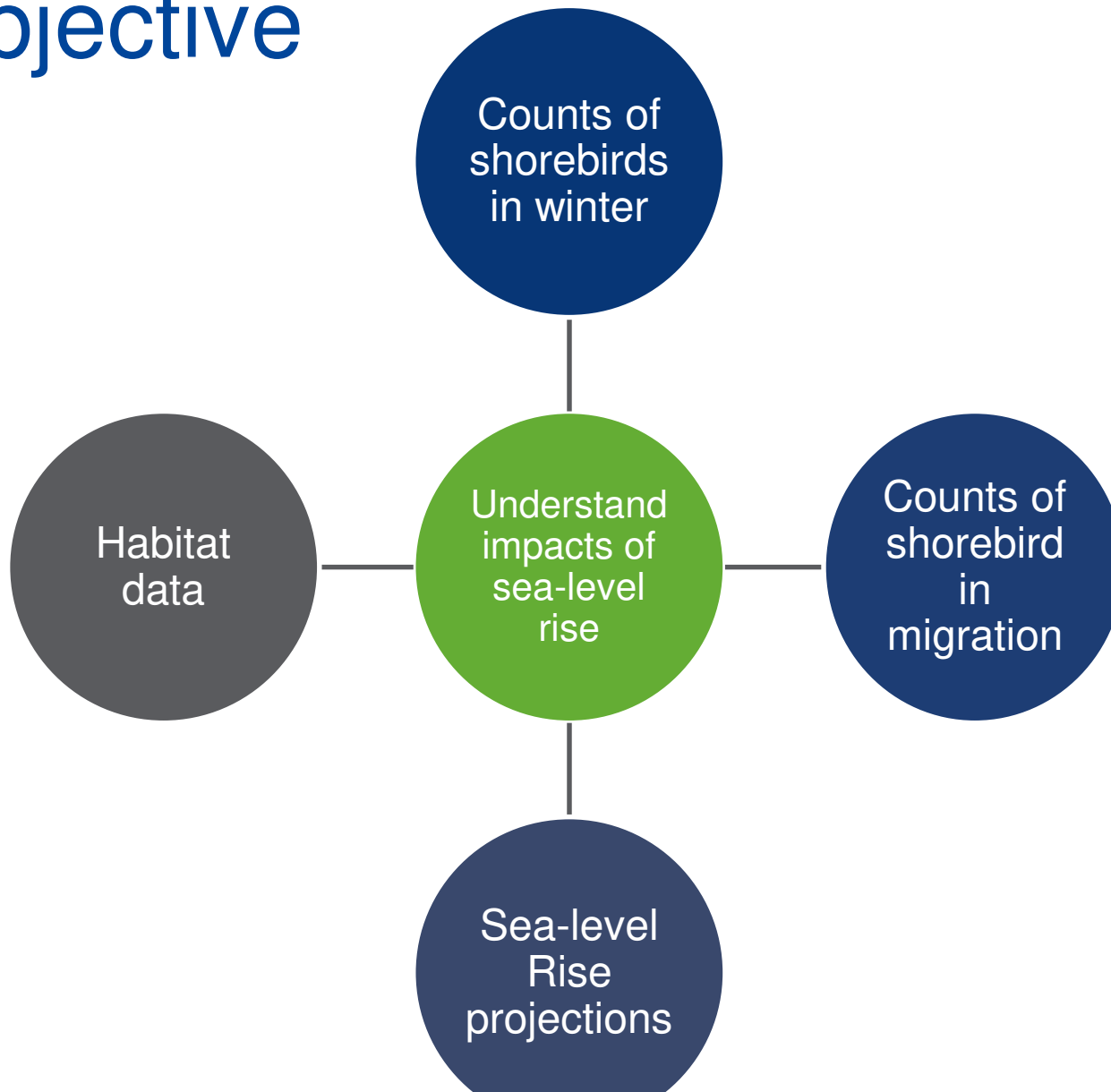
*This was top ranked in Group 1 but only listed in Group 1

Step 2 – Needed inputs for Objective



Understand
impacts of
sea-level
rise

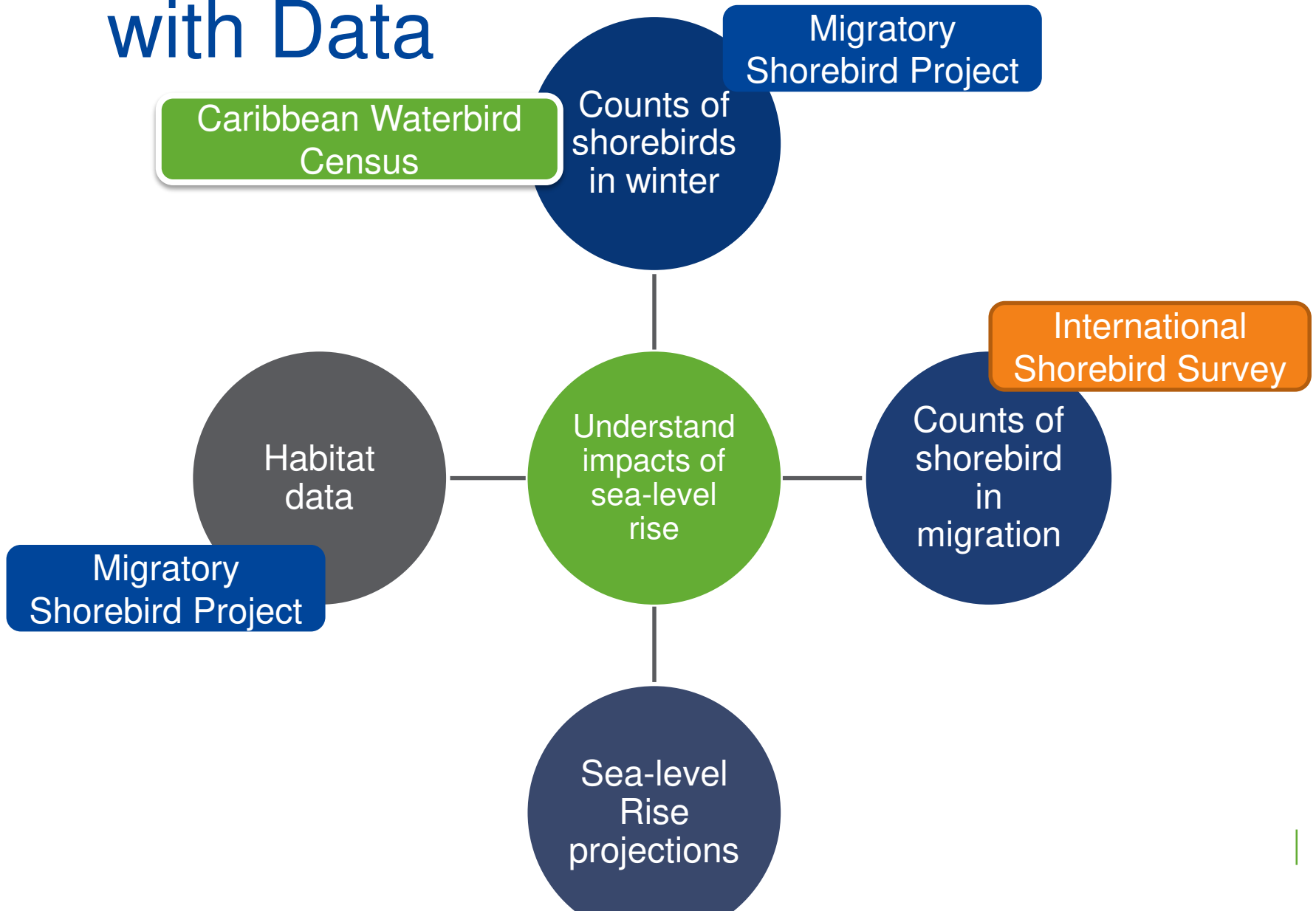
Step 2 – Needed Inputs for Objective



Data Inputs needed	Trend	Indicators of health and economy	Distribution by species	Impacts of threats
# birds/spp in winter	X	X	X	X
# birds/spp in migration	X	O	X	X
#birds/spp non-breeding, stay overs				X
Area of the survey <i>area/length of segment</i>	X (+)	X	X	X
Habitat type in <i>survey area</i>		X	X	X
Habitat condition in <i>survey area</i>		X	X	X
Habitat data <i>in site</i> through time		X	X	X
Habitat data in western hemisphere			X	
Length of stay	O		O	
Detectability/habitat	+		X	
Behavior – roosting v. foraging		O	O	X
weather				X
tide				X
Threats – Disturbance → others		X	X	X
Management practices at survey area		X	+	O
Economic data on survey area		X		

X = data type needed; O = data type optional

Step 3 – Matching Programs with Data

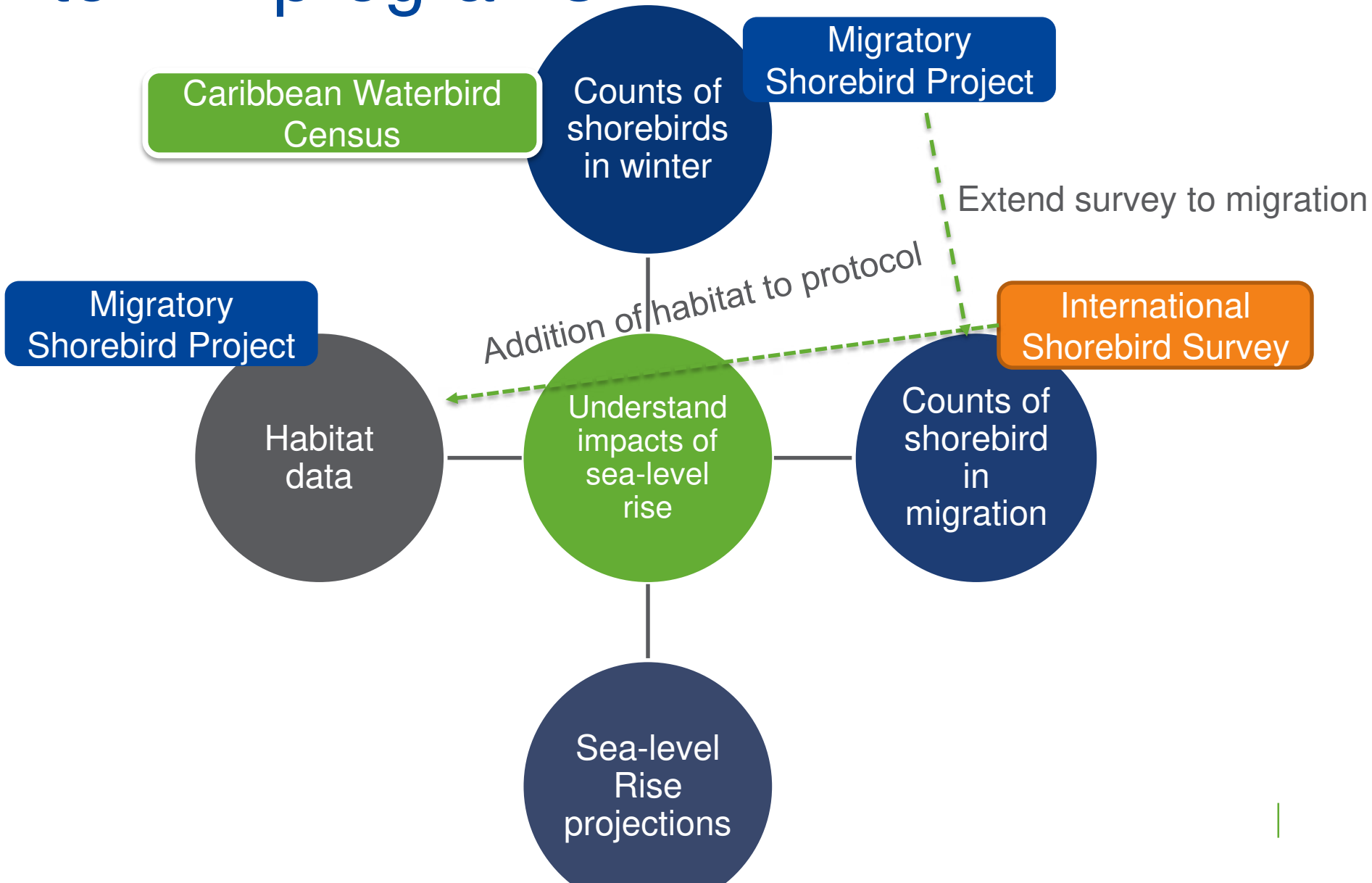


Data need	Trend	Indicators of health and economy	Distribution by species	Impacts of threats	Programs Currently Collecting Data
# birds/spp in winter	X	X	X	X	MSP, CNAА, CWC, CAWC, CSS, CCP
# birds/spp in migration	X	O	X	X	ISS, CWC
#birds/spp non-breeding, stay overs				X	CNAА, CWC
Area of the survey <i>area/length of segment</i>	X (+)	X	X	X	CNAА, ISS (some sites); MSP, CSS, CCP, CWC
Habitat type in <i>survey area</i>		X	X	X	MSP, CWC, CSS, CCP, CNAА, ISS
Habitat condition in <i>survey area</i>		X	X	X	MSP, CWC, ISS
Habitat data <i>in site</i> through time		X	X	X	
Habitat data in western hemisphere			X		
Length of stay	O		O		
Detectability/habitat	+		X		CSS, CWC
Behavior – roosting v. foraging		O	O	X	
weather				X	ISS, MSP, CWC, CNAА
tide				X	ISS, MSP, CSS, CWC
Threats – Disturbance → others		X	X	X	CSS, ISS, MSP, CWC, CNAА
Management practices at survey area		X	+	O	
Economic data on survey area		X			

MSP = Migratory Shorebird Project; CWC = Caribbean Waterbird Census; ISS = International Shorebird Survey; CSS = Coastal Shorebird Survey – Chile and Peru; CNAА = Neotropical Waterbird Census; CAWC = Central American Waterbird Census; CCP = Grassland Shorebird Survey

X = data type needed; O = data type optional

Step 4 – Identify lines of effort to link programs



Given multiple programs collecting data type, what do we need to do to enable it to answer (address) broader objectives?

- Habitat protocol synthesis and evaluation → “standardize” what specifically is recorded and determine whether changes are needed. Who is collecting that exactly and how are the data compatible OR not?
- Migration – assess the needed frequency of surveys and develop recommendations.
- Data management and sharing strategy (primary = bird data, secondary = habitat and other data being collected). How to link AKN and eBird?
- Spatial database platform so that all survey unit boundaries are stored together with survey data.
- Develop and comprehensive monitoring framework that puts the programs all into a bigger context.
- Count protocol synthesis and evaluation to determine whether data can be used to address the objectives that were identified. Develop standardized levels of the protocol and link to the kind of analysis that can be done with it.
- Training program development and coordination – try not to have many, very similar trainings happening. Better coordination among training for programs could be very helpful and reduce work for all including those being trained. NEED assessment of trainings happening out in the universe.
- Synthesis of where funding comes from and how to better develop/link funding sources.
- Habitat baseline and tracking through time (local to hemispheric scales needed) – capture both foraging and roosting habitat – important in different regions. Strategy needed to make this happen.
- Threat assessment protocol development (common lexicon to get from data collection in the field).
- Tidal protocol recommendations.
- Investigate data needs for resident birds and also birds that do not go to breeding grounds during breeding season.
- Approaches for linking shorebirds with ecosystem services or economic outputs (e.g. Natural Capital Project)

Given multiple programs collecting data type, what do we need to do to enable it to answer (address) broader objectives?

Protocol synthesis and critical matching of data type to priority objectives

- count
- site conditions
- threats
- tide

Data management needs and approaches for linkages among programs

- Surveys data
- Spatial data

Approach for large scale habitat tracking

Training coordination and synthesis

Broad Strategies to Increase Learning Across Programs and Lead Sustainability of Programs

- Understand and link priorities of each country (region or site) to get engagement from countries in meeting hemispheric goals and how hemispheric can meet national or local goals.
- Reporting out to inform public, governments, funders, private sector – effective communications to show how the data are used.
- Report on what we can do with the data or given certain efforts.
- Data need to get into national government diversity databases – make data useful and valued locally and by governments.
- Outreach to decision-makers to understand their needs but also to inform them why they need this information and that we are collecting it (outside organizations need to help with this) – for example: informing mandated environment management plans.
- Make data relevant to other priorities for decision-makers in regards to other sectors (multiple benefits; e.g. disaster relief).
- Communications! E.g. decision-maker tours
- Publish – media outreach, global perspective that can be used locally, peer review
- Share volunteer network resources (e.g. calendar of events) – mentor programs, training resources.
- Monitoring site tour for biologists and volunteers to learn from each other; sharing across programs and regions.

Broad Strategies to Increase Learning Across Programs and Lead Sustainability of Programs

- Compile and prioritize national level objectives
- Communication to government of value of data for decision making
- Share experiences across sites, countries and regions

Next Steps and Action Items

- Workshop questionnaire to be sent to group (Matt)
- Complete workshop questionnaire survey (Group!)
- Presentations shared with group (Matt)
- Workshop summary and notes shared with group (Matt)
- Planning for follow-up meeting (Matt, Catherine, Cynthia, Rob)

Workshop Evaluation

Worked well

- Efficient process
- 1st day structure
- Well organized
- Presentations
- Flexibility to adjust agenda as workshop progressed
- Good beginning
- Face to face
- Broad strategy discussion helpful

Change

- Heavy focus on shorebirds – need broader perspective
- Focus on technical issues did not capture big picture needs
- Translation needed throughout
- Presentations on status in regions if time
- What issues are each region facing and understand the links to monitoring?
- Country specific presentations (5 minutes)
- Synthesis documents from what has come before (e.g. flyway initiative processes) so everyone at similar starting place
- Energy low after other meetings – need stand alone workshop?
- Include other experts and reps from governments
- Perhaps start with already identified objectives.