

# Proposal of Right Whale Recognition

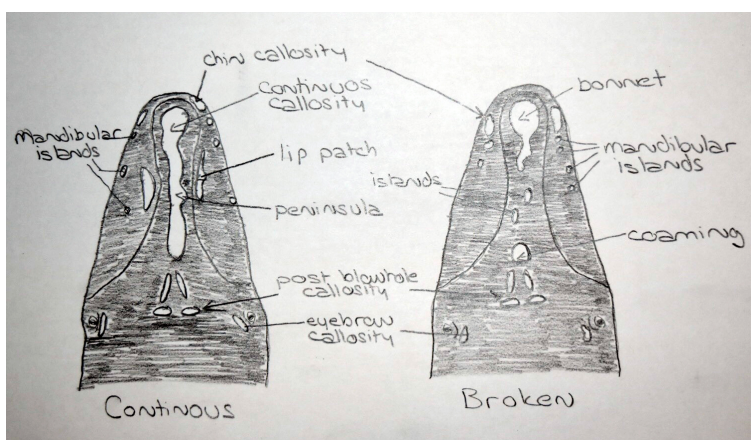
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## 1 Background

As there are less than 500 North Atlantic right whales in the world's oceans, it is essential for researchers to know their status in order to protect them from extinction. In addition, it is hard and inefficient for most researchers to identify single whale for biological samples, acoustic recordings, and necessary health assessments.

Right whale's most distinguishing feature is the callosity pattern on top of a whale's head. The picture below shows the two types of callosity pattern: continuous and broken.



In this project, our challenge is to automate the right whale recognition process using a dataset of aerial photographs of individual whales. It would allow researchers to better focus on their conservation efforts. We will use MATLAB for this project and use some machine learning toolboxes.

## 2 Data Description

There are 11458 photographs of North Atlantic right whales. These photographs are clean and only one whale in each photograph. There are 4544 photographs with ids provided as training data.