

When legally-constructed Turtle Excluder Devices (TEDs) operate correctly in shrimp otter trawls, a small percentage of the sea turtles entering the nets (i.e., ~3%) still do not escape and are captured. When TEDs are installed incorrectly and/or not properly maintained, TED effectiveness can be reduced and result in more than a 3% sea turtle capture rate; in severe cases, TED effectiveness can be completely compromised (i.e., have a 100% sea turtle capture rate).

The April 18, 2014, Biological Opinion requires NOAA Fisheries to maintain monitoring and ensure compliance with TED regulations at a level that keeps overall average sea turtle catch rates (i.e., sea turtles that do not escape via the TED and are captured) in the shrimp otter trawl fleet at or below 12%. NOAA's Office of Law Enforcement (OLE) and Southeast Fishery Science Center, Pascagoula Gear Monitoring Team (GMT), inspect TEDs in otter trawls on shrimp vessels in the U.S. Atlantic and Gulf of Mexico for their compliance with TED regulations. The GMT, with assistance from NOAA Fisheries Southeast Regional Office's Protected Resources Division, analyzes the TED inspection data to estimate sea turtle capture rates and TED effectiveness.

In the below table, we present April 2014 through December 2017 Southeastern shrimp otter trawl fleet TED inspections, compliance, sea turtle capture rates, and TED effectiveness. In estimating overall sea turtle capture rates and TED effectiveness, NOAA Fisheries evaluates the various types and degrees of severity of TED violations documented and their corresponding estimated effects on small and large sea turtles. Not all TED violations have the same impact on sea turtles capture rates. The April 18, 2014, Biological Opinion reviews different types of violations and associated sea turtle capture estimates and analysis methods. For more information, please review the April 18, 2014 Biological Opinion, Table 15, Sections 2.1.1 and 5.1.3.2.

Monthly Southeastern Shrimp Otter Trawl Fleet TED Inspections, Compliance, Sea Turtle Capture Rates, and TED Effectiveness (April 2014 - December 2017). Inspection Metric Changed from Vessel to Net Basis Starting January 2016.

Month	Vessels/Nets Inspected For TED Compliance	Inspected Vessels/Nets Required to Have TEDs That Were Found In Violation (i.e., Non-Compliant with TED Regulations)	Inspected Vessels/Nets Required to Have TEDs That Were Fully Compliant With TED Regulations	Vessels/Nets Inspected That Were Found Fully Compliant with TED Regulations	Vessels/Nets Inspected That Were Found Non-Compliant	Overall Capture Rate for all Kemp's Ridleys and Juvenile Loggerheads and Greens	Overall Capture Rate for all Leatherback and Adult Loggerheads and Greens	Overall Average Sea Turtle Capture Rate	Overall TED Effective Rate
2014									
April	69	21	48	69.57%	30.43%	18.54%	14.19%	16.36%	83.64%
May	51	20	31	60.78%	39.22%	11.37%	14.31%	12.84%	87.16%
June	28	10	18	64.29%	35.71%	19.64%	16.79%	18.21%	81.79%
July	98	26	72	73.47%	26.53%	9.92%	10.53%	10.22%	89.78%
August	65	16	49	75.38%	24.62%	10.38%	10.69%	10.54%	89.46%
September	38	8	30	78.95%	21.05%	11.47%	15.16%	13.32%	86.68%
October	6	1	5	83.33%	16.67%	3.00%	3.00%	3.00%	97.00%
November	18	1	17	94.44%	5.56%	5.61%	3.39%	4.50%	95.50%
December	7	1	6	85.71%	14.29%	9.71%	4.00%	6.86%	93.14%

2015									
January	5	1	4	80.00%	20.00%	3.00%	3.00%	3.00%	97.00%
February	1	0	1	100.00%	0.00%	3.00%	3.00%	3.00%	97.00%
March	44	14	30	68.18%	31.82%	6.91%	14.41%	10.66%	89.34%
April	27	9	18	66.67%	33.33%	15.41%	14.30%	14.85%	85.15%
May	28	1	27	96.43%	3.57%	3.00%	3.00%	3.00%	97.00%
June	39	10	29	74.36%	25.64%	12.79%	10.49%	11.64%	88.36%
July	63	7	56	88.89%	11.11%	4.92%	5.40%	5.16%	94.84%
August	15	2	13	86.67%	13.33%	3.00%	3.00%	3.00%	97.00%
September	33	3	30	90.91%	9.09%	7.06%	4.64%	5.85%	94.15%
October	13	2	11	84.62%	15.38%	11.77%	5.62%	8.69%	91.31%
November	13	3	10	76.92%	23.08%	3.54%	8.92%	6.23%	93.77%
December	25	3	22	88.00%	12.00%	5.68%	4.08%	4.88%	95.12%
2016									
January	14	1	13	92.86%	7.14%	3.00%	3.00%	3.00%	97.00%
February	14	0	14	100.00%	0.00%	3.00%	3.00%	3.00%	97.00%
March	88	6	82	93.18%	6.82%	4.49%	3.99%	4.24%	95.76%
April	168	13	155	92.26%	7.74%	5.56%	5.68%	5.62%	94.38%
May	72	11	61	84.72%	15.28%	10.76%	7.57%	9.17%	90.83%
June	123	12	111	90.24%	9.76%	4.20%	5.59%	4.89%	95.11%
July	61	5	56	91.80%	8.20%	3.11%	4.26%	3.69%	96.31%
August	113	1	112	99.12%	0.88%	3.59%	3.24%	3.42%	96.58%
September	51	2	49	96.08%	3.92%	3.00%	3.00%	3.00%	97.00%
October	42	13	29	69.05%	30.95%	3.17%	4.83%	4.00%	96.00%
November	89	12	77	86.52%	13.48%	4.81%	4.81%	4.81%	95.19%
December	59	10	49	83.05%	16.95%	3.00%	3.00%	3.00%	97.00%
2017									
January	17	4	13	76.47%	23.53%	6.94%	4.59%	5.76%	94.24%
February	47	2	45	95.74%	4.26%	4.00%	3.00%	3.50%	96.50%
March	150	29	121	80.67%	19.33%	6.60%	4.93%	5.77%	94.23%
April	244	34	210	86.07%	13.93%	4.02%	3.36%	3.69%	96.31%
May	188	23	165	87.77%	12.23%	4.53%	3.73%	4.13%	95.87%
June	125	19	106	84.80%	15.20%	4.34%	3.38%	3.86%	96.14%
July	236	12	224	94.92%	5.08%	3.23%	3.23%	3.23%	96.77%
August	24	0	24	100.00%	0.00%	3.00%	3.00%	3.00%	97.00%
September	117	14	103	88.03%	11.97%	6.24%	5.04%	5.64%	94.36%
October	116	15	101	87.07%	12.93%	7.99%	6.70%	7.34%	92.66%
November	89	13	76	85.39%	14.61%	6.76%	5.42%	6.09%	93.91%
December	4	1	3	75.00%	25.00%	3.00%	3.00%	3.00%	97.00%