Instructions for the Maine Invasive Aquatic Plant Survey123
Part 1: Installation

For assistance with the app, contact Becky Schaffner (becky.schaffner@maine.gov)

1. Install Survey123
   a. Phone or tablet: The Survey123 for ArcGIS program is available through the Apple App Store, Google Play, and Amazon Appstore depending on your device. Search for "Survey123 for ArcGIS" and install the app. (Note: After installation you do not need to log in. Go to step 2.)
   b. Computer:
      1. Go to https://www.esri.com/en-us/arcgis/products/arcgis-survey123/downloads. Scroll down to "Get the ArcGIS Survey123 field app. Choose the button that applies to your computer. Note: Esri has discontinued support for older MacOS without access to the App Store, but the software is still available here: https://links.esri.com/survey123/macOS

      2. When the installation file has been downloaded, double-click to open and run the installation wizard. Accept all default settings.
      3. Look for the Survey123 icon on your Start menu or desktop. You do not need to sign in to use the app.

2. Install the Maine Invasive Aquatic Plant Survey using one of the following methods:
   a. Phone or tablet: Many newer phones have built-in QR code readers. Open the camera app and point your camera at the QR code below. If a pop-up appears that says "Survey123" click it to download the IAP app.

   b. Computer, phone, or tablet: Click this link or type it into the address bar of your preferred browser (Safari, Chrome, Edge, etc.):
   https://bit.ly/MaineIAP24
   The form will be downloaded into Survey123. A thumbnail for the app will appear on the My Surveys screen. Click the thumbnail to begin the survey.

   Maine Invasive Aquatic Species …

FILLING OUT AND SUBMITTING THE SURVEY (QUICK START-SEE PART 2 FOR DETAILED INSTRUCTIONS)

1. Open the Survey123 app by clicking the icon on your device.

2. On the My Surveys screen, click the survey thumbnail, then the Collect button at the bottom of the screen (Fig. 1), and the survey will open, ready to be filled out. If you are notified of an update to the survey, accept the update.

3. When you have successfully answered all required questions in the survey, click the check button at the bottom right of the screen to submit it. If there are no errors, and there is an internet connection available, the survey will be submitted immediately. If the survey is unable to be submitted, it will be saved in an "Outbox." Be sure to check whether the Outbox has appeared on your screen. If so, you will need to try sending the survey again when you have a connection.

4. The data will be sent to a central database in the cloud and will be available for viewing and editing through a secure log-in page.
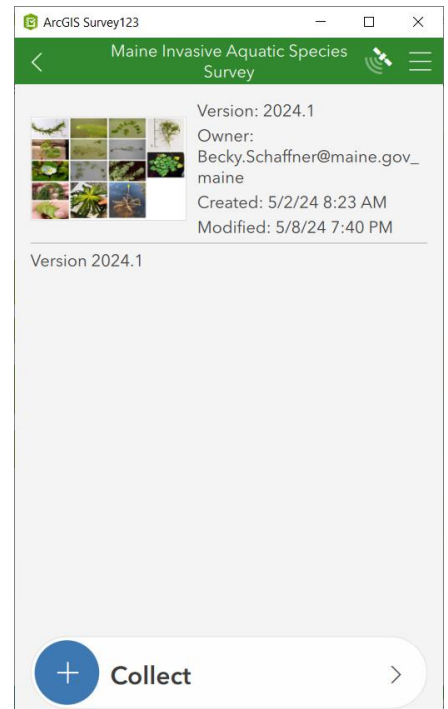

Figure 1. SURVEY HOME SCREEN

Instructions for the Maine Invasive Aquatic Plant Survey123
## Part 2: Data Entry

Survey Basics

1. Survey123 operates on a geographically aware system, and all data is associated with points and/or polygons stored in the underlying database. If you are using the app in the field, be sure to allow Survey123 location permissions to capture accurate location data. Info on enabling location permissions: https://doc.arcgis.com/en/survey123/get-started/faqgetanswers.htm#anchor4.

2. Open the Survey123 app by clicking the icon on your device:

3. Check the update notifications at the top of the home screen. If there are updates for the survey, click the arrow to continue to the Updates list. Click the "refresh" icon next to the survey.

4. On the My Surveys screen, click the survey thumbnail, then the Collect button at the bottom of the screen, and the survey will open, ready to be filled out.

5. Saving a draft survey: while filling out the survey, click the X at top left. Select Save in Drafts. Any draft surveys will appear in the Draft folder on the survey home page.

6. Saving answers to use in multiple surveys: For example, you may want to save site info, surveyor names, and methods to be used in multiple sector surveys on one day. Fill out all fields you want to save to be copied to future surveys. Click the menu icon (3 horizontal lines) in the top right of the survey and click 'Set as favorite answers.' All filled-in fields will be saved. Access saved answers in your next survey by clicking the menu again and choosing 'Paste answers from favorite.'

7. When you have successfully answered all required questions in the survey, click the check button at the bottom right of the screen to submit it. If there are no errors, and there is an internet connection available, the survey will be submitted immediately. Submitted surveys will appear in the Sent folder.

8. If there is no internet connection and the survey cannot be submitted, it will be saved in an Outbox. Be sure to check whether the Outbox has appeared on your home screen. If so, you will need to try sending the survey again when you have a connection.

SECTION 1: Survey Information (Page 1-2)

There are two ways to capture the survey location.

1. While on site: Click the target icon in the left corner of the map window. This captures a point location at or near the starting point of your survey to set a reference location.

2. Enter GPS points collected in the field on a separate device: Click the map to expand it. In the search bar at the top of the map, enter the latitude and longitude in decimal degrees to at least 3 decimal places, with longitude entered as a negative number. For example: **44.1762, -69.4856.** You may also enter a street address in the search bar. Click the check mark at bottom right to save the location and return to the survey. (Fig. 2)

Figure 2. Enter Latitude and Longitude in decimal degrees separated by a comma.
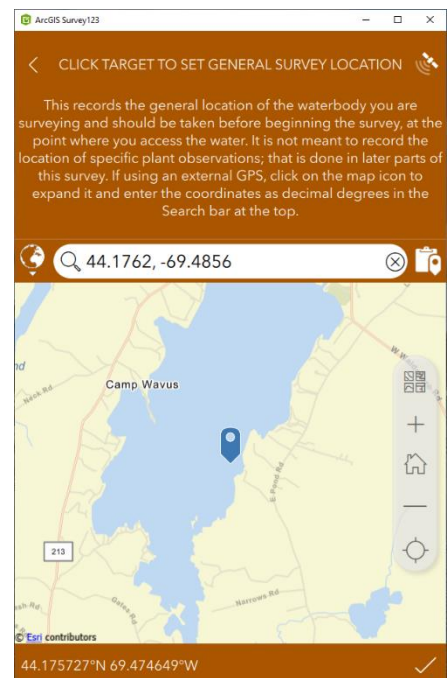
Page 1, cont.: Waterbody and Surveyor information

Fill out the remaining questions on Page 1. All questions with a red asterisk are required.

Page 2: Survey Methods/Conditions

Enter the Survey Level and Survey Extent questions. If you select "Sector or Partial Waterbody" for Survey Extent, please briefly describe the area that you surveyed. You may use an existing Sector Name or Number. Indicate whether your survey is part of a coordinated effort by an organization on a specific waterbody over a specific time frame (1 day-1 week).

The questions about Viewing Methods, Grab Methods, Water Level, Water Clarity, and the Site Comments are optional.

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SECTION 2: Invasive/Suspicious Plant Data (Page 3-4)

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You have two options for collecting survey locations: Points and/or Areas. Check one or both boxes under "Did you survey at individual point locations or in larger areas (polygons) or both?" For example, if you are primarily noting scattered single plants or small stands, use the Observation points option. If you are observing large patches, use the Observation areas option.

1. **POINT OBSERVATIONS (p. 3):** Click the plus sign to start entering point data. Use the target to collect the location using the internal GPS or click to expand the map and enter the GPS coordinates from a separate GPS device into the search box. Answer the questions about species, abundance, depth, and comments. You can stay in this section and collect multiple point locations by clicking the + sign after the Comments section to enter additional data.
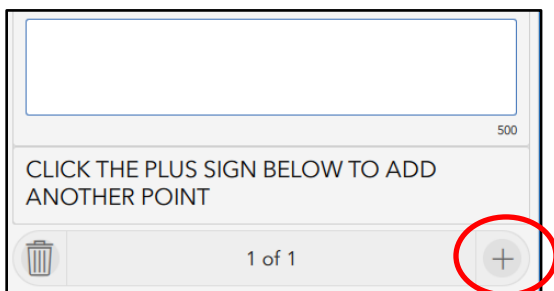
2. **PATCH/AREA OBSERVATIONS (p. 4):** This allows you to draw a polygon approximately outlining the area you surveyed. Click the + sign, then click the map icon to open a full screen map where you can begin drawing the survey area (Fig. 3, left). Click the Create Polygon icon on the bottom left of the map (Fig. 3, right).
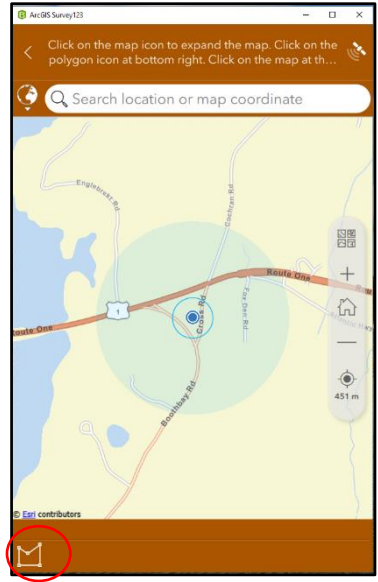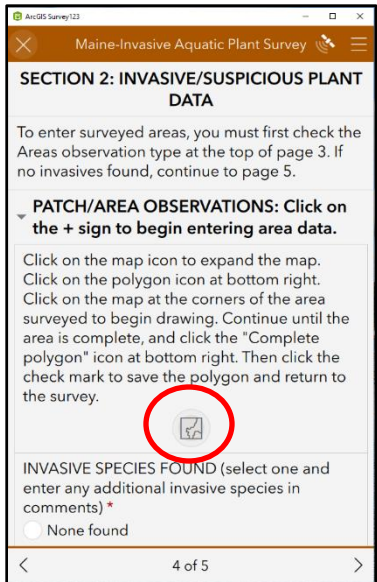
Figure 3. Click the Map icon to expand the map window and click the Create Polygon icon to begin drawing the polygon.

Draw a polygon using vertices: Select a starting point on the map and click to begin the polygon. Click on the map at another location to create a second vertex. Continue clicking on the map until you have completed the area. You can move vertices by clicking and dragging the pink box around a vertex. Use the "Undo" button to undo your last action. When done drawing, click the Stop editing [icon] icon once to stop editing (Fig. 4, left). Then click the check mark [icon] to save the polygon and return to the survey (Fig. 4, right)
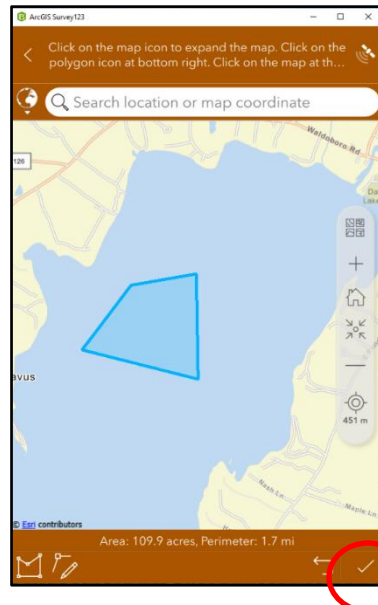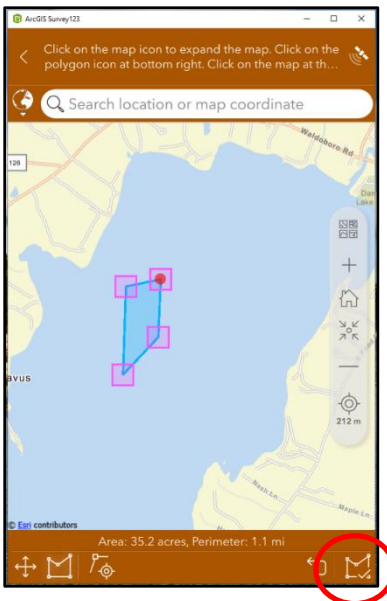

Figure 4. Click on the map at the corners of your polygon to create vertices, then click the Stop

Editing icon, followed by the check mark.

After completing the polygon, enter the species and abundance data, plus depth data and comments on your observations. You may add additional polygons and plant data by clicking the + sign at the bottom right side of page 4.

After entering all plant observation data points and polygons, continue to Page 5 of the survey. If you submitted any plants to an organization or expert for ID, check Yes on the first question and answer the follow-up questions. Check No or NA if you did not find or submit any plants.

Photos: You may attach two photos from your camera or a file, along with descriptions of the photos. They should depict or be relevant to plants found during the survey.

Check off any additional species on the Species of Concern list that you observed during the survey and leave a comment about the location or distribution of the species.

A companion native plant survey is under development. A link will be added to the Invasive Species survey.

Answer the optional questions about lake depth, time spent on the survey, and additional comments.

You may enter two email addresses to receive an automated email confirming submission of the survey.

When you have completed the survey, click the check mark at the bottom right of page 5. If your computer or phone has internet access, you will see a dialog box saying Survey Completed. Click Send now to submit the survey. You may also save it in the Outbox to send later.
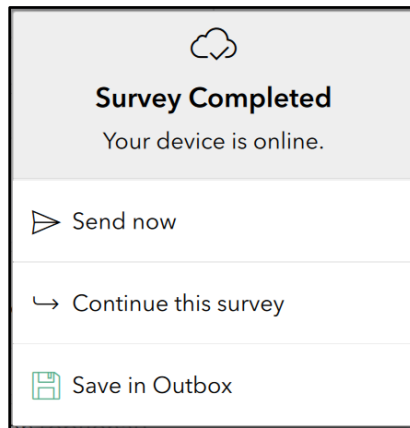
Data from this app and the previous version will be available on the Maine Invasive Aquatic Plant Data Viewer.