NATIONAL MARINE FISHERIES SERVICE (NMFS) REPORT ON INTERNATIONAL HIGHLY MIGRATORY SPECIES (HMS) ACTIVITIES

El Nino Status and the DGN Loggerhead Conservation Area Closure

The most recent <u>Climate Prediction Center (CPC) El Niño/Southern Oscillation (ENSO) report</u> on June 8, 2023, indicates an 'El Nino Advisory' status although El Niño conditions are present in the Pacific Ocean and are expected to gradually strengthen into the Northern Hemisphere during the winter 2023-2024. Warmer than normal sea surface temperature (SST) anomalies have yet to be present off of the Southern California Bight (SCB). In accordance with regulations at 50 CFR 660.713(c)(2)(ii), NMFS will continue monitoring conditions over the next few months, but has determined that a Pacific loggerhead conservation area (LCA) closure is not warranted at this time.

Through the years of monitoring El Niño forecasts and anomalously warm SSTs in the SCB, NMFS has observed these conditions are often out of sync. These situations can cause confusion among stakeholders about whether to expect a closure to occur. Furthermore, the regulations have fallen out of date with respect to how El Niño events are declared, which can cause administrative delays in the implementation of the LCA. For these reasons, NMFS views the LCA regulations as a candidate for an update. The Southwest Fishery Science Center has examined whether another "trigger" would be more suitable for the LCA. The Temperature Observations To Avoid Loggerhead (TOTAL) tool was designed as an alternative metric to guide the timing of the LCA. This tool, and more information is available at: https://www.fisheries.noaa.gov/news/temperature-observations-avoid-loggerheads-tool-supports-turtle-conservation-and

The TOTAL tool consists of an indicator and a threshold (Welch et al. 2018). The indicator is a time-series of monthly temperature anomalies in the SCB smoothed by the preceding six months. The threshold is a reference point, over which increased loggerhead bycatch and presence within the SCB has been demonstrated to occur. Each month, new temperature anomaly data are processed to extend the length of the indicator by one month. When the indicator is above the threshold, analysis shows loggerheads are more likely to be present within the Loggerhead Conservation Area. When the indicator is below the threshold, loggerheads are less likely to be present, and fishing can occur with reduced bycatch risk.

Through May 2023, TOTAL status indicates 'no alert' and no warmer than normal SST anomalies in the SCB.