

TABLE X-12.—TOTAL NORTH ATLANTIC FISHING TRIPS IN 2001

	All fishing modes
Total North Atlantic Trips, 2001	8,084,261

Source: Marine Recreational Fishery Statistics Survey, NMFS, 2001.

EPA calculated total recreational losses to North Atlantic anglers by multiplying the estimated per trip welfare loss from baseline impingement and entrainment for a given species group by the number of recreational fishing trips in 2001. Table X-13 summarizes the results of this calculation. The total value of recreational losses for all species impinged and entrained at the cooling

water intake structures in the North Atlantic is \$3.1 million per year (2002\$), for all anglers before discounting. Discounting the baseline losses at three percent and seven percent yields total recreational losses of \$2.6 million, and \$2.3 million, respectively, for all anglers (2002\$). Table X-13 also presents estimates of the total welfare gain to recreational anglers from the post-compliance impingement and

entrainment reduction. The estimated welfare gain from reduction in baseline losses resulting from the preferred option is \$0.88 million, before discounting, for all anglers (2002\$). Applying the discount factors for three and seven percent yield total losses of \$0.76 million and \$0.65 million, respectively (2002\$).

TABLE X-13.—ESTIMATED ANNUAL WELFARE CHANGE TO RECREATIONAL ANGLERS IN THE NORTH ATLANTIC REGION UNDER THE BASELINE AND POST-COMPLIANCE SCENARIOS (2002\$)

Species groups	Total baseline welfare losses			Welfare gain from reduction in baseline impingement and entrainment losses		
	Before discount	Discounted using 3%	Discounted using 7%	Before discounting	Discounted using 3%	Discounted using 7%
Big Game	NA	NA	NA	NA	NA	NA
Small Game	\$2,425.28	\$1,527.93	\$1,358.16	\$242.53	\$184.32	\$169.77
Flat Fish	2,748,648.74	2,418,810.89	2,061,486.56	808,426.10	711,414.97	606,319.58
Bottom Fish	161,685.22	88,926.87	77,608.91	40,421.31	21,019.08	18,189.59
No Target Catch	151,685.22	129,348.18	111,562.80	32,337.04	26,193.01	22,312.56
All Species	3,074,444.46	2,638,613.86	2,252,016.42	881,426.98	758,811.37	646,991.49

5. Commercial Fishing Valuation

Table X-14 provides EPA's estimate of the value of gross revenues lost in commercial fisheries resulting from the

impingement of aquatic species in the North Atlantic region. Table X-15 displays this information for entrainment. As described above, EPA estimates that 0 to 40% of these revenue

losses represent surplus losses to producers, assuming no change in prices or fishing costs. EPA will refine these assumptions for the final rule.

TABLE X-14A.—ANNUAL COMMERCIAL FISHING GROSS REVENUES LOST DUE TO IMPINGEMENT AT ESTUARY FACILITIES IN THE NORTH ATLANTIC REGION

Species	Estimated pounds of harvest lost	Estimated value of harvest lost (in dollars)		
		Undiscounted	Discounted using 3% discount rate	Discounted using 7% discount rate
Atlantic cod	3,253	\$2,928	\$2,657	\$2,349
Atlantic herring	138	8	7	7
Atlantic mackerel	23	7	6	5
Atlantic menhaden	3,236	153	145	135
Bluefish	77	19	18	16
Butterfish	401	249	244	237
Pollock	409	286	245	203
Rainbow smelt	46	24	23	22
Red hake	305	64	60	56
Scup	64	53	46	40
Searobin	16	33	30	27
Silver hake	31,094	10,496	9,281	7,952
Skate species	1,000	140	131	122
Tautog	443	331	240	159
Weakfish	6,729	5,474	4,926	4,324
White perch	82	92	84	75
Windowpane	1,774	993	925	845
Winter flounder	30,901	39,524	34,738	29,657