



CHARLES  
UNIVERSITY



SORBONNE  
UNIVERSITÉ



UNIVERSITY  
OF WARSAW

# Data visualization and reporting with Tableau

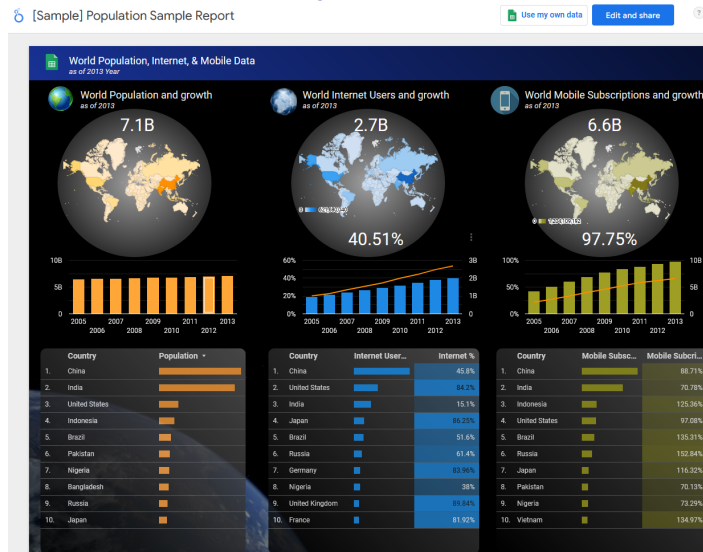
## Class #4, March 7 2023

Silvie Cinková cinkova@ufal.mff.cuni.cz

---

## Dashboards

- communicate your topic in a way that captures your audience
  - plots and spreadsheets
  - text
  - images & pictograms
  - videos
  - interaction





## Google Classroom activity report

Org Unit

Last BIQ Export Date  
2023-02-26

Feb 19, 2023 - Feb 25, 2023

### Active users by role

Active teachers

46

↓ -8.0%

Active students

36

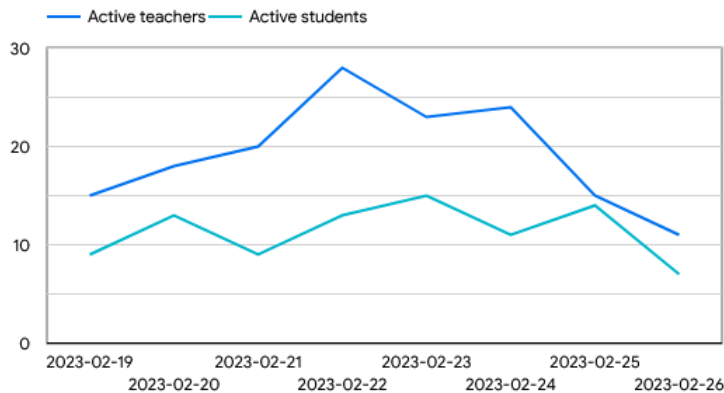
↓ -65.4%

Total % Active

4.65%

↓ -51.0%

\* Total % Active represents percentage of active users in domain using Classroom



### Assignment activity

Assignment published

935

↓ -20.0%

Assignments returned

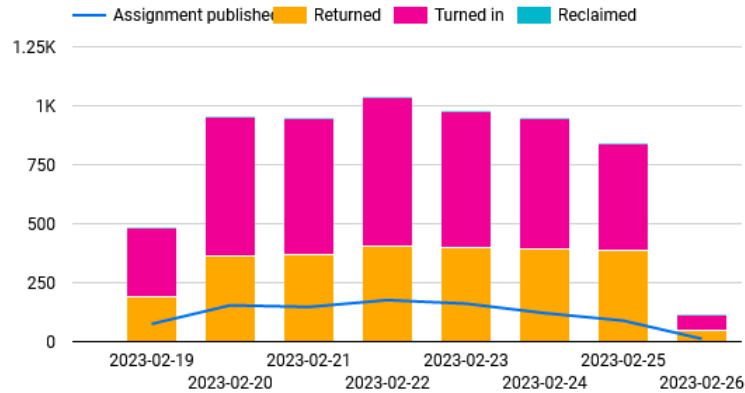
2,558

↑ 1.8%

Assignments turned in

1,344

↓ -3.9%



### Timeline of all Classroom activity

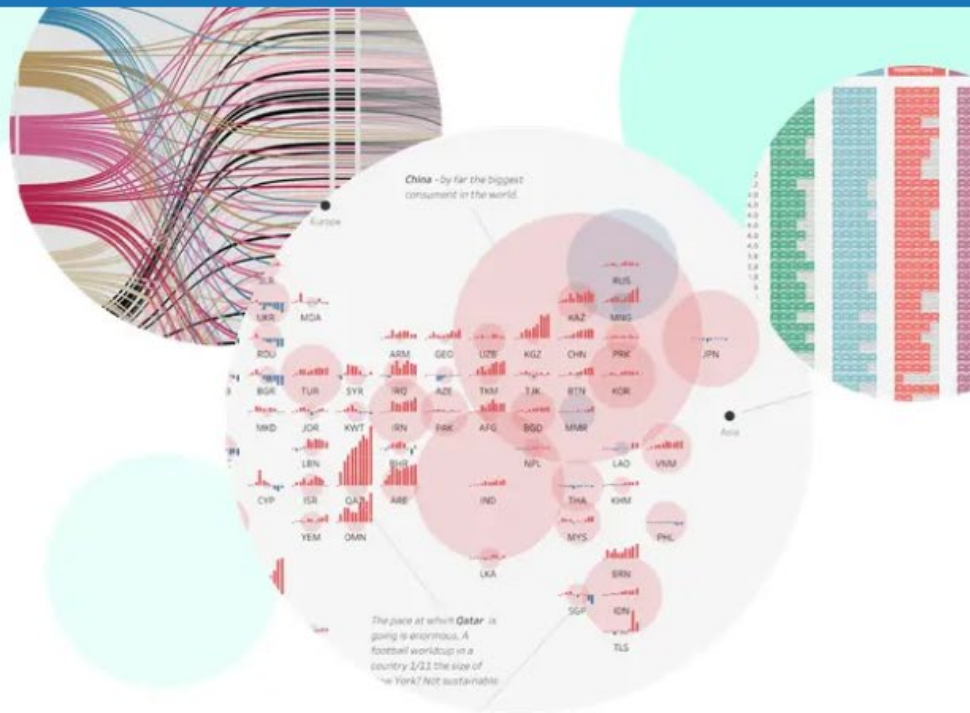
You will soon have access to your Tableau Public account using your Tableau login information. To learn more, please check out our [blog](#).

# Welcome to Tableau Public

A free platform to explore, create, and publicly share data visualizations online.

[Sign Up for Tableau Public](#)

[Learn More](#)



# LITERACY

Literacy is an education measurement of a demographic. In this dashboard, we aim to explore how literacy rates correlate with these measurements of a demographic: life expectancy, fertility rates, GDP per capita and GDP. We will also look at youth literacy and literacy by sex.

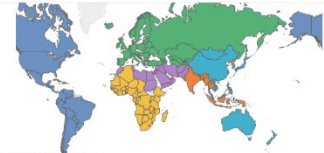
The timeline for this visualization is from the year 2000 and onwards.

Below are the regions that will be used throughout the dashboard, based on WHO classification.

Africa Americas Eastern Mediterranean Europe South-East Asia Western Pacific

## GLOBAL LITERACY RATE

This map shows the literacy rate of each country. Many countries have a literacy rate of 80% and above, which means that more than 90% of the population can read and write. Unfortunately, the literacy rate of some countries are still below 50%, particularly in Africa.



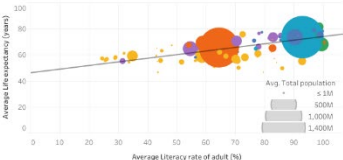
© 2023 Mapbox © OpenStreetMap

## ADULT LITERACY RATE vs. LIFE EXPECTANCY

This plot shows the correlation between adult literacy rate and life expectancy. As we can see, there is a positive correlation between the two. The higher the adult literacy rate, the higher the life expectancy.

Many countries in Europe have a high adult literacy rate and life expectancy. This is largely due to its good socioeconomic factors in the region, such as having good healthcare systems.

However, there are countries in Africa and South-East Asia having high adult literacy but low life expectancy. This is due to poorer socioeconomic factors in the region, such as diseases, which will generally decrease the life expectancy measurement in those areas.

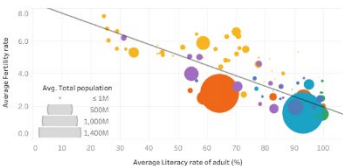


## ADULT LITERACY RATE vs. FERTILITY RATE

This second plot shows the relationship between adult literacy rate and fertility rate. As seen from the plot, there is a negative correlation between the two. The higher the adult literacy, the lower the fertility rate.

Many European and American countries have a low to average fertility rate and high adult literacy rate. This is, again, largely due to those regions having good socioeconomic factors, such as having sex education and knowledge about birth control.

However, if we look at Eastern Mediterranean region, some countries have a high adult literacy rate and once a high fertility rate. This is largely due to cultural factor in the area, where women is often encouraged to give birth to many children.

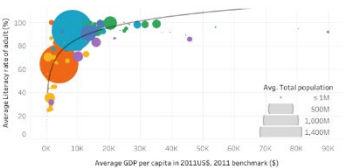


## ADULT LITERACY RATE vs. GDP PER CAPITA

The third plot shows the correlation between adult literacy rates and GDP per capita. As it can be seen, many countries with a high GDP per capita tend to have high adult literacy rates.

This correlation can be seen among many European countries. Some Eastern Mediterranean countries also have both high literacy rates and GDP per capita. This is because when an economy prospers, the population is likely to receive high quality education.

GDP per capita is also affected by many other factors, such as these three: a country's GDP, its population size as well as its expenditures. Because of that, there are countries that have high adult literacy rates but low to middle income GDP per capita, specifically in Western Pacific and South-East Asia countries.

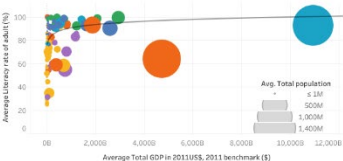


## ADULT LITERACY RATE vs. GDP

The fourth plot shows the correlation between adult literacy rates and GDP. As we can see, high adult literacy rate countries have a strong GDP, but other countries with an average 70% adult literacy rate also have similar GDP.

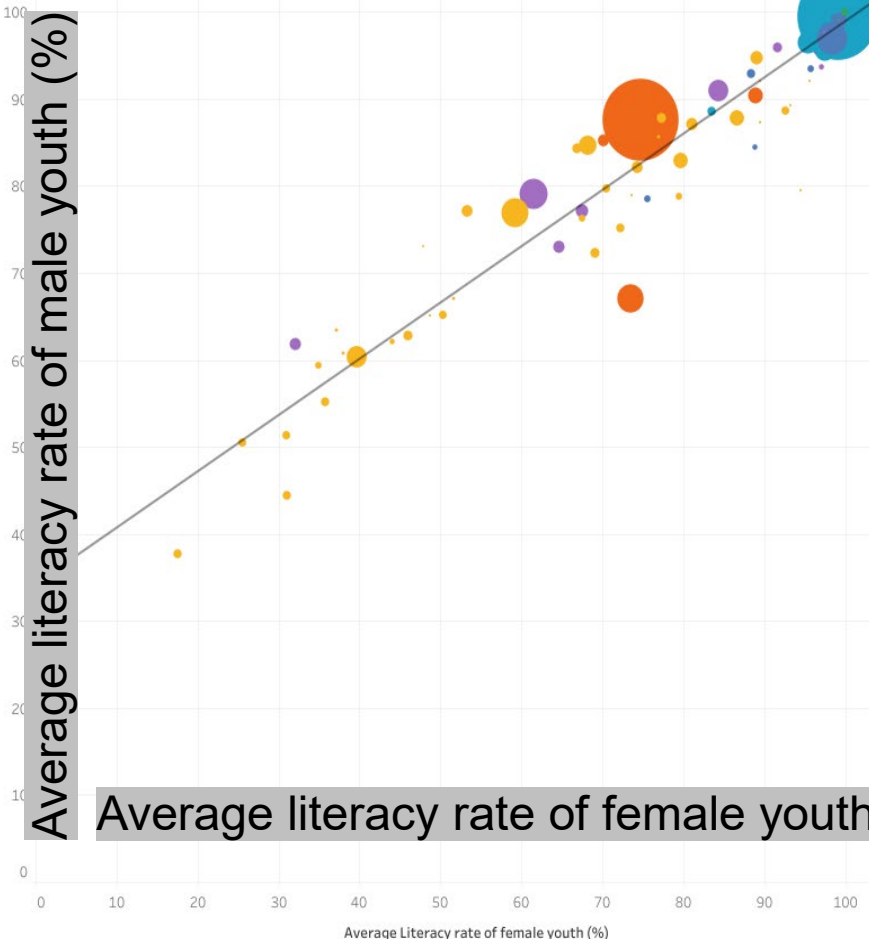
In this plot, two countries in particular stand out: China and India. China has a high literacy rate while India as an average literacy rate. Both have large populations.

Therefore, we can conclude that adult literacy rate only has a minimal effect on GDP. GDP itself is largely affected by other factors, such as population size, country's production and expenditures.

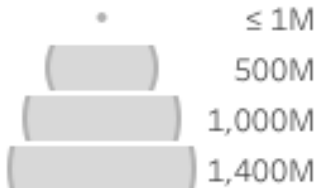


Average literacy rate of male youth (%)

Average literacy rate of female youth (%)



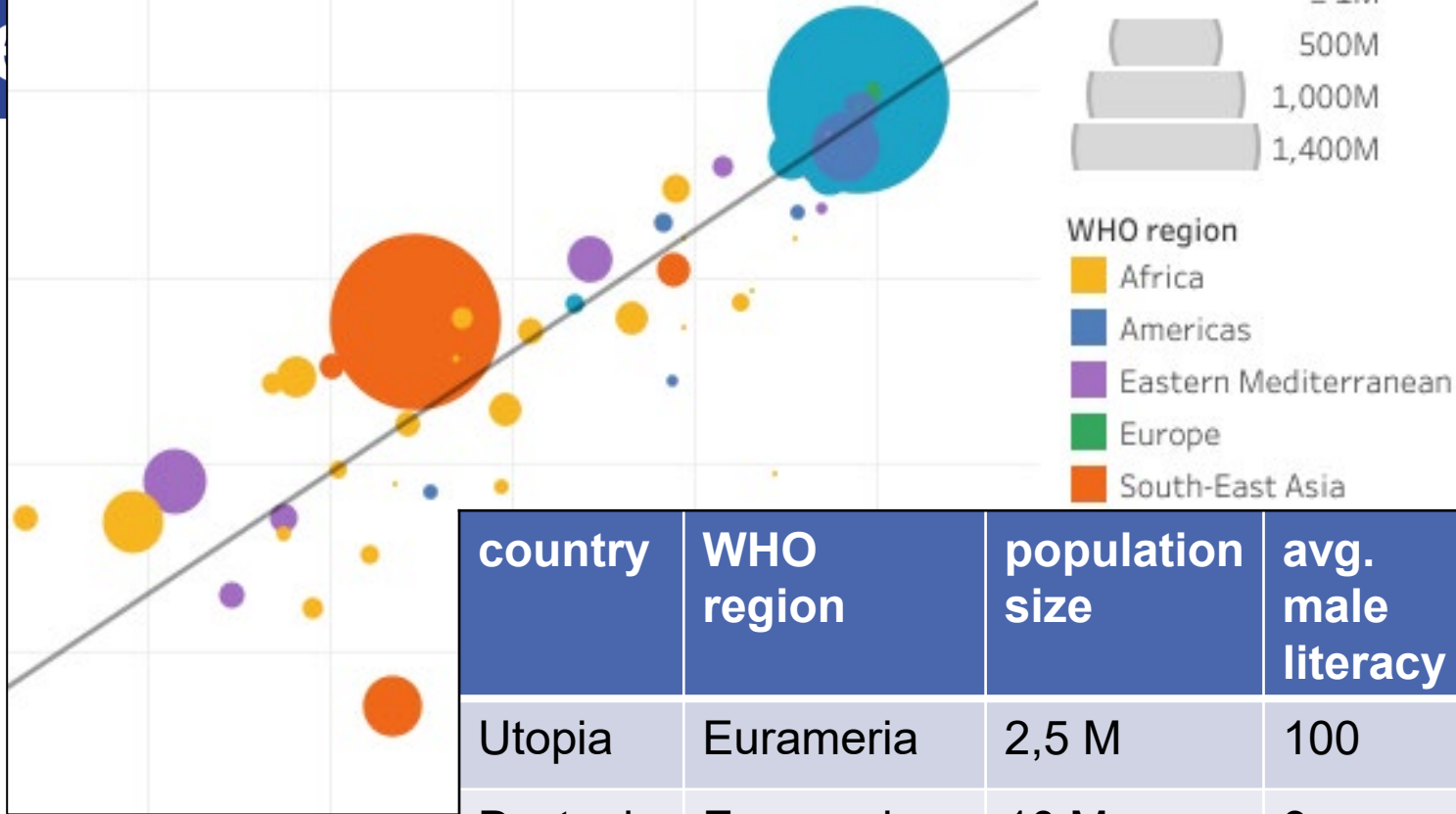
Avg. Total population



WHO region

- Africa
- Americas
- Eastern Mediterranean
- Europe
- South-East Asia
- Western Pacific

Average literacy rate of male youth (%)

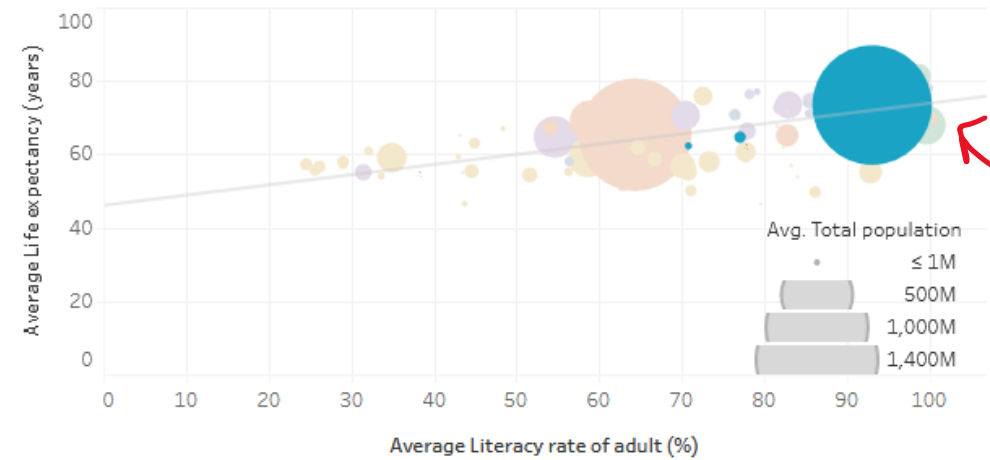
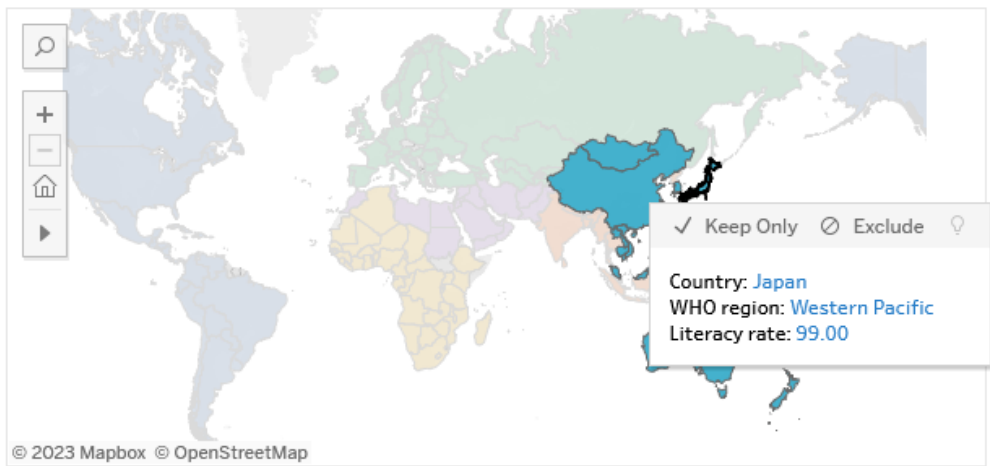


Average literacy rate of female youth (%)

country	WHO region	population size	avg. male literacy	avg. female literacy
Utopia	Eurameria	2,5 M	100	100
Dystopia	Eurameria	10 M	3	1
...	...	...	...	...

...rd, based on WHO classification.

Eastern Mediterranean Europe South-East Asia Western Pacific



interactive filter

pop-up  
"tool tip"

controls all plots



<https://public.tableau.com/app/profile/william.strouse/viz/Twenty-TwoWhiteOrchids/Twenty-TwoWhiteOrchids>



# Twenty-Two White Orchids

In July of 2021, I discovered twenty-two orchids with eerie pale blossoms, like ragged phantoms they seemed to emerge overnight hovering above the deep meadow grasses; but where did they come from?!

Thanks to some amazing scientists, an old yard-stick, and Tableau here is my data story about these very special orchids

Data, visualizations, and photos by **Will Strouse**  
Artwork by **Margarita Manish**

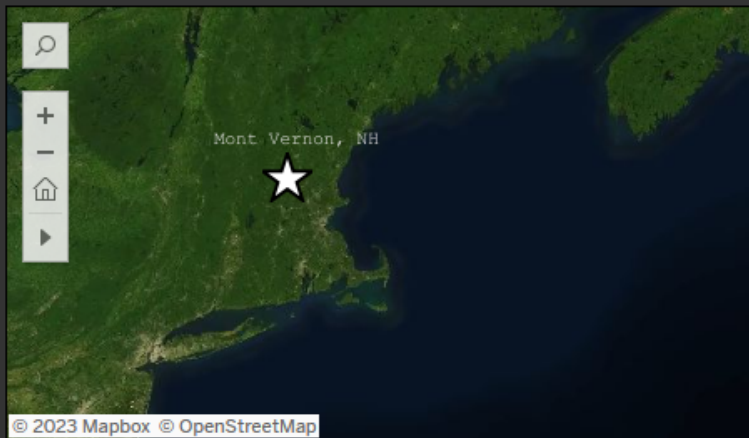
Nevermind these dates for now, we will get to that later\*

1/17 -  
1/18 -  
1/19 -  
1/20 -  
1/21 -  
1/22 -  
1/23 -  
1/24 -  
1/25 -  
1/26 -  
1/27 -  
1/28 -  
1/29 -  
1/30 -  
1/31 -  
2/1 -  
2/2 -  
2/3 -  
2/4 -  
2/5 -  
2/6 -  
2/7 -



## Twenty-Two White Orchids by [Will Strouse](#)

I live here



Nestled in the rolling hills between the Monadnock Mountains and the Nashua River Valley in Southern New Hampshire.

Since my family and I moved to Mont Vernon, NH in November of 2018, we have discovered wild mammals, birds, insects, wildflowers but I never expected orchids.

After exactly a minute per orchid phone-pic and eleven minutes of research, I am sure that we had identified two endangered Eastern Prairie Fringillids (*Platanthera leucophaea*), the first sighting in New Hampshire!

Maybe it was a totally new species of fame and glory? I should name my daughter and achieve Super-Dad status.

I would need an expert to verify my findings. I will help me fill out some paperwork. I will publish my findings in "Platanthera abigailea's" made it into a new edition text books and field guides. I will only eleven minutes of research, I will only eleven minutes of field observation, I will

Invigorating instant gratification. Time to ask the experts.



My Email



Keith McGilvray



Mark McCollough



Molly Spurduto



Susi von Oettingen



< Hover to see snips from my actual email chain.

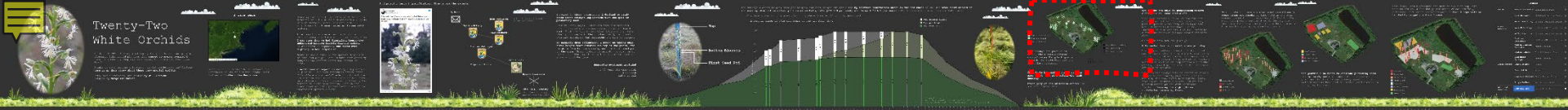
**Susi von Oettingen**  
Endangered Species Biologist, New England Field Office  
US Fish & Wildlife Service

If this was *P. leucophaea* it would be a record because I believe the only known locations in New England occur in Maine (Mark McCollough is lead for the species in Maine). I think Molly is correct and it is probably *P. lacera*. See difference in lower petals between the two photos and the long green spur on *P. leucophaea* (the one on the left). Since I have never seen the listed species, I would defer to Bill Nichols.



**The FULL story**  
For those who enjoy getting into the weeds





Twenty-Two White Orchids

Even though the pasture is ~4 acres, there were different microclimates for plant groups towards the North West and the South East pastures.

The plants bloomed in the NW pasture area first, and at a relatively high density.

Press play on the animation control to see each orchid grow.

- Avg. blossom height
- Avg. pod height
- Avg. stem height

July 17, 2021

Show history

the pasture is ~4 acres, there were different microclimates for plant groups towards the North West and the South East pastures.

The plants bloomed in the NW pasture area first, and at a relatively high density.

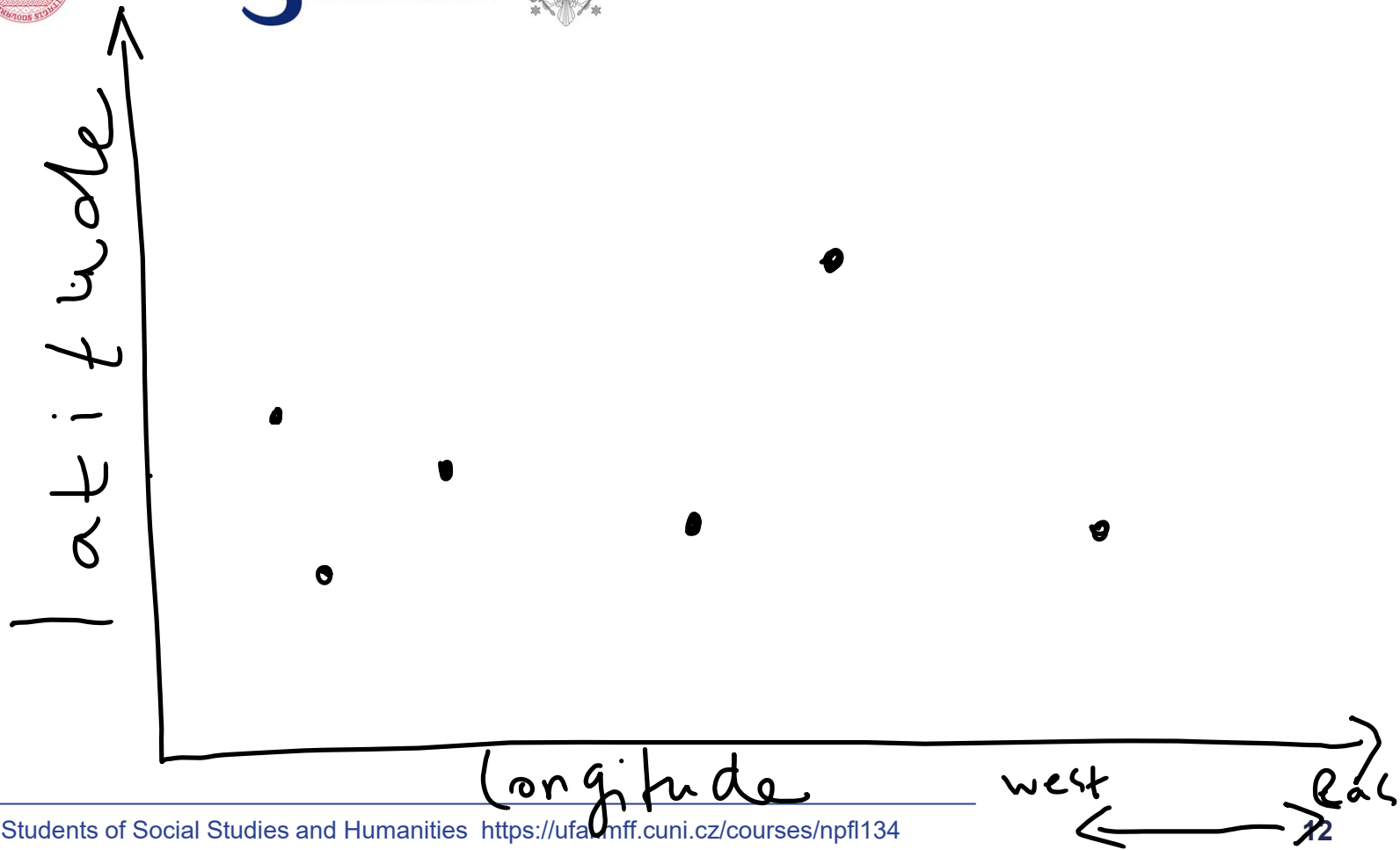
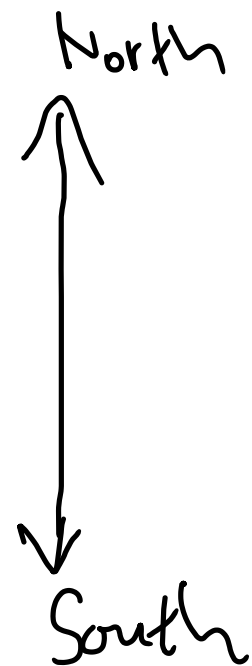
Press play on the animation control to see each orchid grow.

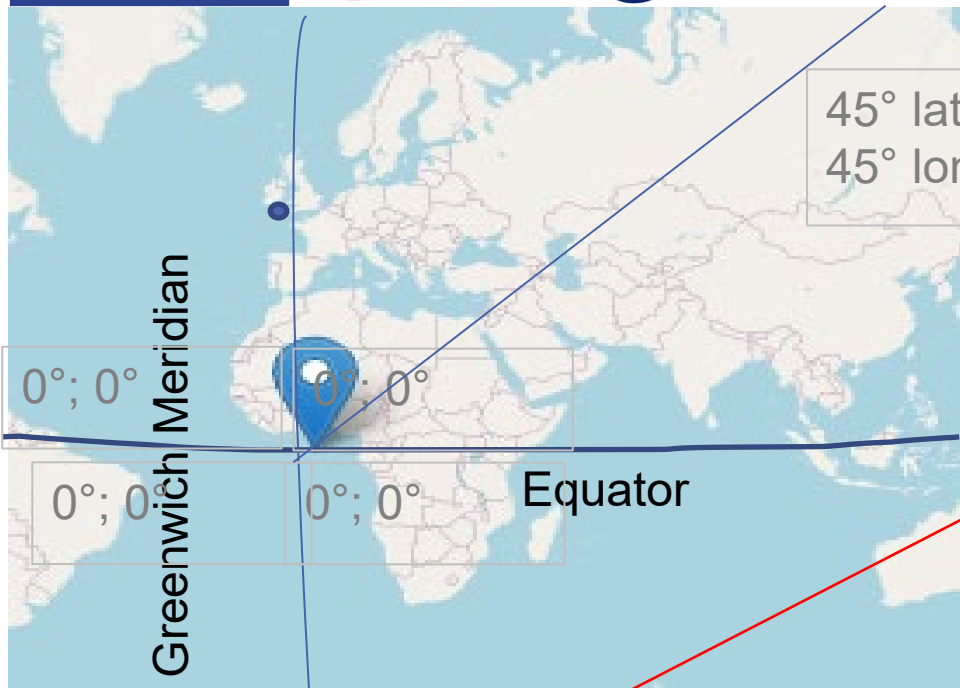
Orchid ID: NW3  
Observation Date: August 8, 2021  
Avg. blossom height: 7.00 in

August 8, 2021

Show history

— <https://public.tableau.com/app/profile/william.strouse/viz/Twenty-TwoWhiteOrchids/Twenty-TwoWhiteOrchids>





North

West

id	lat	long	date	size	what part
orch01	44.16931806498281	-69.61269761718752	01.03.2023	1	plant
orch02	44.26931806498281	-69.71269761718752	01.03.2023	2	plant
orch03	44.46931806498281	-69.91269761718752	01.03.2023	3	plant

■ plant  
■ blossom

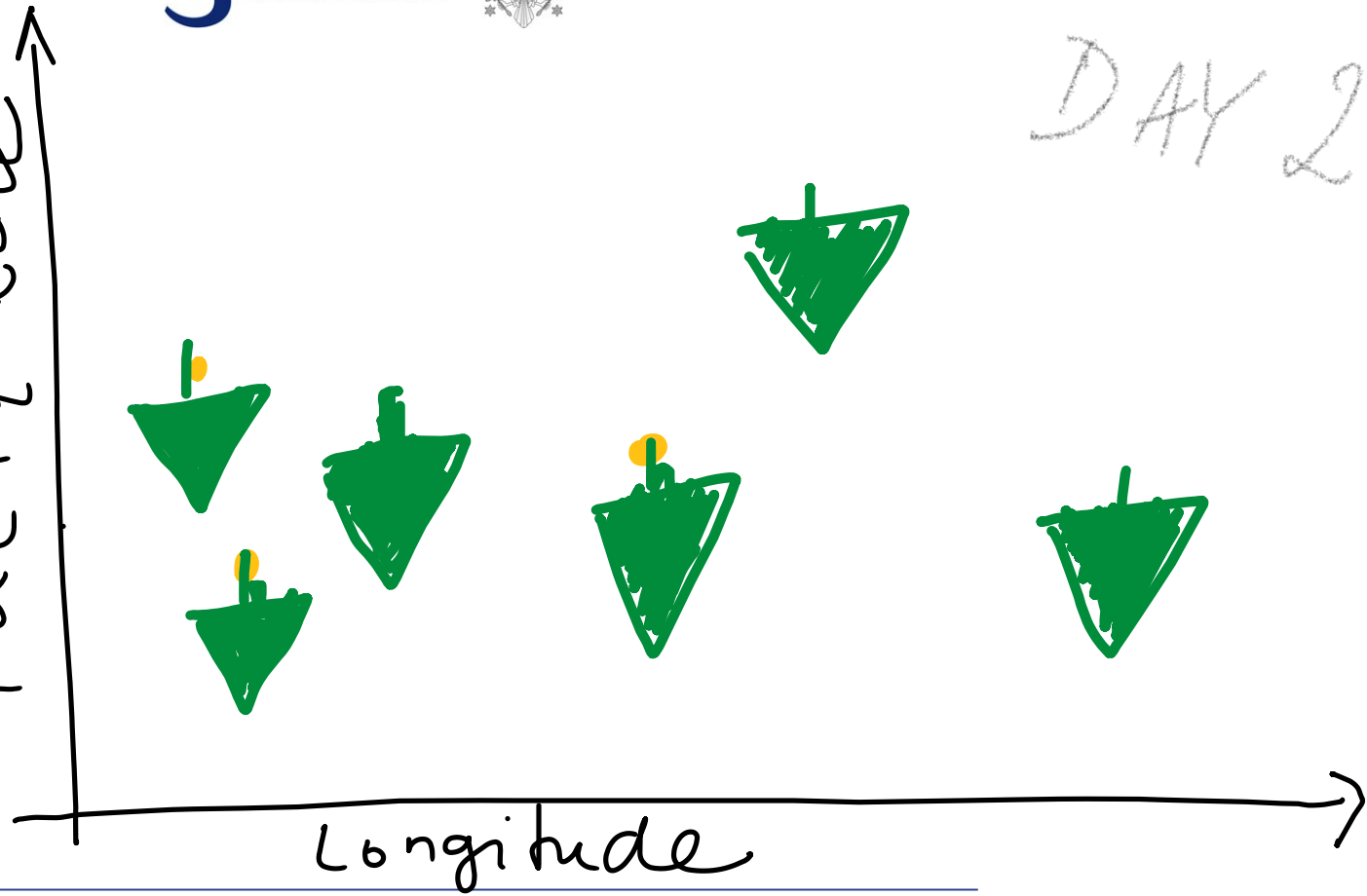







DAY 2

plant  
blossom

altitude



Size

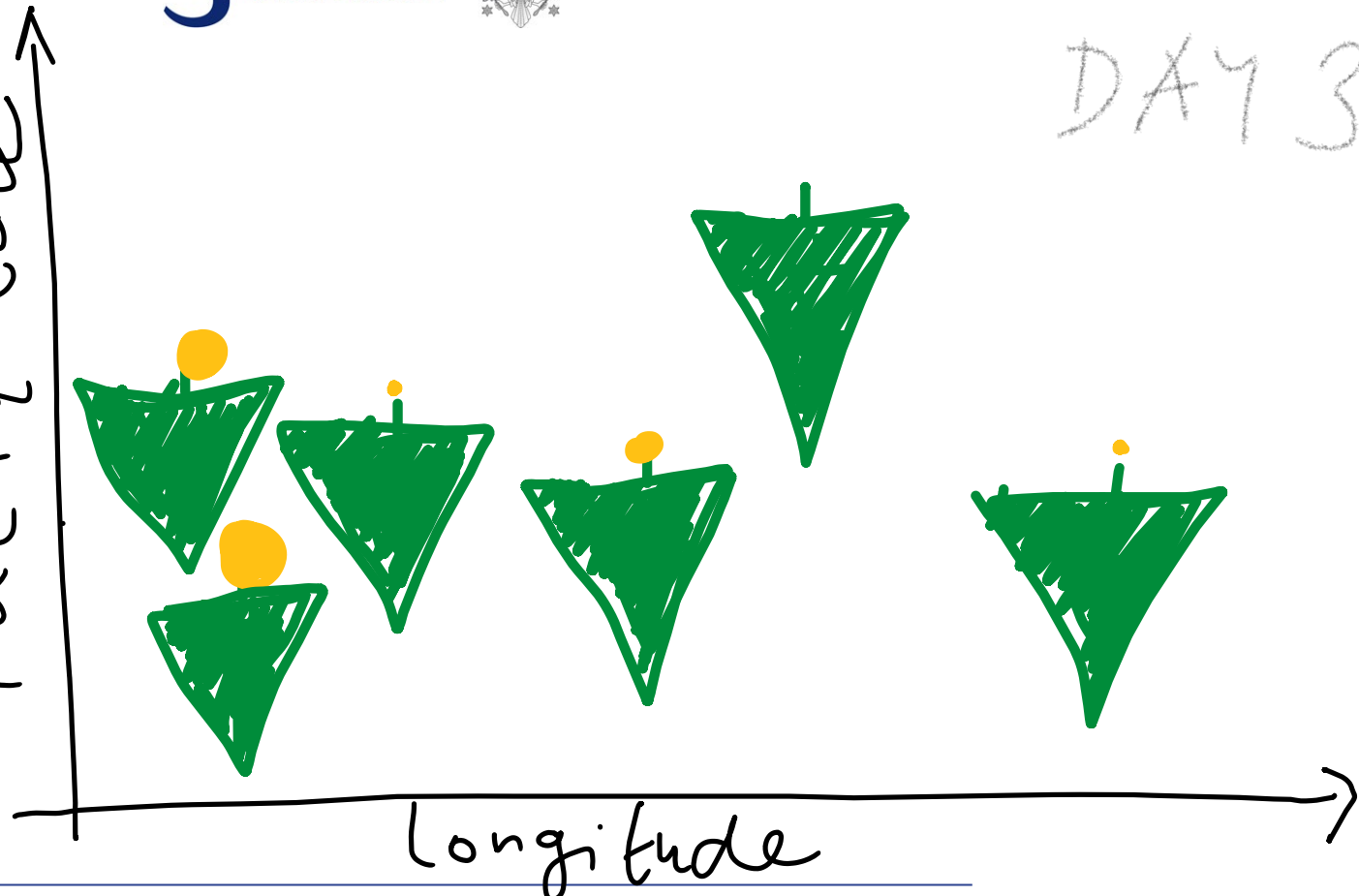
-  < 1cm
-  < 2cm
-  < 3cm

DAY 3




plant

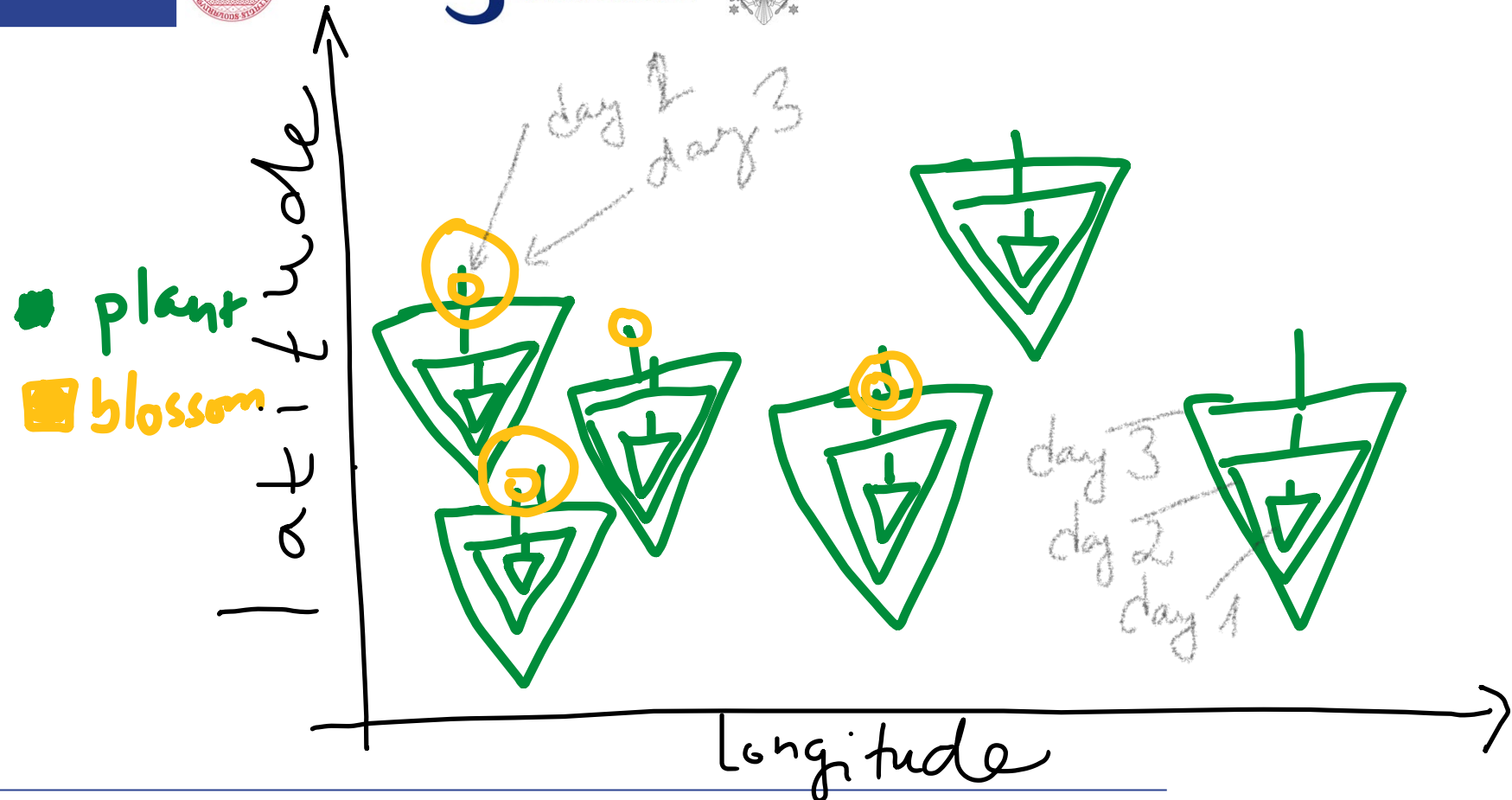
blossom

latitude



Size

-  < 1cm
-  < 2cm
-  < 3cm



# Data input and aesthetic mapping in Tableau

---

Tableau Public - Three\_orchids

File Data Window Help

Connections

three\_orchids  
Text file

Files

Use Data Interpreter

Tableau Public - Three\_orchids

File Data Window Help

New Data Source Ctrl+D

- Refresh Data Source
- Duplicate Data Source
- Paste Data as Connection Ctrl+V
- Paste Data as Data Source
- Export Data to CSV... (generate extract again)
- Close Data Source
- Edit Data Source Filters...
- Assume Referential Integrity
- Join Null Values to Null Values
- Maintain Character Case (Excel)
- three\_orchids

Add a Connection

Add a new connection to use cross-database joins

To a File

- Microsoft Excel
- Text file
- JSON file
- Microsoft Access
- PDF file
- Spatial file
- Statistical file

To a Server

- ODBC Data Source
- More...

Need more data?

Files here to relate them. L

id	lat	long	date	size	what part
orch01	44.16931806498281	-69.61269761718752	01.03.2023	1	plant
orch02	44.26931806498281	-69.71269761718752	01.03.2023	2	plant
orch03	44.46931806498281	-69.91269761718752	01.03.2023	3	plant
orch01	44.16931806498281	-69.61269761718752	01.03.2023	0	blossom
orch02	44.26931806498281	-69.71269761718752	01.03.2023	0	blossom
orch03	44.46931806498281	-69.91269761718752	01.03.2023	0	blossom
orch01	44.16931806498281	-69.61269761718752	02.03.2023	2	plant
orch02	44.26931806498281	-69.71269761718752	02.03.2023	3	plant
orch03	44.46931806498281	-69.91269761718752	02.03.2023	4	plant
orch01	44.16931806498281	-69.61269761718752	02.03.2023	1	blossom
orch02	44.26931806498281	-69.71269761718752	02.03.2023	2	blossom
orch03	44.46931806498281	-69.91269761718752	02.03.2023	2	blossom
orch01	44.16931806498281	-69.61269761718752	03.03.2023	4	plant
orch02	44.26931806498281	-69.71269761718752	03.03.2023	3	plant
orch03	44.46931806498281	-69.91269761718752	03.03.2023	4	plant
orch01	44.16931806498281	-69.61269761718752	03.03.2023	2	blossom
orch02	44.26931806498281	-69.71269761718752	03.03.2023	4	blossom
orch03	44.46931806498281	-69.91269761718752	03.03.2023	3	blossom

fields 18 rows

Name

three\_orchids.csv

Fields

Type	Field Name	Physical Table	Remote Field N...
Text	id	three_orchids.csv	lat
Text	lat	three_orchids.csv	long
Text	long	three_orchids.csv	date
Text	date	three_orchids.csv	size
Text	size	three_orchids.csv	

three_orchids.csv	three_orchids.csv
id	lat
orch01	44.169318
orch02	44.269318
orch03	44.469318
orch01	44.169318
orch02	44.269318
orch03	44.469318
orch01	44.169318

Data Source

Sheet 1

19



Data

Analytics

three\_orchids

Search

Tables

- date
- id
- lat
- what part
- Measure Names
- long
- size
- three\_orchids.csv (Count)
- Measure Values

Pages

Columns

Rows

Filters

Sheet 1

Marks

Shape

Color Size Label

Detail Tooltip Shape

Drop  
field  
here





Data Analytics <

three\_orchids

Search

Tables

- date
- id
- lat
- what part
- Measure Names
- long
- size
- three\_orchids.csv (Count)
- Measure Values

Pages

Filters

Marks

Shape

Color Size Label

Detail Tooltip Shape

Columns

Rows

Sheet 1

Drop field here

Show Me



Data

Analytics

three\_orchids

Search

Tables

- date
- id
- lat
- what part
- Measure Names
- long
- size
- three\_orchids.csv (Count)
- Measure Values

Pages

Columns

Rows

Filters

Sheet 1

Marks

Shape

Color Size Label

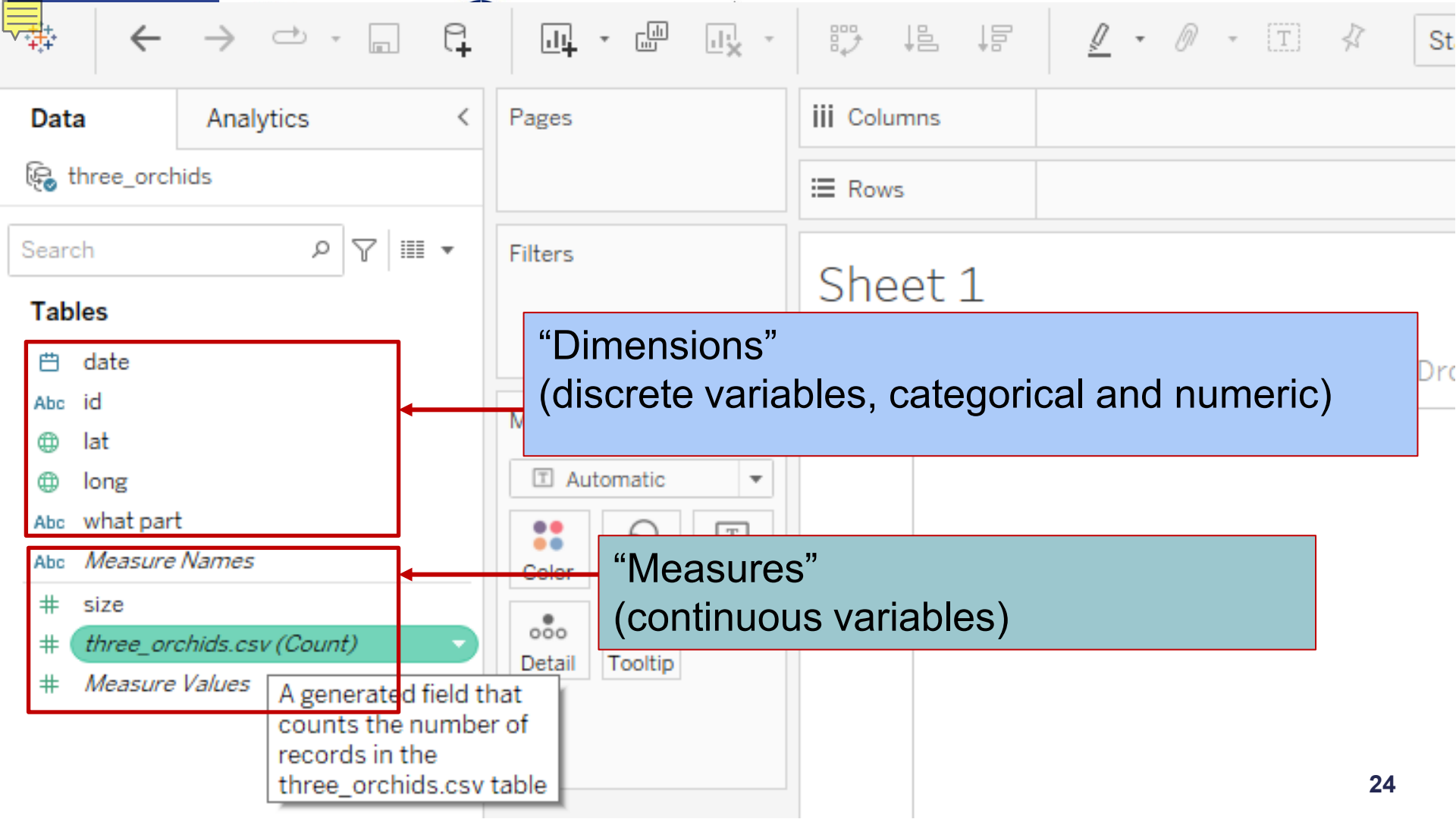
Detail Tooltip Shape

Drop  
field  
here

The screenshot shows the Tableau Public interface for a workbook named "Three\_orchids". The top menu bar includes File, Data, Worksheet, Dashboard, Story, Analysis, Map, Format, Server, Window, and Help. Below the menu is a toolbar with various icons for navigation and editing. The main workspace is divided into several panes:

- Data** pane: Shows the data source "three\_orchids".
- Columns** and **Rows** shelves: Currently empty.
- Filters** shelf: A red box highlights this shelf, which is currently empty.
- Marks** shelf: Contains a "Shape" card and a vertical scrollbar.
- Tables** pane: Lists the fields in the data source:
  - date
  - id
  - lat
  - what part
  - Measure Names
  - long
  - size
  - three\_orchids.csv (Count)
  - Measure Values

The main view area displays "Sheet 1" with a large empty space and the text "Drop field here" in the center.



Data Analytics

three\_orchids

Search

Tables

- date
- id
- lat
- long
- what part

- Measure Names
- size
- three\_orchids.csv (Count)
- Measure Values

A generated field that counts the number of records in the three\_orchids.csv table

“Dimensions”  
(discrete variables, categorical and numeric)

“Measures”  
(continuous variables)

Data Analytics

three\_orchids

Search

Columns: id

Rows: id

### Tables

- date
- id
- lat
- long
- what part
- Measure Names

---

- size
- three\_orchids.csv (Count)
- Measure Values

### Filters

### Marks

Automatic

Color Size Text

Detail Tooltip

## Sheet 1

id	
orch01	Abc
orch02	Abc
orch03	Abc

**Data** Analytics < Pages Columns **id**

three\_orchids

Search

**Tables**

- date
- id
- lat
- long
- what part
- Measure Names*
- size
- three\_orchids.csv (Count)*
- Measure Values*

Filters

Marks

Automatic

Color Size Text

Detail Tooltip

Rows

# Sheet 1

	id		
	orch01	orch02	orch03
	Abc	Abc	Abc



Data Analytics <

Pages

Columns id

Rows

three\_orchids

Search

Tables

- date
- id
- lat
- long
- what part
- Measure Names
- size
- three\_orchids.csv (Count)
- Measure Values

Filters

Marks

Text

Color Size Text

Detail Tooltip

Sheet 1

	id		
	orch01	orch02	orch03
Abc	Abc	Abc	Abc

Show Me

Data Analytics

three\_orchids

Search

**Tables**

- date
- id
- lat
- long
- what part
- Measure Names*
- size
- three\_orchids.csv (Count)*
- Measure Values*

Columns

Rows

id

Filters

Marks

Text

Color

Size

Text

Detail

Tooltip




Sheet 1

id
orch01
orch02
orch03


Show Me


Search    

### Tables

-  date
- Abc id
-  lat
-  long
- Abc what part
- Abc *Measure Names*
- # **size**
- # *three\_orchids.csv (Count)*
- # *Measure Values*



Pages




 Columns



 Rows **id**


Filters

Marks

 Text 

 Color  Size  Text

 Detail  Tooltip

 **SUM(size)**

## Sheet 1

id	
orch01	10
orch02	14
orch03	16

three\_orchids

Search



Rows

id

## Tables

date

Abc id

lat

long

Abc what part

Abc *Measure Names*

# size

# *three\_orchids.csv (Count)*# *Measure Values*

Filters

Marks

Text



Color



Size



Text



Detail



Tooltip



AVG(size)

## Sheet 1

id

orch01 1,6667

orch02 2,3333

orch03 2,6667

**Tables**

- date
- id
- lat
- long
- what part
- Measure Names*

- size
- three\_orchids.csv (Count)*
- Measure Values*

Text

Color Size Text

Detail Tooltip

AVG(size)

### Sheet 1

	what part	
id	blossom	plant
orch01	1,000	2,333
orch02	2,000	2,667
orch03	1,667	3,667

Analytics < Pages Columns what part

three\_orchids Rows id date

Search

**Tables**

- date
- id
- lat
- long
- what part
- Measure Names
- size
- three\_orchids.csv (Count)
- Measure Values

**Filters**

**Marks**

Text

Color Size Text

Detail Tooltip

AVG(size)

### Sheet 1

id	date	what part	
		blossom	plant
orch01	01.03.2023	0,000	1,000
	02.03.2023	1,000	2,000
	03.03.2023	2,000	4,000
orch02	01.03.2023	0,000	2,000
	02.03.2023	2,000	3,000
	03.03.2023	4,000	3,000
orch03	01.03.2023	0,000	3,000
	02.03.2023	2,000	4,000
	03.03.2023	3,000	4,000

three\_orchids

Search



Filters

Marks

Text



Color



Size



Text



Detail



Tooltip



AVG(size)

Rows

id

YEAR(date)

Sheet 1

id	Year of d..	what blossom
orch01	2023	1,000
orch02	2023	2,000
orch03	2023	1,667

Filter...

Show Filter

Show Highlighter

Sort...

Format...

 Show Header Include in Tooltip

Show Missing Values

 Standard Gregorian

ISO-8601 Week-Based

 Year

2015

Quarter

Q2

Month

May

Day

8

More





YEAR(date)

Year	2015
Quarter	Q2
Month	May
Day	8
More	▶

as Dimension (categorical):  
e. g. all Sundays get added across months and years  
("How much do you sell on Sundays on average?")

Year	2015
Quarter	Q2 2015
Month	May 2015
Week Number	Week 5, 2015
Day	May 8, 2015
More	▶

as Measure (continuous variable)  
("How much have you sold per month in the past two years?")

More	▶
Exact Date	
Attribute	
Measure	▶
Discrete	<input checked="" type="radio"/>
Continuous	<input type="radio"/>

Even exact dates can be categorical



Pages

Columns

AVG(size)

Rows

id

what part

Filters

Marks

Bar

Color

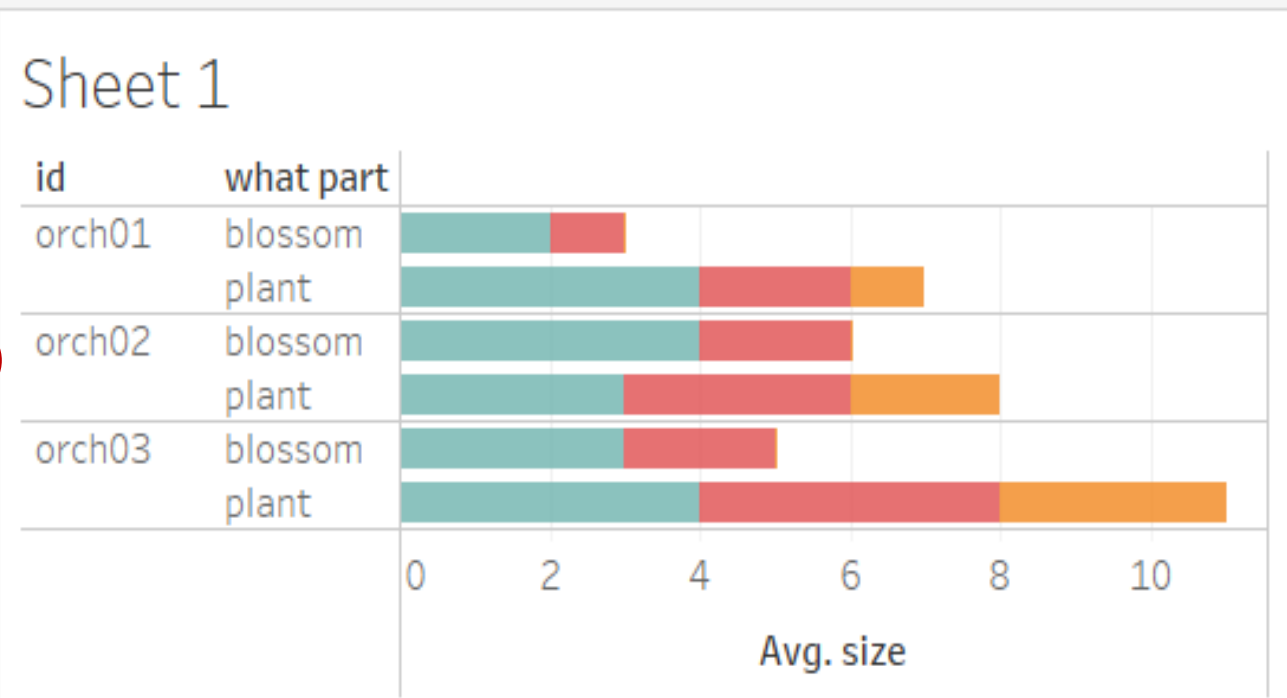
Size

Label

Detail

Tooltip

DAY(date)



DAY(date)

1

2

3

Data Analytics interface for the 'three\_orchids' dataset. The interface includes a sidebar with 'Tables' (date, id, lat, long, what part, Measure Names, size, three\_orchids.csv (Count), Measure Values), a 'Marks' card with 'AVG(size)', and a main view showing 'Sheet 1' with columns 'id', 'what part', and 'DAY(date)'. The data is presented in a table format.

id	what part	Day of date	
orch01	blossom	1	0,000
		2	1,000
		3	2,000
	plant	1	1,000
		2	2,000
		3	4,000
orch02	blossom	1	0,000
		2	2,000
		3	4,000
	plant	1	2,000
		2	3,000
		3	3,000
orch03	blossom	1	0,000
		2	2,000
		3	3,000
	plant	1	3,000
		2	4,000
		3	4,000

three\_orchids

Search

Tables

- date
- id
- lat
- long
- what part
- Measure Names

- size
- three\_orchids.csv (Count)
- Measure Values

Pages

Filters

DAY(date)

Marks

Text

Color Size Text

Detail Tooltip

AVG(size)

Columns

Rows

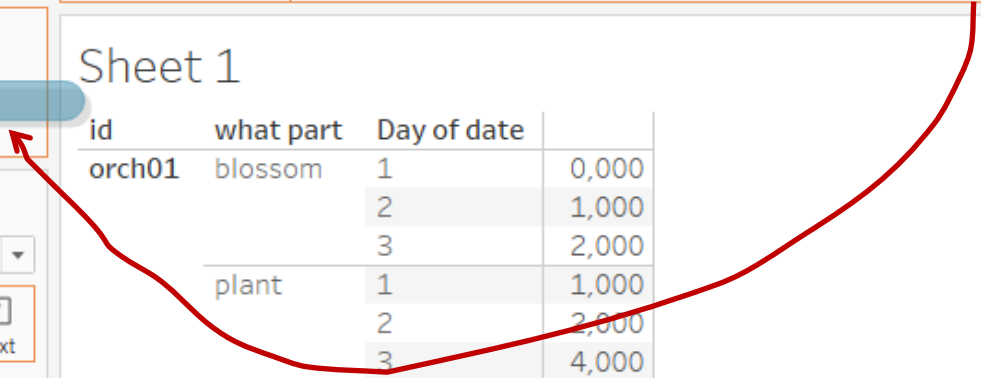
id

### Sheet 1

id	what part	Day of date	
orch01	blossom	1	0,000
		2	1,000
		3	2,000
	plant	1	1,000
		2	2,000
		3	4,000
orch02	blossom	1	0,000
		2	2,000
		3	4,000
	plant	1	2,000
		2	3,000
		3	3,000
orch03	blossom	1	0,000
		2	2,000
		3	3,000
	plant	1	3,000
		2	4,000
		3	4,000

what part

DAY(date)



Analytics <

three\_orchids

Search

Tables

- date
- id
- lat
- long
- what part
- Measure Names
- size
- three\_orchids.csv (Count)
- Measure Values

Filters

Marks

- Text
- Color
- Size
- Text
- Detail
- Tooltip
- AVG(size)

Columns

Rows

id what part DAY(date)

Sheet 1

id	what part
orch01	blossom
	plant
orch02	blossom
	plant
orch03	blossom
	plant

Filter Field [date]

How do you want to filter on [date]?

- Relative Date
- Range of Dates
- Years
- Quarters
- Months
- Days
- Week numbers
- Weekdays
- Month / Year
- Month / Day / Year
- Individual Dates
- Count
- Count (Distinct)
- Minimum
- Maximum
- Attribute

Next > Cancel

Data Analytics interface showing a pivot table for 'three\_orchids' data. The pivot table is displayed on 'Sheet 1' with columns 'id' and 'what part'. The 'DAY(date)' filter is applied, and the 'Show Filter' option is selected in the 'Edit Filter...' menu.

**Tables:**

- date
- id
- lat
- long
- what part
- Measure Names
- size
- three\_orchids.csv (Count)
- Measure Values

**Marks:**

- Text
- Color
- Size
- Detail
- Tooltip
- AVG(size)

**Filters:**

- DAY(date)

**Columns:**

- id
- what part

**Rows:**

- 1,000
- 2,333
- 2,000
- 2,667
- 1,667
- 3,667

**DAY(date) Filter:**

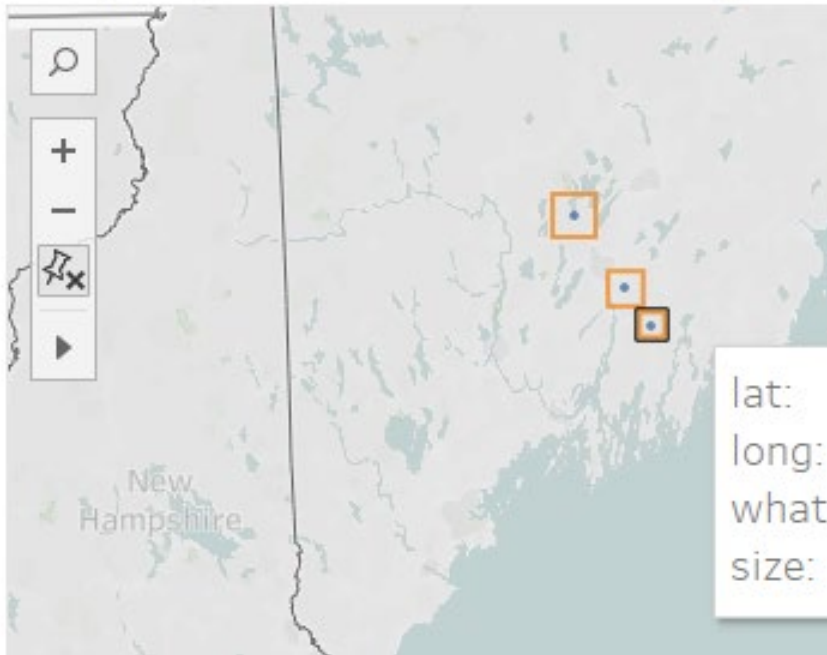
- (All)
- 1
- 2
- 3

**Edit Filter... Menu:**

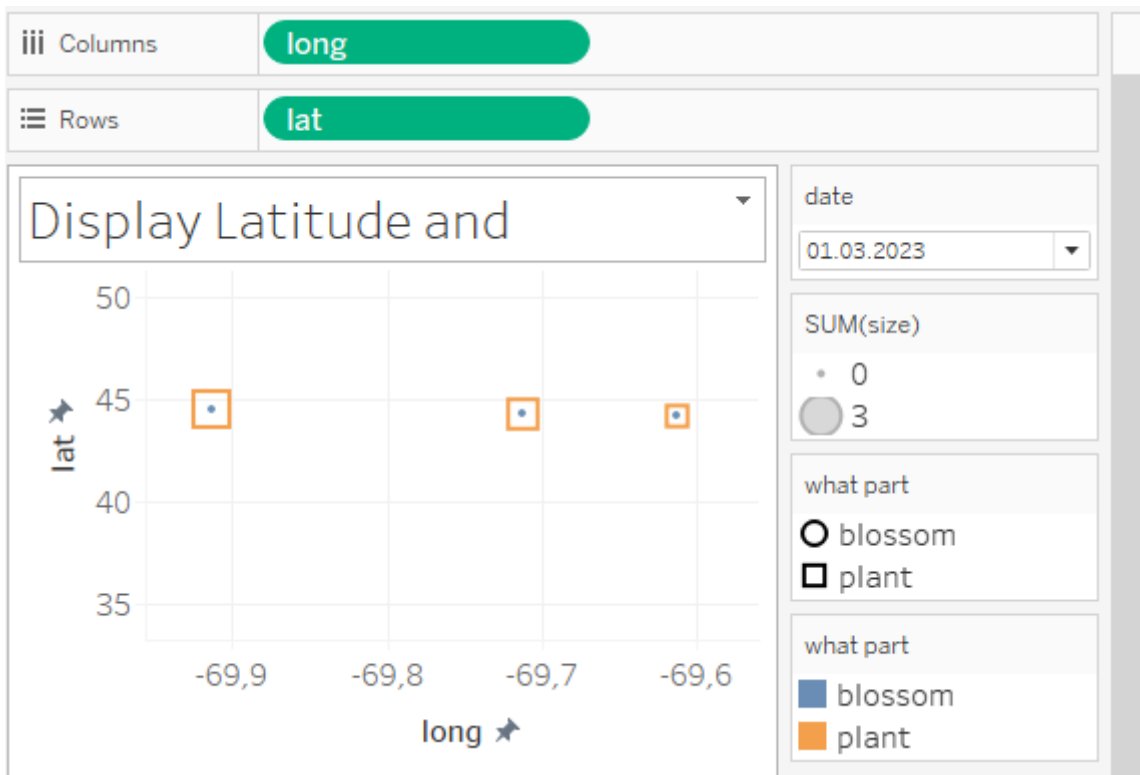
- Show Filter
- Clear Filter
- Add to Context
- Apply to Worksheets
- Create Set...
- Standard Gregorian
- ISO-8601 Week-Based
- Year: 2015
- Quarter: Q2
- Month: May
- Day: 8
- More
- Year: 2015

Columns	long
Rows	lat

## Display Latitude and Longitude



		long	long	long
		-69.61	-69.71	-69.91
lat	44.16	orch01		
lat	44.26		orch02	
lat	44.46			orch03



Pages

Columns

long

Rows

lat

Filters

DAY(date): 1

Marks

Automatic



Color



Size



Label



Detail



Tooltip



what part



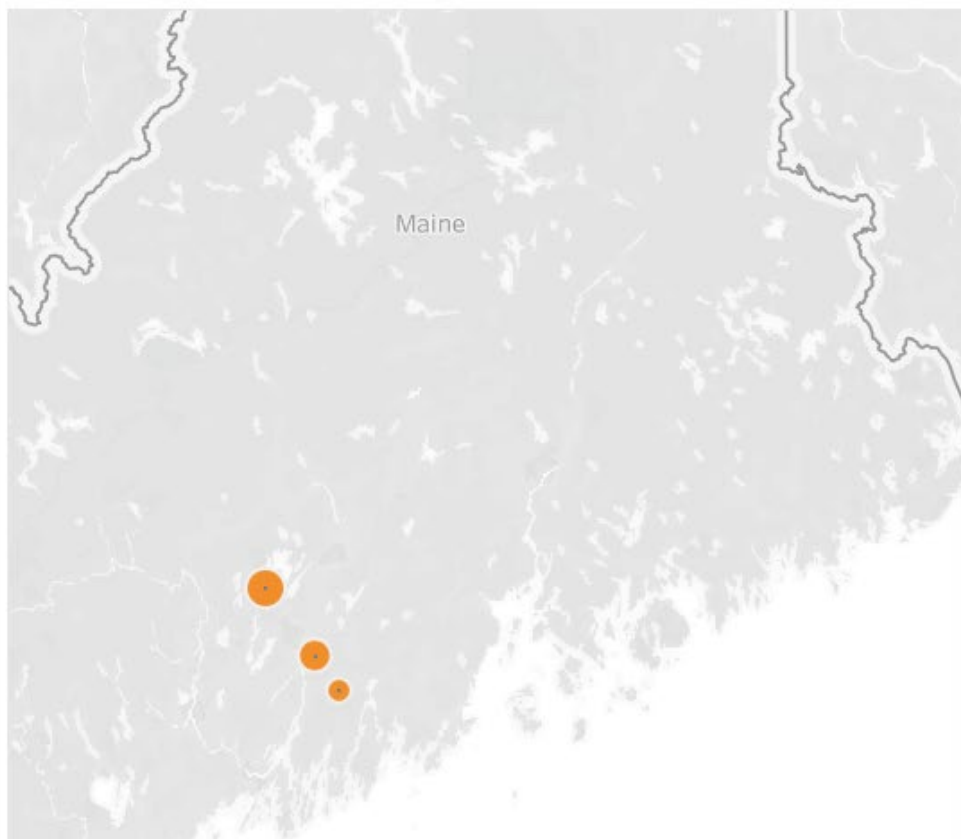
SUM(size)



id

id

Sheet 1



DAY(date)

(All)

1

2

3

SUM(size)

0

3

what part

blossom

plant



For symbols

1 geo

0 or more

0 to 2



DAY(date)

- Edit Filter...
- Remove Filter
- Apply to Worksheets ▶
- Format Filter and Set Controls...
- Customize ▶
- Title
- Edit Title...
- Single Value (list)
- Single Value (dropdown)
- Single Value (slider)
- Multiple Values (list)
- Multiple Values (dropdown)
- Multiple Values (custom list)
- Only Relevant Values
- All Values in Database
- Include Values
- Exclude Values
- × Hide Card

We want just one day in a view, otherwise we will get non-sensical sums or averages across several days!



Pages

Columns

long

Rows

lat

Filters

DAY(date): 2

Marks

Automatic



Color



Size



Label



Detail



Tooltip



what part

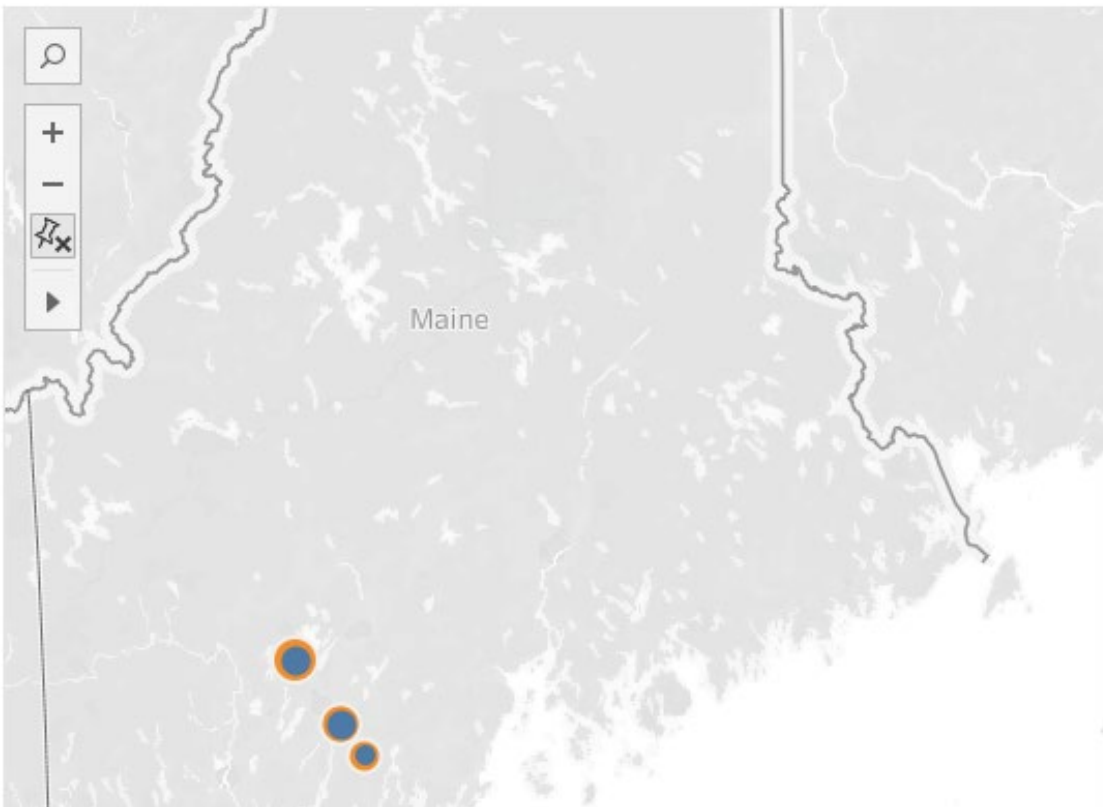


AVG(size)



id

Sheet 1



DAY(date)

2

AVG(size)

- 1,000
- 2,000
- 3,000
- 4,000

what part

- blossom
- plant

## Filters

DAY(date): 2

## Marks

Pie



Color



Size



Label



Detail



Tooltip



Angle



what part

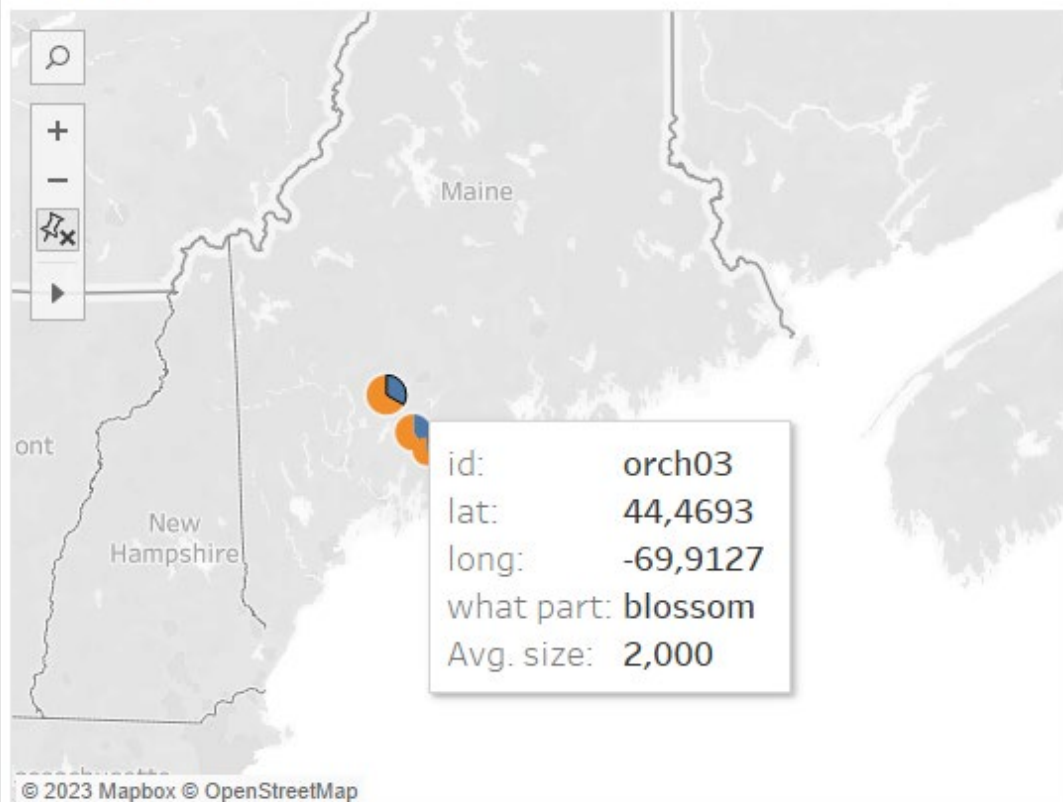


AVG(size)



id

## Sheet 1



DAY(date)

2

AVG(size)

3,000

4,000

5,000

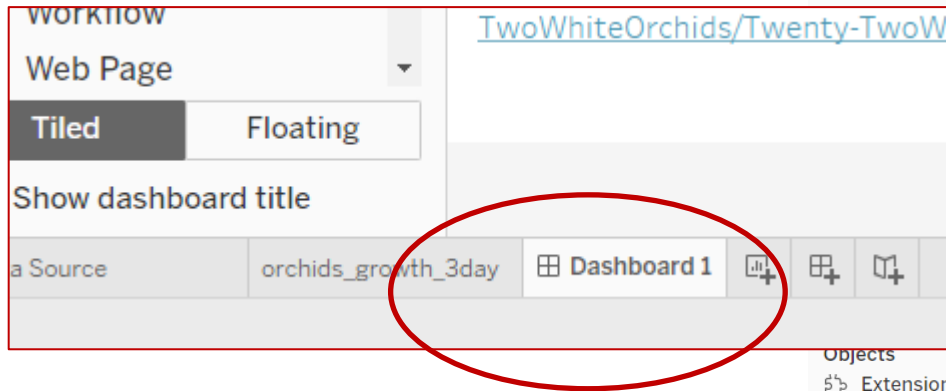
6,000

what part

blossom

plant

## Create a dashboard with a text column



WORKFLOW

Web Page

Tiled Floating

Show dashboard title

Dashboard 1

[https://public.tableau.com/app/profile/silvie.cinkova/viz/Three\\_orchids/Dashboard1?publish=yes](https://public.tableau.com/app/profile/silvie.cinkova/viz/Three_orchids/Dashboard1?publish=yes)

Dashboard

Layout

Default

Phone

Device Preview

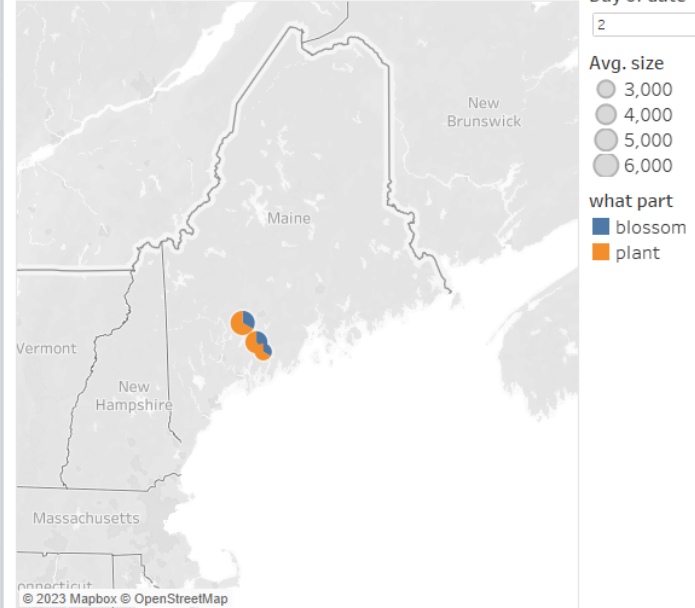
Size

min 420x560 - max 650x860

Sheets

orchids\_growth\_3day

## Tableau Fundamentals in Data Analytics for Students of Humanities and Social Sciences (NPFL134)



This is a minimalist dashboard to show the fundamentals of Tableau. It explains some components of the beautiful viz by Will Strouse *Twenty-Two White Orchids* ([https://public.tableau.com/app/profile/william\\_strouse/viz/Twenty-TwoWhiteOrchids/Twenty-TwoWhiteOrchids](https://public.tableau.com/app/profile/william_strouse/viz/Twenty-TwoWhiteOrchids/Twenty-TwoWhiteOrchids)).

**André Mazon  
correspondence  
collection  
metadata**

mazon\_gps.csv

ID	facsimile file name
Date	when written
DocType	document type
Language	(mostly) written in language
Author	letter author
VIAF	author's ID in VIAF
Recipient	letter recipient
Loc_GPS	where written
lon , lat	place's exact longitude and latitude
place_author_ visited_rank	temporary rank in places from where the author wrote
authors_uniqu e_places	how many places the author wrote from
jittered lon, lat	place's longitude and latitude with added random noise to prevent overplotting

Search

Tables

- Author
- Date
- DocType
- ID
- Language
- Loc\_GPS
- Recipient
- Measure Names
- authors\_unique\_places
- jittered\_lat
- jittered\_lon
- lat
- lon
- place\_author\_visited\_rank
- VIAF
- mazon\_gps.csv (Count)**
- Measure Values

Filters

Marks

Automatic

Color Size Text

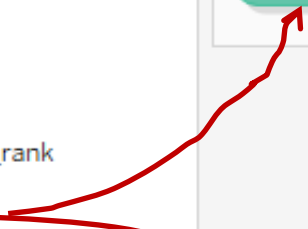
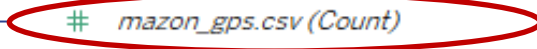
Detail Tooltip

**CNT(mazon\_gps.csv)**

# Sheet 2

Author	
Sitc, Ivan Ivanovic	Abc
Vaillant, Andre	Abc
Unbegaun, Boris	Abc
Mazon, Andre	Abc
Fichelle, Alfred	Abc
Kulbakin, Stepan Mi..	Abc
Il'inskij, Grigorij And..	Abc
Boyer, Paul	Abc
Polivka, Jiri	Abc
Mousset, Gabrielle	Abc
Murko, Matija	Abc
Millet, Yves	Abc
Beaulieux, Leon	Abc
Labry, Raoul	Abc
Ehrhard, Marcelle	Abc
Turdeanu, Emil	Abc
Frcek, Jan	Abc

First glance:  
How many authors, how many letters?





# Sort authors by the amount of their letters

The screenshot shows the Tableau interface with a table sorted by the count of letters in author names. The toolbar at the top shows the 'Sort' icon circled in red. A tooltip above it reads: "Sorted descending by count of mazon\_gps.csv within Author". The 'Columns' shelf contains the 'Author' field. The 'Marks' shelf contains 'CNT(mazon\_gps.csv)'. The table data is as follows:

Author	Count
Sitc, Ivan Ivan..	88
Vaillant, Andre	83
Unbegaun, Bor..	78
Mazon, Andre	56
Fichelle, Alfred	41
Kulbakin, Step..	33
Il'inskij, Grigor..	31
Boyer, Paul	27
Polivka, Jiri	26
Mousset, Gabr..	26

## How was the correspondence distributed in time?

The screenshot shows a Tableau interface with the following components:

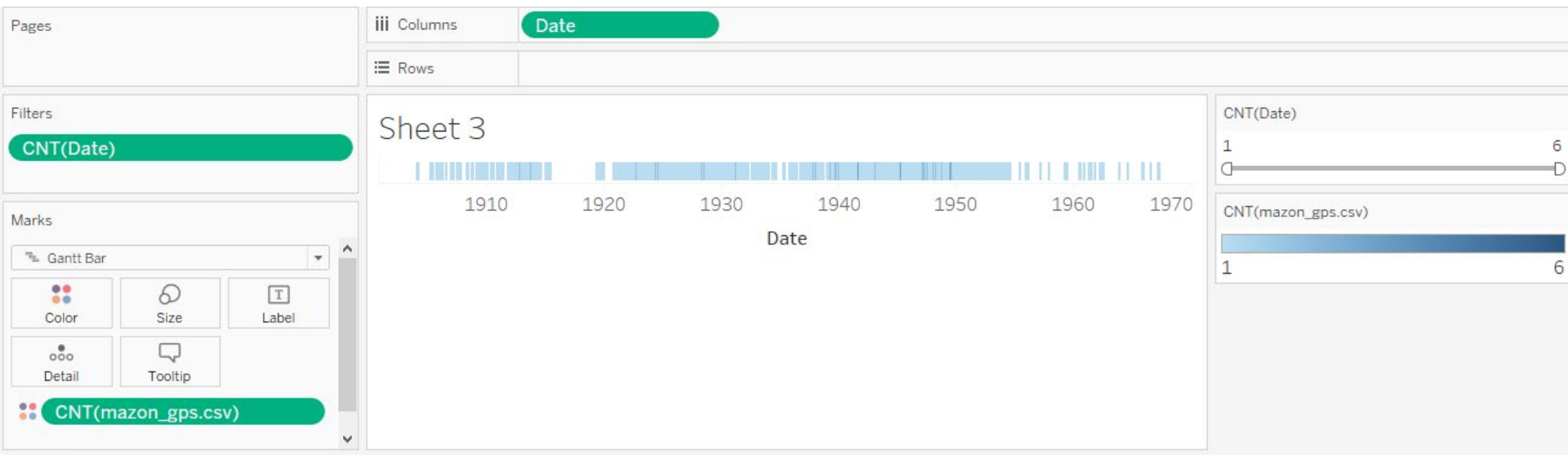
- Columns:** YEAR(Date)
- Rows:** (Empty)
- Filters:** (Empty)
- Marks:**
  - Card type: Automatic
  - Color, Size, Text, Detail, Tooltip (all disabled)
  - Field: CNT(mazon\_gps.csv)

The resulting table is titled "Sheet 4" and shows the distribution of correspondence counts by year:

Year	Count
1941	181
1939	164
1937	140
1940	136
1922	122
1943	73
1923	64
1949	62
1944	61
1926	59
1930	57

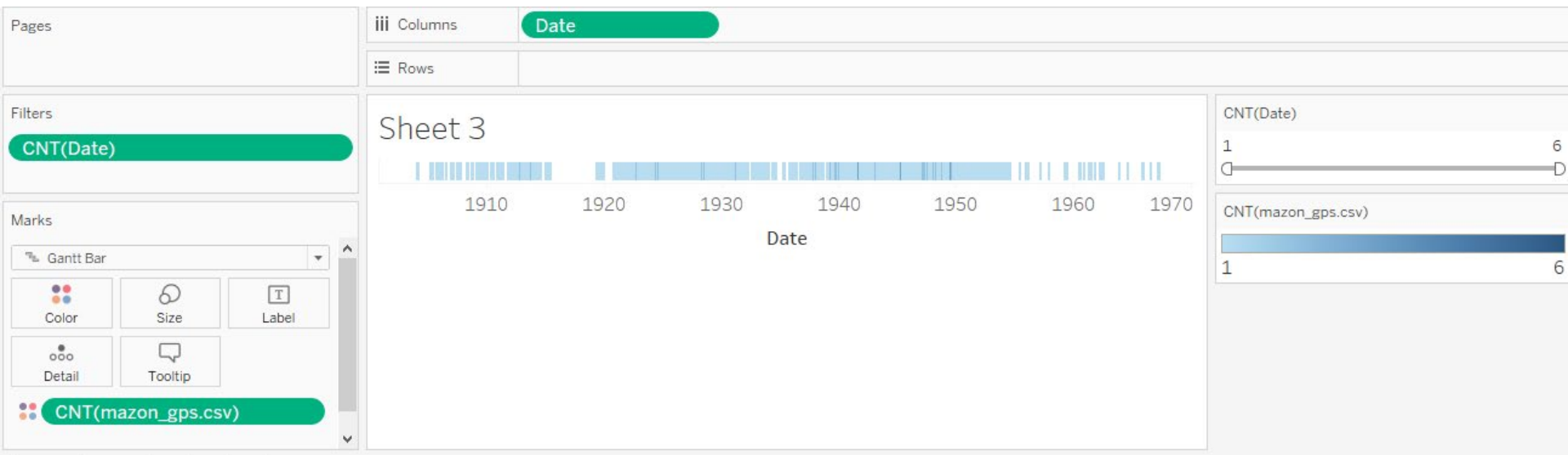


## How was the correspondence distributed in time? Time as a continuous variable



# How was the correspondence distributed in time?

## Time as a continuous variable





Color



Size



Label



Detail



Tooltip

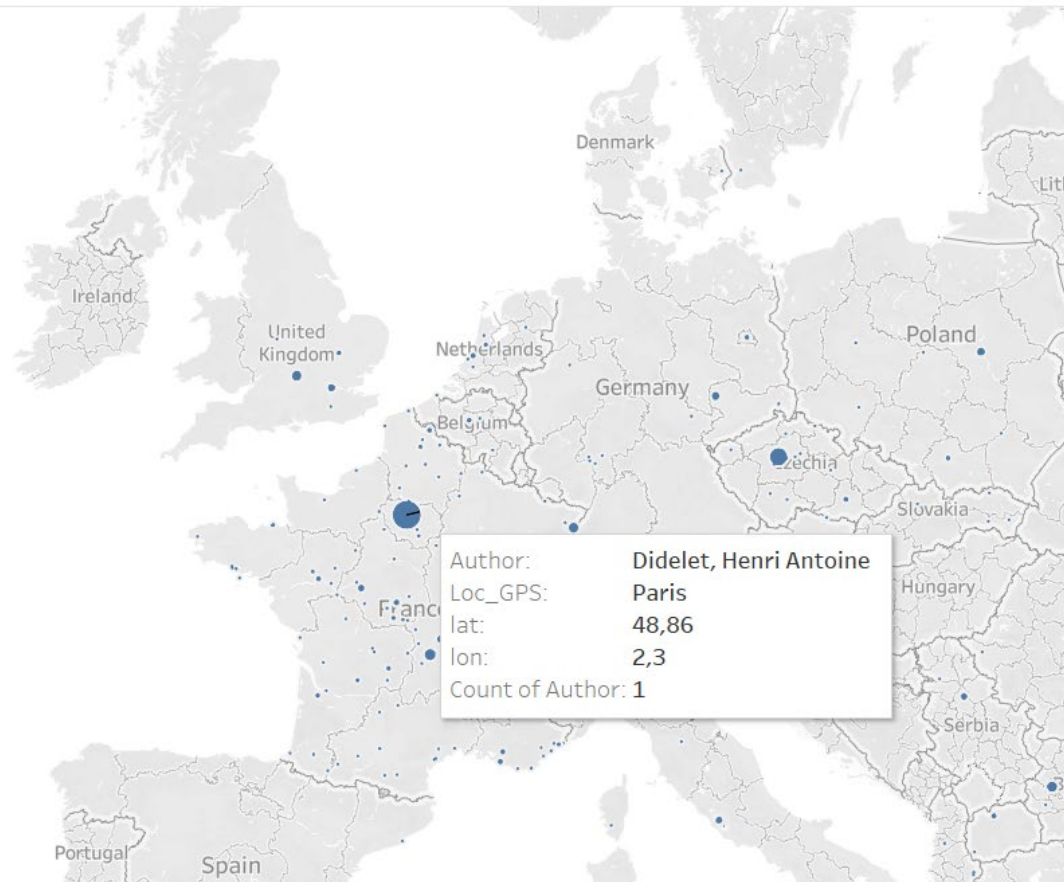


Angle

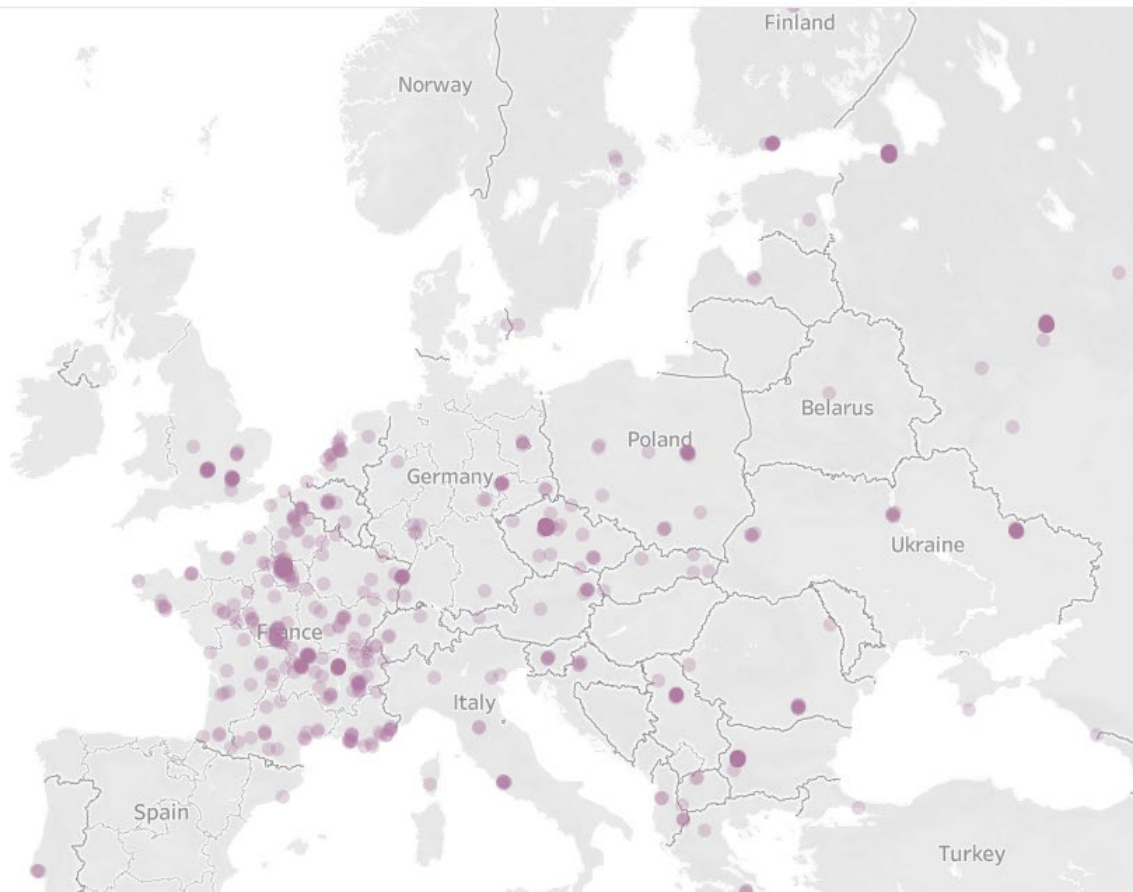
CNT(Author)

Loc\_GPS

Author



From  
where  
were  
the  
letters  
coming?



From where were the letters coming?

From where  
were  
the letters  
coming?

Continuous  
time filter

Columns: AVG(jittered\_lon), AVG(jittered\_lat)

Filters: Date

Marks: Circle, Color, Size, Detail, Location

Sheet 5

Map showing data points in Europe (France, Germany, Italy, Poland, Belarus, Norway).

Filter [Date] dialog box:

- Relative dates
- Range of dates (selected)
- Starting date
- Ending date
- Special

Range of dates:

27.01.1939 to 04.08.1945

17.12.1903 to 01.03.1967

Show: Only Relevant Values

Include Null Values:

Buttons: Reset, OK, Cancel, Apply

11 nulls

<https://public.tableau.com/app/profile/silvie.cinkova/viz/2023-03-07Mazon/Sheet5?publish=yes>