A Secondary Analysis of Shark Attack Data

Green, Matthew

The purpose of this project was to investigate “mistaken identity” theory and relate data trends in attacks to regular shark hunting patterns. External factors were also reviewed to determine their influence on the amount of shark attacks a state could get. Data was collected using online sources; primarily the International Shark Attack File and The People’s Shark Attack File. Trends seen in the data were explained using published reports on shark behavior including reports made by the University of Miami and The Bond University in Australia. An External Factor’s influence was determined using regression models and R squares. Two factors were significant; a state’s coastline size and a state’s proximity to a warm water current. States with large coastlines yet no warm current had less attacks than states with warm currents and less coastline. Population and GDP per capita weren't factors. Age, gender, and time of attack weren't representative of shark hunting behavior but rather representative of who is putting themselves in the water. Surfers were the most attacked followed by swimmers and waders. This trend supports “mistaken identity” theory. Feet suffered the bulk of the attacks followed by legs. This trend represents a hunting pattern. Divers certainly sustained more serious injuries with a higher fatality rate than any other activity. This is due to the diver’s actions not the sharks. The victim’s craft was attacked more in boating incidents due to its appearance as a marine mammal and the high frequency paddling makes. This supports “mistaken identity” theory.

Awards Won: