

addition, NMFS has received reports of strandings of loggerhead turtles and sightings of unidentified hard shell turtles in the area north of 32°45'N. during El Nino events. Sea surface temperature and stranding data indicate that loggerhead turtles are likely to be present in the area west of the 119°30'W. and north of 32°45'N. and that a closure in this area is warranted.

Comment 4: One commenter opposed any closure during the months of January or August.

Response: Under this final rule, NMFS will not be implementing a closure during January; however, NMFS will be implementing a closure in August during El Nino conditions, as a closure during August is essential to providing adequate protection to loggerhead turtles. As discussed in the response to Comment 2, NMFS is implementing a closure during June, July, and August in order to provide greater protection for loggerhead turtles than the level specified in the RPA in the October 2000 BO while causing less economic burden to the CA/OR thresher shark/swordfish drift gillnet fishery.

Comment 5: One commenter noted that oceanographic conditions at Point Conception were not comparable with the areas in which the most northerly loggerhead turtle entanglement was observed (32°45'N) and that, therefore, the most northerly boundary of the closure should be 33°00'N, rather than the coast of California east of 120°W (which has a northerly boundary of 34°27'N). In addition, the commenter recommended the fishery should only be closed from August 16–31 during El Nino conditions, and should remain open during the month of January.

Response: Based on the sea surface temperature charts available on the NOAA Coastwatch West Coast Regional Node web page at <http://coastwatch.pfeg.noaa.gov/>, sea surface temperatures in the area east of 120°W during El Nino conditions are comparable to the sea surface temperatures where loggerhead turtle entanglements were observed. NMFS agrees that the sea surface temperatures at Point Conception, which is outside the closure area, are generally lower than those seen in the area in which loggerhead turtle entanglements occurred. As explained in the response

to Comment 3, NMFS believes that a northern boundary of 34°27'N will encompass an area where loggerheads are likely to occur during El Nino events.

NMFS' analysis of observer and fishing effort data shows that a closure during August 16–31 during El Nino conditions would not provide adequate protection to loggerhead turtles as required by the October 2000 BO. The closure (i.e., August 16–31 and January) required by the October 2000 BO is expected to result in the estimated reduction in take of 6 loggerhead turtles during El Nino years. A closure limited to the period of August 16–31 during El Nino years is expected to only result in a reduction in the estimated take of 3 to 4 loggerhead turtles. Thus, NMFS has determined that a closure during August 16–31 during El Nino years will not provide the level of protection required under the October 2000 BO. As discussed in the response to Comment 2, NMFS is implementing a closure during June, July, and August during El Nino conditions in order to provide greater protection to loggerhead turtles than the RPA in the October 2000 BO while causing less economic burden to the CA/OR thresher shark/swordfish drift gillnet fishery.

Comment 6: One commenter believed that NMFS' use of 3,000 sets as an estimate of annual fishing effort in the October 2000 BO was unrealistically high.

Response: At the time the BO was prepared, 3,000 sets was a reasonable estimate to predict future fishing effort based on a 3-year average using 1997, 1998, and 1999 data. NMFS is aware that fishing effort has continued to decline. As discussed in the following section, NMFS used a 3-year average of fishing effort using data from 1999 through 2001 to estimate future fishing effort in order to compare the alternative time/area closures to protect loggerhead turtles.

Comment 7: One commenter supported NMFS criteria for determining whether El Nino conditions are present along southern California for the purpose of implementing the time and area closure.

Response: NMFS has included these criteria in this final rule.

Comment 8: One commenter requested that NMFS continue its observer program at 20 percent coverage and continue its support for ongoing research on the distribution of sea turtles in the Pacific Ocean to determine which habitats and migratory routes these species use.

Response: NMFS intends to continue monitoring the CA/OR drift gillnet fishery targeting swordfish and thresher shark at 20 percent observer coverage and to continue its support for research on the distribution of sea turtles in the Pacific to determine which habitats and migratory routes they use.

Alternative Measure to Reduce Loggerhead Turtles Entanglements

The Pacific Offshore Cetacean Take Reduction Team recommended that NMFS implement a closure in June, July, and August, rather than during January and August 15 through 31, to reduce entanglement of loggerhead turtles. NMFS outlined this proposal in the interim final rule (67 FR 78388, December 24, 2002) and solicited comments on this alternative. As discussed in the previous section, NMFS received several additional comments on the interim final rule that favored the implementation of this alternative.

In response to these comments, NMFS conducted a review of observer data to determine whether an alternate closure in June, July, and August would offer the same or better protection than the closure during January 1 through 31 and August 15 through 31. The data used for this analysis are summarized in Table 1. NMFS reviewed observer data from the two most recent El Nino events (1992/1993 and 1997/1998) for the number of observed sets and the number of observed entanglements of loggerhead turtles that occurred during the months of January, June, July, and August, and used these data to calculate the average interaction rate for each of the two time periods. Future effort in the fishery for the two time periods was estimated by averaging fishing effort from 1999 through 2001. Using these data, NMFS estimated the number of loggerhead turtle entanglements that are expected to occur during each of the two time periods.

TABLE 1. COMPARISON OF EXPECTED LOGGERHEAD TURTLE ENTANGLEMENTS DURING ALTERNATE CLOSURE PERIODS

Closure Period	Observed Sets	Observed Entanglement	Catch Rate	Expected Average Fishing Effort (number of sets)	Expected Turtle Entanglement
Jun 1 - Aug 31	131	12	0.09	76	7
January + Aug 15–31	387	9	0.02	252	6