

Accessory Publication

Table S1. Sampling details for fishery independent survey's (species combined). Location, sample size (sex ratio), species, average total length (TL) ± standard deviation (mm), capture date (months / years).

Location	Sample size (sex ratio)	Species	Average TL (± SD) (mm)	Capture date
Darwin harbour	4 (2 male, 2 female)	<i>C. amboinensis</i>	753.75 (43.28)	March 2008
Daly R	23 (16 male, 7 female)	<i>C. leucas</i>	866.91 (123.03)	July/August 2007
Wildman R	4 (3 male, 1 female)	<i>C. leucas</i>	742 (18.96)	November 2007
West Alligator R	0	-	0	November 2007
South Alligator R	0	-	0	November 2007
East Alligator R	20 (9 male, 11 female)	<i>C. leucas</i>	759.45 (27.45)	April 2008
East Alligator R	1 (0 male, 1 female)	<i>C. leucas</i>	645 (0)	November 2007

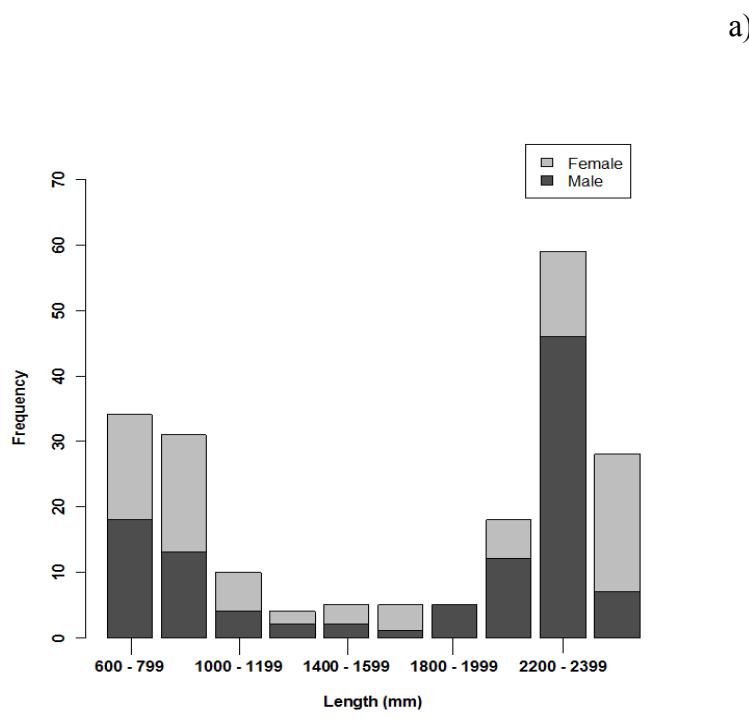
Table S2. ΔR values in northern Australia were used for the calculation of average regional ΔR value of 63 ± 60 yr for this region shown in Fig. 3. All data were taken from the on-line ΔR database of Reimer and Reimer (2001).

Location	Long.	Lat.	$\Delta R \pm 1\sigma$ (^{14}C yr)	References
Gulf of Carpentaria	141°E	12°S	-14 ± 60	Rhodes et al. 1980
Gulf of Carpentaria	141°E	12°S	125 ± 60	Rhodes et al. 1980
Torres Strait, Australia	143°E	10°S	-4 ± 84	Gillespie 1977; Gillespie and Polach 1979
Torres Strait, Australia	143°E	10°S	61 ± 85	Gillespie 1977; Gillespie and Polach 1979
Torres Strait, Australia	143°E	10°S	78 ± 68	Gillespie 1977; Gillespie and Polach 1979
Raffles Bay, Northern Australia	132.4°E	11.3°S	59 ± 40	Southon <i>et al.</i> 2002
Port George, WA, Australia	125.25°E	15°S	194 ± 78	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	112 ± 78	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	-41 ± 119	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	7 ± 119	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	11 ± 109	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	15 ± 78	Bowman 1985
Broome, WA, Australia	122.23°E	17.97°S	109 ± 78	Bowman 1985

Table S3. Accelerator mass spectrometry (AMS) radiocarbon results for 6 birth date bands of pig-eye shark vertebrae. $\Delta^{14}\text{C}$ of each sample was calculated from its percent modern carbon (pMC) with decay correction for its estimated birth date (Stuiver and Polach 1977).

Lab Code	Sample ID	$\delta^{13}\text{C}$ (‰)	pMC $\pm 1\sigma$	Estimated birth date	$\Delta^{14}\text{C} \pm 1\sigma$ (‰)
OZL649	PE160	-11.3	109.51 \pm 0.41	1983	90.7 \pm 4.1
OZL650	PE167	-10.7	107.98 \pm 0.47	1984	75.3 \pm 4.7
OZL651	PE169	-12.3	108.59 \pm 0.33	1984	81.4 \pm 3.3
OZL652	PE170	-11.0	112.71 \pm 0.50	1985	122.3 \pm 5.0
OZL653	PE173	-11.8	108.34 \pm 0.43	1983	79.0 \pm 4.3
OZL654	PE177	-11.2	110.09 \pm 0.42	1983	96.4 \pm 4.2

Figure S1. Frequency distribution of total length (mm) size classes: a) Pig-eye shark (*Carcharhinus amboinensis*; $n = 199$ (female $n = 89$, male $n = 110$); size class range from 600 – 2599 mm); b) Bull shark (*Carcharhinus leucas*; $n = 94$ (female $n = 47$, male $n = 47$); size class range from 600 to > 3000 mm).



b)

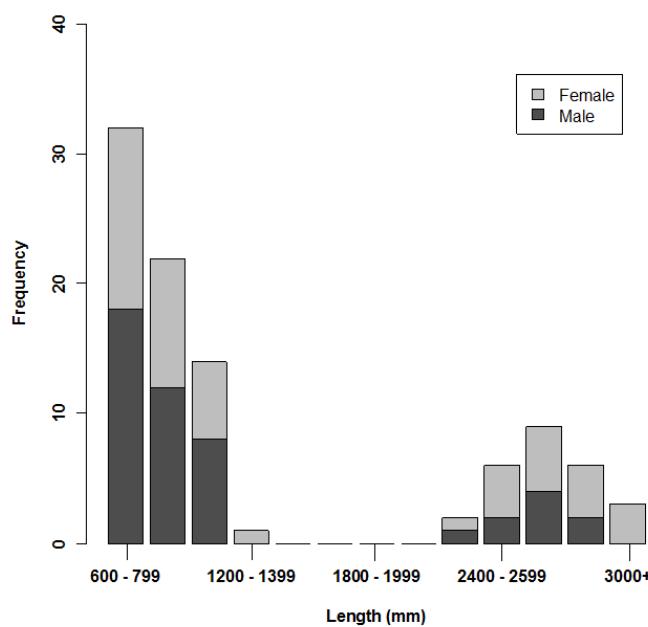


Figure S2. Within principle reader variability represented by average percent error (APE as %) \pm 95% confidence interval for each consecutive number of growth increments. Sample sizes are given for each corresponding band class. a) Pig-eye shark (*Carcharhinus amboinensis*); b) Bull shark (*Carcharhinus leucas*).

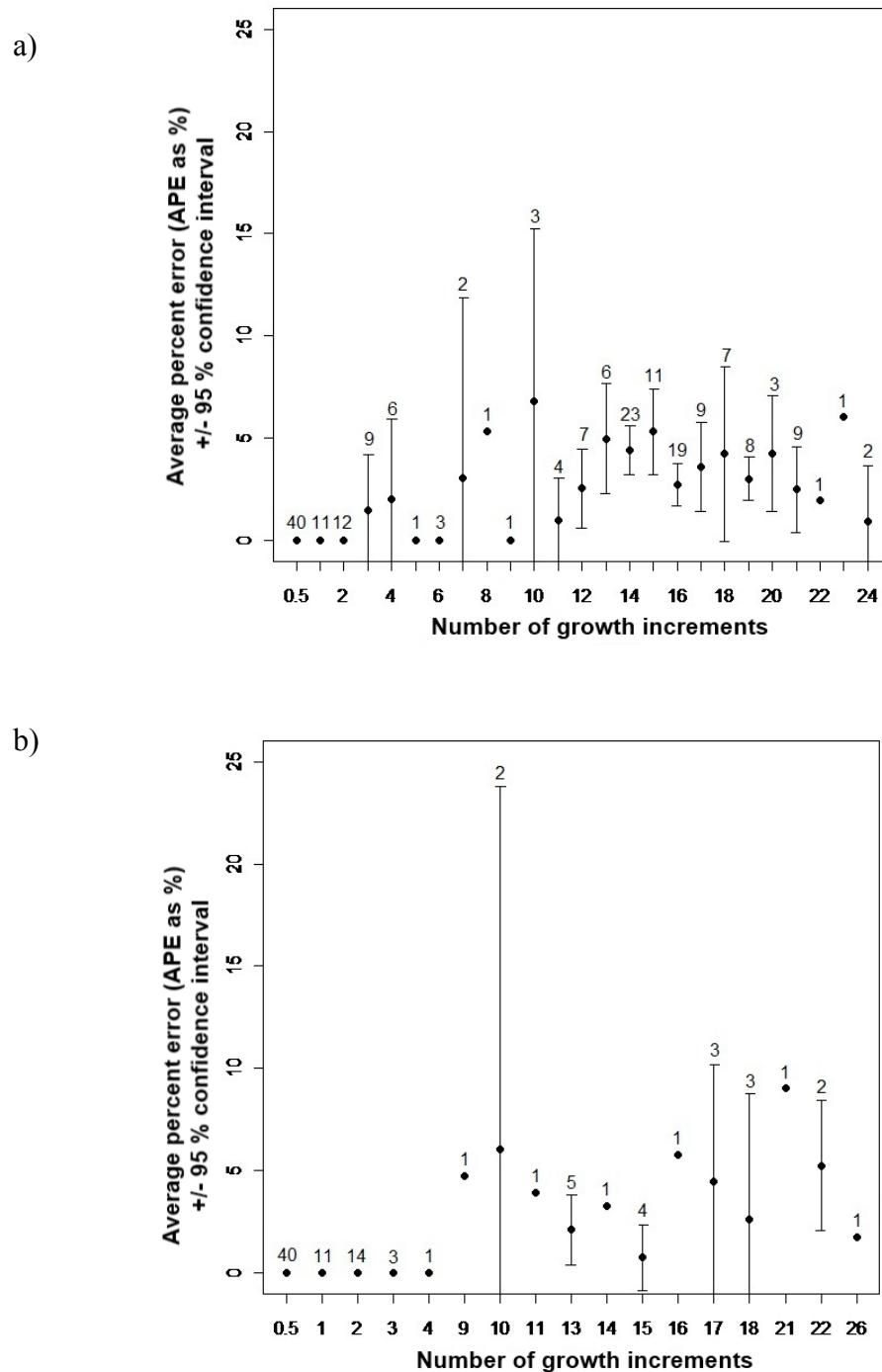
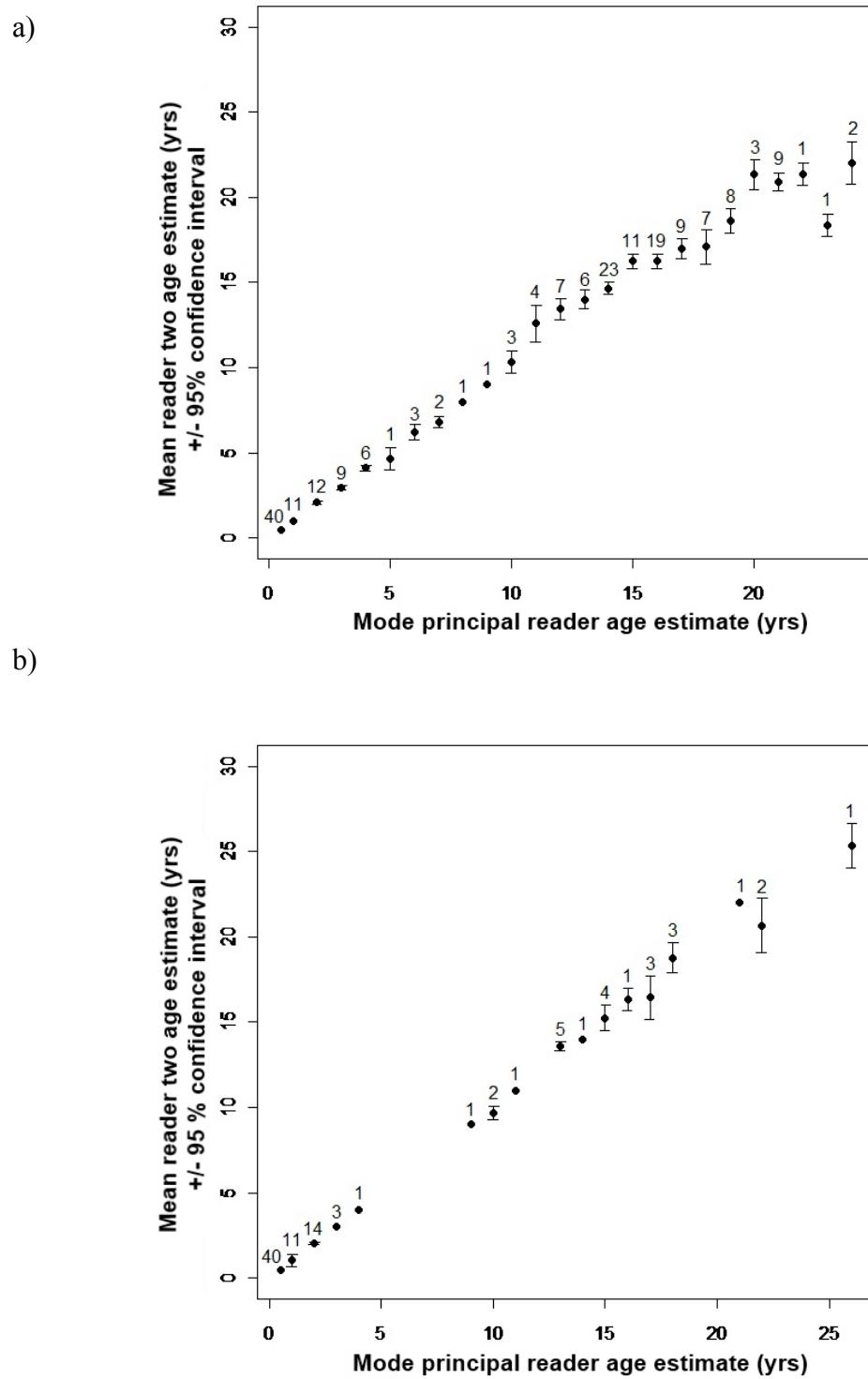


Figure S3. Comparison between mode principle and mean reader two-sigma ($\pm 95\%$ confidence interval) age estimates (years). Sample sizes are given for each corresponding age class. a) Pig-eye shark (*Carcharhinus amboinensis*); b) Bull shark (*Carcharhinus leucas*).



References

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