To account for potential confounding factors, we assessed the effects of senescence on mass of adult females. Senescence in mass did not occur in female mountain goats. To evaluate the presence of senescence, we compared the fit of different mixed models with individual identity as a random intercept. We used the function “anova” to compare a linear model, a quadratic model, and cubic spline regression models with increasing degrees. The model selected was a spline of degree 5. We then plotted the predictions for this model and found a straight line from age 7 and over (Fig. ESM1.1 middle and bottom panels). The predictions from splines of degree 3 to 6 were similar. From ages 7 to 14, there is very little variation in mass and no occurrence of senescence.

Figure ESM1.1. Mass (kg) of female mountain goats in relation with age. A: Raw data. B: Box plots of the raw data along with the predictions of the spline regression (green line). C: Predictions of the spline regression along with standard errors for each age.