

VOLUNTEER MANUAL

This document contains the survey protocol method, data submission instructions, survey data sheet, and volunteer time tracking sheet. Review this document prior to beginning surveys each year.

SURVEY PROTOCOL

GENERAL VOLUNTEER COLLECTION METHODS

What to Bring:

1. KBB data sheets
2. Clipboard & pencils
3. Smartphone (highly recommended, or you can bring a camera and GPS unit)
4. KBB identification materials
5. Water, sunscreen, hiking shoes, maps, hat, bug spray, cell phone

Safety:

Use common sense and judgment for your own personal safety. It's always recommended to survey with a partner, but if you do go out by yourself be sure to tell someone at home your plans before you leave. Remind those with you to keep safety in mind and report any potential unsafe conditions or practices to avoid accidents and injuries. If possible, bring a cell phone with you and have the number of the local county sheriff's department on hand, these can be found on each county's website.

Ticks are also a safety concern in these types of habitats. Please be sure to protect yourself by wearing tall boots, tucking your pants into your socks, and/or using deet. Always check yourself for ticks when you return home from the field.

Data Collection Guidelines:

Please use the most up to date data form (see end of protocol) when collecting data in the field. This will help if you run into a site with multiple Karner individuals. After you become proficient with surveys you may stop using data forms and switch to using iNaturalist, only, if you prefer.

Tracking Volunteer Hours:

It is **EXTREMELY** important that you track your volunteer hours when doing anything Karner related. That includes surveys, prep work, adding observations to iNaturalist, drive time, habitat restoration, planting lupine/nectar plants, etc. Please be sure to fill out the "Donated Labor Match Summary" sheet (see end of protocol) after you're done with your Karner work for the day. The only fields you need fill out are, Date, Name of Volunteer, Description of Work Performed, Hours, and Signature of Volunteer. Scan and email a copy of this sheet to the KBB

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Recovery Coordinator after the end of the second flight. If you have any questions about this please contact the KBB Recovery Coordinator.

Survey Locations:

You may survey on public lands or private lands (with permission). Karners prefer habitat with sandy soils where it's only host plant, wild lupine (*Lupinus perennis*), grows. These areas can range from oak and pine barrens, prairie, savanna, and even right of way corridors. Please contact the Recovery Coordinator if you have questions on where you should be surveying.

Incidental Survey:

This refers to an observation of a Karner while you're out doing something else (aka, surveying for a different species, out hiking with family, in your backyard, etc.). These observations most likely will not have a start/end time, which is ok. We still want to collect other associated information. Take a photo of the underside of the butterfly and submit this observation on iNaturalist and be sure to select 'incidental' under the "Search Type" category.

Timed Survey Procedure:

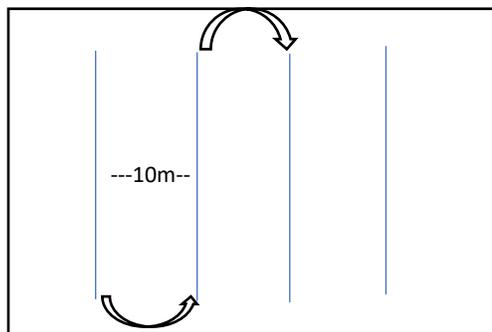
This refers to conducting a timed survey at a site of your choice. These are the steps you will take after you've taken the training and want to conduct surveys.

1. Determine where you will survey
2. Watch for e-mails from the Recovery Coordinator to determine when second flight begins so you know when to start surveying
3. Once Karners have been confirmed to be flying plan a day to go out to your site, be sure weather conditions are appropriate (see below)
 - a. Required Weather Conditions
 - i. Sunny or partly cloudy
 - ii. 65°F minimum survey temperature
 - iii. 90°F maximum survey temperature
 - iv. <10mph wind speed (see wind speed scale on data sheet for estimates)
 - v. NO rain or drizzle
 - b. If the weather deteriorates during your survey, come back the next appropriate day to resurvey the area.
 - i. Note: if you must come back to finish a survey, then the last day you surveyed becomes the start of your 7-day minimum between surveys. For example, you start a survey July 10th, get half way through and it starts to rain. You come back July 12th to redo the survey. So, the soonest you can conduct your second survey is July 19th
4. You are required to conduct a minimum of 2 surveys at each site. **Surveys must be a minimum of 7 days apart.**
5. After arriving at your site, start filling out your data sheet. **Don't forget to turn location services on your phone!!!!**

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<i>START SURVEY DATA (Fill out before you begin survey)</i>	
Property Name: _____	Date: _____
Visit: (circle) <u>1</u> <u>2</u>	Observer: _____
Start Time: _____	Cloud Cover (%): _____
Temperature (°F): _____	Wind Speed (mph): _____

6. Now that you've filled out your start survey data, you may now begin your survey. As you walk through your site, serpentine to cover the entire area. Be sure to stay a minimum of 10 meter in front of where you previously walked (see below). **When you come back for your second survey, try to follow the same path walked during the first survey** (Avenza maps is a free app that can easily track your route during the first survey).



7. As you're walking through your site be sure to keep an eye out for Karners and lupine plants (step a minimum of 12 inches away from lupine plants).
8. Once you are able to identify a Karner on a site, be sure to get a photo of the underside so we are able to confirm the identification. Be sure to record individual Karners using tally marks on the Karner data sheet

<i>KARNER DATA</i>
Note: only one photo per site is necessary for data submission – photo should be of underside of Karner if seen, or if no Karners are seen photograph a lupine plant
Karner individuals seen: (tally)

- a. If you see more than one Karner, focus on getting a positive identification. You only need to have one photo per site, to add your observations to iNaturalist.
 - b. If you do not find any Karners, take a picture of a lupine plant and record the survey information with the number of Karners seen as zero.
9. After you've walked through your entire site (minimum of 15 minutes per acre) be sure to fill out the end survey and site data.

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END SURVEY DATA (Fill out once survey is complete)			
End Time: _____		Latitude: _____	
Photo Taken (circle): <u>Yes</u> No		Longitude: _____	
SITE DATA (Fill out once survey is complete using scale below)			
Size of Area Surveyed (acres): _____			
Total Lupine on site: _____			
Total invasive species on site: _____			
Total nectar species on site: _____			
Total canopy cover, including both shrubs & trees: _____			
NOTES			
Wind Speed Estimation		Percent Cover Estimation	
MPH	Indication	Category	Abundance
<1	Smoke rises vertically	Dominant (D)	>75%
1-3	Wind direction shown by smoke drift	Abundant (A)	51%-75%
4-7	Wind felt on face, leaves rustle	Frequent (F)	26%-50%
8-12	Leaves and small twigs in constant motion; small branches sway	Occasional (O)	11%-25%
13-18	Wind raises dust and loose paper; small branches sway	Rare (R)	1%-10%
		None (N)	0%
Date entered into iNaturalist: / / 2022			

Use the scale at the bottom of the page to help you estimate amounts of each plant cover type.

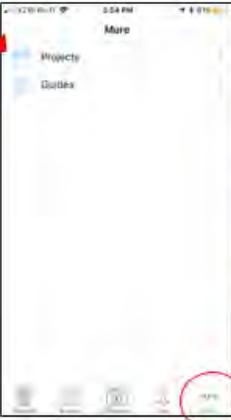
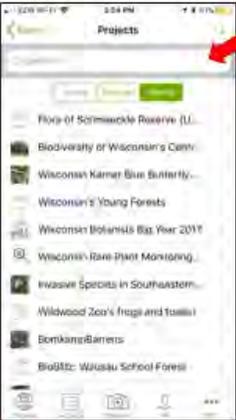
Submitting Data:

1. After you've finished collecting data from the field you will need to add your observations to iNaturalist, www.inaturalist.org, this can be done on a computer or through their app on your smartphone.
2. Sign up for an account on iNaturalist. It's free! Use the web address above or the app
3. Join the Wisconsin Karner Blue Butterfly Volunteer Monitoring Program group

Join Project 'Wisconsin Karner Blue Butterfly Citizen Based Monitoring'

App

1. Click 'More'
2. Click 'Projects'
3. In the search box type 'Wisconsin Karner blue butterfly citizen based monitoring'

Website

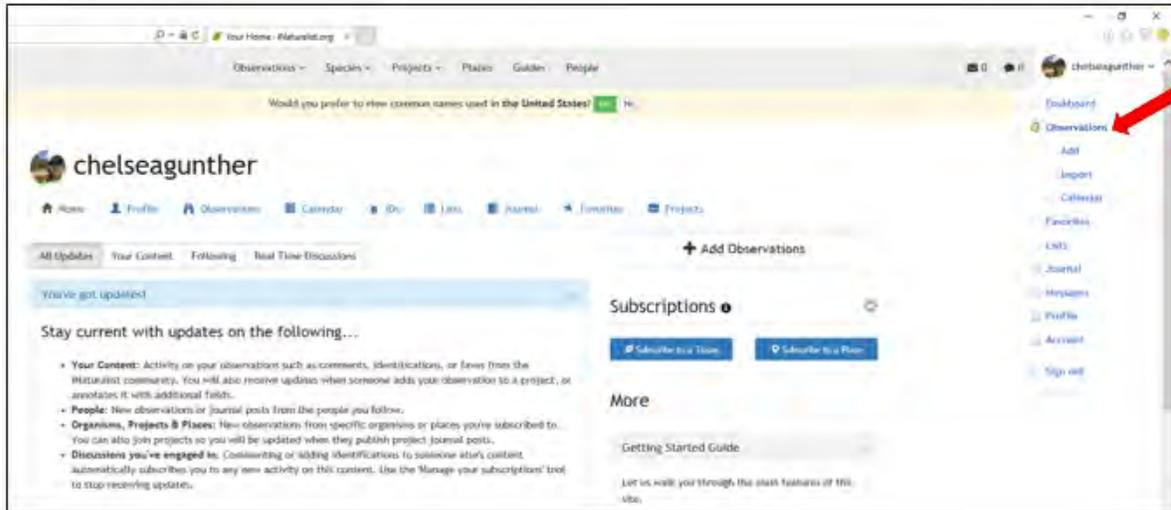
1. Click 'Projects'
2. In the search box type 'Wisconsin Karner blue butterfly citizen based monitoring'



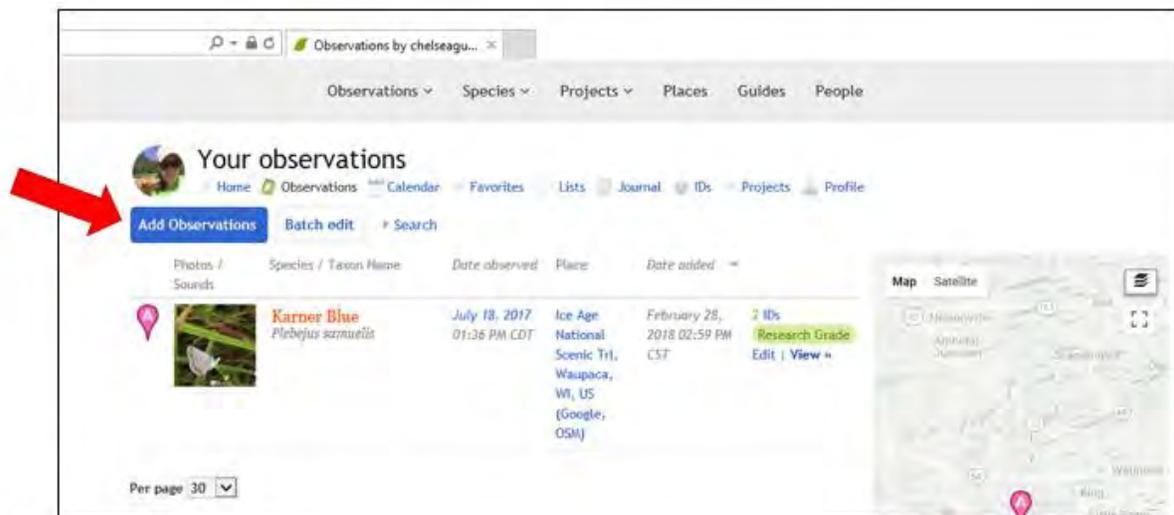
*****Turn location data 'ON' when taking pictures with cell phone*****

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4. Add your observation via computer or app to the KBB CBM project
 - a. Computer
 - i. Click observation



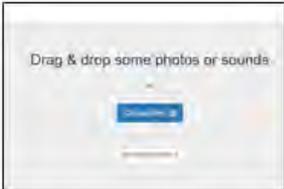
- ii. Click Add Observation



- iii. Add photo – if your location services were on your phone when you took the photo the location/date/time data should auto populate. If it doesn't then you'll have to enter those manually. **Be sure to change the geoprivacy to obscured or private**

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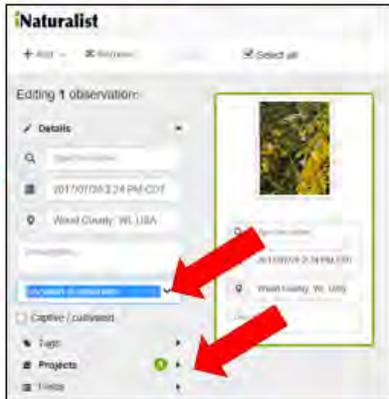
Drag & drop some photos or sounds.





Add species name

Change location to obscured/private!!!
Very important!
Confidential!



Click on 'Projects' to add to KBB CBM
Click on 'Fields' to add survey data

If your location data is 'ON' when taking photos with cell phone it will auto populate – even if you are adding your observation from a laptop!

iv. Once you click 'Fields' you can enter your survey data

Field and project observation fields

Did you set geotagging to obscured or private? yes

Observation Type: Karner

Examers:

Wind 1 or 2: 1

Weather - Temperature (F):

Weather - Cloud Cover (%):

Weather - Wind Speed (mph):

Search Type: Incidental

Survey Start Time:

Survey End Time:

Total Canopy % cover:

Total Invasive % cover:

Total Nectar species % cover:

Total Invasive % cover:

Total nectar species % cover:

Total Canopy % cover:

Additional observation notes:

Latitude*:

Longitude*:

* required

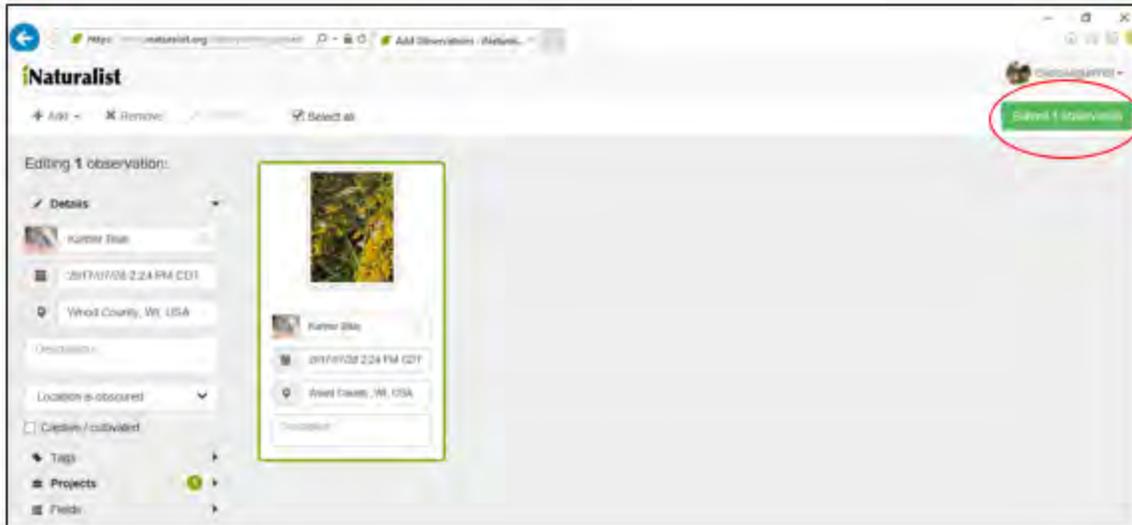
More fields

Add a field: Start typing field Create a new field View all fields

Save observation Save and add another Cancel

v. Once you've added all your data you may submit your observation

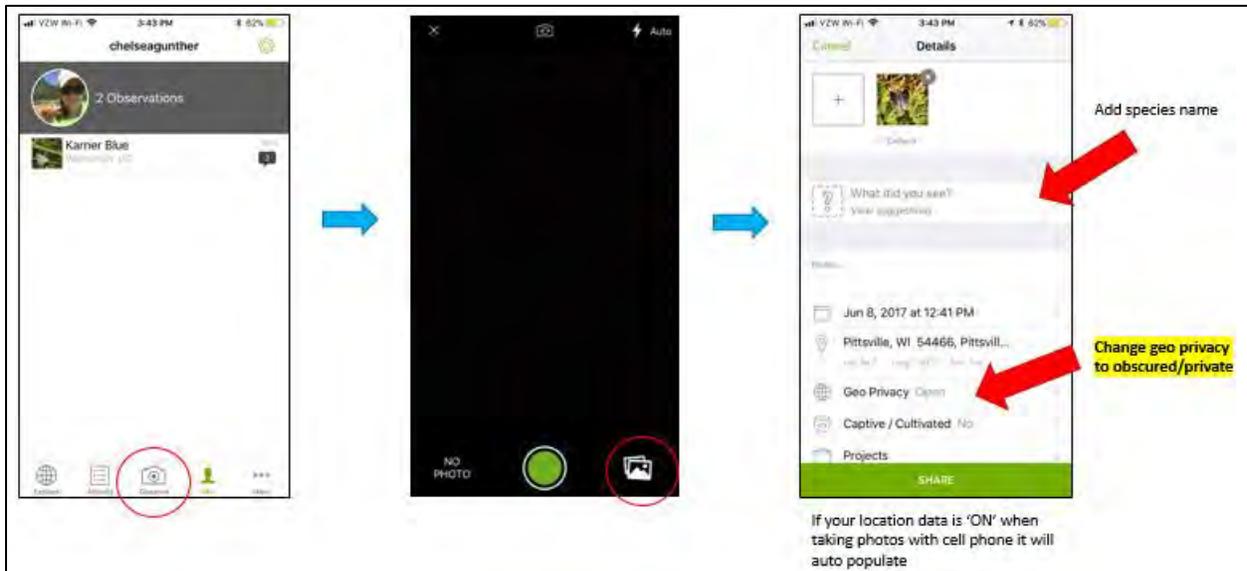
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vi. Great job, you've entered your observation into iNaturalist! Repeat these steps for each survey at each site

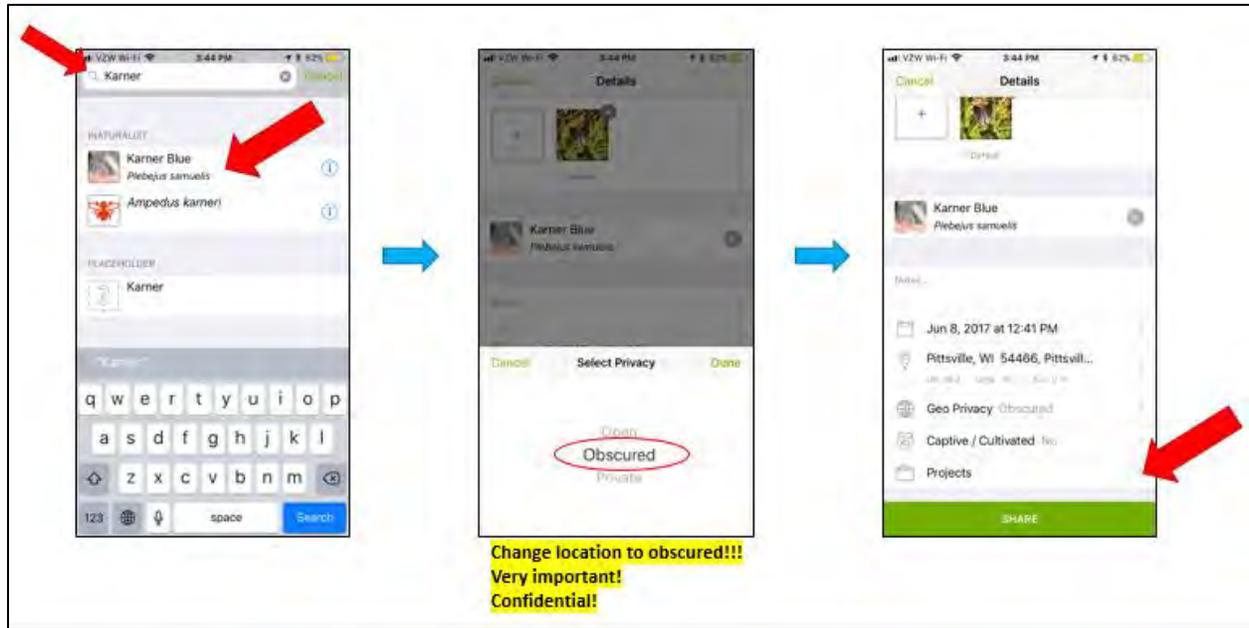
b. App

i. Open the iNaturalist, log in, and select the camera icon to enter your observation. Click the photo icon to add a photo from your camera roll



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- ii. Add the species name and be sure to **change your location services to obscured/private**

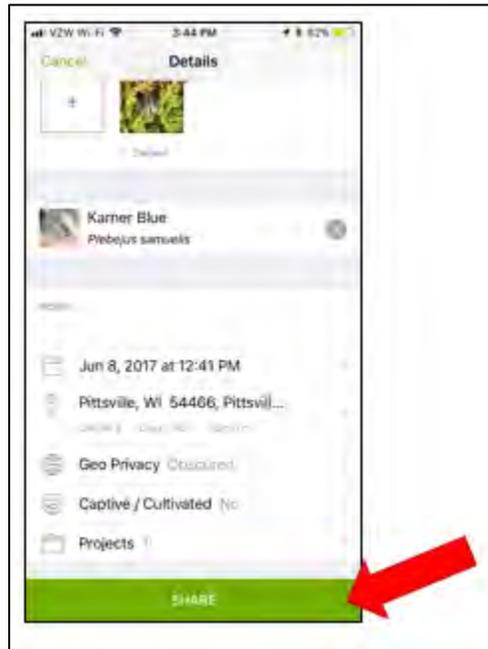


- iii. Don't forget to add your observation to the KBB CBM project and enter your survey data into the 'Fields' category



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- iv. Once you've added all your data you may submit your observation



- v. Great job, you've entered your observation into iNaturalist! Repeat these steps for each survey and each site

Note on obscuring data:

Obscuring the location of your observation is very important! This is found under the geoprivacy section when entering an observation. Obscuring the location of your observation means that you and the program coordinator can see the exact location but everyone else will only be able to see to within 10km of its true location. Any observation you upload to iNaturalist can be viewed by the public. Because the Karner blue butterfly is endangered it is imperative that we log each observation's geoprivacy as obscured or private for the safety of the species.

Questions/Comments:

Chelsea Weinzinger
Karner Blue Butterfly Recovery Coordinator
(608)397-0631
Chelsea.Weinzinger@wisconsin.gov

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Wisconsin Karner Blue Butterfly Volunteer Monitoring – DATASHEET

START SURVEY DATA (Fill out before you begin survey)

Property Name: _____
 Visit: (circle) 1 2

Date: _____
 Observer: _____

Start Time: _____
 Temperature (°F): _____

Cloud Cover (%): _____
 Wind Speed (mph): _____

KARNER DATA

Note: only one photo per site is necessary for data submission – photo should be of underside of Karner if seen, or if no Karners are seen photograph a lupine plant

Karner individuals seen: (tally)

END SURVEY DATA (Fill out once survey is complete)

End Time: _____
 Photo Taken (circle): Yes No

Latitude: _____
 Longitude: _____

SITE DATA (Fill out once survey is complete using scale below)

Size of Area Surveyed (acres): _____

Total Lupine on site: _____

Total invasive species on site: _____

Total nectar species on site: _____

Total canopy cover, including both shrubs & trees: _____

NOTES

Wind Speed Estimation

MPH	Indication
<1	Smoke rises vertically
1-3	Wind direction shown by smoke drift
4-7	Wind felt on face, leaves rustle
8-12	Leaves and small twigs in constant motion; small branches sway
13-18	Wind raises dust and loose paper; small branches sway

Percent Cover Estimation

Category	Abundance
Dominant (D)	>75%
Abundant (A)	51%-75%
Frequent (F)	26%-50%
Occasional (O)	11%-25%
Rare (R)	1%-10%
None (N)	0%

Date entered into iNaturalist: / /

