

Data Analysis For Hurricane Island

ISQA 8086
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Agenda

Introduction About Client

Mission

Data

Analysis Performed

Outcome

Client

- The Hurricane Island Foundation was incorporated as a non-profit organization in 2009
- Mission: Their mission is to integrate science education, applied research, and leadership development through year-round educational programs and a seasonal, environmentally-sustainable island community.
- Stakeholders (who/what they serve/support): Researchers, Students, Volunteers, Business Partners

Data

- Spat Bags Data - Spats are small baby scallops, which are recruited to the area.
- Scallop growth data - This data set is used to understand the impact of different gear types on the growth rate of scallops.
- Temperature Data - we used this data to check the average temperature for the given year 2016-2017

Research Questions

How small closures might affect the growth of Scallops?

Temperature influence on the growth of the Scallops.

Changes in the Scallop's Size from 2016-17

Why the questions are important

In addition, to the various studies that the community is engaged, they also provide applied research answers for the local fishing community. Based on the studies, the future events might be predicted in advance and prepare them to adopt to those changes.

Who should care

- Local Community: Every year fishermen harvest more than \$500 million worth of Atlantic sea scallops from the East Coast region.
- Scientists to have a better prediction for the future events

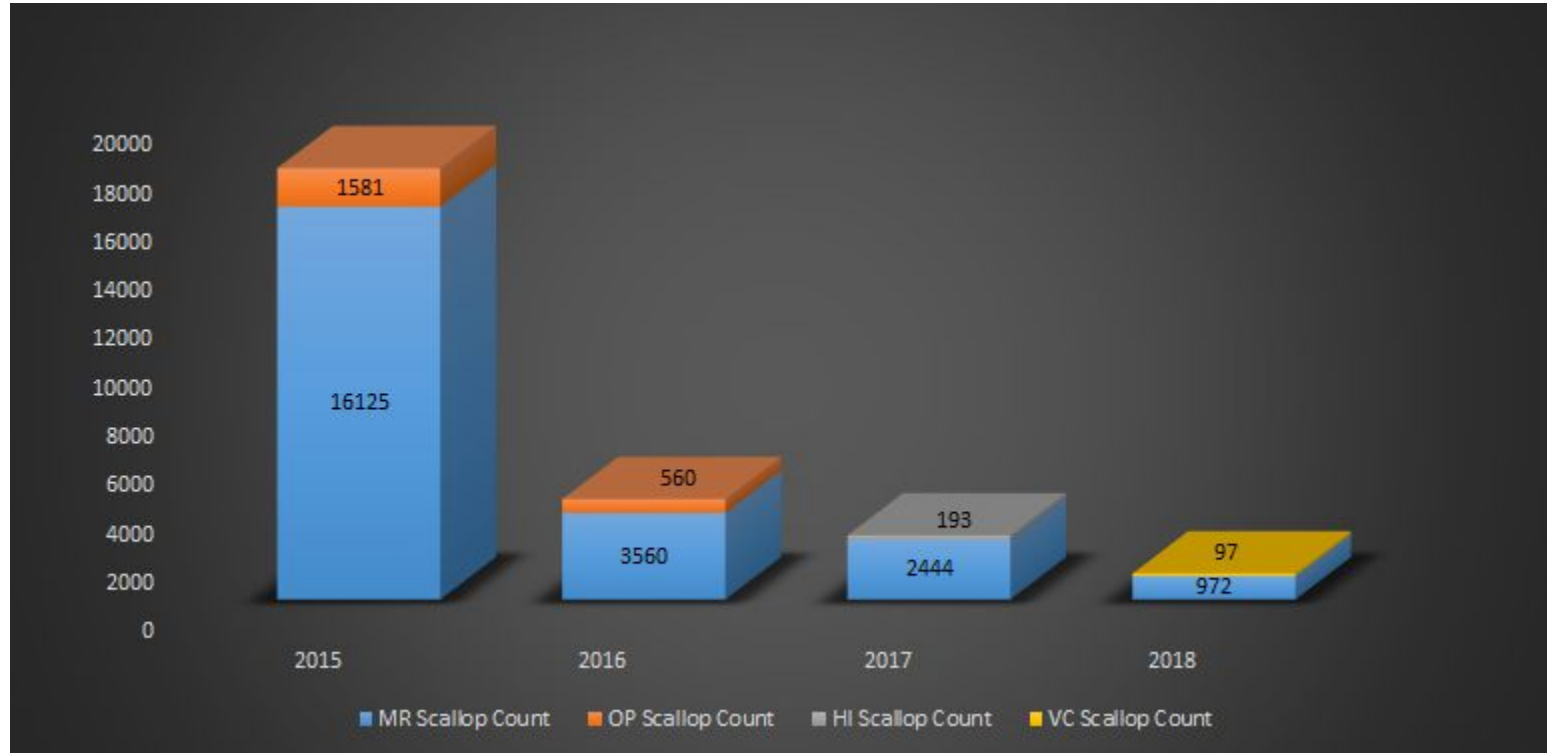
Limitations of the Data

Although Data was well structured and organized, there were some limitation that we had to correct.

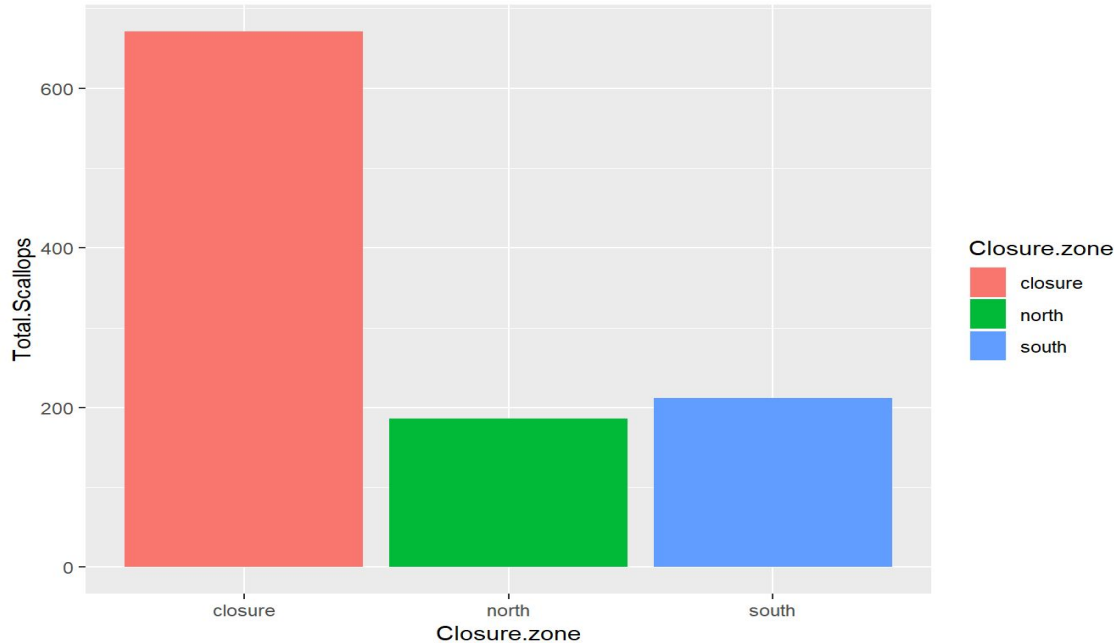
Those are:

- Missing data
- Temperature records only for 2016 and 2017

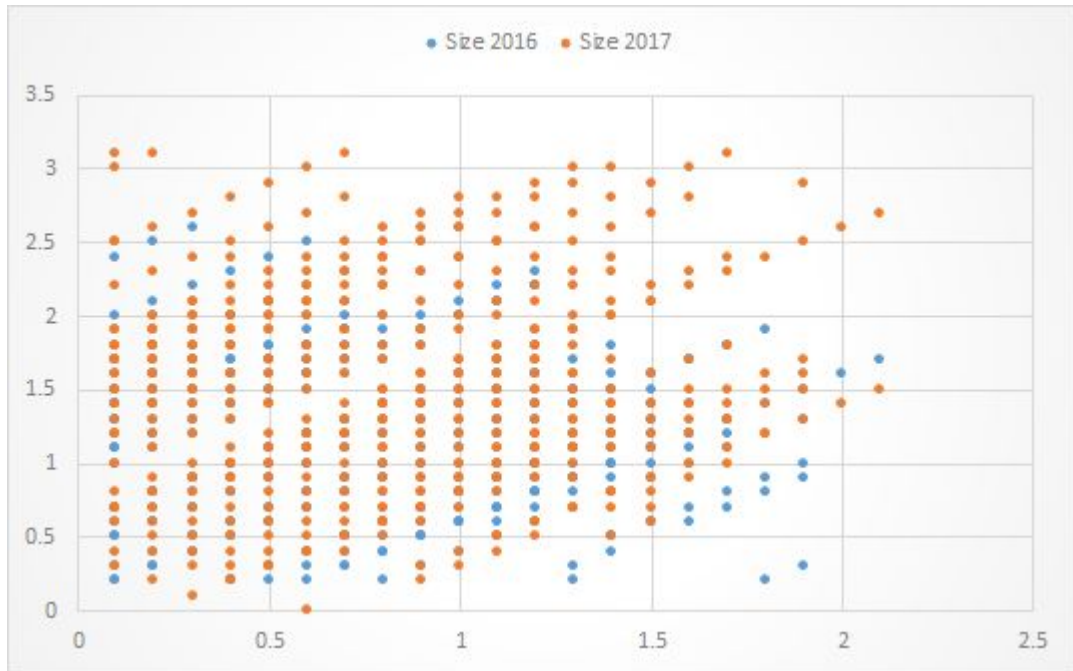
Scallop Counts In The Different Zones



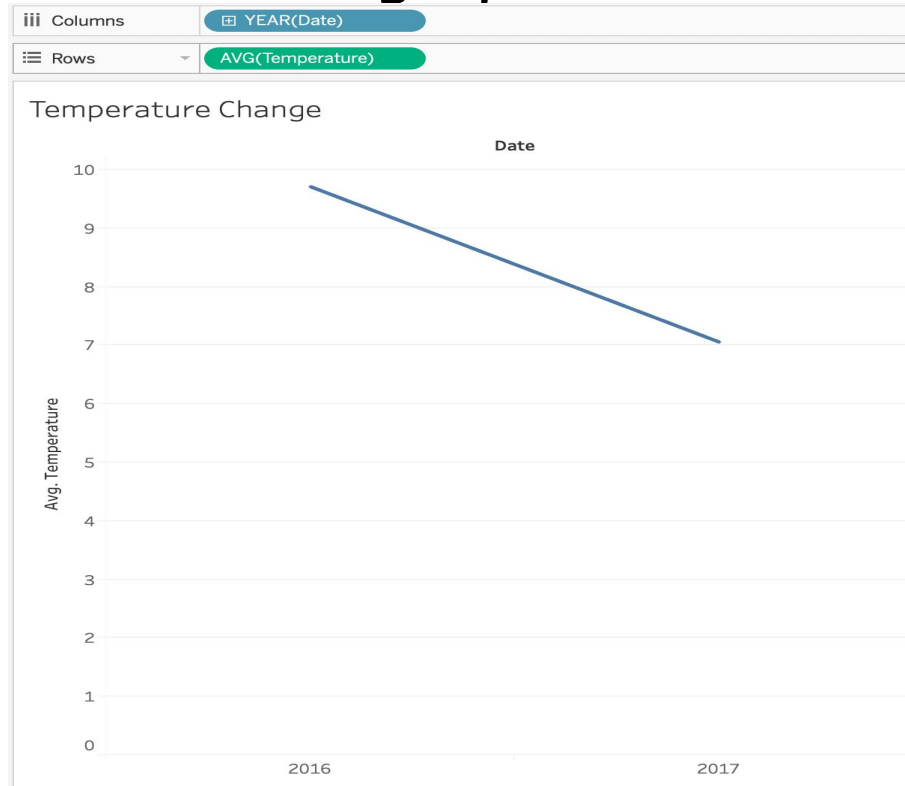
Scallops in Different Closure Zones



Scallop Size

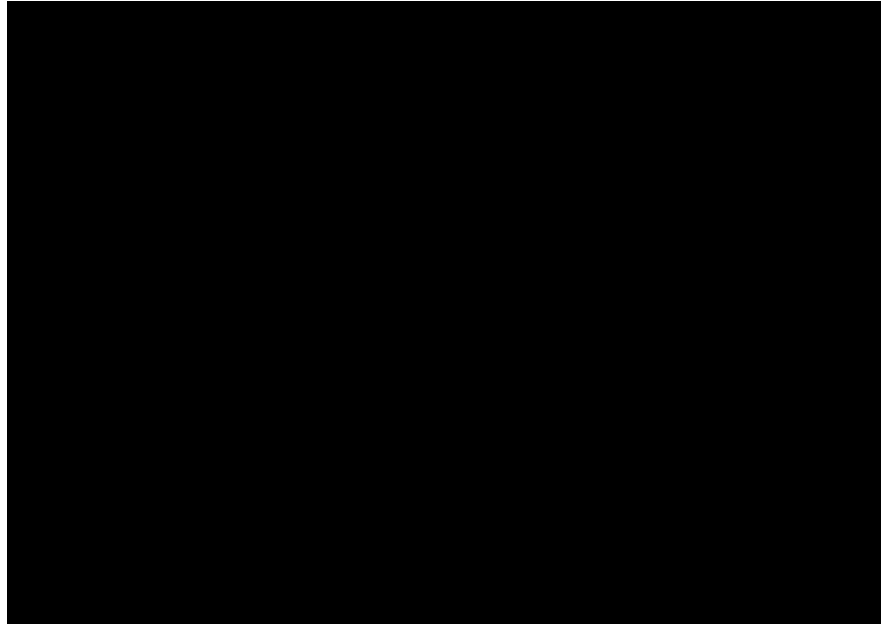


Temperature Change from 2016-2017



Temperature Change from 2016-2017

Temperature changed from 2016 to 2017



Conclusion

- Total Scallop's Population went down based on data we had
- Average Temperature went down from 9.7 - 7.06, which might have an impact to the Scallop's Population
- Scallop Size Increased from 2016 -2017

Additional Documents:

<https://github.com/Wolverine7/Team-Mavs-ISQA8086-002>

THANK YOU!



**Team Mavs Wishes You A Merry
Christmas And A Happy New Year**