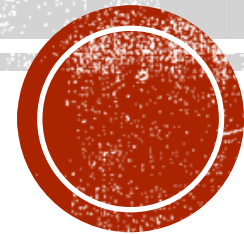


COMMUNITY SCIENCE

Using technology to record data and tell your story.



WHAT IS COMMUNITY SCIENCE?



COMMUNITY SCIENCE INITIATIVES WANT YOU!

"Leveraging the Human Cloud" --Citizen Scientists Discover New Kepler Earth-Like Planets Orbiting Sun-Like Stars

January 16, 2018

The Washington Post
Democracy Dies in Darkness

Local

Citizen scientists are the new community activists

SCIENCE

How Pokemon is Inspiring Citizen Science

BY DANIEL STARKEY 04.20.2018 :: 3:45PM EDT [@DCSTARKEY](#)



COMMUNITY SCIENCE PROJECTS ARE OUT THERE

eBird



opentreemap

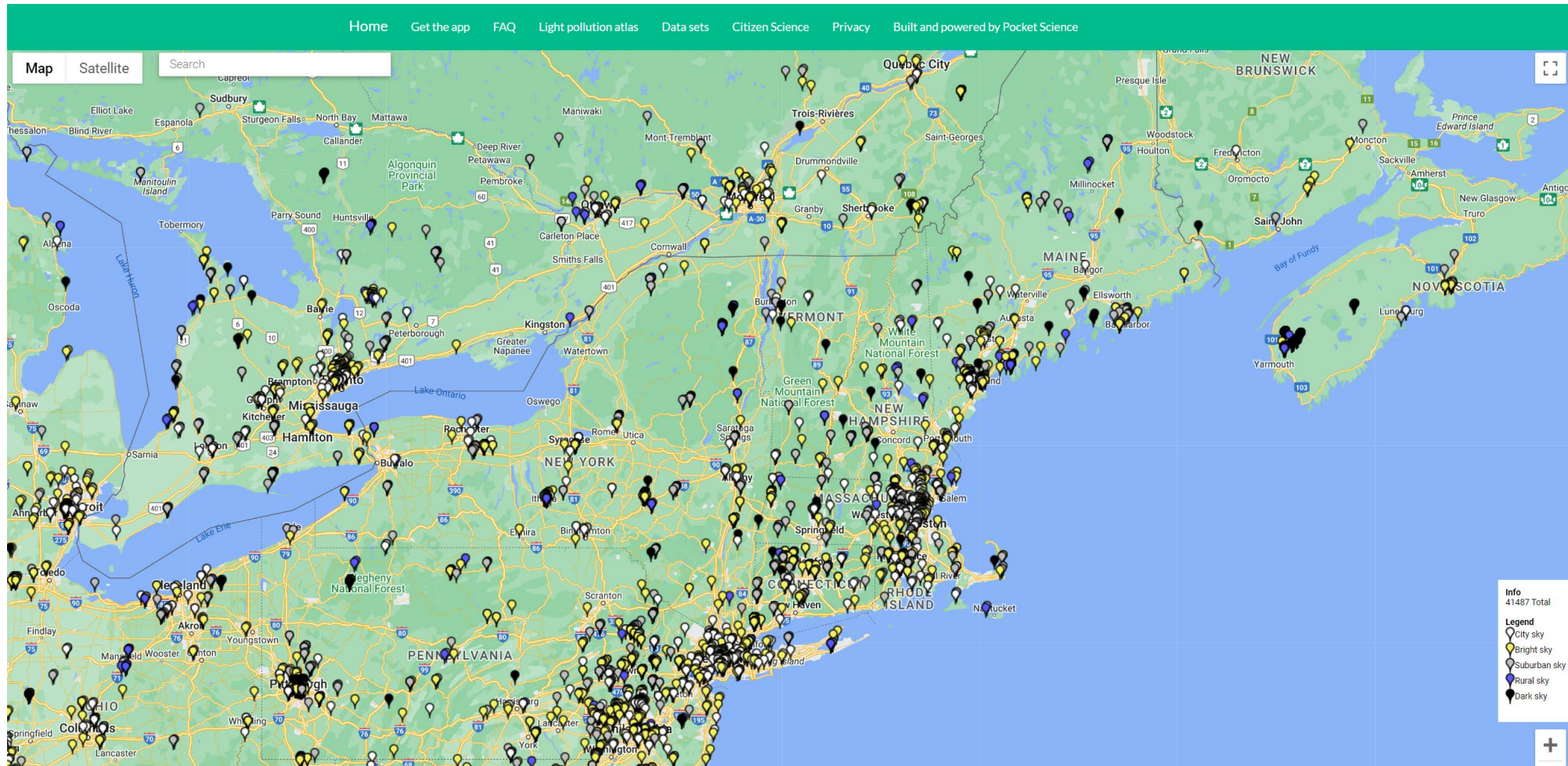
USA **n**pn 
National Phenology Network



 TreeKIT



DARK SKY METER & GLOBE AT NIGHT PROJECT



VERMONT MUNICIPAL TREE INVENTORY

The screenshot displays the Vermont Municipal Tree Inventory web application. The main view is an aerial map of a residential area with numerous green tree markers, each labeled with a number (e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91). The map includes a scale bar (0m) and a coordinate indicator (javascript:void(0) Degrees). A sidebar on the right contains a 'Filter' panel with the following options:

- Tree Species
- All Ash Species
- Tree Condition
- Tree Diameter
- Vacant Sites
- Trees Removed
- Trees to Remove
- Tree Survey Date
- Needs Consulting
- Needs Maintenance
- Trees to Monitor
- Planting Date
- Last Maintenance
- Tree Management Types
- Maintenance Requirements

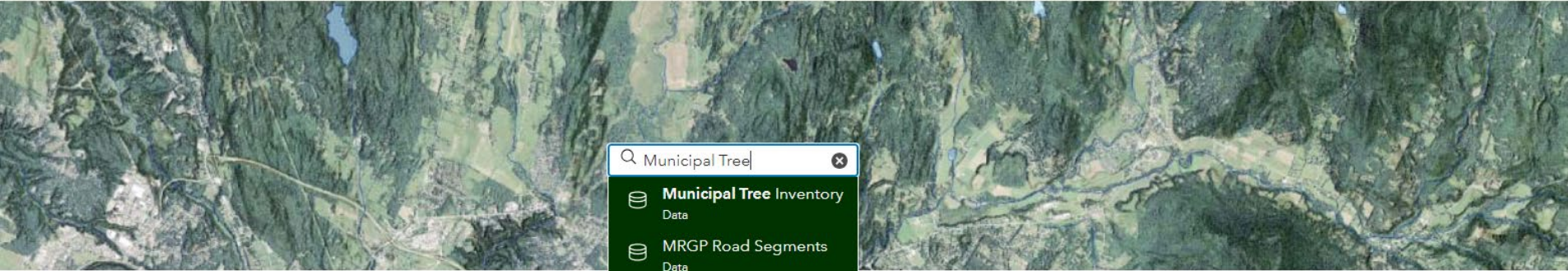


VERMONT OPEN GEODATA PORTAL

STATE OF VERMONT

Vermont Open Geodata Portal

[DATA](#) [WEB SERVICES](#) [APPLICATIONS](#) [DEVELOPERS](#) [CONTACT US](#) [HELP](#)



Agriculture



Basemap

Search: Municipal Tree

- Municipal Tree Inventory Data
- MRGP Road Segments Data
- Reporter for MRGP App
- Closed Drainage
- Survey123 Results (MRGP) Data

Search: near for location



Climate



Demographic + Economic



Elevation



Environment



Geologic + Soils



Health + Public Safety



Imagery



FOUR AIMS OF COMMUNITY SCIENCE

1. Promote Outreach & Education



2. Build Quality Data for Research



FOUR AIMS OF COMMUNITY SCIENCE

3. To Teach Yourself Stuff



4. So That You Can Tell Your Story



Baltimore Checkerspot (*Euphydryas phaeton*) / © Bryan Pfeiffer



TELL YOUR STORY



Baltimore Checkerspot (*Euphydryas phaeton*) / © Bryan Pfeiffer



THERE'S SO MUCH MORE TO KNOW



Ottawa Field Naturalists' Club
Club des naturalistes d'Ottawa

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Lasius minutus: mound-building swamp ants

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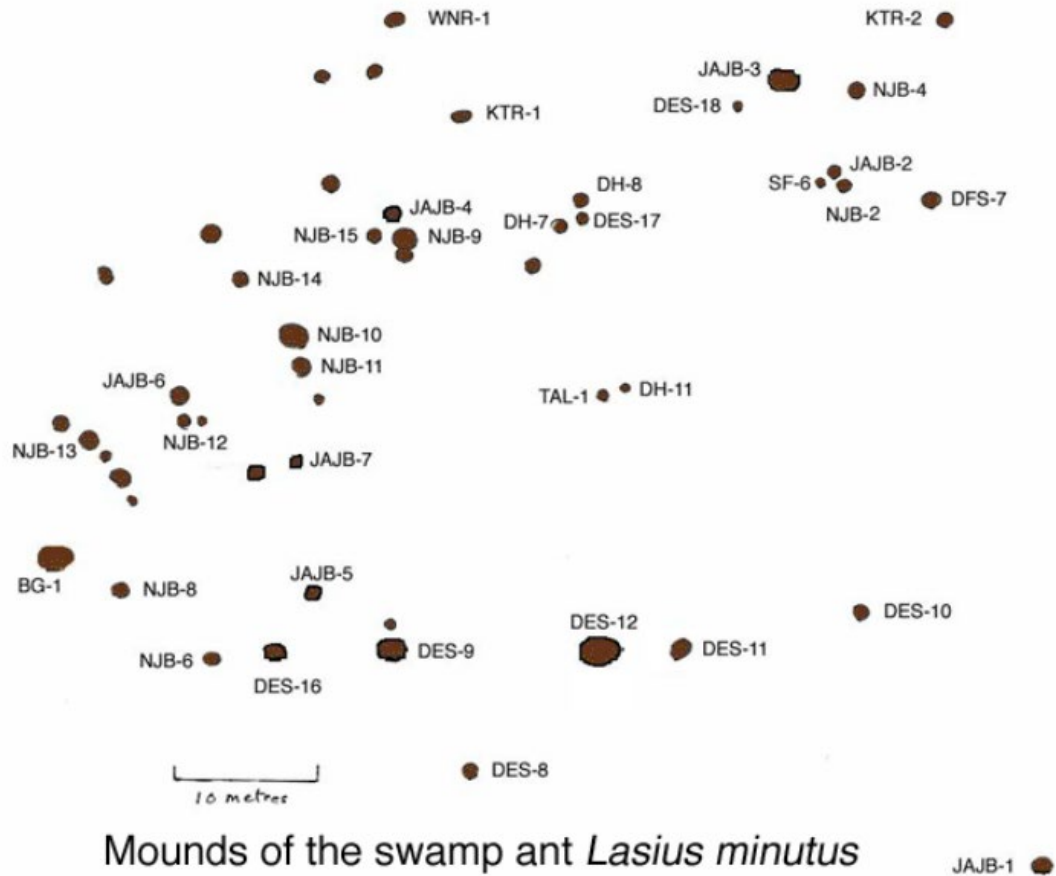
[STUDY AREA](#)

[MEMORIES](#)

Mound-building ants of the Black-Ash swamps in the Macoun Club's Nature Study Area



GO ANALOG



Mounds of the swamp ant *Lasius minutus*



WHAT HAPPENED DURING THE STUDY

- Emerald Ash Borer detected in Ottawa in 2009.
- “As of 2019, Black Ash still had a precarious presence here — the saplings were under stress from beetle attack — but the plant community that could be characterized as a “Black Ash Swamp” has ceased to exist as a living entity.”
- “More and more mounds have been lapsing into inactivity, so that by 2019, about half of them looked “dead” (the ants hadn’t refreshed the earth covering of the mounds).”
- <https://ofnc.ca/programs/macoun-field-club/study-area/lasius-minutus-ants>



WILL THE ANTS DIE OUT WITH THE DISAPPEARANCE OF ASH SWAMPS?



Credit: Diane Stevens



I INVITE YOU TO...

- Tell me a story about trees near you.
- Maybe one, two, or three trees. Not a whole forest.
- This story is not fictional. Collect data about the tree.
 - What species is it?
 - How healthy is it?
 - When does it leaf out, flower, or produce seed? Observe it many times throughout the year to record its *phenology*.



THEN...

- Ask A LOT of other questions about your tree.
 - What birds come there? Insects?
 - What fungi or lichen grow on the tree?
 - How much noise is there under the tree? 10 feet away from the tree? 30 feet?
 - How dark is it at night near that tree?
 - How much precipitation fell on this tree this season?
 - What temperature is it underneath the tree? And in the sun near the tree?
 - What other animals pass by this tree?
 - How do people use this tree?



FINALLY, WHAT WOULD CHANGE IF THIS TREE WASN'T THERE?



WHY USE

iNaturalist.org



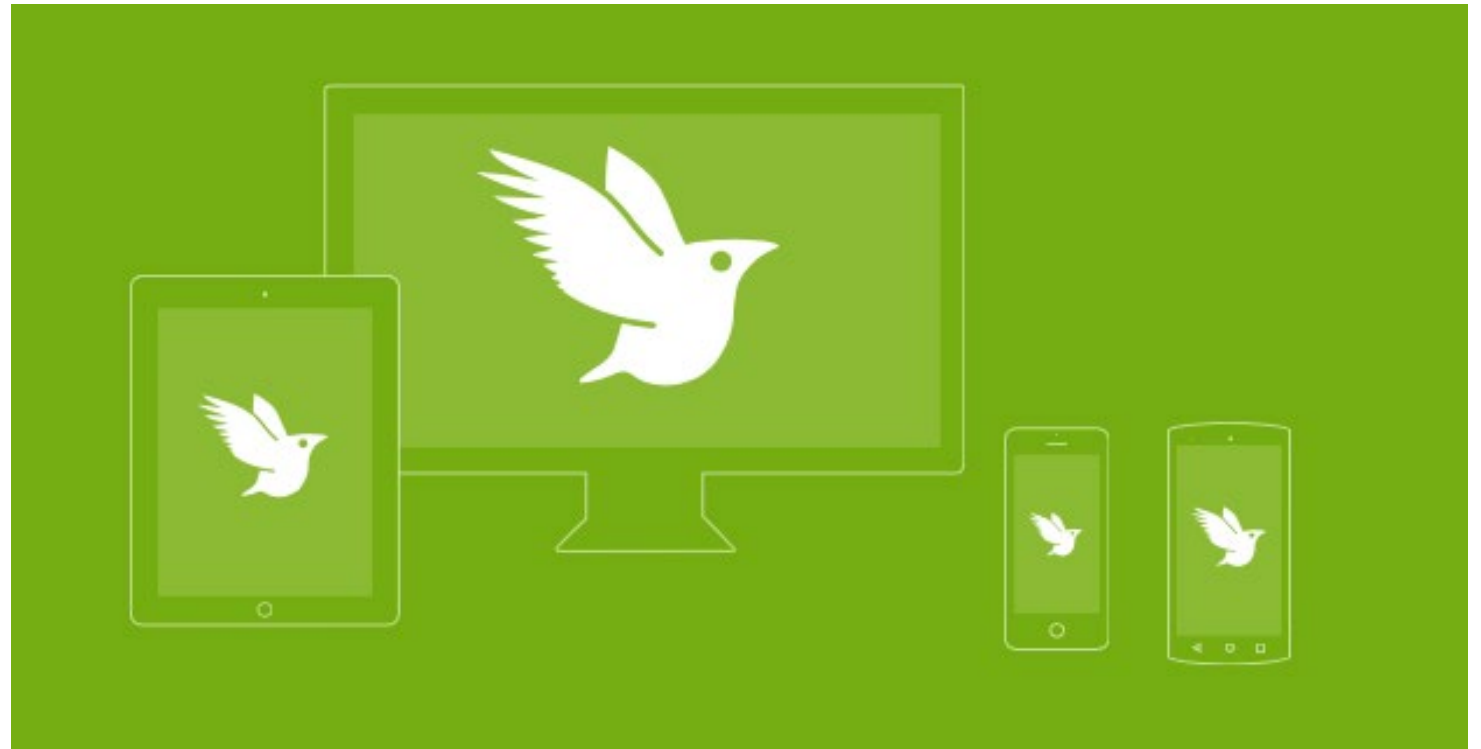
- It's free.

the best things in life are free.



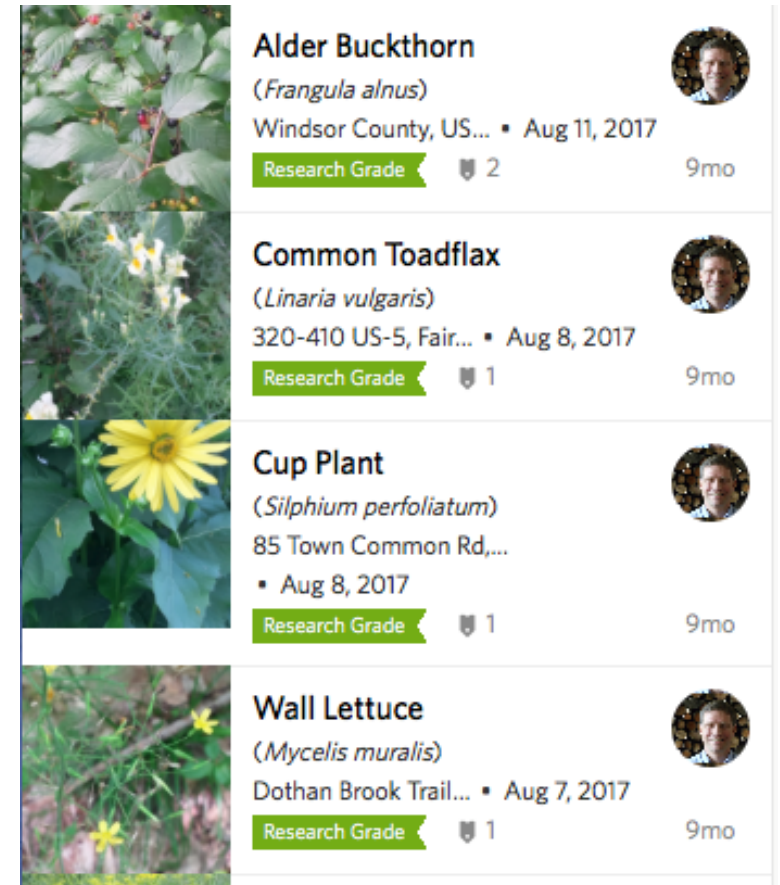
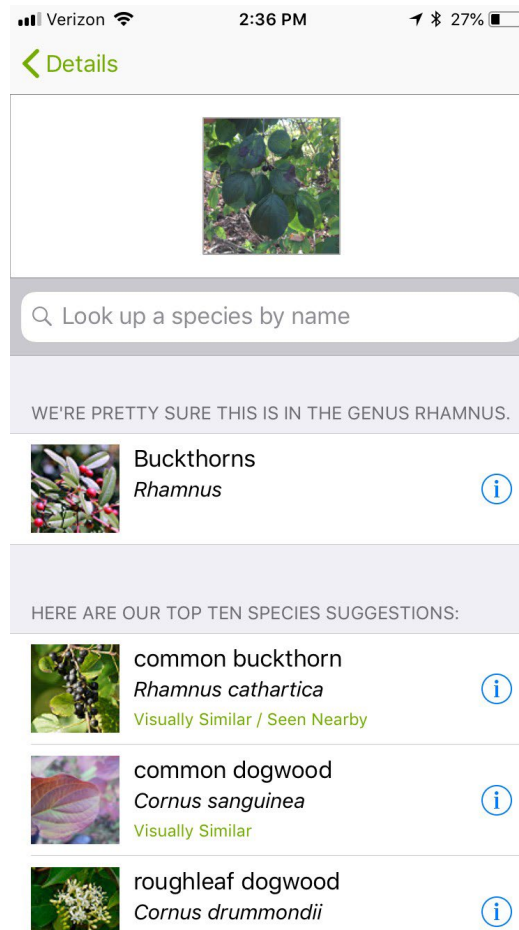
WHY USE INATURALIST?

- It's free.
- It's easy.



WHY USE INATURALIST?

- It's free.
- It's easy.
- You'll learn stuff.



WHY USE INATURALIST?

- It's free.
- It's easy.
- You'll learn stuff.
- Others will learn stuff from you.

The screenshot shows the iNaturalist website interface. At the top, there's a navigation bar with 'iNaturalist' logo, 'Observations', 'Species', 'Projects', 'Places', 'Guides', and 'People'. On the right, there are icons for notifications (0), messages (0), and a user profile 'jogarton'. Below the navigation bar, there's a header for the project 'Mapping for Healthy Forests: Vermont' with a large background image of a leaf and a red 'ADD OBSERVATIONS' button. Below the header, there's a 'Stats' section with three columns: 'Totals', 'Most Observations', and 'Most Species'. The 'Totals' column shows 3195 Observations, 82 Species, and 86 People. The 'Most Observations' column lists users like charlie (1144 observations), tsn (598 observations), jsackel7 (179 observations), gtpiazza (148 observations), and kylejones (122 observations). The 'Most Species' column lists users like charlie (54 species), tsn (46 species), kylejones (25 species), susanellott (17 species), and kothomps (15 species). To the right of the 'Most Species' column, there's a 'Most Observed Species' section listing species like Common Buckthorn (390 observations), Japanese Knotweed (332 observations), Wild Parsnip (215 observations), Common Reed (166 observations), and Garlic Mustard (162 observations).

Totals	Most Observations	Most Species	Most Observed Species
3195 Observations »	charlie 1144 observations	charlie 54 species	Common Buckthorn 390 observations
82 Species »	tsn 598 observations	tsn 46 species	Japanese Knotweed 332 observations
86 People »	jsackel7 179 observations	kylejones 25 species	Wild Parsnip 215 observations
	gtpiazza 148 observations	susanellott 17 species	Common Reed 166 observations
	kylejones 122 observations	kothomps 15 species	Garlic Mustard 162 observations



WHY USE INATURALIST?

- It's free.
- It's easy.
- You'll learn stuff.
- Others will learn stuff from you.
- You can connect with a project that touches you. Or you can create your own.



USING INATURALIST'S SEEK TO LEARN MORE

seek 
by iNaturalist

Get outside, explore, and learn
about the nature all around you!



YOUR QUESTIONS?

