Appendix A. Parametric and bootstrapped estimates of annual sea turtle by-catch

Annual sea turtle by-catch in the Queensland East Coast Trawl Fishery was estimated using bootstrapping (Efron and Tibshirani 1993) and weighted untransformed parametric analysis. The estimates of annual sea turtle captures were similar for bootstrap means and parametric means. This indicated that the overall estimates of sea turtle by-catch were quite stable. The bootstrap 95% confidence intervals were tighter and non-symmetrical (as expected) compared to those from the standard parametric analysis (Figure A.1). Similar variability was observed about the estimates for each species (Table A.2).

Figure A.1 Estimated sea turtle bycatch from parametric and bootstrap analyses
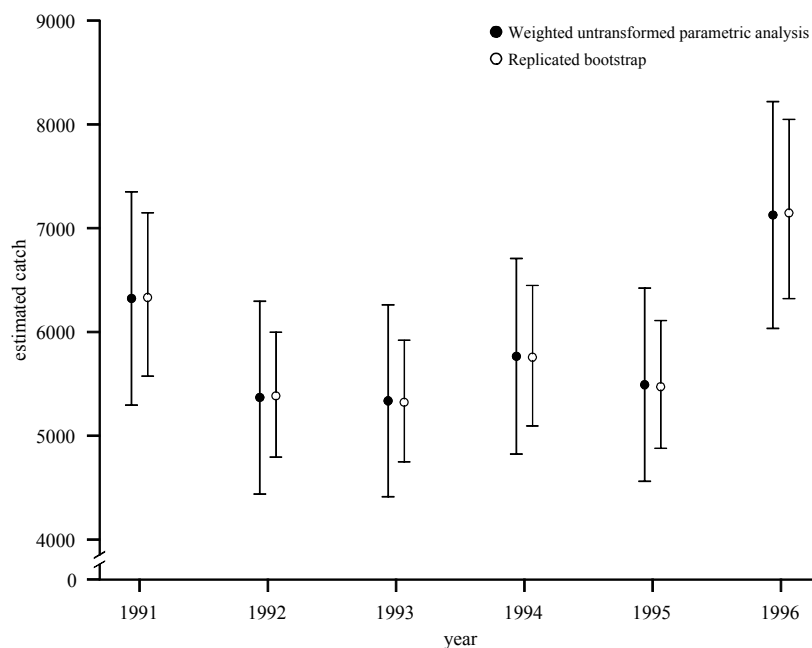
Table A.2 Estimated 95% confidence intervals of sea turtle by-catch using parametric and bootstrap methods

Year	Method	*N. depressus*	*C. caretta*	*L. olivacea*	*C. mydas*	*E. imbricata*
1991	p	648 – 1,164	2,573 – 4,074	206 - 404	1,203 – 2,128	36 - 121
	b	683 – 1,058	2,808 – 3,818	210 - 344	1,347 – 1,950	50 - 106
1992	p	572 – 1,052	2,131 – 3,436	182 - 365	1,017 – 1,799	32 - 107
	b	621 - 929	2,373 – 3,150	191 - 304	1,165 – 1,623	46 - 92
1993	p	630 – 1,130	2,019 – 3,272	197 - 393	1,033 – 1,785	31 - 114
	b	672 – 1,028	2,247 – 2,969	206 - 342	1,168 – 1,623	46 - 99
1994	p	767 – 1,324	2,084 – 3,350	224 - 455	1,164 – 1,949	37 - 126
	b	794 – 1,235	2,310 – 3,048	235 - 411	1,276 – 1,795	52 - 112
1995	p	736 – 1,276	1,983 – 3,207	226 - 440	1,090 – 1,835	34 - 126
	b	781 – 1,153	2,169 – 2,924	235 - 378	1,202 – 1,684	50 - 110
1996	p	855 – 1,459	2,775 – 4,367	270 - 510	1,391 – 2,355	47 - 150
	b	889 – 1,344	2,990 – 4,076	275 - 447	1,532 – 2,163	63 - 132

p = standard parametric analysis, b = bootstrap analysis