

antarctica_mass_200204_201706.csv ([drive link](#))

Antarctic mass measurements over time.

Use these columns/variables:

- mass (starts from zero the first year data was taken)
- Time (year)

Best chart type:

Basic x/y graph.

- x-axis: time
- y-axis: mass
- Zoom in on interesting areas.

billiondollar disasters-time-series.csv ([drive link](#))

Count and cost of billion-dollar extreme weather disasters over time.

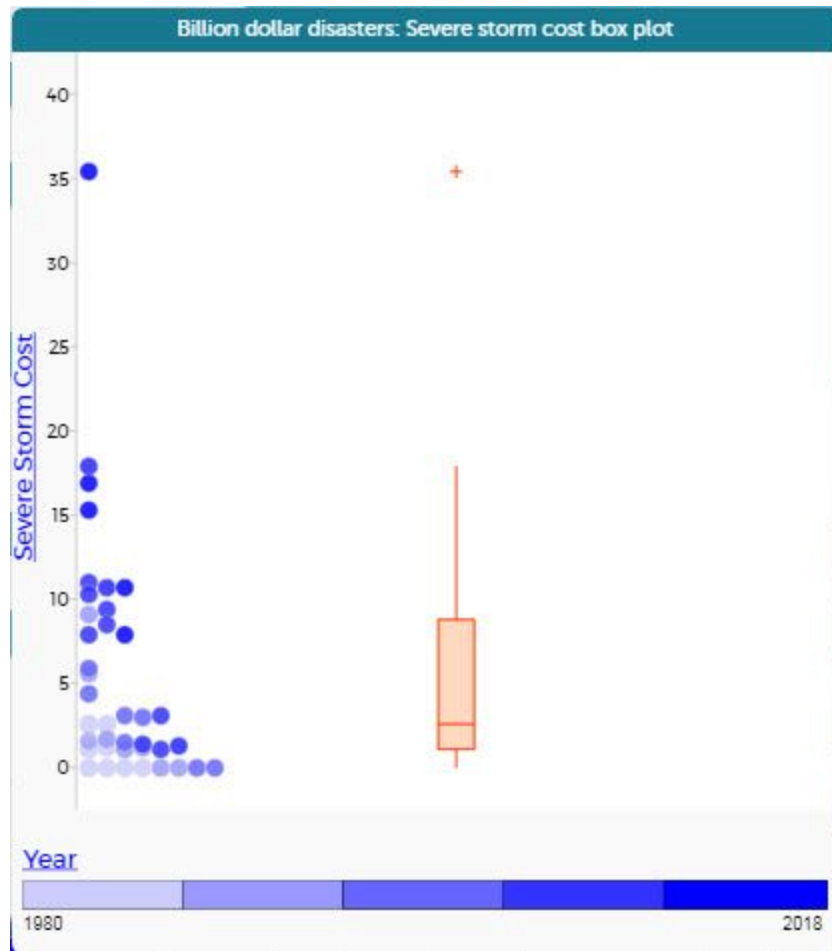
Use these variables:

- Year
- [Extreme event] Count
- [Extreme event] Cost

Extreme events are drought, flooding, freeze, severe storm, tropical cyclone, wildfire, and winter storm.

Best chart type:

- Make several x/y graphs plotting extreme events and move them next to each other. For example:
 - Graph 1 x-axis: time
 - Graph 1 y-axis: Freeze count
 - Graph 2 x-axis: time
 - Graph 2 y-axis: Tropical cyclone count
- Make a box plot showing distribution of count or cost of extreme events over time.
 - Y-axis: Severe storm cost
 - Center: Year
 - In Measure chart menu, select "Box plot"



greenland_mass_200204_201706.csv ([drive link](#))

Greenland ice mass variation since 2002 (measurement using NASA's GRACE satellites)

Use these variables:

- Time (year decimal)
- mass (mass of ice variation in gigatonnes)

Best chart type:

Scatterplot

Graph 1:

- X-axis: Time
- Y-axis: mass (gigatonnes)

Kaufman2009arctic.csv ([drive link](#))

Average temperature anomalies in the arctic.

Use these variables:

- Year

- Average

Best chart type:

Basic x/y graph.

- X-axis: time
- Y-axis: average

Add a

Mapppd_penguin_portcharotsubset.csv ([drive link](#))

Count of penguin nests, chicks, and adults at the Port Charot site. Subset of MAPPPDPenguin dataset, limited to one location.

Use these variables:

- penguin_count
- season_starting (year)
- common_name (species of penguin)
- count_type (chicks, nests, adults)

Using CODAP tools, you can limit the dataset to only chicks and adults, or only nests, or only one species of penguin.

Best chart type:

Basic x/y graph

- X-axis: season starting
- Y-axis: penguin count
- Center (e.g. graph color): common_name

MAPPPDPenguin.csv ([drive link](#))

Count of penguin nests, chicks, and adults at the Port Charot site. Subset of MAPPPDPenguin dataset, limited to one location.

Use these variables:

- site
- penguin_count
- season_starting (year)
- common_name (species of penguin)
- count_type (chicks, nests, adults)

Using CODAP tools, you can limit the dataset to only chicks and adults, or only nests, or only one species of penguin.

Best chart type:

This dataset is very complex. Create subsets of data by location, species, or type and analyze. Or experiment with whole dataset!

Sea-surface-temp_fig-1.csv ([drive link](#))

Basic description:

135 years of average sea surface temperature. The temperature is relative to the average of 1971-2000 temperatures.

Use these variables:

- Year
- Annual anomaly

Best chart type:

Scatter plot

SealceExtent_1978_2015.csv ([drive link](#))

Basic description:

Monthly arctic sea ice extent (in area in square kilometers) from 1978 to 2015

Use these variables:

- analysisdate = date of calculated sea ice extent
- month = month sea ice extent was collected
- Area_SqKm = Area covered by sea ice in square kilometers (numeric)

Best chart type:

Scatterplot

Graph 1:

X-axis: analysisdate

Y-axis: Area_SqKm

Graph 2:

X-axis: month

Y-axis: Area_SqKm