# Jaws vs. Claws

## Introduction

Our project aimed to analyze and show data on shark and bear attacks, contrasting the reality of these events with their often-dramatized portrayals in media. Using a robust dataset of documented incidents, we wanted to understand the demographics, circumstances, and frequency of such attacks. The primary objective was to create an interactive, data-driven platform that provides clear insights into these wildlife encounters, promoting a more informed public perspective.

## Data Cleaning/Database Creation

To ensure the accuracy and usability of the data, we cleaned and processed the dataset. This involved removing duplicates, handling missing values, and standardizing the data format. The cleaned data was then structured into a relational database using SQLite, managed with SQLAlchemy for easy querying. This database formed the backbone of our project, allowing for efficient data retrieval and analysis.

## Color Design Considerations

Color design was integral to the user experience, emphasizing clarity and accessibility. We selected a color palette that was both visually appealing and functional, ensuring that the contrasts were sufficient for all users, including those with color vision deficiencies. The colors were chosen to represent different data categories distinctly, such as age groups and gender, making the visualizations intuitive and easy to interpret.

## Website Architecture

The website was built using Flask, which served as the framework for our application. We structured the website to allow seamless navigation, with API endpoints facilitating interaction with the database. The architecture and map was made to be easy to use and readable. HTML templates were used to maintain a consistent design throughout the site, ensuring an easy user experience.

## Dashboard Design Concepts

The dashboard was designed with user-friendliness and interactivity in mind. We focused on creating a layout that allowed users to explore the data through various filters and visualizations, such as charts and maps. Key concepts included responsive design for different devices and dynamic data representation, enabling users to uncover patterns and insights efficiently.

## How Does Our Dashboard Answer Your Research Questions?

Our dashboard directly addresses our research questions by providing interactive tools that allow users to explore the data in detail. For instance, users can filter incidents by age, gender, or location to see how these factors influence attack patterns. The visualizations also highlight trends over time, offering insights into how the frequency and nature of attacks have evolved.

## Bias/Limitations

Despite our best efforts, the project has some limitations. The dataset might not be comprehensive, as it relies on reported incidents, which can introduce reporting bias. Additionally, the environmental factors influencing these attacks are not fully accounted for in the data, which could limit the scope of our conclusions. The design of the dashboard, while user-friendly, may also inadvertently simplify complex data, leading to potential misinterpretations.