**Supplementary Material**

# Accuracies and biases of ageing white-tailed deer in semiarid environments

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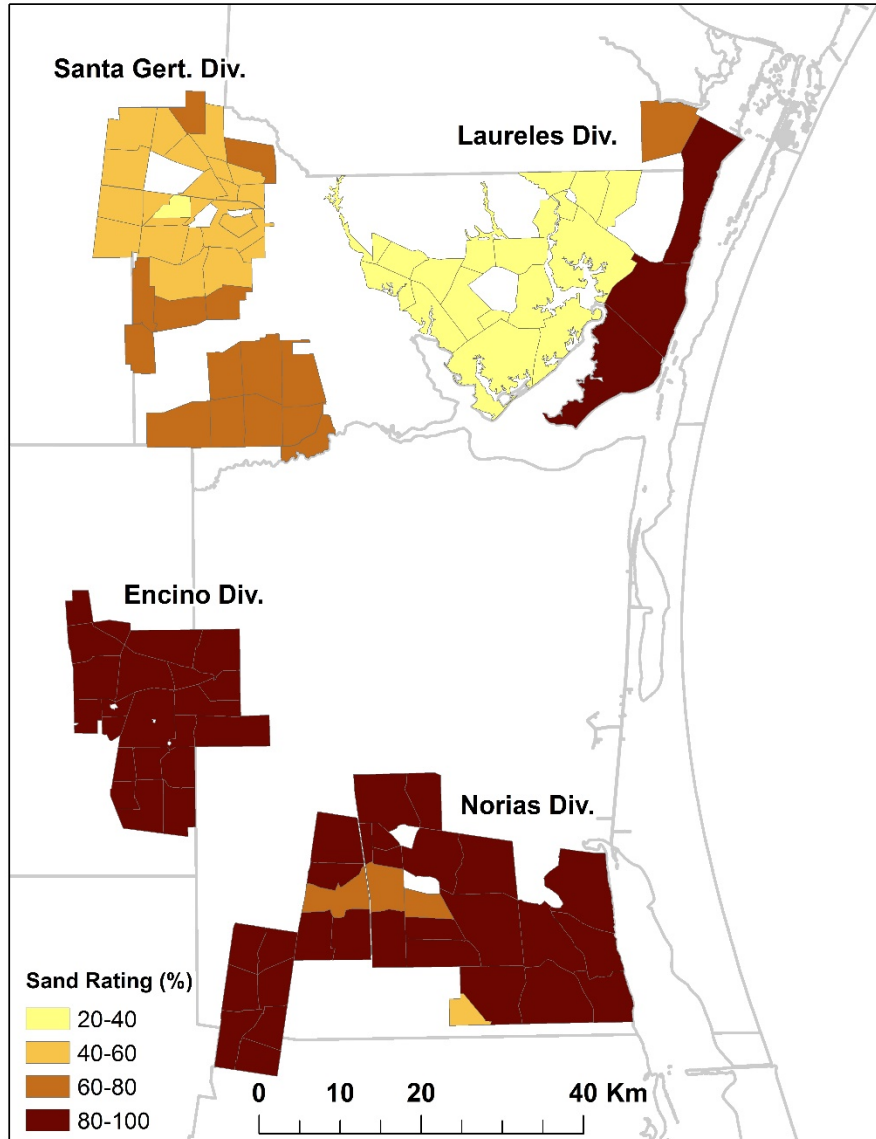[C]Corresponding author. Email: aaron.foley@tamuk.edu

Fig. S1. Sand rating (20% = low sand, 100% = very sandy) for each wildlife management unit (WMU) on each of the 4 Divisions of King Ranch, Texas, USA. Interior areas without color indicates WMU lacking full deer harvest records needed to analyze the effect of external factors on tooth wear.
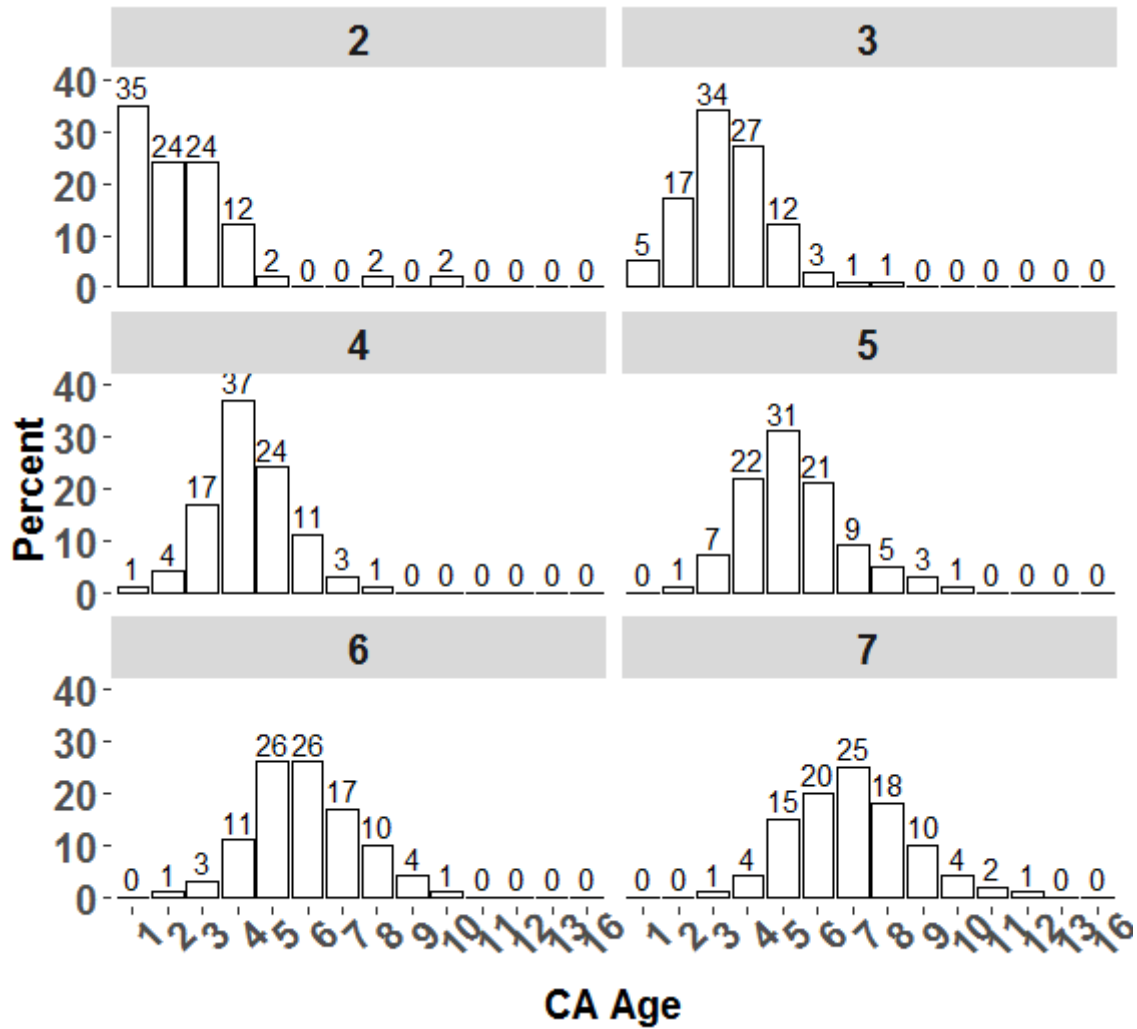
Fig S2. Distribution (%) of cementum annuli (CA) ages for each tooth replacement and wear (TRW) age class (top panel, 2–7 yrs old) of white-tailed deer harvested on King Ranch during 2000–2015. Note no deer were aged 14–15 yrs old via CA; 0% contain samples (<1%).
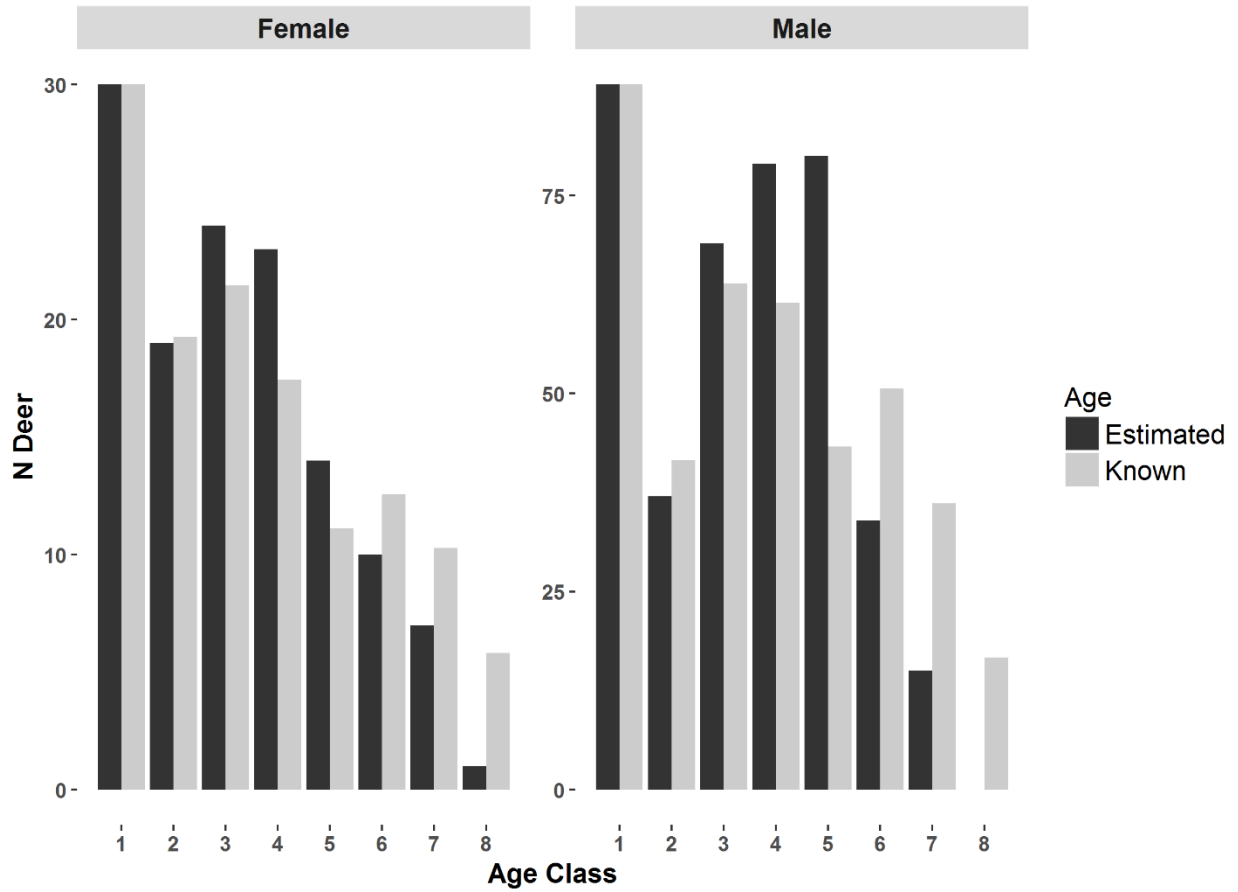
Fig S3. Age structures of known-age mandibles (black bars) from south Texas white-tailed deer collected during 1998–2004 versus ages estimated by tooth wear and replacement (TRW, gray bars) by 6 wildlife biologists.
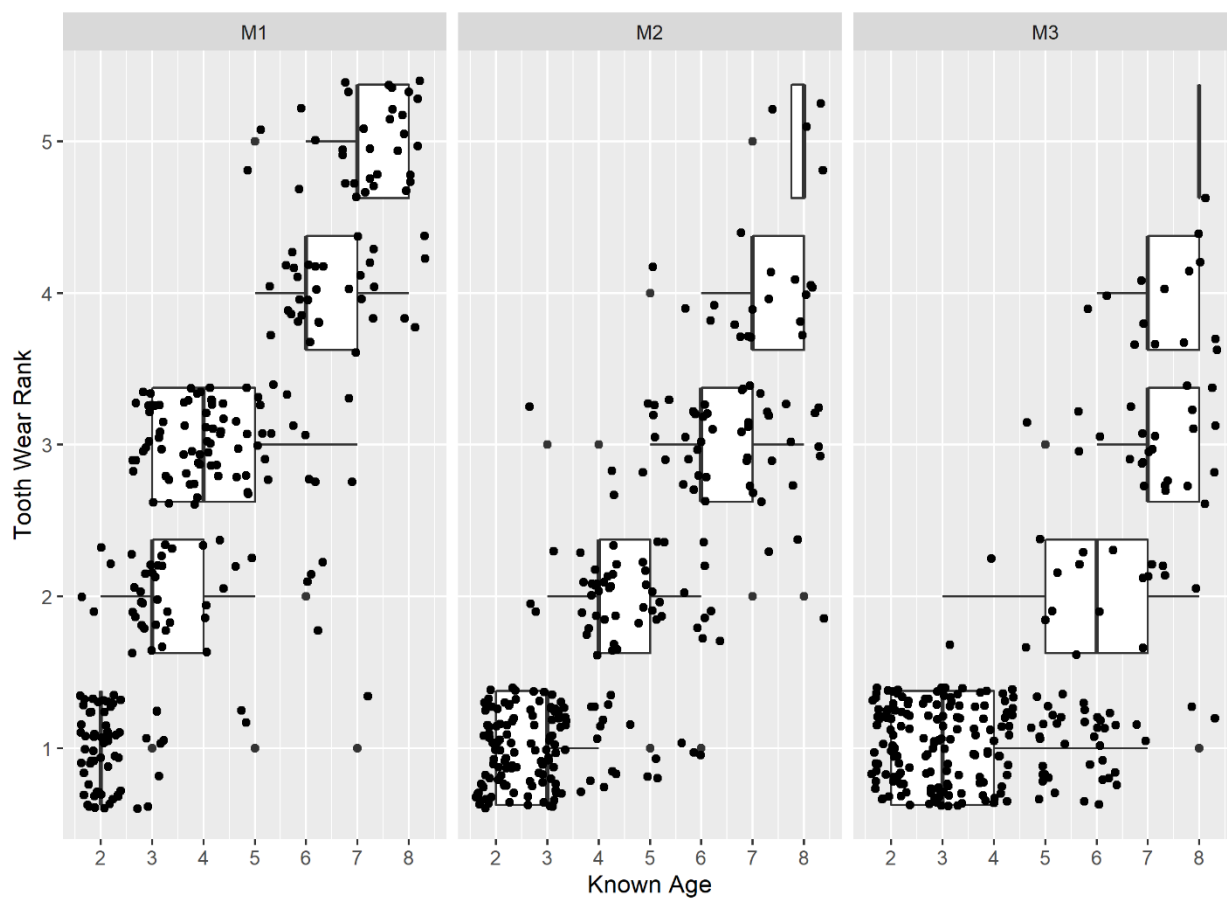
Fig S4. Box plots of tooth wear rank vs known-age for each of the 3 molars (M1, M2, and M3) collected from harvested white-tailed deer in south Texas, USA during 1998–2004. White boxes indicate the interquartile range (IQR) and the black vertical line indicates the median known-age. Horizontal lines indicate the minimum and maximum quartiles. Points were jittered for better visualization.