

# CHAPLIN AND REED LAKE SHOREBIRD SURVEY



2015

Training Manual and Protocol

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# Chaplin and Reed Lake Shorebird Survey

**PROTOCOL**

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## The Survey

The following information is to be used as the protocol when conducting surveys for the Chaplin and Reed Lake Shorebird Survey. This outline is intended to ensure that data are gathered in a way that is standardized and repeatable. The aim of the protocol is to provide volunteers with the necessary information to conduct the surveys and complete the data forms. This is a continually evolving document, please feel free to ask for clarifications or recommend any additions or changes. Feedback can be left at the Chaplin Nature Center or in the notes section of the survey forms.

### SURVEY POINTS

There are 18 survey points at Chaplin Lake and 6 survey points at Reed Lake. In order to keep all surveys standard each survey point has a set buffer or buffers. All points at both Chaplin and Reed Lake have a survey buffer of 0-200 meters; several survey points at each lake also have an additional buffer of 200-500 meters. The presence of this additional buffer is dependent on the topography of the area and proximity to other survey points (see Fig. 1). Table 1 lists the GPS coordinates for each site, and maps with all the survey points can be seen in Figures 1 and 2. Please familiarize yourself with the sites you intend to survey prior to going out into the field to ensure you have all the necessary equipment and permissions (Table 3). If you have any additional questions about survey sites please read over rest of this manual and or contact the Chaplin Nature Center. You can also leave any additional comments regarding the survey points in the comments/notes section of the survey sheets.



# MAPS



**Figure 1.** Full map of Chaplin Lake Survey points; points labeled CL followed by a unique number. Red circles indicate the 0-200 m buffers and the white circles indicate the 200-500 m buffers.



**Figure 2.** Full map of Reed Lake Survey points; points labeled RL followed by a unique number. Red circles indicate the 0-200 m buffers and the white circles indicate the 200-500 m buffers.



**Table 1:** GPS coordinates for each survey point; DMS (Degrees, Minutes, Seconds) format found in Google Earth, DD (Degree, Decimal) format commonly found in GPS units. Both coordinates lead to the same point.

Survey Points	Lake	DMS		DD	
		Latitude	Longitude	Latitude	Longitude
CL101	Chaplin	50°26'22.52"N	106°38'34.98"W	50.43959 N	106.64305 W
CL102	Chaplin	50°24'17.96"N	106°39'20.92"W	50.40499 N	106.65581 W
CL103A	Chaplin	50°26'28.36"N	106°40'9.37"W	50.44151 N	106.66927 W
CL103B	Chaplin	50°26'18.96"N	106°39'55.19"W	50.4386 N	106.66533 W
CL103C	Chaplin	50°26'10.68"N	106°39'39.20"W	50.43630 N	106.66089 W
CL103D	Chaplin	50°26'16.37"N	106°40'18.16"W	50.43788 N	106.67171 W
CL103E	Chaplin	50°26'3.59"N	106°40'20.93"W	50.43433 N	106.67248 W
CL103F	Chaplin	50°25'50.70"N	106°40'21.40"W	50.43075 N	106.67261 W
CL104	Chaplin	50°27'1.69"N	106°40'12.76"W	50.45047 N	106.67021 W
CL105	Chaplin	50°26'28.14"N	106°40'51.85"W	50.44115 N	106.68107 W
CL106	Chaplin	50°25'58.94"N	106°41'20.07"W	50.43277 N	106.68888 W
CL107	Chaplin	50°25'29.63"N	106°41'46.77"W	50.42472 N	106.69611 W
CL108	Chaplin	50°25'5.73"N	106°42'18.79"W	50.41805 N	106.7050 W
CL109	Chaplin	50°25'34.57"N	106°42'54.22"W	50.42627 N	106.71506 W
CL111	Chaplin	50°26'53.23"N	106°45'48.20"W	50.44812 N	106.76339 W
CL112	Chaplin	50°26'14.50"N	106°45'38.84"W	50.43736 N	106.76079 W
CL113	Chaplin	50°25'39.14"N	106°45'39.17"W	50.42754 N	106.76088 W
CL114	Chaplin	50°25'6.14"N	106°44'32.13"W	50.41833 N	106.74222 W
RL201	Reed	50°23'22.56"N	107° 2'8.12"W	50.38960 N	107.03559 W
RL202	Reed	50°24'32.11"N	107° 2'9.28"W	50.40892 N	107.03591 W
RL203	Reed	50°24'38.41"N	107° 3'56.23"W	50.41067 N	107.06562 W
RL204	Reed	50°24'54.30"N	107° 5'27.76"W	50.41500 N	107.09083 W
RL205	Reed	50°24'49.79"N	107° 5'7.58"W	50.41383 N	107.08544 W
RL206	Reed	50°24'47.11"N	107° 4'47.80"W	50.41305 N	107.07972 W

**Table 2:** Additional information for each survey point, comments and conditions can be found in table 3. Permission is needed to survey at some sites, if you are not sure that you have permission please contact Chaplin Nature Center to verify.

Survey Points	Buffer		Access			Difficulty
	0-200 m	200-500 m	Drive to location	Walk to location	Need Permission	
CL101	X	X	X			1
CL102	X	X	X			1
CL103A	X		X		X	2
CL103B	X			X	X	3
CL103C	X	X		X	X	3
CL103D	X			X	X	3
CL103E	X			X	X	3
CL103F	X			X	X	3
CL104	X	X	X	X	X	1
CL105	X	X	X	X	X	2
CL106	X	X	X	X	X	3
CL107	X	X	X	X	X	3
CL108	X	X	X	X	X	3
CL109	X	X	X	X	X	3
CL111	X	X	X			1
CL112	X	X	X			1
CL113	X	X	X			1
CL114	X	X	X			1
RL201	X	X	X			1
RL202	X	X	X			1
RL203	X	X	X			1
RL204	X	X	X			2
RL205	X			X		1
RL206	X			X		2



**Table 3:** Specific instructions/comments for each site. Please be sure you understand the requirements for you site(s) prior to going into the field.

Survey Points	Additional Comments
CL101	Survey point next to the sign with binoculars , easy to find w/o GPS
CL102	Survey point next to the sign with binoculars, easy to find w/o GPS
CL103A	Driving to location only using 4x4 with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road.
CL103B	
CL103C	Secondary 200-500m buffer extends out to the sides and out front not to the back where survey for CL103B should have already accounted for birds in that area.
CL103D	Site can be muddy, recommend you wear boots . During peak migration many birds at this site.
CL103E	Site can be muddy, recommend you wear boots . During peak migration many birds at this site.
CL103F	Site can be muddy, recommend you wear boots . During peak migration many birds at this site.
CL104	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL105	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL106	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL107	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL108	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL109	Driving to location only using 4x4/all wheel drive with a partner and only when conditions permit. If conditions do not permit driving (too muddy) surveyor must walk from pullout off road near CL104.
CL111	Wetlands fluctuate throughout the season, be sure to survey both sides of the road. Easy to find w/o GPS
CL112	Wetlands fluctuate throughout the season, be sure to survey both sides of the road. Easy to find w/o GPS
CL113	Wetlands fluctuate throughout the season, be sure to survey both sides of the road
CL114	Survey Point right at bend in the road easy to find w/o GPS, most birds will be at 200-500 m distance. Easy to find w/o GPS
RL201	Survey point parallel to island where there are many gulls and several shorebirds, be careful of frequent traffic pull off to the side. Also be careful of speed, many birds on the road. Easy to find w/o GPS
RL202	Survey point at beginning of dike, be careful of frequent traffic pull off to the side. Also be careful of speed, many birds on the road. Easy to find w/o GPS
RL203	Survey Point located off the side of the road, stop where you feel comfortable getting close to the point but does not need to be exact. Easy to find w/o GPS
RL204	Park on road to tower and walk to site, recommended boots have to walk through grassy area. Easy to find w/o GPS
RL205	Survey Point at lookout tower, survey from top. Recommend doing this spot when the sun is high to avoid back lighting/glare and difficulty IDing birds. Easy to find w/o GPS
RL206	Park on road to tower and walk to site, recommended boots have to walk through grassy area. Easy to find w/o GPS



## When to conduct the survey

### TIME OF YEAR

Surveys will be conducted during the spring migration which occurs Mid-May through Mid-June. The exact dates will change each year so check in with the Chaplin Nature Center for beginning and end dates for the season and to sign up for sites for specific weeks. Surveys may also be conducted during the fall migration, currently these are less structured and can be completed any day and will not require signups.

### SURVEY FREQUENCY

Each of the 25 survey points should be surveyed once a week; there will be a 4 day window; Thursday, Friday, Saturday and Sunday of each week where surveys can be conducted. Please be sure that each site is only surveyed once within that window. In order to ensure that all the surveys are being conducted and that there is no doubling up there will be a sign up sheet at Chaplin Nature Center. Volunteers will be able to sign up for as many survey points/weeks they wish, just be sure that if you are unable to conduct a survey you signed up for that you remove your name from the sheet asap. It is recommended that the same volunteers survey the same points each week, although it is not required, having individuals repeatedly survey the same point aids in consistency of the data.

### TIME OF DAY

Surveys should be conducted during daylight hours, and it is better if the sun is not directly behind where you are surveying since back light makes identifying birds difficult. Some sights require you to walk in so be sure to take into account travel time. It is also recommended that you look at the weather prior to going on the survey, the weather can change quickly and heavy rain may limit the amount of time that can be spent in the field.



## Data Sheets

One data sheet needs to be filled out for each site on each survey day. Be sure to include the survey point in the top right corner of the sheet. [EXAMPLE OF FILLED OUT FORM NEXT PAGE](#)





# Chaplin & Reed Lake Survey Form

Survey Point: CL101

Please indicate survey point in top right corner, one survey point per sheet. Before you begin please look over form and ensure that you understand all aspects, if you have any questions please see survey example in the protocol or contact the Chaplin Nature Center for clarification.

Observers Name(s): Ann McKellar \*See key for Codes  
 Date (dd/mm/yyyy) 9/05/2016 Start Time (24h): 13:15 End Time (24h): 14:00  
 Temp C\*: 21 Wind Speed Code/ Direction: 2 / SW Precipitation Code: 0 Cloud Cover/10: 8

Please record the total number of shorebirds at this location within the distance provided. Focus primarily on the six highlighted species\*. Count, and where possible identify to species, all individuals that are flying over or on the ground in the buffer at some time during the survey; try to avoid double counting any birds that leave the area and later return. Please tally unidentified birds in the groups that they best fit.

Species (Code & Status*)		Tally/Comments	Total	
Stilts and Avocets			0-200m	200-500m
Black-necked Stilt	UL			
American Avocet	RL			
Plovers and Lapwings			0-200m	200-500m
Black-bellied Plover	R			
American Golden-Plover	R			
Snowy Plover	UL			
Semipalmated Plover	R			
Piping Plover	RL	2+1 / 1	(3)	(1)
Killdeer	RL			
Plover sp. [Unidentified]		1 at 400m probably PIPK but not sure		(1)
Sandpipers and Allies			0-200m	200-500m
Spotted Sandpiper	RL			
Solitary Sandpiper	R			
Greater Yellowlegs	R			
Willet	RL			
Lesser Yellowlegs	R			
Yellowlegs sp. [Unidentified]				
Upland Sandpiper	RL			
Whimbrel	R			
Long-billed Curlew	RL			
Hudsonian Godwit	R			
Marbled Godwit	RL			
Godwit sp. [Unidentified]				
Ruddy Turnstone	R			
<b>Red Knot*</b>	R	1 = banded	(1)	
<b>Stilt Sandpiper*</b>	R			
<b>Sanderling*</b>	R	20 + 14 + 2 + 8 / 15	(44)	(15)
Dunlin	R			
Baird's Sandpiper	R			
Least Sandpiper	R			
<b>White-rumped Sandpiper*</b>	R			
Buff-breasted Sandpiper	R			
Pectoral Sandpiper	R			
<b>Semipalmated Sandpiper*</b>	R	8	(8)	
Western Sandpiper	U			
Calidris sp. [Unidentified]				
Short-billed Dowitcher	R			
Long-billed Dowitcher	R			
Dowitcher sp. [Unidentified]				
Wilson's Snipe	RL			
Wilson's Phalarope	RL			
<b>Red-necked Phalarope*</b>	R			
Phalarope sp. [Unidentified]				
Charadriiformes sp.			0-200m	200-500m
Shorebird sp. [Unidentified]		32 flying could not ID	(32)	

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Did any disturbances occur during the observation?  No  Yes; If yes please provide details of disturbance :  
*Truck drove by road w low music, birds did not appear disturbed*

Please record banded shorebirds on table below; please see Chaplin Shorebird Survey Protocol for information on recording banded shorebird observations. If you choose to enter your data online to the PRISM portal (see below), this information can be entered in the Comments section.

Band Description (Color(s), Code(s), Location on bird)	Full code(s) observed		Species
	Yes	No	
<i>FEbk (8 QQ)   - ; -   -</i>		<i>x</i>	<i>REKN</i>

**NOTES**

*Could not read full code on flag, recommend checking again later*

KEYS		
Wind	Precipitation	Codes for Species
0: Calm 1: Light air 2: Light breeze 3: Gentle breeze 4: Moderate 5: Fresh breeze 6: Strong breeze 7: Near gale  Directions N, NW, W, SW, S, SE, E, NE.	8: Gale 9: Severe gale 10: Storm 11: Violent storm 12: Hurricane  0: None 1: Trace or Intermittent Rain 2: Rain 3: Thunderstorms 4: Rain and Snow 5: Snow 6: Hail  <small>*Use 2+ only if rain/snow starts after survey begins and/or if can still be completed.</small>	R=Regular U=Uncommon L=Local Breeder in Prairies

Please enter your data online to the PRISM portal at <http://www.bsc-eoc.org/birdmon/prism/main.jsp>, and return completed forms to the Chaplin Nature Center. If you are interested in being a part of the annual shorebird survey please check the [Chaplintonline.com](http://Chaplintonline.com) webpage for ongoing updates and additional information. Thank you for your participation.



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## Out in the Field

### CONDUCTING THE SURVEY

Prior to conducting the surveys make sure you understand what is involved at the sites you intend to survey. Find the location using the maps, comments (Table 3) and in some cases GPS coordinates (Table 1); you can conduct some surveys from your car, as long as you have a good field of view. Stop at the location and wait until birds are settled if they were startled by your arrival. Record start time and begin surveying. Please record the total number of shorebirds at this location within the distance provided. Focus primarily on the six highlighted species<sup>+</sup>. Count, and where possible identify to species, all individuals that are on the ground at some time during the survey; try to avoid double counting any birds that leave the area and later return. Also include any flying birds in your count area even if they don't land, but make sure you are not double counting ones that have already flown through or landed. You can move about in the buffer area if it is needed, for example if there is a mound that is blocking your view. Make sure you count all the birds from the survey point first and then move if you need to, keeping in mind where the buffers are from the original point. If you are unable to identify a bird, add it to the unidentified line in the group that it best fits. There is no time limit so take as long as you need, just make sure you don't double count. Once you are done, record the stop time and add up your totals and put them in the totals column. It is recommended that you fill out each form before moving on to ensure you have all the proper data filled in.

### EQUIPMENT

There are several items you will need to complete the survey:

- -Binoculars
- -Site Map
- -Survey Form
- -Pen or pencil
- -GPS (Not required for all sites see maps and site comments for locations that are easy to find without GPS)
- -4 wheel drive vehicle for some sites (See Tables 2 and 3)
- -Spotting Scope (not required, but if you have one it will make identifying birds in the 200-500 m buffer easier)



## Shorebird Band ID

Here are some tips for recording bands you may see; there is a spot on the back of the survey form for band identifications.

Colour	Code	Description	Code
Black	bk	Separates markers on the same leg segment (comma)	,
White	w	Separates upper vs. lower leg (vertical bar; symbol above \ on keyboard)	
Red	r	Separates left vs. right leg (colon)	:
Orange	o	Separates colours on split bands (forward slash)	/
Yellow	y		
Dark Green	dg	<b>Marker Type</b> (where x = colour)	<b>Code</b>
Light Green	lg	Metal Band	m
Dark Blue	db	Coloured Band	x
Light Blue	lb	Coloured Flag	Fx
Pink	lp	Bi-Coloured Flag	Fx/x
Dark Pink	dp	Tri-Coloured Flag	Fx/x/x
Purple	pu	Engraved Band (where # = alpha or numeric code)	Ex(###)
Brown	bn	Engraved Flag (where # = alpha or numeric code)	FEx(###)
Grey	gy	no bands or flags present (single dash)	-
		Geolocator	GEO
		Satellite	SAT
		unknown character on code	Q
		unknown colour or bands on particular portion or sub-portion of leg	U

### Possible Engraved Codes

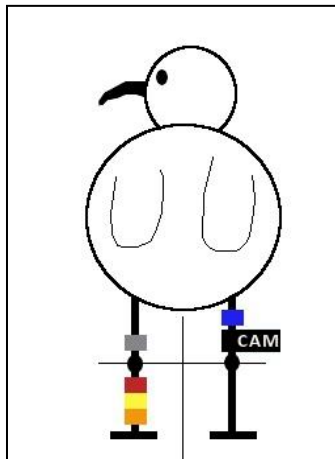
15 letters: **A C E H J K L M N P T U V X Y** (in Arial font)

10 numbers: **1 2 3 4 5 6 7 8 9 0** (in Century Gothic font)

4 optional symbols: **+ = @ %** (in Arial font)

### Example:

Example of banded bird with both shorthand notation and paragraph form, when filling out the form use whichever method you prefer.



**m | r,y,o : db, FEbk(CAM) | -**  
 Metal band on the left tibiotarsus (or upper leg), red over yellow over orange bands on the left tarsometatarsus (or lower leg), dark blue band over black flag engraved CAM with white digits on the right tibiotarsus (or upper leg), nothing on the right tarsometatarsus (or lower leg)

## What do you with the Data?

Printed survey forms are for use in the field and should be filled out completely and clearly. Once you have finished all your surveys for the season, filled out survey sheets should be dropped off at the Chaplin Nature Center. Hard copies of the survey forms are useful as records for those in charge of the data. **In addition survey data should be entered into the online submission form** found on the Program for Regional and International Shorebird Monitoring (PRISM) webpage:

<http://www.bsc-eoc.org/birdmon/prism/main.jsp>.  
Online data entry will require you to first register as a participant with PRISM at <http://www.bsc-eoc.org/birdmon/prism/register.jsp>.

The online form contains the same information as the paper survey form. It is preferable that this is done the day of the survey or at your earliest convenience. If you are unable to access a computer with internet you can also drop off the hard copies to the Nature Center and write “not entered online due to...” in the comments section on the back for the survey form.

## Useful Links

Resources such as the survey protocol and data sheets can be found on the PRISM resources webpage:

<http://www.bsc-eoc.org/birdmon/prism/resources.jsp>

Additional information about the Chaplin and Reed Lake Shorebird Survey can be found on the Chaplin tourism webpage:

<http://www.chaplintourism.com/index.htm>

## The Future

2014 was the Survey's first official year. We hope to have this survey program be an annual event with the help of volunteers like you. Please stay tuned for updates and visit [Chaplintourism.com](http://Chaplintourism.com) or the Chaplin Nature Center for additional information. Happy Birding!!





**Thank you for taking interest in the Chaplin Lake  
Shorebird Survey!**

