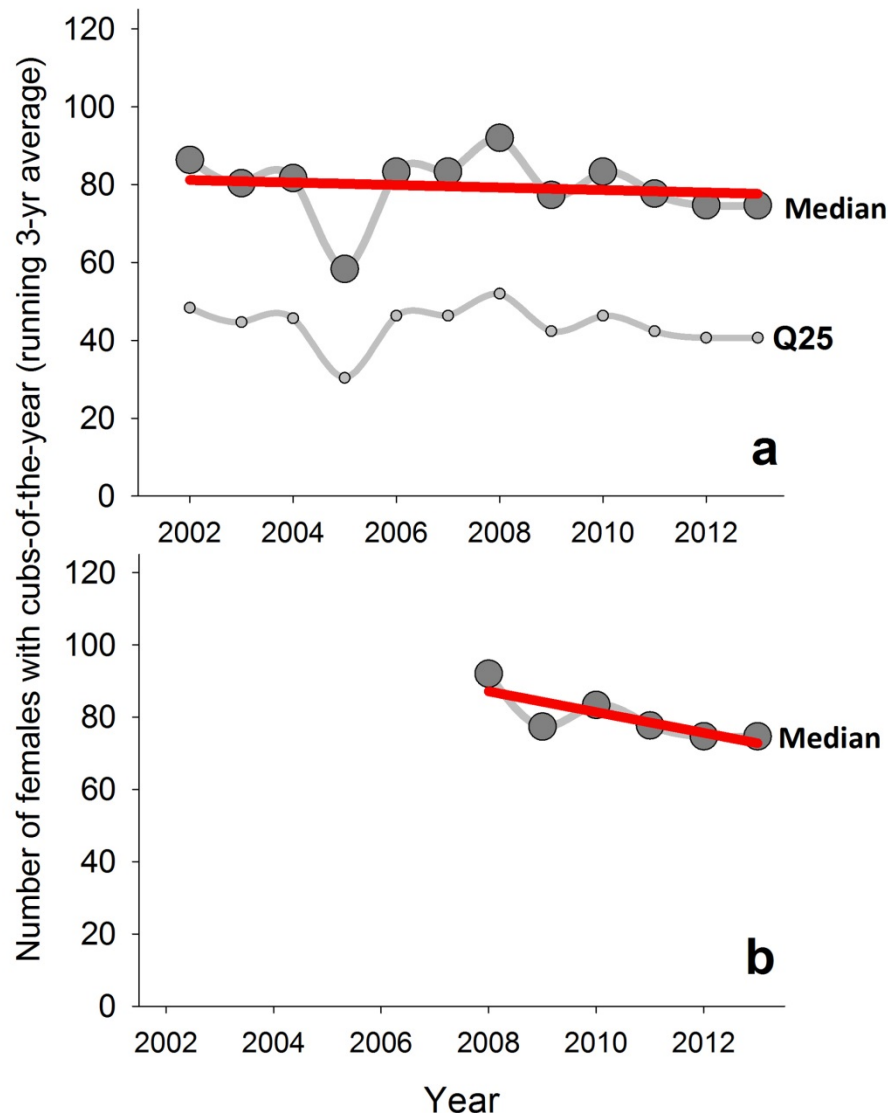
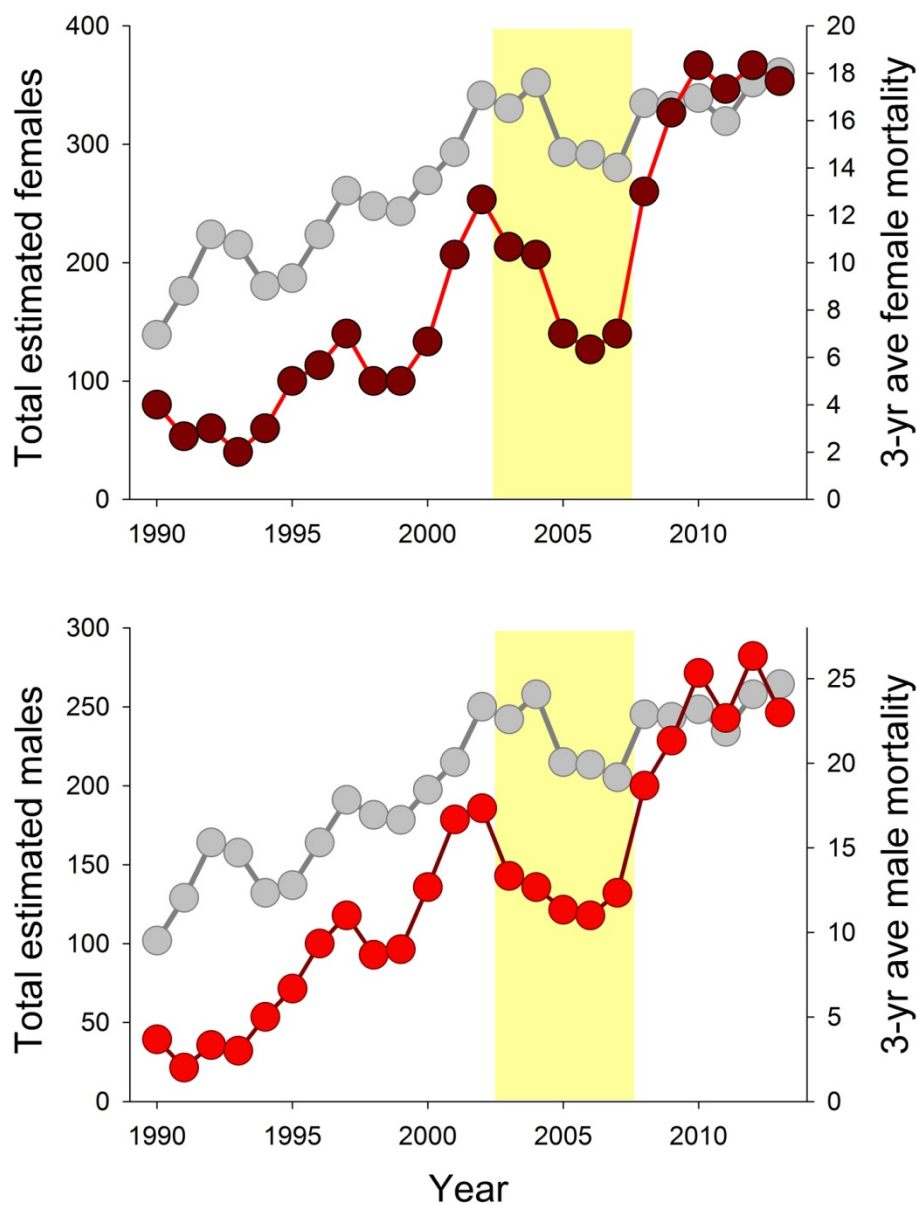
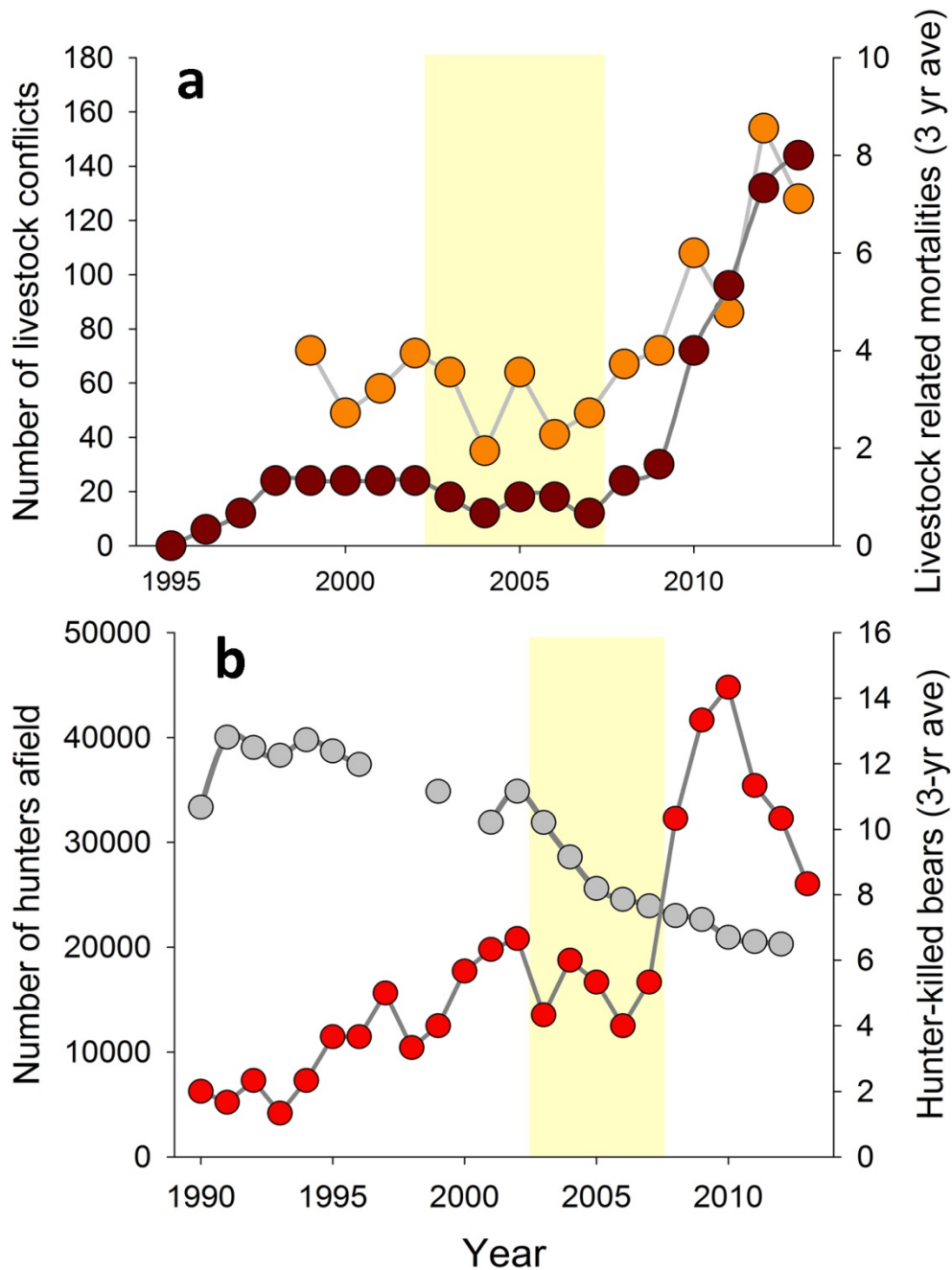




**Figure 1.** Three-year running average of total number of females with cubs-of-the-year (COY) estimated by the current preferred Mark-resight method. Estimates of total population size are essentially a simple multiplication of this number to account for other sex-age classes. The top figure (a) shows the median estimate of numbers of females with COY in the Yellowstone grizzly bear population as dark gray dots and the lower quartile bound of this estimate (Q25) as smaller lighter gray dots. A linear trend line (in red) has been fit to the median estimates showing no increase in population size. The bottom figure (b) repeats the information for median estimates, but only for the years 2007-2013. Invoking weight of evidence, the fitted trend line is more consistent with a declining rather than stable population.



**Figure 2.** Three-year running averages of total female (top) and male (bottom) deaths, both in shades of red, superimposed on total numbers of male and female bears estimated for the population, shown in gray. Mortalities are from all causes, and with cubs and yearlings for which sex is unknown allocated to the respective sexes based on an assumed 1:1 sex ratio. Total numbers of bears are derived from Chao2-based estimates of population size, and using pre-2012 estimates of population structure. The yellow-shaded area denotes the time period during which maximum losses of whitebark pine occurred. The obvious points to be made here are that mortalities of both sexes increased substantially during recent years at the same time that there was no estimated increase in population size, and immediately after the period when most whitebark pine was lost. These conclusions are robust to any nuances in method.



**Figure 3.** (a) Total numbers of livestock-related conflicts, shown by orange dots, and known and probable grizzly bear deaths related to livestock conflicts, shown by dark red dots. Mortality figures represent a 3-year running average. (b) Total numbers of grizzly bears known to have been killed, or probably killed, by hunters in association with their hunting activities, shown by the red dots. These activities included camping and traveling while on a hunt. The gray dots denote numbers of sport hunters within or near occupied grizzly bear habitat. As in figure 2, the yellow shaded areas denote the period when most whitebark pine was lost in the ecosystem. The obvious point to be made here is that conflicts and mortalities related to human-associated meat increased dramatically immediately after the period with most whitebark pine was lost.