

Wellfleet Bay has been tracking the number of cold-stunned sea turtles on Cape Cod since 1979. This valuable dataset gives us a glimpse into juvenile sea turtle population changes and behavior over several decades. Although much is still unclear about sea turtle behavior, what is clear is that cold-stun stranding numbers are increasing. This increase is likely due to a combination of successful conservation efforts on the nesting beaches in Mexico and Texas and changes in ocean temperatures (particularly the fast-warming Gulf of Maine), and possibly currents, driven by climate change.

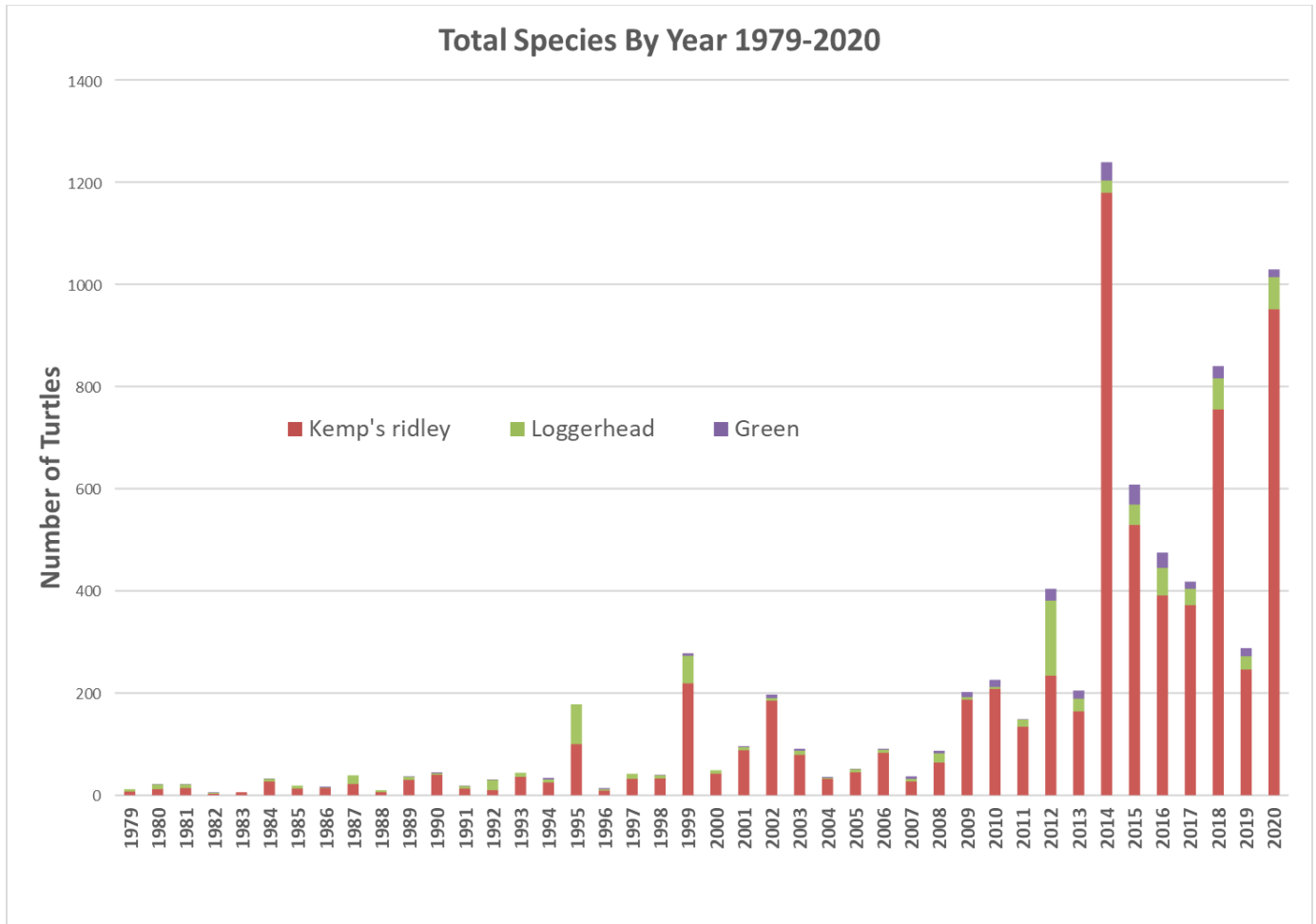


Figure 1. Number of cold-stunned sea turtles recovered by Wellfleet Bay by year. Warm water anomalies likely bring more turtles into Cape Cod Bay in some years, e.g. 2014 and 2018.

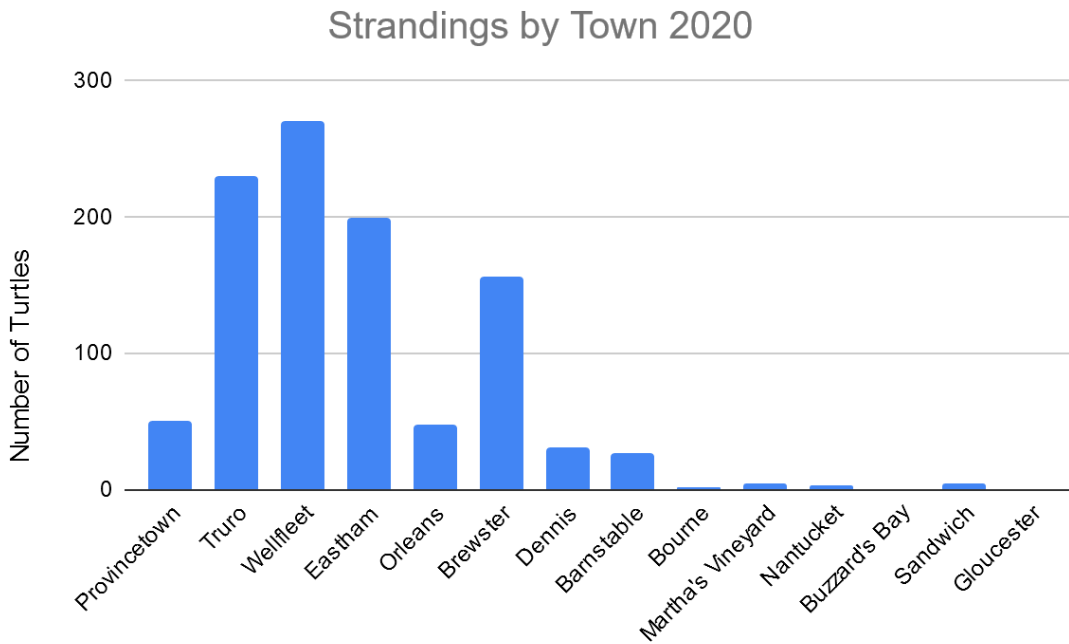


Figure 2. The majority of sea turtles wash up on bay side beaches between Dennis and Truro. Wellfleet beaches were the busiest in 2020, in other years Brewster, Eastham, or even Barnstable have seen the most strandings.

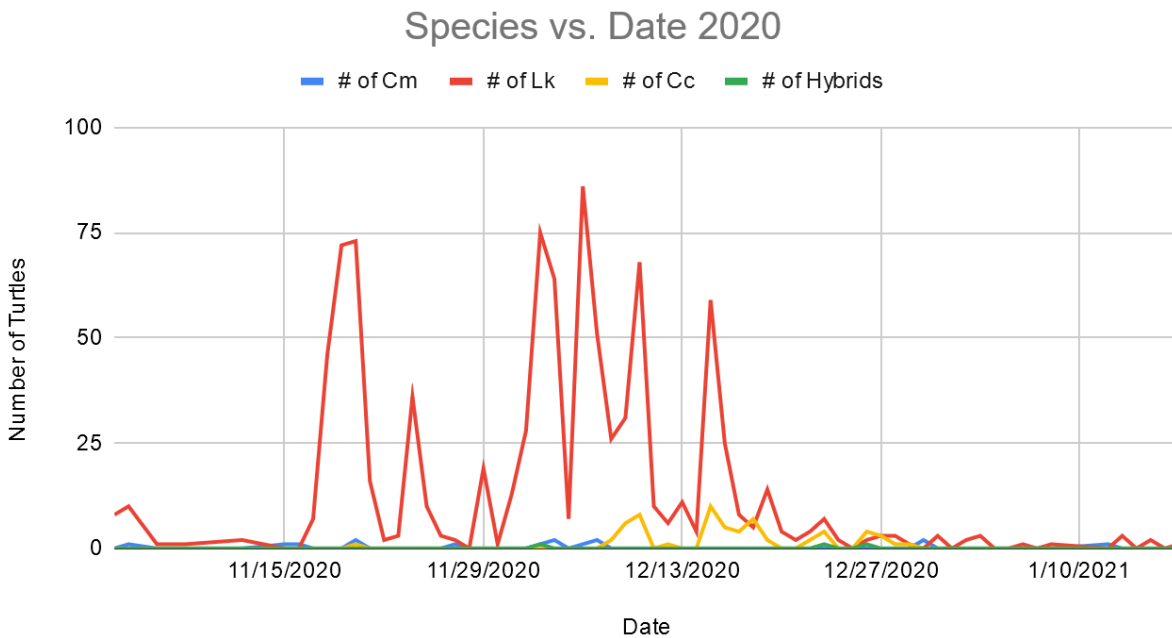


Figure 3. Strandings by species by date. Kemp's ridleys (Lk) dominate for most of the season before larger bodied loggerheads (Cc) become more prevalent in the latter half of the season. Green turtles (Cm) appear throughout the season in small numbers.

Strandings 2019 vs. Strandings 2020

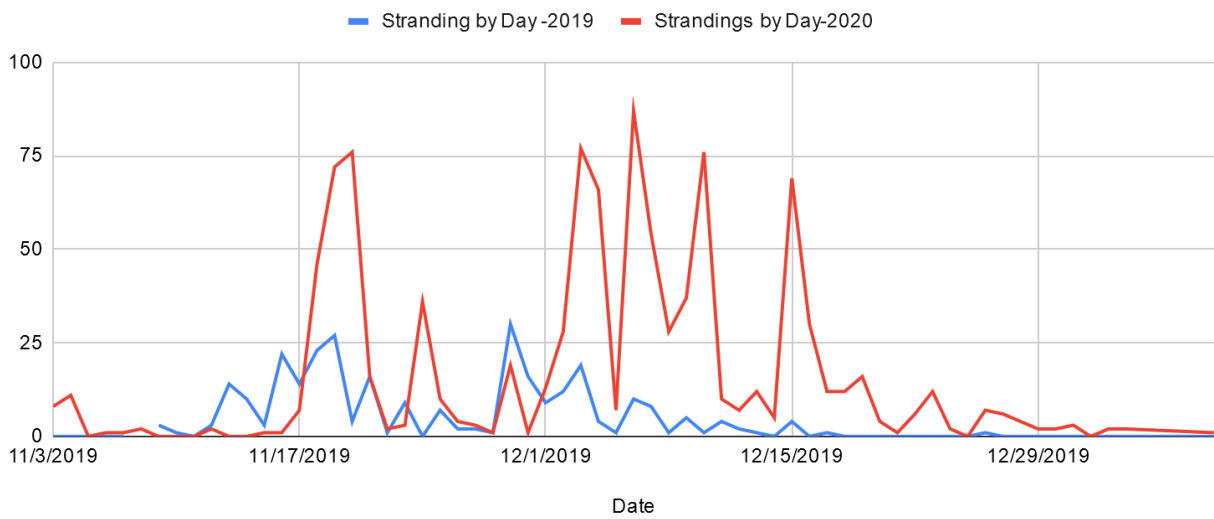


Figure 4. Peak stranding periods vary by year. The water temperature and the timing and strength of storms explains most of the annual variation. With increasing water temperatures, strandings have been occurring later into the winter in recent years, with live turtles appearing into January.