

Documentation of available data that accompanies ‘Riders on the storm: loggerhead sea turtles detect and respond to a major hurricane in the Northwest Atlantic Ocean’

Leah M. Crowe^{*a}, Joshua M. Hatch^b, Samir H. Patel^c, Ronald J. Smolowitz^c, Heather L. Haas^b

July 14, 2020

*Corresponding Author

^aIntegrated Statistics under contract to the Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, 166 Water Street Woods Hole, MA 02543 USA. ^bNortheast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, 166 Water Street Woods Hole, MA 02543 USA. ^cCoonamessett Farm Foundation, 277 Hatchville Road East Falmouth, MA 02536 USA.

The data included here have been filtered according to the methods, and the following definitions apply to all datasets:

- **ID** = identification letter assigned in this study
- **TIME2DAY0** = the time before (negative) or after (positive) when the turtle and the hurricane were at their closest point, T_0
- **phase** = the phase assignment based on the time from T_0 (TIME2DAY0)

Location data: Croweetal2020_Ridersonthestorm_location.csv

This dataset includes location data from ARGOS and Fastloc-GPS sources for the *Before* through *After* phases.

- **D_DATE** = UTC. For ARGOS data: The time assigned to the location by ARGOS. For Fastloc-GPS data: the time that the fix was obtained
 - **LQ** = Location quality where values 1–3 indicate ARGOS positions and 9 indicates Fastloc-GPS
 - **LAT** = Position estimate (WGS 84 datum)
 - **LON** = Position estimate (WGS 84 datum)
-

Dive data: Croweetal2020_Ridersonthe storm_dive.csv

This dataset includes daytime dive data (duration and maximum dive depth) from turtles that remained in their foraging grounds after Hurricane Irene passed (turtles $a - j$).

- **DS_EDT** = the dive start (Eastern Daylight Time) when the threshold depth was crossed
 - **divehr** = the dive duration (hours)
 - **MAX_DEP** = The maximum dive depth recorded (decibars)
-

Temperature-depth data: Croweetal2020_Ridersonthe storm_tempdep.csv

This dataset includes temperature-depth data from turtles that remained in their foraging grounds after Hurricane Irene passed and were within a similar latitudinal range (turtles $b - i$)

- **END_DATE** = The time of the end of the upcast
- **TEMP_DBAR** = A comma-separated list of the pressure coordinates of the (pressure,temperature) profile (decibars)
- **TEMP_VALS** = A comma-separated list of the temperature coordinates of the (pressure,temperature) profile ($^{\circ}\text{C}$)