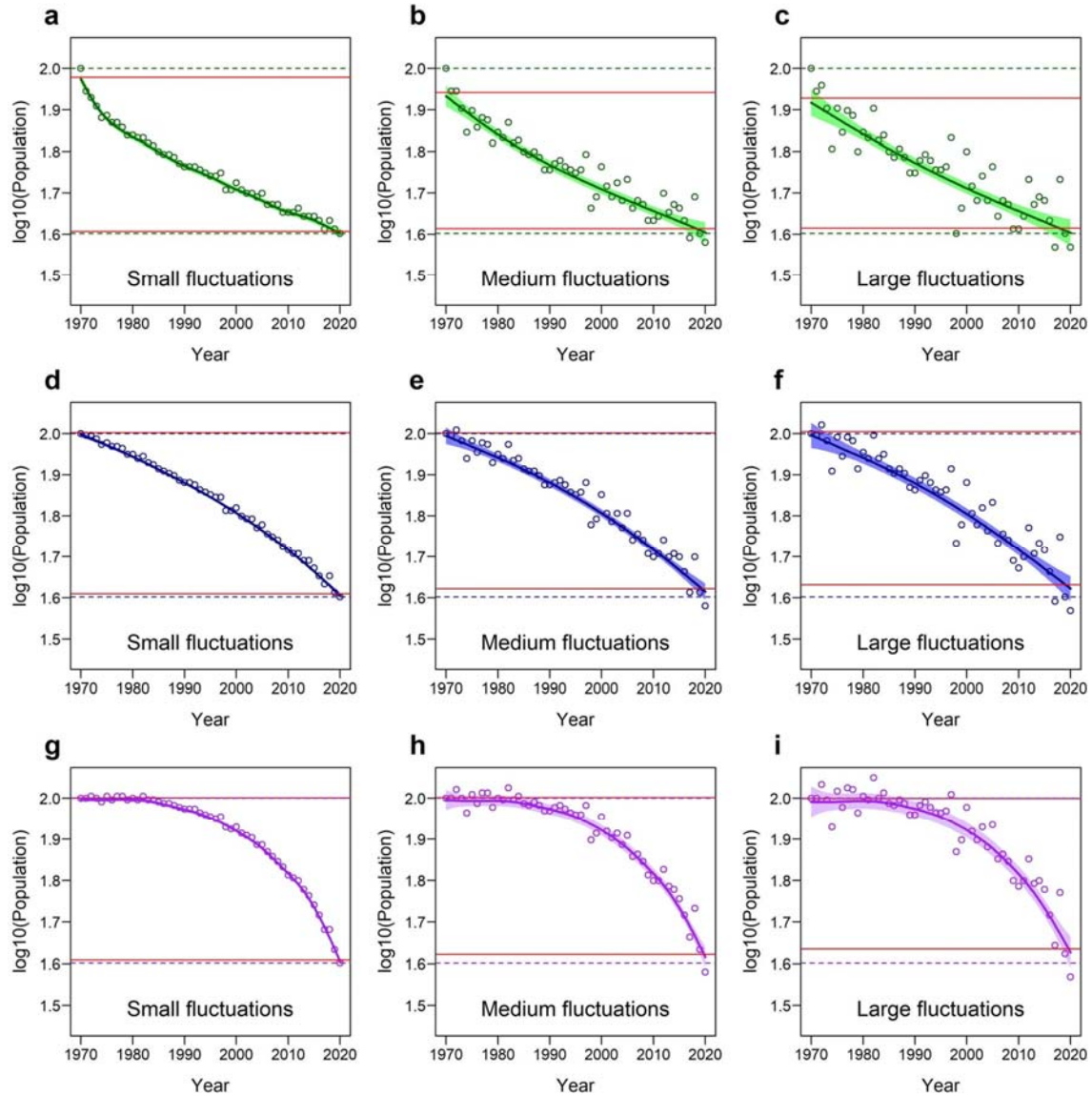


Extended Data Fig. 5: Population fluctuations cause generalised additive models (GAM) to misestimate starting and ending populations when populations decrease from 100 to 40 individuals.

From: Random population fluctuations bias the Living Planet Index



GAM models fit to populations declining along concave-up (**a-c**), linear (**d-f**) and concave-down (**g-i**) trajectories and low ($sd = 1$: **a,d,g**), medium ($sd = 4$: **b,e,h**), and high ($sd = 7$: **c,f,i**) levels of population fluctuations. In all panels, the horizontal dashed lines show the actual starting and ending populations, while the solid red lines denote the starting and ending populations estimated from the GAM.