



Summer Shorebird Pulse



Thank you for your participation! Please note that safety is the top priority. Beaches and coastlines can be dangerous places. Please take great care and inform someone of when you are surveying and your expected return time. Please wear appropriate clothing for the weather. Do not enter the mud at area of your study site as the substrate can be extremely soft and there is a danger of getting stuck. Bird Studies Canada and Simon Fraser University cannot accept responsibility or liability for any accidents or injuries during these Shorebird Surveys.

HIGHLIGHTS AND CHANGES TO METHODOLOGY FOR 2015

Even if you participated in the surveys in 2013 or 2014, please read the methodology carefully as there have been some changes.

Tide locations only drawn on map at start and end of survey

2.5 hrs of surveys with sandpiper counts every 15 minutes

Note falcon observations as they occur

Some of the map sheets have been redone.

Ratio of Western Sandpiper to Least Sandpipers included in methodology.

Group surveys - a request for independent counts.

Excel spreadsheet now available for data entry.

Training video - uploaded to 'For Volunteers' section of website

Read this first...

If you are a new volunteer I will **note on the maps where you should stand** and what area you should attempt to survey. This is to ensure the same area is surveyed each year. If you are a returning volunteer, please survey from the same location as last year. The methodology for the map notation is also modified, to reduce clutter. This data is important to the project however, so please complete the maps when possible.

For those of you surveying in groups, we have an additional request for you. If you are willing and it does not make the experience unpleasant, **please have each member do the counts of abundance independently**. This will allow us to get a measure of overall variation in counts between observers. Details are below, but if you choose to do this, please note this on the first data page, and bring enough Sandpiper Count Forms for each of your group members.

Data submission can be done in a couple different ways, but we would like to receive the original data sheets either scanned or mailed in to us. The details on this are below.

To enter the data, you can either fill in the Excel spreadsheet and email back to me or use the online data submission form. Datasheets, the excel spreadsheet, and training material are available at www.sfu.ca/~dhope/4volunteers.html. You will require a password to access this area of the site. The password is '**bio lm**'. Click here to check out a video of a Western Sandpiper slurping up bio lm.

How is this program different from other citizen-science projects?

The focus of this project is to compare counts of Western Sandpipers between locations with different attributes.

Data sheets

Please bring a copy of the surveyor package for each member of the survey group. One copy of each of the map sheet, sandpiper count form and falcon observation form is required for each independent observer for each survey date. The map page does not need to be printed in colour.

If you do not have access to a printer or have more observations than there are sheets, please make the notes yourself in a similar format to the data sheets.

What to Bring

- Datasheets
- Binoculars/spotting scope
- Weather appropriate clothing/sunscreen
- Water/snacks
- Watch or timer
- Pencils
- Copy of protocol
- Field notebook
- Camera
- Cell phone

Methods

Upon arrival, take a few minutes to get comfortable and acquainted with the site. We have a section on the data sheet to make notes about the site so if you think it might be of interest to us, please write it down. Data collection is comprised of two parts: Regular counts of shorebirds and observations of falcons. *Please be sure to note the site, date and time on each sheet.*

Before the first shorebird count, draw the tidal location on the map as best you can.

The most important data for you to collect is one accurate count of the number of Western Sandpipers within your survey area. The second most important data is observations of falcons and falcon attacks. Additional data is important, but the Sandpiper and Falcon counts are the most important.

Shorebird counts

Every fifteen minutes record take an estimate of Western Sandpiper abundance, even if it is 0. When possible, count every individual Western Sandpiper at your site. For larger sites follow the suggested protocols as described in the Bird Studies Canada Guide to estimating flock size (www.sfu.ca/~dhope/4volunteers/EstimatingShorebirdFlockSize.pdf). At larger sites be sure to be comfortable with flock estimation techniques before you

arrive at the site. You can practice using the guide both at home on a computer screen and in the field.

After the estimate is complete, mark check locations on the map.

Falcon observations

As the threat of being killed by predators can influence birds' decisions regarding which site

spreadsheet programs. If you cannot access the file or have problems with this method, please email me.

Finally, please email or mail me your datasheets and maps after the end of the surveys. If you have a digital camera or scanner, you can photograph or scan the data sheets and email them to dhope@sfu.ca so we can analyze the map data.