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Carnivorous plants are cool! ③



And some ppl. like to see them in the wild





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But where else to find them?



Google

droséra en france

JQ

Q All 🔄 Images ⊘ Shopping 🗉 News 🕞 Videos 🚦 More Settings Tools

About 4.680.000 results (0.73 seconds)

Le drosera à feuilles rondes | Portail des parcs nationaux de ...

www.parcsnationaux.fr > biodiversite > les-plantes-fleurs - Translate this page Nom scientifique : Drosera rotundifolia. Statut : espèce protégée en France. Description : la drosera à feuilles rondes ou rossolis à feuilles rondes est une plante .

Droséra à feuilles rondes - Wikipédia

https://fr.wikipedia.org > wiki > Droséra_à_feuilles_ron... + Translate this page Le Droséra à feuilles rondes (Drosera rotundifolia) ou rossolis à feuilles rondes est une plante .

Mais elle reste assez rare en France, se rencontre généralement de 600 à 2 000 m d'altitude, mais on peut en trouver à des altitudes inférieures, ...

Sous-règne: Tracheobionta Ordre: Caryophyllales Sous-classe: Dilleniidae Famille: Droseraceae Habitats · Description · Propriétés · Culture

Droséra – Wikipédia

https://fr.wikipedia.org > wiki > Droséra - Translate this page

Les droséras (du grec ancien δροσερός, droseros, couvert de rosée, δρόσος, drosos signifiant ... En France, où elles sont protégées, on en trouve notamment dans les parcs naturels régionaux Livradois-Forez, des Vosges du Nord, des ...

Description · Fonctionnement du piège · Classification systématique · Galerie

Videos



La droséra, plante carnivore experte en piège

d'Amérique National Geographic Wild. Nature détruite YouTube - Jun 15, 2019 YouTube - Aug 29, 2017

Drosera rotundifolia L. - eFlore - Tela Botanica

https://www.tela-botanica.org > bdtfx-nn-23111 - Translate this page



> 33min Y

fabrice perché

YouTube - Oct 30, 2016





Feedback

....



sundew Plants

Drosera rotundifolia, the round-leaved sundew or common sundew, is a species of sundew, a carnivorous plant often found in bogs, marshes and fens, Wikipedia

Scientific name: Drosera rotundifolia

Rank: Species

Higher classification: Sundews



Écologie Marais tourbeux, dans presque toute la France ; nul dans la région ... Quelques précisions sur la répartition de Drosera rotundifolia L. var. corsica ... Isenberg et al. - Do You Believe Your (Social Media) Data? A Personal Story on Location Data Biases, Errors, and Plausibility as well as their Visualization

One (major) reason: Danger of poaching



images: The Carnivorous Plant FAQ (sarracenia.com)

So, what now, give up?

Pane ramio from Google

Images with descriptions and coordinates!





Data download & filter



Data download & filter







Lot's of interesting data exploration





Data bias: Posts per person – Power law



Data bias: Posts per species – Power law



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Geographic data bias? How to analyze?



Geographic data bias? How to analyze?



Global access to knowledge about life on Earth



Cliff Chipmunk etle

Blue Ringed Octopus

Nostoc linckia

Eucyclops speratus

Christmas Tree Worm

Spined Micrathena Octopus stinkhorn Blue Glaucu



Tea

What is EOL? Our goals, work and community



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Animals Mammals Birds Amphibians Reptiles Fishes Invertebrates Crustaceans Mollusks Insects Spiders Worms Plants Flowering Plants Trees Fungi Mushrooms Molds Bacteria Algae Protists Archaea Viruses

































Data bias on a smaller scale: Accessibility



Data errors, unintentional & intentional



color based on others posting images of same species (green), same genus (yellow), any other carnivorous plant (orange), or not (red) within a given radius

Data errors, unintentional & intentional



same person posting at identical GPS coordinates: 1 – green, 2 – yellow, 3 – orange, ≥ 4 – red; 1 image/day – gray

Verification: Sites I had visited before



Verification: Sites I had visited before



Verification: Sites I had visited before




Verification: Sites I personally confirmed



Verification: Sites I personally confirmed



Verification: Not found & not plausible



Verification: Data imprecision



Verification: Data imprecision



Verification: Data imprecision



image: © anonymous Flickr user

Verification: Data imprecision manipulation



image: © anonymous Flickr user

Data manipulation: Data by same person



Data manipulation: Data by same person



2nd largest contributor in our dataset; more than 380 pictures



















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Motion Plausability Profile = 0 km/h60 < 5 km/h 50 < 10 km/h 40 < 25 km/h 30 < 80 km/h 20 < 200 km/h 10 ≥ 200 km/h 0 2008 2010 2012 2014 2016 2018 ∆t = 0s



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Then we found out about ...



Then we found out about ...



MPP example for iNaturalist



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iNaturalist comparison to our data



Overview of errors and biases

Biases and errors as discussed in Sec. 4–7: our evidence (visualizations, examples), and links past literature where these biases/errors have been discussed before (incl. those newly demonstrated for either data source, known problems in data analysis but here demonstrated for species data collected by citizen scientists, and known problems with new aspects shown). Figures beyond Fig. 21 can be found in the additional material.

name and description	type	shown for Pano- ramio/Flickr	shown for iNaturalist	past discussion for regular citizen science data	past discussion for "repur- posed" social media data
general population bias, people are not evenly distributed on Earth poster-population bias, posters do not represent the overall population	bias bias	Fig. 6 Fig. 5(a) vs. 6	Fig. 6 Fig. 18 vs. 6	e. g., [13] e. g., [12], [13], [40]	e. g., [61] e. g., [17], [18], [55]
cultural tool bias, social media posters adopt tools or services differently based on their region of origin	bias	ias comparison of both datsets: Fig. 21, Fig. 49–64		typical problem of social media (e. g., [34])	
global site popularity , popular regions where people live, travel to, or spend vacations get more reports (e.g., national parks)	bias	Fig. 5	Fig. 18	e.g., [22]	none tbk.*
local site popularity , specifically marked places in natural/state/etc. parks (e. g., walks, view points) get many reports in very small places	bias	Fig. 8, 44	Fig. 45	none <i>tbk</i> .*	none <i>tbk</i> .*
local site access, more reports near or close to roads or paths	bias	Fig. 7, 46	Fig. 46	abstract ("convenient loca- tions") [13], coarse (road/ path density) [8], [23], [47]; not detailed as Fig. 7	none <i>tbk</i> .*
individual poster contribution skew, power law of number of contributions by individual posters	bias	Fig. 9(a), Fig. 31	Fig. 17(a), Fig. 34	e. g., [44] (typical problem; e. g., [52])	none <i>tbk</i> . [*] (typical problem e. g., [52])
inapplicable entries , some entries should not have been included; e. g., cultivated plants at home, in stores, or in botanical gardens	error	Fig. 1, but data is "involuntary"	no; rare due to cultivation tag	participant training [40], [66], data cleaning [76]	n/a but typical problem, data cleaning [76] possible
inherent geographic location offset, natural limitations of GPS location measurement	error	inherent, Fig. 44	inherent, Fig. 45	e.g., [16], [42], [70]	only in passing: [18]
small offset through (well-intentioned) manual location entry w/o GPS data from memory (e.g., prior to public GPS start in 1980s)	error	inherent; e. g., F 7826985010	inherent; e. g., iN 48182055	none <i>tbk</i> .*	none <i>tbk</i> .*
coordinate errors through (well-intentioned) manual location entry w/o GPS data , coordinate flips, zeroed coordinates (i. e., major errors)	error	none found, Fig. 5(c) vs. 37	none found	e. g., [71], [76]	e. g., [27], [37]; strangely, our data lacks such errors
species popularity , popular plants species get more reports, power law only genus classification , lack of poster expertise	bias error	Fig. 9(b), 32 e. g., F 35188184	Fig. 17(b), 35 rare	e. g., [13] e. g., [16]	typical problem (e. g., [13] typical problem (e. g., [16]
species misclassification, lack of poster expertise	error	e. g., F 16332954669	rare	e. g., [13], [15], [16]	none <i>tbk</i> .*
species classification change, errors that appear over time because recognized species classification has changed	error	Fig. 11, 47	Fig. 48	e.g., [14]	typical problem (e.g., [75]
lack of species classification , images are unlabeled so less likely to be used because difficult to find	bias	e. g., F 24857758530	n/a, actively prevented	usually n/a	none tbk.*
search tool limitations, search returns incomplete/inconsistent results or encourages posters to remove their contributions	bias	Fig. 27, Fig. 28	none found or inherent	none <i>tbk.,</i> * also not found by us, probably n/a	e.g., [51]; but specific aspects (Fig. 27, 28) new
single item offset through intentionally false location entry, location offset because posters do not want to reveal exact location	error	Sec. 5, Fig. 15, F 3020563046	none found explicitly	usually n/a	only in passing: [17]
multiple items on single, offset location through intentionally false location entry, exact same location for multiple items, possibly to avoid the extra effort for entry or due to deliberate location obfuscation	error	Sec. 5, Fig. 10, Fig. 15	Fig. 70(e), 71(a)	locations recorded at region centroid or on a raster [76]; intentional obfuscation more likely for posted images	none tbk.*
random offset for geo-privacy as supported by citizen science projects	n/a	n/a	built-in	e.g., iNaturalist	n/a (coord. can be omitted)
cultural differences in use of geo privacy of citizen science projects	n/a	n/a	Fig. 19, 41-43	none <i>tbk</i> .*	n/a
duplicated entries when combining independent datasets	bias	Fig. 73(a) vs. 73(b)		typical problem in data source merging	

Interesting data aspects

• beyond uncertainty: data errors, data bias, data plausibility ...



• futility of data secrecy vs. citizen science



images: The Carnivorous Plant FAQ (sarracenia.com)

More information

- extended additional materials included in author version
- two versions of the paper: additional one for readers w/ color impairments
- data intentionally not shared
- GitHub repo for iNaturalist data processing
- (R) GRSI stamp awarded
- see project website: tinyurl.com/vis-bias








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