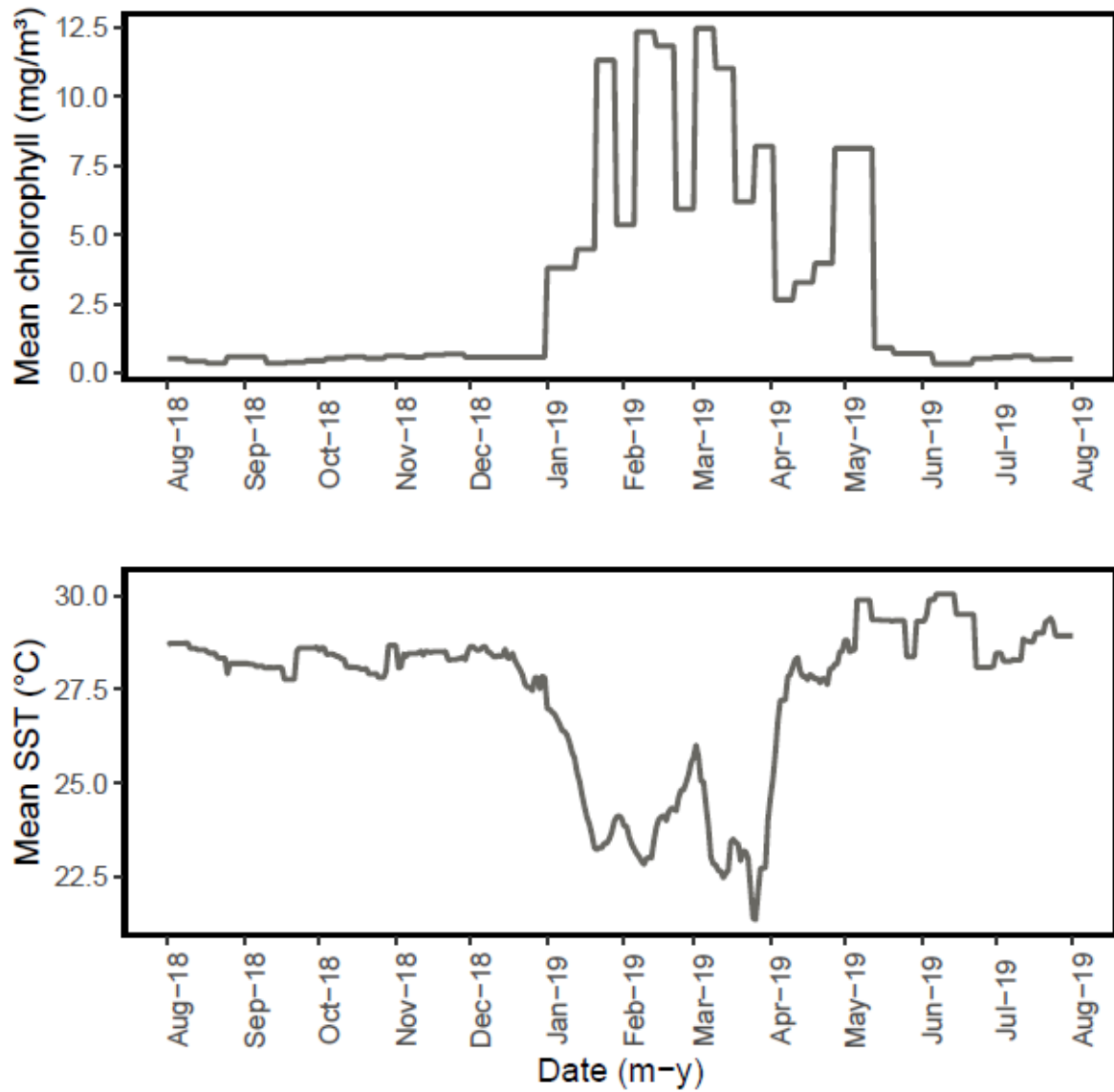
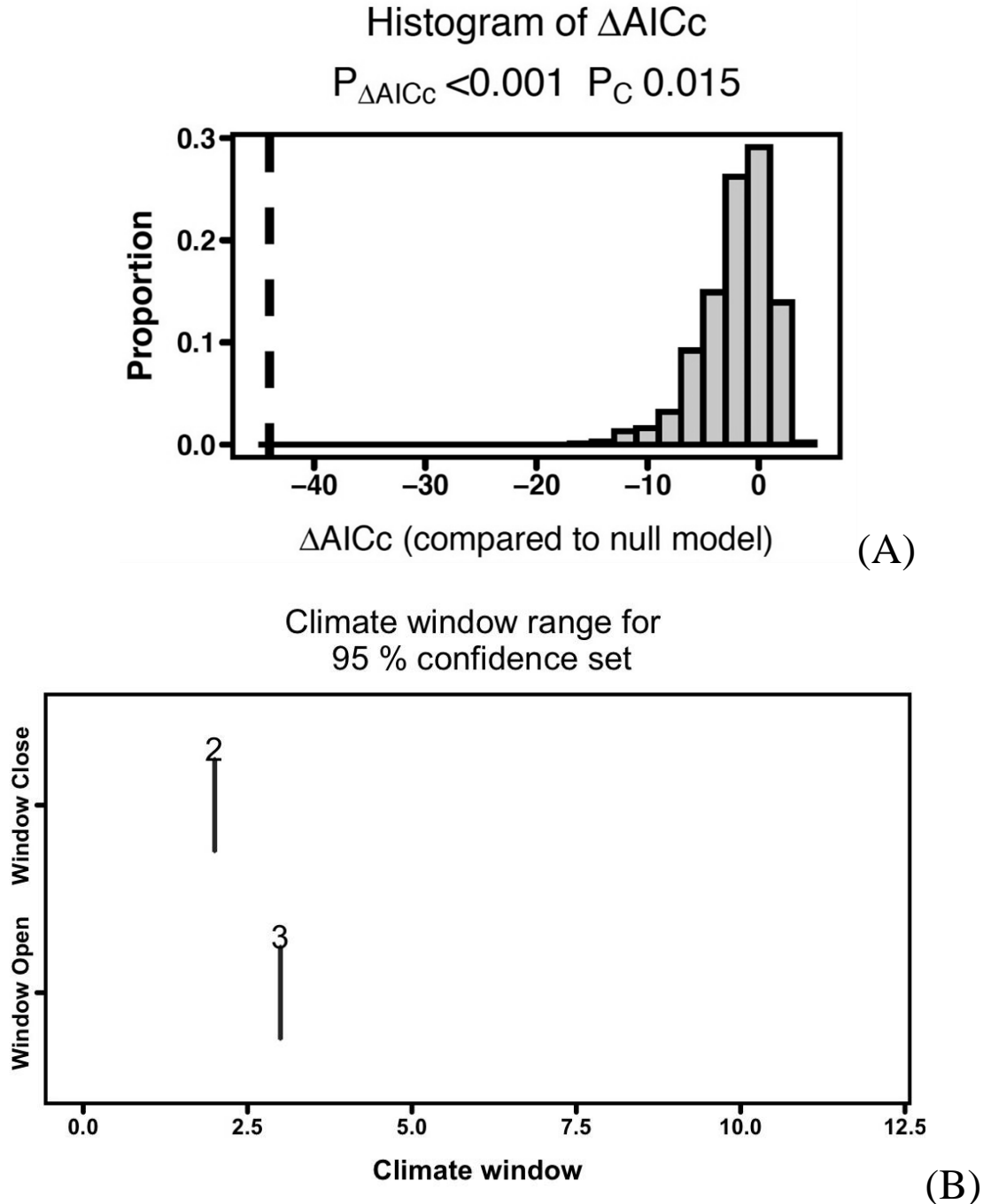


## APPENDIX



**Fig. S1.** Intra-annual variation of chlorophyll- $\alpha$  and sea-surface temperature (SST) in the Gulf of Panama (August 2018 – August 2019)



**Fig. S2.** Critical climate window analysis for the effects of climate on survival probability. Chlorophyll- $\alpha$  concentration is the only environmental variable with an effect on offspring survival (see Table 2 and Fig. 3 of main article). (A) Outcome of the simulations show that the AICc value of the best model ( $-40$ , dotted line) does not overlap with the randomized simulated results (histogram), which means that the candidate signal did not occur by chance for chlorophyll- $\alpha$ . (B) Plot averaging all the best supported models shows, with a 95% confidence interval, that the best climatic window for chlorophyll- $\alpha$  opens 3 weeks and closes 2 weeks prior to the offspring's death.