

## REMOTE ATLASSING GUIDELINES

*The goals of point counting and general atlassing are somewhat different and it is important to remember this! Ideal is to achieve a balance of point counting (morning only) and general atlassing (any time of day).*

**Point Counts:** *used to estimate relative abundance, hence goal is to place point counts in such a way as to be as **representative** of square (habitats) as possible (within reason – practical constraints). Within representative habitat, place counts as randomly as possible (e.g. every 300 m on a transect) and do **NOT** place point counts where you think the most birds will be as this will skew results.*

**IDEAL = REPRESENTATIVE, RANDOM, REPLICABLE**

**General Atlassing:** *used for distribution mapping, so goal is to find all species that breed in each square. Hence this requires sampling of “rare habitats” and targeting rare species and Species At Risk (SAR) and spending time in habitats that are species-rich or that contain secretive species.*

**IDEAL = COMPREHENSIVE**

### 1. Point Counts

- a. Target: complete **at least one priority square** and some point counts on all remote trips:
  - i. Especially in priority square(s), **15 point counts** and 20 hours of atlassing should be completed. Point counts have priority over general atlassing hours.
  - ii. Target number is 15 point counts per square (e.g. 15 in one square rather than 5 in 3 squares).
  - iii. If no priority square is available or accessible: Shift a nearby priority square by one square in any direction and note the change **OR assign priority status to a square you can access**. If time-limited, assign the lodge square as priority.
- b. Time window: Ideal is June 7 – July 7; it is possible to extend this by  $\pm 1$  week if the birds are still singing.
- c. Habitat representativeness: Use square maps and other maps to gauge major habitat types in each square (Atlas staff can help with this task). Be prepared to survey “unbirdy” habitats like dense black spruce.
- d. Setting up a transect:
  - i. Transects are a good way to set up a morning point count survey. Consult maps and try to plan a route that touches on all major habitat types (in northern Manitoba, there is less diversity in major habitat types so this is not onerous).
  - ii. When considering transects on waterways, plan to do some point counts on foot, away from the shore. Remember that exiting the boat/canoe and walking into the forest may be difficult to do safely. If necessary, point count from the boat as close to shore as possible.
  - iii. If possible, scout for natural features and man-made trails that may facilitate travel. However, it is important to balance this against habitat representativeness (e.g. 15 point counts along a trail that runs through disturbed habitat comprising only a small percentage of the square is not representative). Atlas staff have maps that we can load onto a GPS that will show major trails, power lines, etc.
  - iv. Roads: point counts are placed in random locations a minimum of 500 m apart.
  - v. Remote and roadless: Your task is to place point counts in the representative habitat types as randomly as possible a minimum of 300 m apart (or 500 m apart along the shore, by boat/canoe). Consult a square map and/or scout the area to determine where to access each major habitat type, and try to pre-load GPS points as a guideline if you have access to a laptop. This is preferable to placing points where you think you will hear the most birds.
  - vi. Safety may require working in a team of two or some suitable compromise, e.g. walking on parallel transects with two-way radios. Choose a safety tactic suited on your comfort level and the characteristics of the terrain. Do not work alone in polar bear country!
  - vii. With planning, it is possible to complete one square (15 points) per person per morning or more!
- e. GPS:
  - i. **Essential** for point counting. Carry one per person plus a spare (we can supply if needed).
  - ii. Ensure it is set up correctly: NAD83, UTM, metric. Preload relevant topo maps (ask us for help).
  - iii. You **always** know what square you are in (5<sup>th</sup> number from the right on easting + northing).
  - iv. You **always** know time of local sunrise and sunset.
  - v. **Always waypoint vehicle**, boat, camp, and forest entry point for safety reasons.
  - vi. **Always waypoint each off-road point** count AND write these coordinates in your notebook/form.
  - vii. Always carry several sets of spare batteries!

- viii. **PLEASE Waypoint all Species At Risk (SAR)** between point counts or during general atlassing (SAR list available on atlas website). SAR coordinates can be entered into the online database using either rare bird forms or casual forms
- ix. Always carry a compass as well as GPS (the compass function on a GPS does not typically work well unless you are moving at fast walking pace and in dense bush this is often very difficult!)

## 2. General Atlassing

- a. Allocation of effort:
  - i. Consider how many squares you are likely to cover and how many hours you can spend in each
  - ii. If no priority square is available or accessible, **assign priority status to a square you can access**. Ensure that you complete 15 point counts and spend 20 hours in your priority square. If possible, place your camp in the priority status square to help achieve 20 hours of coverage.
  - iii. For squares that are not priority squares, however, it is probably not possible to achieve 20 hours in each square. Therefore it is useful to note the habitats available in each square and keep running tab of species count as a measure of your coverage level (if you have a good selection of expected species it is not strictly necessary to achieve 20 hours of coverage).
  - iv. Square summary sheets are a useful tool and give you good idea of expected species.
  - v. Time Window: Whilst point count surveys are morning only, general atlassing can happen throughout the day (dusk can be very productive). Note that a longer window is available for general atlassing, e.g. July can be excellent for obtaining confirmed breeding codes (if your trip is later in July you will be doing more general atlassing and may not do point counts).
  - vi. The **80%-of-expected-species** rule of thumb can be a useful substitute for hours of effort. Except for priority squares, we prefer you get more squares covered with “relatively complete” species lists and fewer hours than fewer squares with 20 hours. How many hours it takes to find 80% of expected species depends in part on your experience and skill-level. A good point counter can obtain a nearly complete list in 4 or 5 hours during height of singing period if access to various habitats is good, then use the afternoon and evening to atlas in unusual habitats and search for rare species.
- b. Maps
  - i. Carry a map in the field (planning / working map) and **always keep a master copy at camp**.
  - ii. Multiple maps from multiple sources may show different things. Using a combination of Google Earth, MapSource printouts, topographic maps, atlas square maps, atlas regional maps or maps specially prepared by atlas staff will show you a bigger picture and help with planning.
- c. Species At Risk (SAR)
  - i. Worth considering in advance of trip which “rare species” to target and invest some time in searching for appropriate habitat (a great learning experience)!
  - ii. Please remember to **waypoint all SAR!**
- d. Public Relations: If possible, it is often worth the effort to “make friends” in the local community. By doing so you may convert one or two more people to atlassing, find out about known nests or roosts of large conspicuous species, hear reports of unusual species, find people who can take you out on boats or on ATVs, give you access to private property, and generally spread the word about the atlas! Carry pamphlets with you and we can supply some thank-you gifts if you are able to carry them.

## 3. Avoiding Duplication

- a. In all of the above, ask yourself “How likely it is that other atlassers will get to his square in future years?” If the answer is “unlikely”, then strive for 15 point counts + 80% expected species per square
- b. Especially if driving along major route such as Hwy 6, consult effort maps on the website and check with atlas staff to avoid duplication of effort.
- c. Consult data summaries or atlas staff for lists of point counts completed (or planned) to avoid duplication.
- d. Consult effort maps or atlas staff in planning – you may be able to fill some gaps *en route* to your remote adventure!

## 4. Data Collection and Data Entry

- a. Working with a notebook in the field is easier for most people (as opposed to a clipboard with forms). If you use a notebook, it is best to paste example forms in the front or back of your notebook so you can **check that**

**you have collected every required field.** If you are point counting, remember to paste (or write) the habitat codes and breeding evidence codes in your notebook too!!

- b. Consider using a “write-in-the-rain” notebook, available at some outdoors supply stores.
- c. Back up your data whenever possible (what if you dropped your notebook in the river... augh). Consider transcribing your data from your notebook to data forms **as soon as possible** (ideally every day) after the data is collected! Alternatively, a small digital camera to take photos of each page of your notebook or each data form is a quick and easy back up (carry in double zip locks bags). If at all possible keep your back up in a different place as the original (e.g. one set in the lodge/camp and one set on your person).
- d. If you use a clipboard bring a plastic rain cover and plastic folder to keep used forms. If you use a notebook bring zip lock bags or improvised plastic cover.
- e. When you waypoint SAR, back up the coordinates, BE code, date, time and other comments in your notebook or on a casual observations card.
- f. Waypoint each off-road point count **AND** write the coordinates in your notebook as a backup. Be extremely careful to write coordinates correctly (6 digits for easting, 7 for northing)!
- g. Data entry: Soon after please -- it really helps us with coordination and avoiding duplication. If you need some time before data entry then email or call Bonnie with a list of squares completed **especially** if you did some point counting or atlassing along highways *en route*!

## 5. Safety

- a. Consider carrying a SPOT or sat phone (atlas staff or lodge owner may be able to lend you these). Establish a time with Bonnie and your own contacts as to when you will send a SPOT message. Send an OK message at least once a day at a **regular** time (preferably **twice** a day) and be sure to leave SPOT on for 20 minutes after you send OK message. Please provide Bonnie with the contact information of the various people who will be receiving your SPOT message so she can confirm receipt of SPOT messages if necessary, or in case of emergency.
- b. A cell phone is probably useless, but consider if you are going to be anywhere near a tower (and then bring our cell numbers with you).
- c. Always carry a GPS, a compass, multiple sets of spare batteries, and have a spare GPS for your team.
- d. Leave your emergency contact information with Bonnie and, if applicable, the lodge owner or local RCMP.
- e. Update the lodge owner of your plans and where you are going as often as possible.
- f. If you are going to split up, organise a rendez-vous and a backup rendez-vous, and discuss possible scenarios with your partner. Make sure you are both crystal-clear on the plan, the meeting point, the time window and the backup plan. **Good communication is imperative!**
- g. Best to bring a “survival kit”, which includes a **first aid kit**, rain gear, a compass, safety matches, a pen knife, a space blanket, candles, lighter, flares, emergency snacks (consider bears), mirror, twine, water treatment tabs, any other items for general safety.
- h. Think hard about appropriate footwear for consistent comfort in the field. Suggestions include Lecross boots, muck boots, chainsaw boots or otherwise waterproof or water-resistant footwear. Hip waders can be useful when traversing bog, but are NOT advisable in a canoe as they will fill with water and drag you down in the event of a capsized. Bring spare footwear to wear at camp.
- i. If you choose to use bear spray and starter pistols for safety, be aware of the dangers and remember that they are your responsibility.
- j. Always take water with you and “emergency snacks”.
- k. You **WILL** need a bug jacket and probably bug spray too! Also consider a mosquito net, after-bite, etc.
- l. Dress appropriately for the temperature and weather. Bring rain gear, light gloves, toque, scarf, jacket, warm socks, thermocells / handwarmers, thermal underwear, and other such items that will increase your comfort level in the field.
- m. Email or phone us as soon as you get home!

## 6. Other

- a. Lodge workers are accustomed to getting tips – do your best to represent the atlas, including giving tips where appropriate and within reason. We will reimburse you.

- b. Discuss the billing arrangement with Bonnie and Christian ahead of time so you are clear on the expectations of where the bills are being sent. If there are any out-of-pocket expenses, keep receipts and provide us with them upon your return. Discuss with Bonnie or Christian what can be reimbursed beforehand.
- c. Although cell phones may be useless, smart phones can be useful for storing maps, taking photos, use as a compass, play-back audio files of bird songs, recording bird songs, and storing field guides.
- d. Bonnie will prepare a checklist of things to confirm with her before departing – e.g. selection of priority square, availability of appropriate maps (Google Earth, Square Maps, Region Maps), your emergency contacts, list of contacts (atlas contacts, lodge owner contacts, RCMP and others), SPOT times and recipients, travel route (gaps to fill, squares to avoid), and accommodations/services provided by the lodge.