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## Fall 2018 Panama Shorebirds Summary Report (interim)

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# Fall 2018 Panama Shorebirds Summary Report

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Report Provided by The Center for Conservation Biology at the College of William & Mary  
and Virginia Commonwealth University

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## CCB staff initials:

FMS = Fletcher Smith

LSD = Laura Duval

CHH = Chance Hines

Many migratory waterbirds spend as much as three quarters or more of their annual cycle in migration or on the wintering grounds. Their populations depend not only on places to breed but also on the quality and continued availability of habitats within winter areas and along migration routes. The importance of identifying and protecting these nonbreeding habitats has been recognized by conservation organizations throughout the world and represents a formidable international conservation challenge.

The upper Bay of Panama is one of the most significant conservation areas for waterbirds in the Western Hemisphere. The annual cycles of many waterbird species appear to be structured around the resources provided by the Pacific Coast of Panama. The Bahia de Panama, in particular, appears to play a prominent role in the structure of waterbird migration systems throughout the Americas and is a significant wintering site for many species. Protection of habitats and resources within this site is critical to the conservation of waterbirds on a hemispheric scale.

Conservation efforts led by the Panama Audubon Society continue to both educate the public and protect resources within this system. Support and capacity building for these programs is a priority within the broader, international conservation community. One type of capacity building is the training of local biologists in field techniques that will form the foundation of monitoring and other investigations within this important site.

## Current situation of Juan Diaz site:

During our trapping sessions in winters 2014-2015, Juan Diaz was the best site to work. The mud flats had thousands of small shorebirds, including over 25,000 Western Sandpipers roosting there nightly. It was quite easy to work the edge of the water, with the upland sand edge. We had police escort for each of the nightly trips to the Juan Diaz site which was necessary for project safety.

Fast forward to the fall of 2018. The Juan Diaz site could not be accessed during the night-time high tides, the police were unable to accompany us during that time period. We visited Juan Diaz during the evening high tide and there were virtually no Western Sandpipers present. There were hundreds of larger shorebirds (Willetts, Whimbrels, Short-billed Dowitchers) in the roost, but the numbers of “peeps” were not enough to capture them efficiently. The mud flats appear to have been drastically altered, with sandy substrate filling in portions of the mudflat. What is clear is that Juan Diaz has changed so much as a roost site that peeps are not using it in the current state. It’s possible that natural changes could bring the peeps back to the site at some future time more monitoring effort need to be done on the site.

### **Summary of activities**

#### **November 20 2018**

We have a classroom training session with 8 assistants (Annex 1). Laura Duval presented slideshow and then all assisted with hands-on training with banding tools. A discussion about potential research objectives centered on organic material turnover at Juan Diaz and effects from nearby water treatment plants were discussed.

#### **November 21 2018**

We requested support to Smithsonian Tropical Research Institute to view skins of SESA and WESA. Same crew as previous day, with three STRI staff also participating. Laura Duval led training with skins focused on identifying to species and aging using plumage criteria. Class split into two groups, one with Laura Duval and the other with Fletcher Smith/Chance Hines for further individual hands on training.

Visited sites to observe the behavior of the birds during the high tide.

#### **November 22 2018**

Presented on the Congress XXII Congreso Mesoamericano de la Sociedad Mesoamericana para la Biología y la Conservación.

Presentations for shorebird breakout from Chance Hines, Yenifer Diaz, Stephanie Carty, Karl Kaufmann, Rosabel Miro and Laura Duval. Then a longer presentation led by Laura Duval with assistance from Fletcher Smith and Chance Hines followed by hands on demonstration. Fletcher Smith gives keynote speech “Shorebird Conservation in the Americas”

Prepared for trapping at Juan Diaz and depart from Panama Audubon around 2300.

#### **November 23 2018**

Arrive at Costa Este shortly after midnight and set three nets east of main river flow. Laura Duval captured one WESA and Chance Hines captured one BLSK (released at net). Laura Duval led banding of WESA near parking area. Return finish around 0400.

Opened a single net at 1200 in front of Panama Audubon for training focused on setting up and disassembling mist nets. Departed for Juan Diaz again around 1430 and successfully procured police escort. Few target species observed and zero birds captured. Return home around 1830.

### **November 24 2018**

Depart Panama Audubon around midnight with same crew. Same trapping location and zero birds captured. Return to Panama Audubon around 0500. Same crew as previous day at Juan Diaz in addition to Rosabel, Karl Kaufmann and Jailene Alfaro.

Fletcher Smith, Yenifer Diaz, Jean Michael Archbold, and Rosabel Miró scout Costa Este during the afternoon for other potential spots to set up nets on the nighttime. Laura Duval and Chance Hines lead mist net training at Panama Audubon for Claribel, Ruth, Petra, and Jose Luis from 1400-1600. An additional hour of classroom training focused on banding tools lasts until 1700. Then LSD and CHH meet up with FMS and Yenifer. New potential capture site located on west side of river in Costa del Este.

### **November 25 2018**

Depart Panama Audubon at 0130 for Costa del Este. Same crew as previous AM trapping session. Laura Duval and Fletcher Smith monitor nets east of River, Chance Hines monitors net west of river. CHH captures on SPSA and one SESA. Laura Duval and Fletcher Smith lead Clarivel through measuring SPSA and banding SESA. Return to Panama Audubon around 0600.

### **Conclusions**

Is a need to create more understanding on the police (SENAN) of the importance of the shorebird banding and the methodology so they could support our nighttime field work.

More monitoring work need to be done on site, as the small sandpipers are not using Juan Diaz beach as they used on 2014-2015.

### **Professional Meeting Presentations:**

Duval, L. D., Hines, C. H. and F. M. Smith. 2018. Ethics, Techniques, and Guidance in Shorebird Research. The XXII Congress of the Mesoamerican Society for Biology and Conservation. Panama City, Panama. 22 November 2018.

Hines, C. H., Watts, B. D. and B. J. Paxton. 2018. Panama: An Abundance of Waterbirds. The XXII Congress of the Mesoamerican Society of Biology and Conservation. Panama City, Panama. 22 November 2018.

Smith, F.M. 2018. Shorebird Conservation in the Americas. Keynote address presented to the XXII Congress of the Mesoamerican Society for Biology and Conservation, Panama City, Panama. 22 November 2018.

### **Other Presentations:**

Duval, L. D., Hines, C. H. and F. M. Smith. 2018. Ethics, Techniques, and Guidance in Shorebird Research. Workshop with staff and volunteers from Panama Audubon Society. Panama City, Panama. 20 November 2018.

Duval, L. D., Hines, C. H. and F. M. Smith. 2018. Panama Audubon Field Training: Shorebird Identification, Aging, and Sexing by Plumage Characteristics held at the Smithsonian Tropical Research Institute Bird Collections Lab. Panama City, Panama. 21 November 2018.

Duval, L. D. 2018. Demonstration and Hands-on Training in Banding Techniques. The XXII Congress of the Mesoamerican Society for Biology and Conservation. Panama City, Panama. 22 November 2018.

Duval, L. D. and C. H. Hines. 2018. Panama Audubon Field Training: Mist-netting and Bird Extraction. Workshop with staff and volunteers from Panama Audubon Society. Panama City, Panama. 23 November 2018.