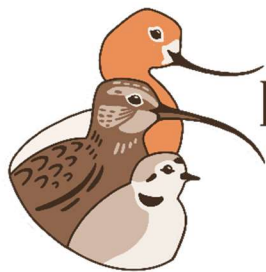


UTAH SHOREBIRD SURVEY PLAN



SPRING MIGRATION 2023

Great Salt Lake
Utah Lake
Fish Springs National Wildlife Refuge
The Amalga Barrens



Intermountain West
Shorebird Survey

Summary

This Shorebird Survey Plan includes information you need to be successful as a participant of the Intermountain West Shorebird Survey. This Survey Plan includes the purpose of the project, resources for training, safety, and protocols for surveying shorebirds and entering data.

Below is a summary of the steps to success!

- Sign up for the Shorebird Survey.
- Receive instruction from Project Coordinator on survey area assignment and survey team.
- Survey team leads will receive a paper version of this Survey Plan to bring in the field.
- Attend the online training or watch the recording.
- Practice shorebird identification skills using books and online resources.
- Sign volunteer liability forms.
- Conduct your shorebird survey with your team on Monday April 24, 2023. In the event of extremely bad weather or impassable roads, the backup survey day is Friday April 28, 2023.
- Fill out your Data Form, survey map, and any liability forms.
- Submit your Data Form by text/email when you finish your survey. Then, mail the hardcopy of the Data Form, survey map, and applicable liability forms within 2 days.
- Share your survey stories with us or using social media!
#shorebirdscout

Purpose and Goals

Shorebirds represent important species diversity and are indicators of environmental health. As wildlife watchers, we are delighted to witness shorebirds scurry across the mudflats and flock across the horizon.

We know that shorebird populations have declined by nearly 70 percent since 1973. Our wetlands and waterbodies in the Intermountain West are important pit stops where shorebirds rest and refuel so they can make it to their destinations thousands of miles to the north or south during their spring and fall migrations.

To best manage and protect habitat that is important to shorebirds, we need to understand how many shorebirds there are and where they are throughout the year.

In 1989 – 1995 a major shorebird survey was completed across the Intermountain West. Those data were critical to understand the value of our wetlands to shorebirds and even led to special site designations.

A lot has changed in the Intermountain West in the past 25 years. Drought and development has altered water supply and habitat for birds. This Shorebird Survey is replicating the census of the past so we can better manage shorebirds into the future.

The **goal** of the Intermountain West Shorebird Survey is to sustain shorebird populations. The survey objectives are:

- Document the distribution and abundance of shorebirds at 189 sites during the spring and fall migrations for 3 years.
- Use survey data to compare distribution and abundance with the historical shorebird survey.
- Identify factors that influence abundance of shorebirds.

Thank you to the many entities and volunteers that support this project! Major contributors to the Utah portion of the survey are:



Surveyor Requirements

Just as the 1989-1995 Shorebird Survey did, this Project will rely on professional biologists and volunteer birders to accomplish lofty objectives. If you are interested but cannot meet all of these requirements, that is OK! We will pair you with a survey team. The best candidates for this survey will:

- Have a passion for birds and time outdoors!
- Commit to the survey day and allow some flexibility for scheduling around bad weather
- Survey in the early morning and work with a small team
- Have reliable vehicle transportation
- Have binoculars and spotting scope
- Attend an annual online training and learn how to follow a detailed survey protocol
- Be safety conscience and cooperative
- Collect high quality data in the field
- Navigate to and around their survey area using GPS or maps
- Identify shorebirds in breeding, non-breeding, and juvenile plumage
- Enter counts of birds on to a paper data form
- If a volunteer, agree to Sageland Collaborative's and/or Utah Division of Wildlife Resources' volunteer liability contract
- Respect landowner rules including access agreements

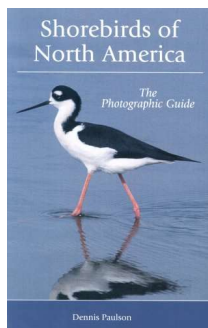
Training

An annual virtual training is required once a year. Shorebirds are some of the most difficult bird species to identify and count, and we will teach you how to follow the survey methods and count shorebirds.

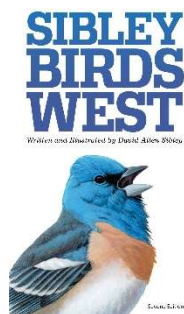
The 2023 Spring Migration Survey training is being held on **Tuesday April 4 at 7pm MDT** via Zoom. Contact your project leads if you have not received an invitation by email from Zoom. The live webinar will be recorded and posted on YouTube.com for those who cannot attend.

Online Trainings and Resources can be found at the Shorebird Survey website at: sagelandcollaborative.org/shorebirds

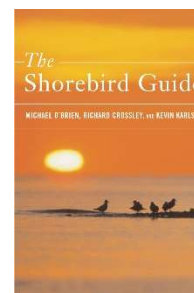
Recommended Field Guides:



Shorebirds of North America: The Photographic Guide by Dennis Paulson



The Sibley Field Guide to the Birds of Western North America by David Allen Sibley



The Shorebird Guide by Michael O'Brien, Richard Crossley, Kevin Karlson

Safety

The **safety of our surveyors is our number one priority**. We ask you to join our culture of safe working practices. There are a number of safety hazards present when doing shorebird surveys. A list of major concerns and ways to mitigate risk is below. Please communicate with Project leaders if you have ideas how to improve safety conditions.

Before you begin your survey, read through all safety concerns and ways to mitigate risk with your entire team.

Hazard	Actions to Mitigate Risk
General	<ul style="list-style-type: none">• Remember, your safety is our NUMBER ONE concern.• You ALWAYS have the opportunity to STOP SURVEYING.• Never survey alone. Field partners are mandatory.• Before every survey, review safety with your team.• If you see a safety hazard, say it!• Watch out for each other.• To participate in this Project, you agree to work safely.
Communi- cation	<ul style="list-style-type: none">• Always have a safety contact (roommate, family, neighbor) know where you will be and what time you will be expected home.• Before you leave to survey, provide your safety contact with the Project information and maps and your plan.• Always carry a charged cell phone and a charger.• If there is no cell phone service, consider using a SPOT device or satellite phone.
Vehicle Breakdown	<ul style="list-style-type: none">• If roads are bad, turn around before you get stuck.• Maintain vehicle in good condition.• Ensure the spare tire is working and a tire jack is accessible.• Ensure fuel tank is full and, if needed, carry extra fuel (i.e., Fish Springs).• Have a list of local tow truck drivers available.• Ensure you have extra water and food in the vehicle in the event of a breakdown.• Even if your survey is conducted entirely from a vehicle, wear appropriate shoes and clothing in case you need to walk to access help.

Hazard	Actions to Mitigate Risk
Vehicle Accidents	<ul style="list-style-type: none"> • The driver should never be distracted when driving. • Allow your passenger to navigate or use devices (e.g., cell phones, GPS units, maps). • Stop the vehicle completely and put vehicle in park with break engaged BEFORE watching birds. • Follow defensive driving techniques. Learn more at: www.oshatrain.org/courses/mods/719defensivedriving.html • Ensure path is clear for the vehicle. • Watch for pedestrians and wildlife in roadways. • Watch for debris in the roadway. • The condition of roads, especially dirt roads, can change at any time, including washouts. Be vigilant. • The driver should be well rested and alert. • Use a spotter to cross narrow parts of roads or bridges.
Walking and Hiking	<ul style="list-style-type: none"> • Never survey alone. Field partners are mandatory. • Once you are in your survey area, do not stray from the survey route. • Always prepare for adverse weather conditions including extreme heat and cold. Bring layers and extra clothing. • Always bring extra food and water. • Work slowly and methodically to avoid slips, trips, and falls. • Wear proper footwear that has ankle support. • Survey areas that match your ability level. • Mud can be extremely difficult, messy, and slippery to walk in. • Standing water may be encountered.
Weather	<ul style="list-style-type: none"> • We will not survey in lightning or adverse weather. • If any thunder is heard, shelter in a vehicle immediately. • If severe rain occurs, consider if roads will be impassible and watch for flash floods. • Wear and bring sunscreen. • Drink plenty of water and electrolytes to stay hydrated. • Start surveys early to avoid extreme heat.
Bathrooms & First Aid	<ul style="list-style-type: none"> • Most of the survey areas will not have access to bathrooms! Plan ahead for your personal needs. Pack out toilet paper in a plastic bag. Be both respectful of and courteous to your survey team. Brush up on Leave No Trace standards: lnt.org/how-to-poop-outside/ • Carry basic first aid kit including bandages and anti-histamines. • Let field partners know of any medical concerns like allergies. • Ensure you have access to any special medications (e.g., epi-pens).

Hazard	Actions to Mitigate Risk
Insects and Animals	<ul style="list-style-type: none"> • Wear bug spray, long layers, and light-colored clothing to avoid biting insects. • Rattlesnakes are uncommon but know what to do if you encounter one. Learn more: www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5393596.pdf • Domestic cattle can be dangerous, be wary and do not attempt to approach animals. Modify your survey route as needed and note on your Data Form in the notes section.
Working Around Water	<ul style="list-style-type: none"> • Many of the survey areas will be near water. Never attempt to cross large waterways on foot or vehicle. • Never drive through water of unknown depth. • Waters could contain harmful algal blooms, avoid splashing water near face. • Some surveys require travel in boats or other specialized vehicles. Separate safety protocols will be in place.
Property Access & Suspicious People or Activity	<ul style="list-style-type: none"> • Remember, you have special permission to access otherwise closed areas. Land managers and law enforcement may approach you. Carry the Access Letter and use the vehicle placard (Appendix C and D) if appropriate. • Carry this Survey Plan with you to provide information to landowners or law enforcement, if needed. • If you need to park and walk away from your vehicle as part of your survey, do so in designated parking areas or areas that allow access for other vehicles to pass on the road or through locked gates. • If you see suspicious activity, leave the area and call police or dispatch for assistance (see phone numbers below). • Never approach situations that make you feel uncomfortable. • Follow your survey directions and maps carefully to ensure you do not enter restricted property. • If someone makes you feel threatened for being in the survey area, leave and do not engage with them. Call for assistance. • If you think you observe poaching, do not approach, and call the 24-hour Report a Poacher Line at: 1-800-662-3337

Contacts

Project Coordinators

Name / Entity	Contact
Janice Gardner and Sierra Hastings, Sageland Collaborative	801-821-8569 janice@sagelandcollaborative.org sierra@sagelandcollaborative.org
Max Malmquist, National Audubon	801-554-8574 Max.Malmquist@audubon.org
John Neill, Utah Division of Wildlife Resources	801-231-2019 johnneill@utah.gov

Emergency and Non-Emergency

Location	Number
ALL EMERGENCIES	911
Box Elder County	Non-emergency Sheriff: 435-734-3800 Highway Patrol Dispatch: 435-723-6890
Cache County	Non-emergency Sheriff: 435-755-1000 Highway Patrol Dispatch: 435-753-7555
Davis County	Non-emergency Sheriff: 801-451-4100 Highway Patrol Dispatch: 801-451-4150
Juab County	Non-emergency Sheriff: 435-623-1344 Highway Patrol Dispatch: 435-896-6471
Salt Lake County	Non-emergency Sheriff: 801-840-4000 Highway Patrol Dispatch: 801-887-3800
Tooele County	Non-emergency Sheriff: 435-882-5600 Highway Patrol Dispatch: 435-882-5600
Utah County	Non-emergency Sheriff: 801-794-3970 Highway Patrol Dispatch: 801-887-3800
Weber County	Non-emergency Sheriff: 801-395-8221 Highway Patrol Dispatch: 801-629-8221
Utah Turn-in-A-Poacher (UTiP)Hotline	1-800-662-3337

Protocol

This protocol describes field methods for documenting the abundance and distribution of shorebirds during migration across the Intermountain West portion of North America. The methodology has been adapted from regional surveys in 1989-1995 and existing protocols currently used in all 13 countries of the Pacific Coast of the Americas (www.migratoryshorebirdproject.org). In Utah, we will use Tier 2 and this section describes the Tier 2 protocol.

Definitions for Shorebird Survey Areas

- **Survey Area:** An area with a unique name that is predefined with a boundary for surveying shorebirds. Many Survey Areas contain defined survey routes for surveyors to follow.

Important Things to Remember

- **Inclement Weather:** Surveys should not be conducted in weather that reduces visibility including strong winds (greater than 24 miles per hour [mph]), heavy fog, or steady rain.
- **Training:** Observers should complete a live or recorded training on the protocol annually.
- **Safety:** The safety and wellbeing of observers is our primary concern. By participating, you agree to review and adhere to all safety measures.
- **Pre-survey Scouting:** Observers should be familiar with the Survey Area and always follow recommended routes when conducting a survey. In some cases, pre-survey reconnaissance will be required to designate routes or become familiar for safety.
- **Keys and Permits:** Access to some Survey Areas requires keys and/or permits. Please follow instructions from your survey coordinator if necessary.
- **Survey Materials:** Bring a printed version of the Data Form, survey narrative/map, and writing utensils for all surveys, even if you plan to record data on an electronic device.
- **Observers:** Surveys should be conducted by one observer in most cases. If working in pairs or more, we recommend that one person counts birds (Observer) and a second person records data (Data Recorder). However, multiple Observers may be beneficial for Survey Areas that are large or

have high abundance (each observer counts certain species). Always record names of Observers and Data Recorders.

- **Survey in One Direction:** To minimize bias due to bird movement, conduct the survey when travelling in one direction only along the survey route (along both sides of the path/road/boat in some cases); please record the site conditions during your return trip (if applicable), or otherwise after the bird survey is complete.
- **Survey Etiquette:** For most ground surveys, observers should count birds on foot using binoculars and/or a spotting scope. If you risk flushing birds, please count from a vehicle unless appropriate visibility is not possible.
- **Survey Routes and Data Forms:** Always follow designated survey routes and only survey within predefined Survey Areas.
- **Timely Data Reporting:** Submit your data to us by 1) sending a photograph of the data forms by text/email as soon as you finish your survey; and 2) mail your Data Form to Sageland Collaborative within 2 days of the survey.
- **Zero Data are Key:** Always complete the entire Data Form when zero birds are observed.

Equipment Check List

- Survey Plan (includes protocol and species lists)
- Paper map, phone apps
- GPS or other navigation app
- Data Forms (Appendix A)
- Clipboard
- Binoculars
- Spotting scope and tripod
- Field guides for shorebird identification
- Pens, pencils
- Watch or other timepiece
- Permits, keys, or gate lock combinations (if applicable)
- Extra food, water, and clothing
- Sun and insect protection (see also safety measures)
- First Aid (see also safety measures)
- Cell phone
- Extra gas (if needed)
- Spare batteries or chargers for cell phone and navigation devices

Survey Narrative and Map

Follow the survey narrative and/or map (Appendix B) and consider that local conditions may have changed since the narrative or map were created. These materials will identify the survey route and spatial boundaries of each Survey Area. Good observation points are identified in some cases. See also *Navigation section*.

Please note any discrepancies on the narrative and/or map (e.g., new conditions, hazards, observation points, restricted access) and report to your project coordinator(s).

Survey Methods

Conduct bird and site condition surveys for each Survey Area using the steps below. Multiple Observers may be required to cover Survey Areas that are large or have high abundance.

1. Access the starting location.

- a) Consider safety first when accessing your Survey Area.
- b) Begin by recording the date, name(s) of Observer(s), Data Recorder(s), number of participants, primary survey method (ground, vehicle/OHV, boat, plane), and start time.

2. Conduct the Bird Survey by recording total counts of all shorebirds on the ground (no flyovers) within the boundaries of each Survey Area.

- a) For a shorebird to be considered "using" the Survey Area it needs to be on the ground within the defined Survey Area for at least part of the time it takes to do the survey. Thus, shorebirds that fly over, but do not land in Survey Area should **NOT** be counted.
- b) Use the mixed-species flock methods on the next page if you are unable to identify individual shorebirds at the species level.
- c) Do your best to avoid double-counting shorebirds that leave and then return.
- d) If you observe a larger flock(s) depart from your Survey Area towards an adjacent area with another Observer, please record details in the Notes section (step 5) and if possible, report to the nearby Observer. Include time, flight direction, and flock species and estimated size.

3. Record the end time after completing the bird survey as quickly as possible to limit bird movements into or out of the Survey Area.

- a) There is a minimum time limit of 2 minutes per Survey Area but there is no maximum time limit.
- b) Counts of zero birds are extremely important! Always record survey start/end times and complete steps 4-5 if you count zero shorebirds.

4. Complete the Weather, Site Conditions, Area Surveyed (%Visible Area).

- a) We recommend completing the bird survey before the site conditions survey and noting site conditions along the way for large Survey Areas.
- b) Always record average weather conditions for the entire survey (precipitation, wind, cloud cover).
- c) To best estimate the area visually surveyed, shade or draw in the visible portion of the Survey Area on your team's paper map.

5. Fill out the Notes section of the Data Form. Record details on mixed species flocks, flock movements, sources of disturbance (e.g., a predator or human including vehicles or aircraft), and other observations or feedback.

Mixed-Species Flocks

Use one of these estimation techniques if you encounter a flock and are unable to identify each bird to the species level. Estimation is most often needed for larger flocks (greater than 50 birds) and because of poor lighting, quick or distant views, similarity of species, or other factors. If necessary, Observers can use a mixed-species code for a portion of the flock or the entire flock; use large/medium/small shorebird if genus-level identification is not possible.

- Estimate the total flock size and then estimate the proportion of each species in the flock. Use the proportions to calculate the total of each species (i.e., 600 birds: 25% Western Sandpiper, 25% Dunlin, 50% Least Sandpiper = 150 Western Sandpiper, 150 Dunlin, and 300 Least Sandpiper). **Note:** only use this method if you are reasonably confident the proportions are accurate after counting portions of the flock.

OR

- Estimate the total flock size and species present (e.g., 400 birds, composed of Western Sandpipers, Least Sandpipers and Dunlin in unknown proportions) and attribute the count a mixed-species flock type below:
 - Greater/Lesser Yellowlegs
 - Whimbrel/Curlew

- Curlew/Godwit
- Whimbrel/Curlew/Godwit
- Godwit/Whimbrel/Willet/Curlew
- Western/Least Sandpiper
- Western/Least/Dunlin
- Short-billed/Long-billed Dowitcher
- Wilson's/Red-necked Phalarope
- Wilson's/Red-necked/Red Phalarope
- Unknown "Peep" Sandpipers (*Calidris* spp.)
- Unknown small plovers (*Charadrius* spp.)
- Unknown large plovers (*Pluvalis* spp.)

Site Condition

Weather Characteristics: cloud cover, precipitation, wind speed recorded for all surveys

- **Wind speed:** Choose a numeric category (0-6) and use the observed effects of wind on land and water to guide you. Do not conduct ground surveys in winds of greater than 24 mph (category 6).
 - 0 – calm, less than 1 mph, smoke rises vertically; water surface smooth
 - 1 – light air, 1-3 mph, smoke drifts; on water surface small scaly ripples but no crests
 - 2 – light breeze, 4-7 mph, wind felt on face, leaves rustle; small wavelets, crests glassy
 - 3 – gentle breeze, 8-12 mph, leaves in constant motion; large wavelets, some whitecaps
 - 4 – moderate breeze, 13-18 mph, dust rises; waves 1-4 feet (ft), many whitecaps
 - 5 – fresh breeze, 19-24 mph, small trees sway; waves 4-8 ft, spray and many whitecaps
 - 6 – strong breeze, greater than 25 mph, medium trees in constant motion; waves greater than 8ft
- **Cloud cover:** Estimate the percent of sky covered by clouds using a numeric % (0 – 100).
- **Precipitation:** Ideally, surveys should not be conducted in steady rain, but if the survey is conducted despite rain, please record 3.
 - 0 – none
 - 1 – light intermittent; mist, sprinkle, drizzle
 - 2 – fog
 - 3 – steady rain

Area Surveyed (%Visible Area): Using the paper copy of your Survey Area map, sketch in the area of the Survey Area that you could see and count birds on the ground. Then, use this sketch to assist you in recording a numeric percentage (0-100% or “U” = Cannot Determine) of the Survey Area that you could see and count birds on the ground.

Predominant Cover Type(s): Record the predominant cover type(s) of the Survey Area from the index below). A Predominant Cover Type comprises greater than 40% of the Survey Area; if no cover type meets this criterion, describe the cover types in the Notes section of the Data Form.

Cover Type Index: The list below includes most of the cover types encountered across the Intermountain West portion of North America. Use the associated number for each cover type:

- **1a -- Natural Wetland:** open freshwater shorelines with tules, cattails, grasses, sedges; often isolated portions of larger bodies of water including reservoirs and saline lakes.
- **1b – Managed Wetland:** open freshwater shorelines often with tules, cattails, grasses, sedges; levees and other infrastructure for water management are present; includes dust-control and groundwater recharge basins.
- **2 – Saline Lake:** landlocked lake with high concentrations of mineral salts (saline or alkaline), sometimes with associated playa or pools of water from wind events or declining lake levels.
- **3 – Grassland:** predominantly grasses; includes irrigated or non-irrigated, grazed pasture and hay.
- **4 – Scrubland:** predominantly shrubs, often includes grasses, herbs, and geophytes.
- **5 – Freshwater Lake/Pond:** body of freshwater including reservoirs; sometimes with associated wetlands or pools of water stranded by wind events or declining water levels.
- **6 – Evaporation Pond:** settling pond constructed to collect agricultural wastewater
- **7 – Wastewater Pond:** pond associated with wastewater from sewage or other activities
- **8 – Forest:** extensive woody vegetation, non-agricultural (e.g., willows in riparian)
- **9 – Developed:** houses, cemetery, parking lot, other human-made structures etc.

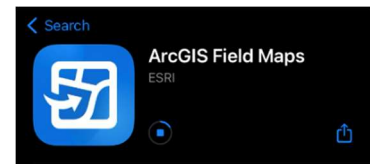
- **10 – Irrigated Row Crop:** dirt field with raised beds or stubble (e.g., corn, cotton)
- **11 – Seasonal Crop:** emergent vegetation from tilled soil (e.g., winter wheat, cover crop)
- **12 – Agricultural Field:** includes categories 10 and 11 from above. Use this category only when unable to determine a more specific field type.
- **13 – Levee:** often associated with Managed Wetlands and with paved or unpaved road on top; sometimes with riprap or similar. Note: levees are rarely considered a Predominant Cover Type.
- **99 – Other:** describe in Notes section of the Data Form

Navigation

To assist your navigation around the Survey Area, you have access to paper maps and the ArcGIS Shorebird Survey Map App. You can access the ArcGIS Shorebird Survey Map App two ways.

1. ArcGIS Field Maps App

Step 1. Download the free “ArcGIS Field Maps” app by searching in your smartphone’s App store or use the QR code to the right.



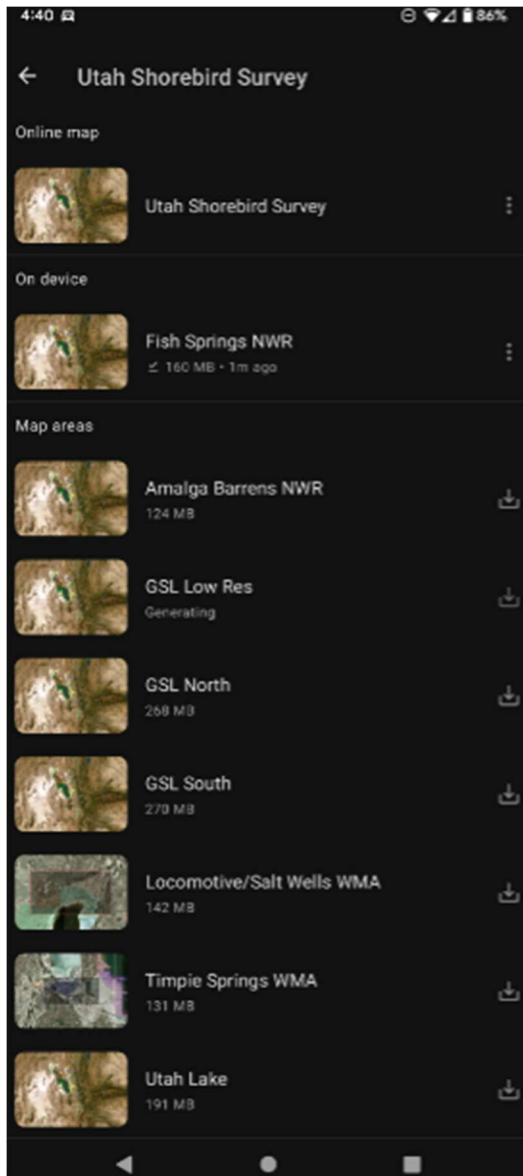
Step 2. Open the App. Note, you do **not** need to sign in.

Step 3. Use the Search feature to find “**Utah Shorebird Survey,**” or scan the QR code again.



Step 4. Enable your location to use as a navigation tool around your Survey Area.

If your Survey Area is remote with no cell phone coverage, you have the option to download preset maps to your phone. Instructions for creating For a custom map, select the “...” and click “Add Offline Area.”



This opens the live, online map. Click the three dot (...) menu on this map, and then “Add Offline Area” to add a custom offline area you choose

This “On Device” section shows offline areas you have already downloaded.

This section shows preset offline areas that are ready for download. Push the download button on the right to start the download. When finished, they will appear in the “On Device” section above.

2. Using a Web Browser on your Phone

Step 1. Visit <https://arcg.is/1Lz0ue> or use this QR code:

Step 2. Click “Open in Map Viewer”



Shorebird Species and 4-Letter Codes

For this Survey, shorebirds include the following species. Species that would be considered very rare in Utah are listed separately.

Common Name	4-Letter Code
American Avocet	AMAV
American Golden-Plover	AMGP
Baird's Sandpiper	BASA
Black-bellied Plover	BBPL
Black-necked Stilt	BNST
Dunlin	DUNL
Greater Yellowlegs	GRYE
Killdeer	KILL
Least Sandpiper	LESA
Lesser Yellowlegs	LEYE
Long-billed Curlew	LBCU
Long-billed Dowitcher	LBDO
Marbled Godwit	MAGO
Pectoral Sandpiper	PESA
Red Knot	REKN
Red-necked Phalarope	RNPH
Sanderling	SAND
Semipalmated Plover	SEPL
Semipalmated Sandpiper	SESA
Short-billed Dowitcher	SBDO
Snowy Plover	SNPL
Solitary Sandpiper	SOSA
Spotted Sandpiper	SPSA
Stilt Sandpiper	STSA
Western Sandpiper	WESA
Whimbrel	WHIM
Willet	WILL
Wilson's Snipe	WISN
Wilson's Phalarope	WIPH

Common Name	4-Letter Code
Species Groups or "unknowns"	
Greater/Lesser Yellowlegs	XYEL
Whimbrel/Curlew	XNUM
Curlew/Godwit	XCGO
Whimbrel/Curlew/Godwit	XWCG
Godwit/Whimbrel/Willet/Curlew	XWNG
Western/Least Sandpiper	XWLS
Western/Least/Dunlin	XWLD
Short-billed/Long-billed Dowitcher	XDOW
Wilson's/Red-necked Phalarope	XWRP
Wilson's/Red-necked/Red Phalarope	XPHL
"Peep" Sandpiper	UNPP
Small Plover	XCHA
Large Plover	XPLU
Species Considered Very Rare in Utah	
Bar-tailed Godwit	BARG
Buff-breasted Sandpiper	BBSA
Curlew Sandpiper	CUSA
Hudsonian Godwit	HUGO
Mountain Plover	MOPL
Pacific Golden-Plover	PAGP
Purple Sandpiper	PUSA
Red Phalarope	REPH
Ruddy Turnstone	RUTU
Ruff	RUFF
Sharp-tailed Sandpiper	SHAS
Upland Sandpiper	UPSA
Wandering Tattler	WATA
White-rumped Sandpiper	WRSA

Submitting Data & Forms



The Data Form, your sketched up Survey Area paper map, and applicable volunteer liability forms will be submitted as follows:

1. As soon as you complete your survey and all fields of the Data Form have been filled out, use a smartphone to take individual photographs of the three pages and email or text the photos to: 801-821-8569 or janice@sagelandcollaborative.org

This step serves as 1) a safety check in so we know you made it out of the field and 2) a backup of the Data Form in case it gets lost in the mail.

2. Within TWO days of completing your survey, place your 1) Data Form, 2) your sketched up Survey Area map, and 3) any applicable volunteer liability forms in the addressed, stamped envelope and mail to Sageland Collaborative at 824 South 400 West B-119, Salt Lake City, UT 84101.

Sharing Your Experience

We welcome you to share your shorebird survey stories directly with the project coordinators or your favorite social media channels. Tag **#shorebirdcount** to have your media featured on partner channels.

You will be asked to fill out a brief questionnaire about your experience after the survey. Your project coordinators use this information to create the best experience for our valued participants and make improvements for subsequent surveys.

Appendices

- A Data Form**
- B Survey Area Map / Surveyor Information Sheets**
- C General Access Letter**
- D Vehicle Placard**
- E Volunteer Liability Form (as applicable, depending on site)**