



Fishing patterns in the North Atlantic

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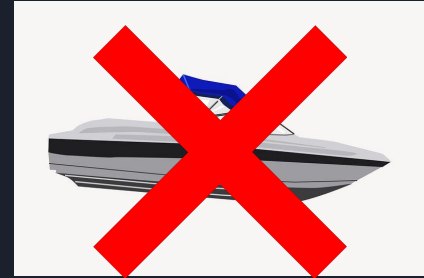
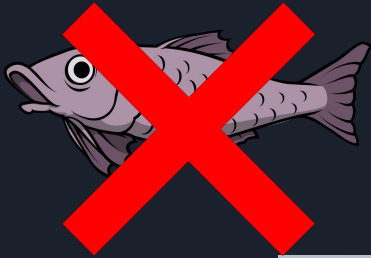
Dataset used from Kaggle.com:
<https://www.kaggle.com/datasets/alexanderbader/fishing-data-north-atlantic>



Understanding the Dataset

- ❑ The dataset I used has information about fishing *excursions*, meaning each time a boat went into the North Atlantic and fishing took place.
- ❑ The data covers a 17-year period from 2002 to 2019
- ❑ Vessel = Boat (my term)
- ❑ The data includes 21 characteristics from each excursion (below not a complete list):
 - ❑ Month and year
 - ❑ Boat length and horsepower
 - ❑ Weight of the catch
 - ❑ Value of the catch
 - ❑ Distance from shore

Understanding the Dataset (simple version)



Clustering the data

Trawling Tours

- ★ Boats tend to be older and smaller in both length and horsepower
- ★ Excursions don't go very far off shore
- ★ Average area covered per excursion is smaller compared to other groups
- ★ But, total excursions are the highest of all

Regular Roamings

- ★ Very similar to Trawling Tours in all aspects
- ★ The difference is, the Regular Roamings go slightly further out into the ocean
- ★ And, they produce more in terms of weight and value, as compared to the Trawling Tours

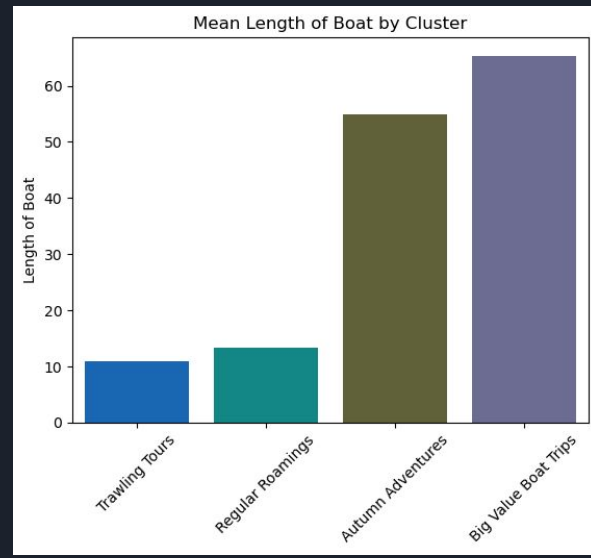
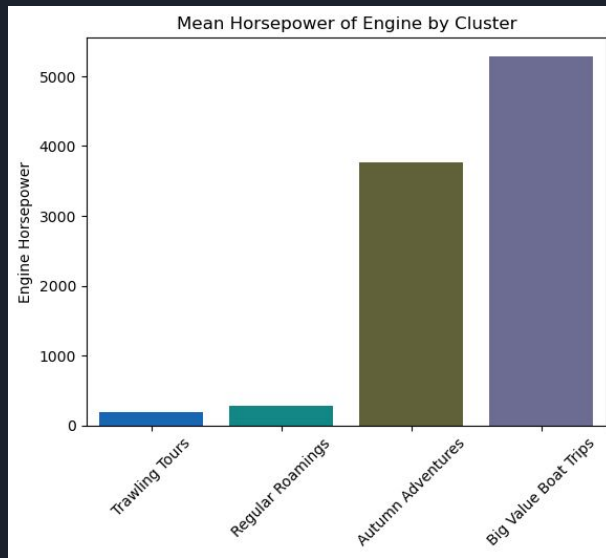
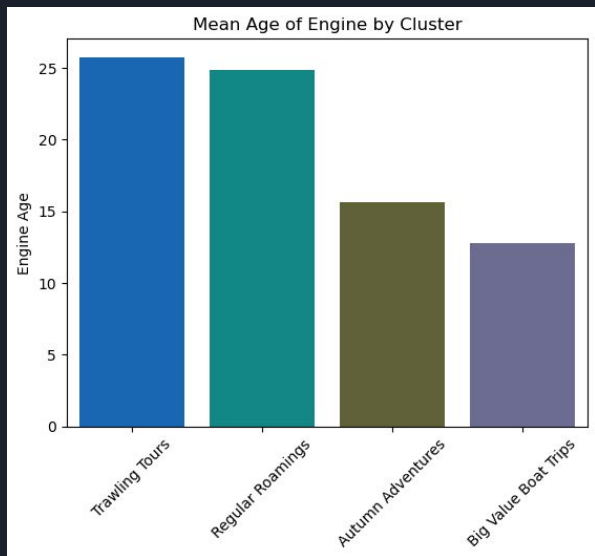
Big Value Boat Trips

- ★ Boats tend to be younger
- ★ Also the longest boats with the most horsepower
- ★ Excursions go far from shore and cover much area, but don't happen as often
- ★ Highest producers in terms of catch weight and value

Autumn Adventures

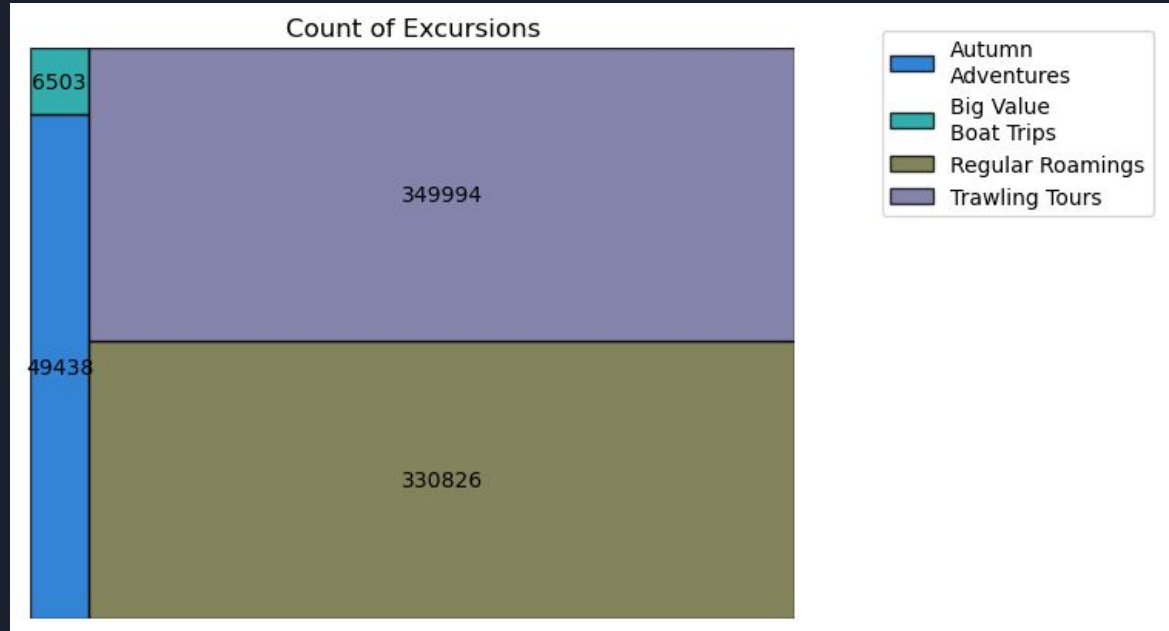
- ★ Quite similar to BVBT in many aspects
- ★ Production not quite as high
- ★ Area covered and frequency of excursions higher when compared to BVBT
- ★ Mode excursion month October - unique!!

Comparing Clusters



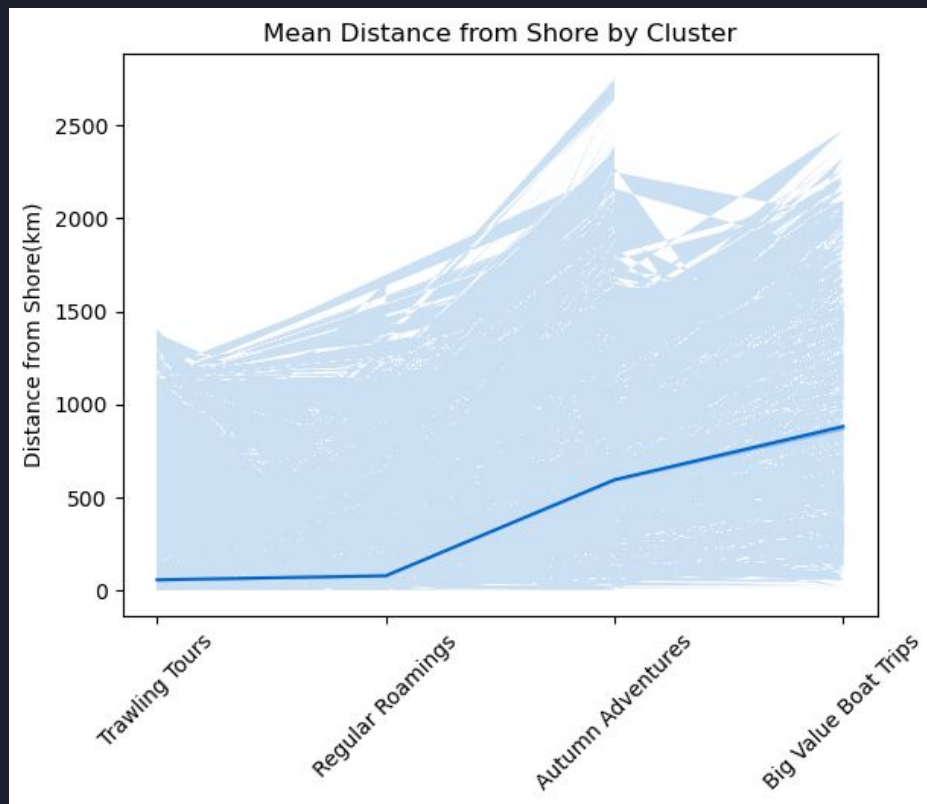
Trawling Tours

Tree plot represents number of excursions in each cluster .



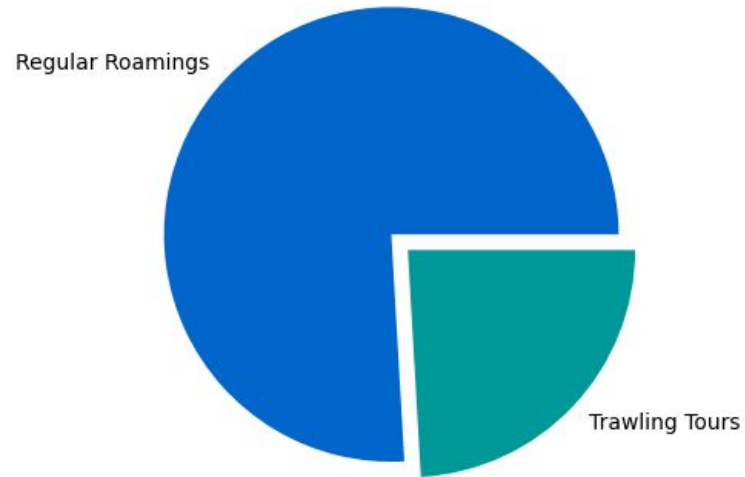
Trawling Tours

The excursions with older boats stay close to shore, while the newer, longer, more powerful boats go out further into the ocean.

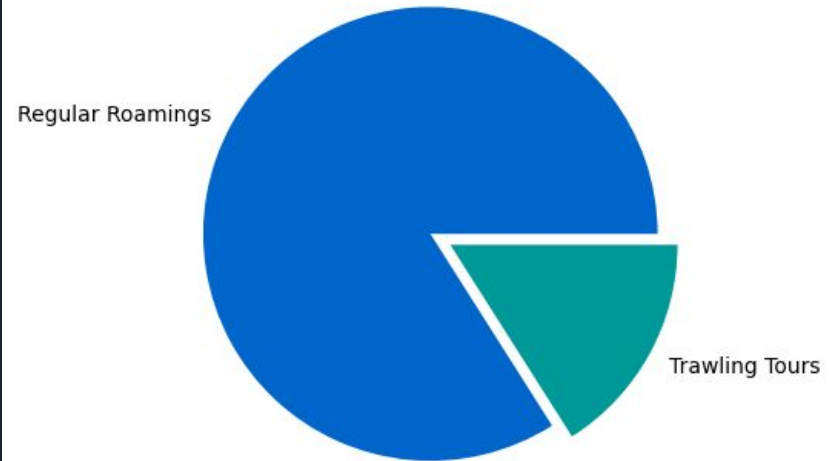


Regular roamings

Mean Value from Excursions

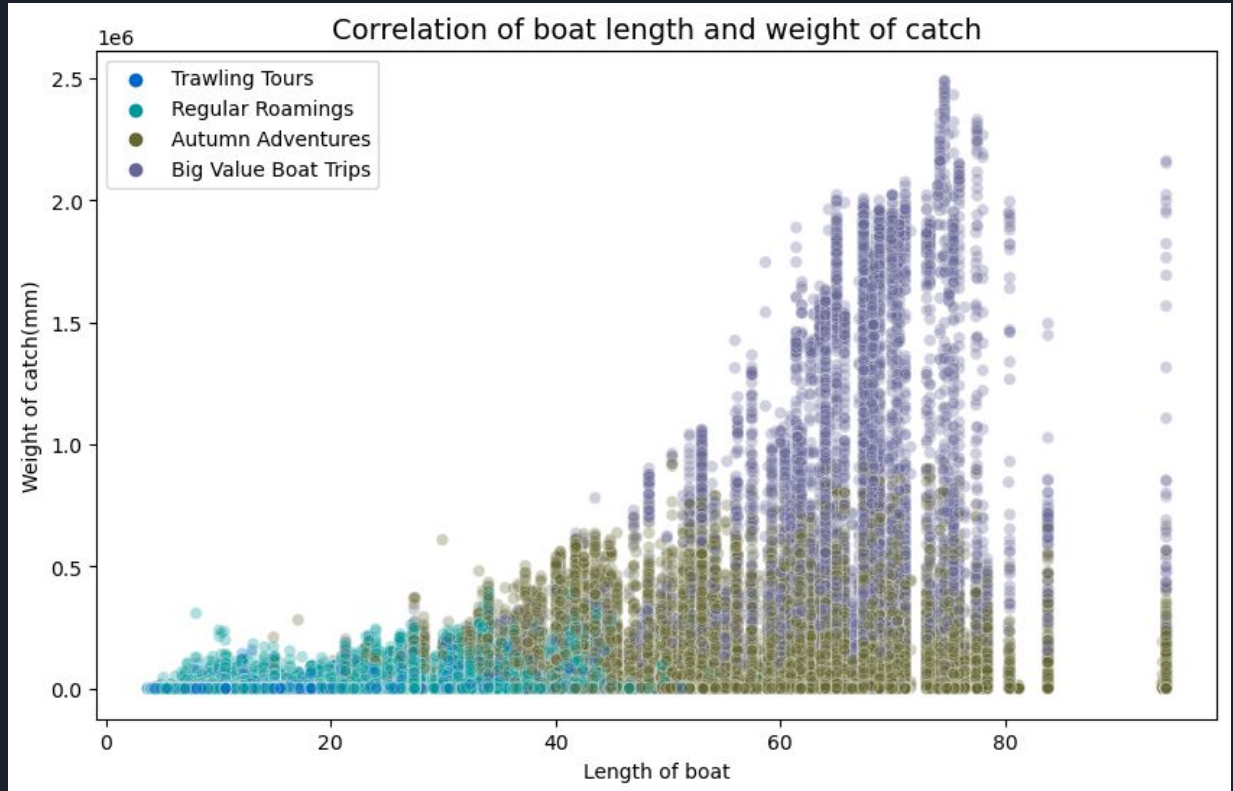


Mean Weight from Excursions



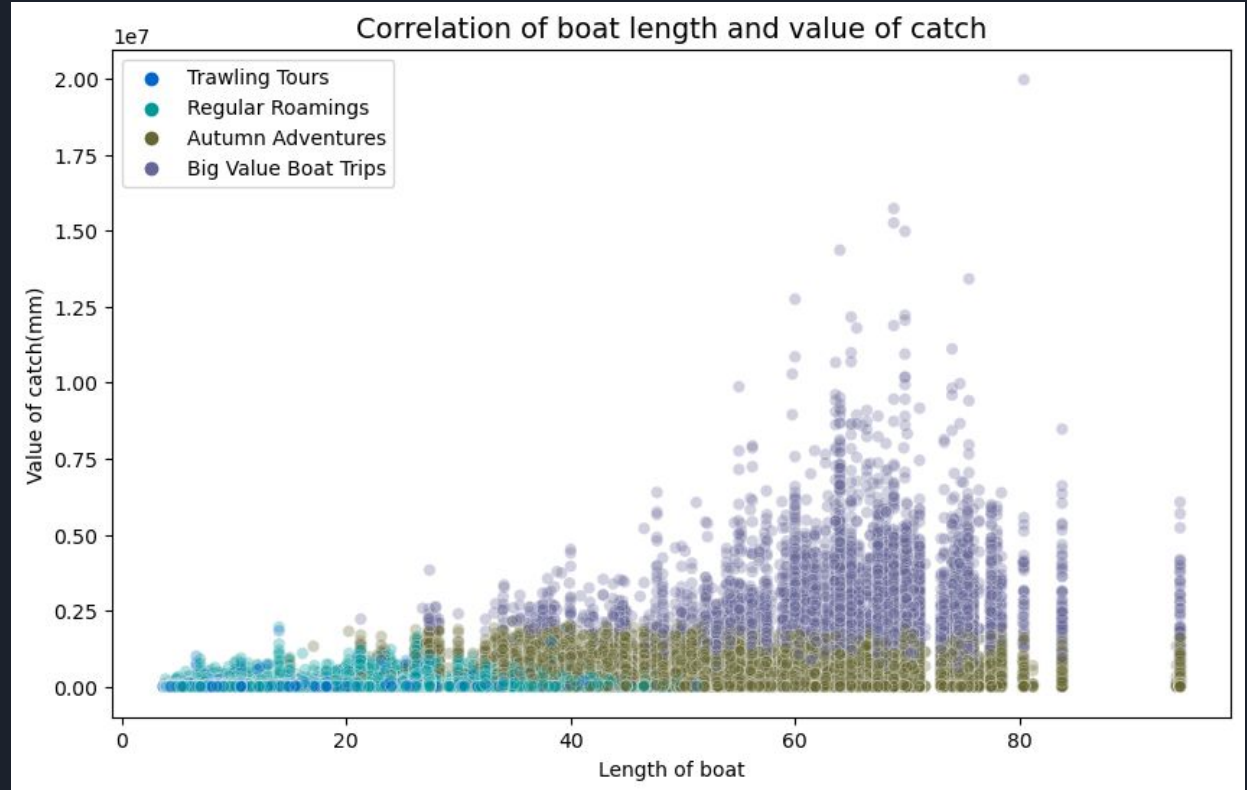
Big Value Boat Trips

And we really see the correlation between length of the boat and weight of the catch.



Big Value Boat Trips

The longer boats bring back more value from their excursions.



Autumn Adventures

