Attributes :

Date : 2009-2016 [May to September]

**Turtle data :**

Sources :

## 1)SOUTH CAROLINA:

## Michelle Pate (State Coordinator) South Carolina Department of Natural Resources

## 2)NORTH CAROLINA

## Dr. Matthew Godfrey (State Coordinator) Sea Turtle Program Coordinator  North Carolina Wildlife Resources Commission

**TurtleExactCountSC** :

Method : 1)Added Nest and False crawls

2)Aggregated datewise

3) Merged with sharkattack file and alldatesfile datewise

**TurtleexactdiscretizeSC** : Discretised from TurtleExactCountSC using equal width binning (no of bins = 3)

**TurtleExactCountNC** :

Method : 1)Added Nest and False crawls

2)Aggregated datewise

3) Merged with sharkattack file and alldatesfile datewise

**TurtleexactdiscretizeNC**: Discretised from TurtleExactCountNC using equal width binning (no of bins =3)

**TurtleExactCombined**: Combined variable for turtle activity

Method :

For NC attacks records : TurtleExactCountNC

For SC attacks records : TurtleExactCountSC

For other records : Mean of TurtleExactCountNC and TurtleExactCountSC

**TurtleAttackActivity**:

**TurtleAttackActivityDiscretized**:

**Area** : From global shark attack file

**Location**: From global shark attack file

**Time**: From global shark attack file

**Species**: From global shark attack file

**Attack**: From global shark attack file

**Timeofattack**:

**Beach**: From global shark attack file

**County**: From global shark attack file

**MoonPhase**: Used java to calculate the moonphase for each date .

Values include [new moon ,full moon , First Quarter , Waxing gibbous, Waning gibbous, Third quarter,Waning Crescent ,Waxing Cresent ]

**MoonPhaseExtended**: MoonPhase attribute is extended +-2 days

**MoonPhase3daysextended**: MoonPhase attribute is extended +-3 days

**MoonPhase4daysextended**: MoonPhase attribute is extended +-4 days

Weather Data : NOAA (File provided by Dr Pamela Thompson )

**Precipitation\_Value :**

**StationPressure:**

**WindSpeed:**

Salinity and Turbidity Data :

**Sources** : SWMP data are available from the NOAA-funded Centralized Data Management Office, which also conducts extensive data quality control. Each reserve also has at least one water quality station and one weather station providing immediate, real-time information. Data is collected for in the stations that collect water quality information.  
  
Specific station selected : Data collected from "East cribbing" station of North Carolina about salinity and turbidity of Kure Beach, NC.

Following are the links to the sources:  
<http://oceanservice.noaa.gov/education/tutorial_estuaries/est10_monitor.html>  
<http://nerrs.noaa.gov/research/>  
<http://cdmo.baruch.sc.edu/data/availableOne.cfm>

**Variables derived datewise :**

Salinity

Turbidity

Water Temperature

DissovedO2

**Variables after removing NAs :Method Used :**

**PrecipitationValueMod**

**StationPressureMod**

**WindSpeedMod**

**SalinityMod**

**TurbidityMod**

**TemperatureMod**

**DissovedO2Mod**

**Variables discretized with equal width binning (number of bins : 3)**

**DissolvedO2discretize**

**salinitydiscretize**

**turbiditydiscretize**

**temperaturediscretize**

**precipitationdiscretize**

**pressurediscretize**

**windspeeddiscretize**

**precipitationmvadiscretize**

**Calculate wet /dry days :**

**Prepmovingaverage** : Moving average method used on PrecipitationValueMod

**Crab Data :**

**CrabLandings**

**CrabLandingsnormalised** : Z score normalization on CrabLandings

**CrabLandingsDisc** : Discretized using equal width binning (no of bins : 3)

# Wind Direction Data :

**Source :**

**Following are the links to the sources:**  
<http://oceanservice.noaa.gov/education/tutorial_estuaries/est10_monitor.html>  
<http://nerrs.noaa.gov/research/>  
<http://cdmo.baruch.sc.edu/data/availableOne.cfm>

**Variables derived**

**Degree** : Datewise mean of all degree measurements taken for the day

**Direction**: Derived from degree

**Normalised Variables :**

**Zscorewatertemp** : Z score normalization of water temperature

**Changetemp** : Derived from Water Temperature taking difference from the current to the previous day

**Variables derived using Z score Normalization :**

**Precipitation\_Normalised**

**StationPressure\_Normalised**

**WindSpeed\_Normalised**

**Salinity\_Normalised**

**Turbidity\_Normalised**

**Dissolved02\_Normalised**

**Variables derived using min max normalization :**

**Precipitation\_minmax**

**StationPressure\_minmax**

**WindSpeed\_minmax**

**Salinity\_minmax**

**Turbidity\_minmax**

**Dissolved02\_minmax**

**WaterTemp\_minmax**