

Standard Operating Procedure #1:

Preparations and Equipment Setup Prior to Field Season

Version 2.1 (1/26/2024)

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Revision History Log

Date	Previous version	New version	Authors
2014	1.0	2.0	Suzanne Sanders and Jessica Grochowski
Revised to reflect new equipment needed for revised methods and new administrative requirements associated with HR			
2024	2.0	2.1	Suzanne Sanders and Jessica Kirschbaum
Revised to: • have more general wording with regard to hiring; • reflect more accurate timing of pre-season steps; • reflect the fact that we provide first aid and CPR training, in house; • address PIV card requirements; • reflect current administrative and IT requirements; • reflect the fact that we now use tablets for data entry, rather than paper datasheets; • modify Table 1 to include use of tablets and range finders and delete references to data sheets and sonar-based distance measurers, plus other slight modifications; • improve wording and flow of text.			

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1.0 Introduction

Preparations for the field season are numerous and must begin early in the calendar year. Many of these preparations will necessarily overlap with the duties associated with concluding the previous season, such as report writing. The purpose of this SOP is to enumerate pre-season duties, so that none are skipped and important deadlines in this regard are not missed. This SOP specifically addresses 1) administration associated with hiring field staff, 2) field work schedules, 3) organization of field season equipment and supplies, and 4) data forms.

1.1 Monthly Tasks

October

- Develop budget for the following year. In doing this, the preliminary field schedule must be developed.
- Begin a dialog with parks for sampling the following season. Topics discussed should include workspace needs and any IT and administrative support. For some parks (e.g., VOYA, ISRO), housing must also be addressed.
- Assess vehicle needs for the following summer and arrange for additional vehicles, if needed.

November

- Prepare position announcements for seasonal employees so that these can be publicized in early December.

December

- Publicize seasonal positions via a variety of avenues (listserves, job boards, reaching out to universities, etc.)

January

- Begin review of applicants in late-January and schedule interviews at this time.

February

- Conduct interviews and select candidates. For each incumbent, the Project Manager will complete the appropriate personnel action to initiate a background check and will work with them to complete the OF-306 form, and schedule PIV card enrollment.
- The Project Manager will work with the IT Manager to ensure active directory user accounts get established and that the proper paperwork is completed to accomplish this.
- Continue communication with parks, if needed. Ensure space is available for all training activities, including first aid. Also during this time, submit park requests (e.g., research and collecting permits, camping permits, and boat transportation).

- Arrange any needed pre-season training that is conducted outside of the network (e.g., boat operation).

March

- Follow up with incumbents to insure they have initiated the PIV card enrollment process.
- Review equipment list and organize and prepare equipment. Repairs should have been completed in the fall, but equipment should be rechecked in the spring and any needed equipment can be ordered. Once the field crew is known, the sizes of the cruiser vests and backpacks should be checked to make sure there are an adequate number of necessary sizes. A list of field equipment needs for two 3-person crews is listed in Table 1; if more or fewer than six people work on a crew, then equipment needs will change accordingly.
- Check diameter tapes for proper function and replace worn parts as needed. Review field season notes and datasheets from previous surveys to identify any unique events that may be encountered within specific parks.
- Review existing species lists and ensure that guides and reference materials cover the likely species to be encountered.
- Prepare tablets for data collection. Add names of incumbents to pick lists, ensure the species lists are installed, and make sure they are all in proper working order. Update forms, as needed.
- For remote parks, once the names of all crew members are known, contact the park(s) and request radio call numbers.
- Contact the IT specialist in the park where the field crew will be based. Make sure they are aware of the resources that we need. Also, make sure they are aware of all of the equipment we will be using.

Table 1. Field equipment list for vegetation sampling.

Item	Quantity
Laptop computer for use during training	2
List of plant species known or thought possible to exist in park (digital)	7
Protocol narrative and SOPs (digital)	1
Field guide detailing data collection procedures (digital and hardcopy)	7
Pest and pathogen field guide	4
Site maps showing coordinates	1 set
50 m tape	12
Diameter (D) tapes (30 m auto retractable with nail at the end)	8
Replacement D tapes	4–8
1 m ² quadrats	5
Chaining pin for holding end of 50 m transect tape	12

Item	Quantity
Calipers for measuring sapling diameters	5
Compasses for navigation (adjust/check declination)	7
Compasses for plot layout (adjust/check declination)	8
Tablets (ruggedized, in the Samsung Galaxy Tab Active series)	6
Clipboards (as backup to the tablets)	7
Rite-in-the-Rain® pens (black) for recording notes and data (as backup to the tablets)	20
Garmin GPS for navigating to site coordinates and recording notable features	4
Solid black cardstock for use as a photographic background	4
Hammer for pounding in rebar	4
Range finder (ruggedized/waterproof)	2
Batteries (9 volt, AA, CA123)	several
Cruiser vest (14 pocket deluxe vest from BAP Equipment, Nova Scotia)	7
Quiver for holding flags	4
Flags (pink and orange)	100–200
Hand lens for close-up viewing of vegetation	7
Copies of datasheets (all on Rite-in-the-Rain® paper) (as backup to the tablets)	100
Reference books for plant, insect, and disease identification	several
Park radio	2
Spare radio batteries for backcountry	15
Yellow rebar end caps (from Forestry Suppliers, for 3/8" rebar, yellow with "NPS Study" stamped on them)	several hundred
Aluminum tree tags (from Forestry Suppliers, 1¼" diameter, numbered 1–1000)	300
Nails for witness trees (steel, 1½" lengths)	300
Rebar (from Chicago Iron, Ashland, WI, 3/8" diameter, 1 ft. lengths)	100
Rebar pouches (sewn from red canvas)	25
Small red canvas pouches (for nails and tags)	4
Multitool	4
Small screwdriver (for changing diameter tapes)	4
Unknown plant ID tags	ca. 300
Plastic bags for unknown plants (Ziploc – quart and gallon sized)	ca. 300
Pruning shears for checking pith and collecting samples	4
Trowels	4
Internal frame packs (varying sizes, men's and women's)	At least 10
Pack covers	1 per pack

April

- Begin dialog with the seasonal crew members to ensure they are aware of the specific items they need to supply, and what forms of identification they need to bring on the first day.
- Site coordinates must be loaded onto the Garmin GPS units. This should also include any practice or test plots. Check GPS units to ensure accuracy, working order, and that the proper

settings are loaded and all software is updated (see SOP 4: Using the Global Positioning System).

- For all sites, print site maps, as well as datasheets for plot reestablishment. The datasheets will be used in the event of tablet failure. Also print a large (~100 cm × 50 cm) map showing all sites. This will be hung on the wall of our summer work location.
- Put binders together. Each 1½ inch binder contains: sheets and forms on remote network access/using the VPN, payroll calendar and details on entry of time tick information, motor vehicle operation rules, government vehicle use frequently asked questions, SOP 3 (Safety), SOP 6 (Field Methods and Data Collection), SOP 7 (Procedures for Handling Unknown Species), SOP 8 (Pests and Pathogens), park specific material (radio call information, backcountry procedures, etc.), directions for changing diameter tapes, compass use, Garmin use, and employee performance expectations and standards.
- Put clipboards together: radio call number sheet taped in, tree/shrub list for tree recorders, complete species list and photographic background for groundlayer recorders, SOP 6: Field Methods and Data Collection (on Rite-in-the-Rain® paper, tree recorders), unknown plant ID tags, two Rite-in-the-Rain® pens, and park-specific plant guides. Prepare electronic training materials. For new federal employees, the supervisor must log onto DOI Learn and approve the training for these employees.
- Both the Project Manager and Botanist need to submit a request to the GLKN Network Coordinator for additional hours needed over the summer. This request should be itemized by pay period and should include more than the maximum total number anticipated.
- Set declination on compasses.

May

- Initiate monthly service for SPOT locators and program with the appropriate contacts.
- Test SPOT messengers.
- Once the seasonal staff start, program all personal cell phones with the phone numbers of all crew members and with all relevant phone numbers in the parks where work will be conducted.
- Ensure there are vehicle logs for each month and for each vehicle.
- Field crew typically arrives at duty station (although this starting date varies, depending on the park where sampling will occur). There will be a three-week training period following their arrival but prior to sampling the first site. During the first three days of this period, the crew will have federally mandated training courses. For all courses, the crew members will be required to meet minimum proficiency scores. In addition, the crew members will be required to pass an American Heart Association approved CPR and first aid training course.

If applicable for the sampling requirements in a given year, the crew will also attend canoe safety training.

- Train the field crew in plot establishment, data collection, and general field season techniques. This will include establishing test plots, plant identification, use of tablets and park radios, and general park etiquette. This last point will focus on interactions with other park employees and the general public, and will include how to answer questions about the work of the field crew specifically and the Inventory and Monitoring Program in general. Prior to initiating sampling, all field crew members will be required to pass a proficiency test on field techniques, as well as all electronics.