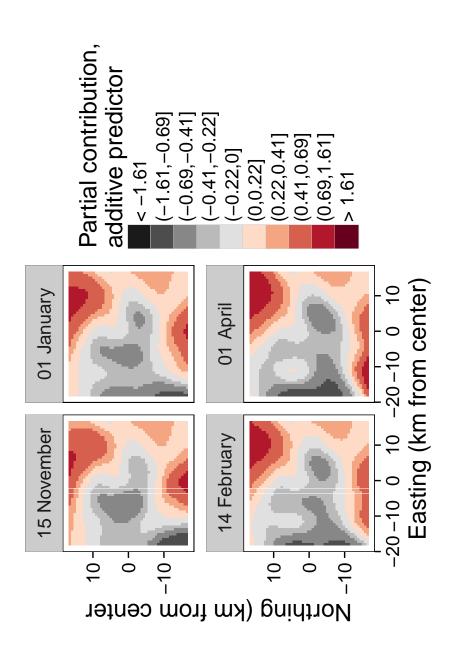
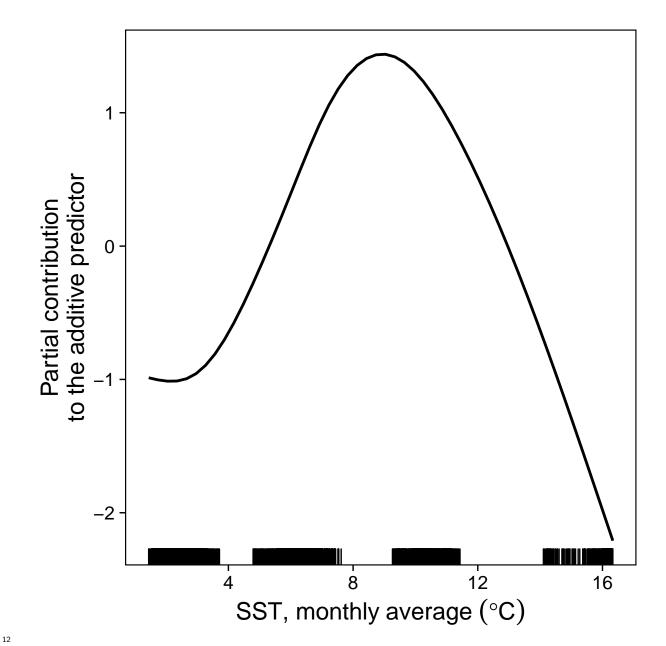
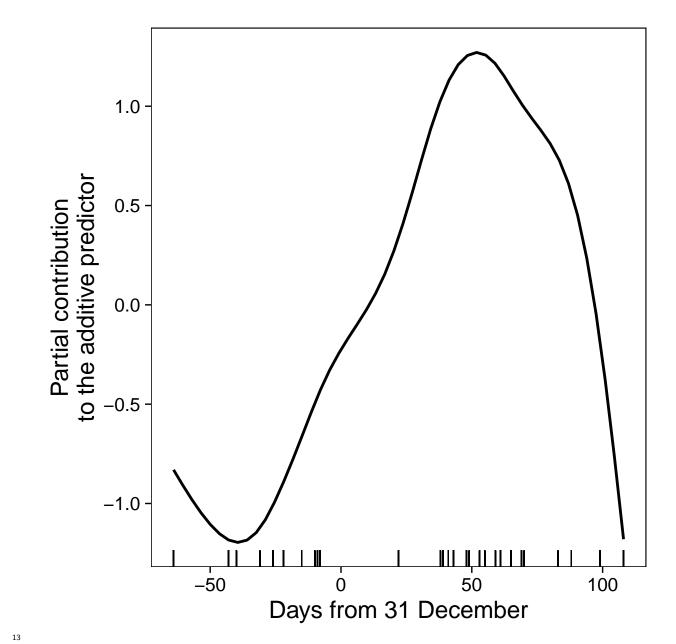
## Appendix 7. Long-tailed Duck stable covariate effects

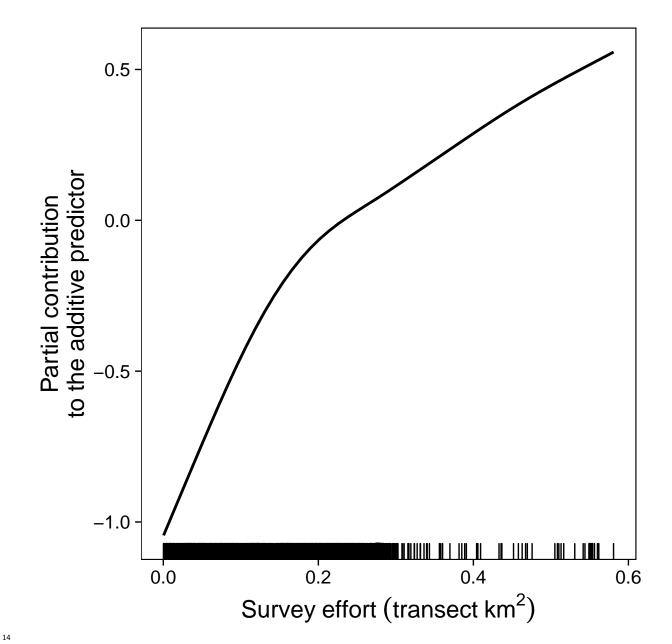
- <sup>2</sup> Marginal functional plots of the relationships between covariates (controlling for all other
- variables; i.e., at their mean values) and the occupancy, conditional mean abundance, and
- 4 conditional overdispersion of abundance of Long-tailed Duck in Nantucket Sound, Mas-
- 5 sachusetts, USA. Covariate plots are ordered roughly in descending order of the magnitude
- of their influence on the additive predictor in each model (or model parameter for count
- 7 models). Vertical lines along the x-axis (i.e., rug plots) indicate observed covariate val-
- 8 ues. Covariates (and any abbreviations) are defined in detail in Appendix S2; only effects
- 9 selected to be stable (see Appendix S1) are depicted.

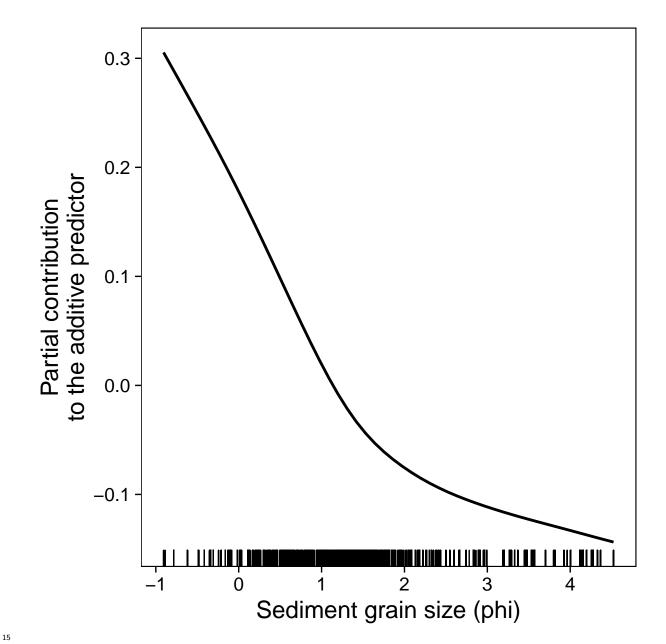
## 10 Occupancy

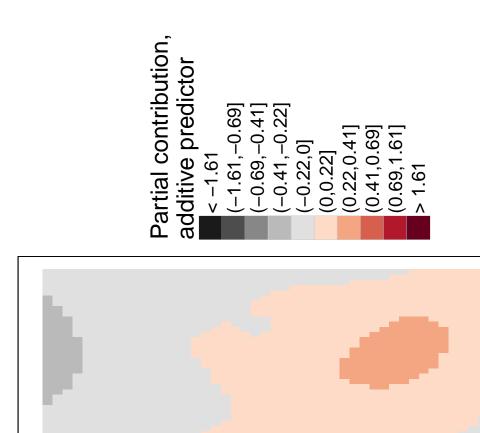






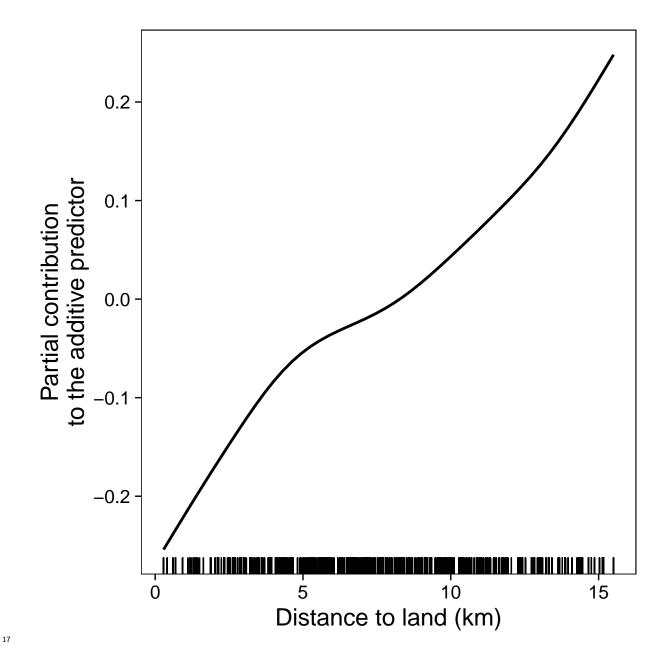


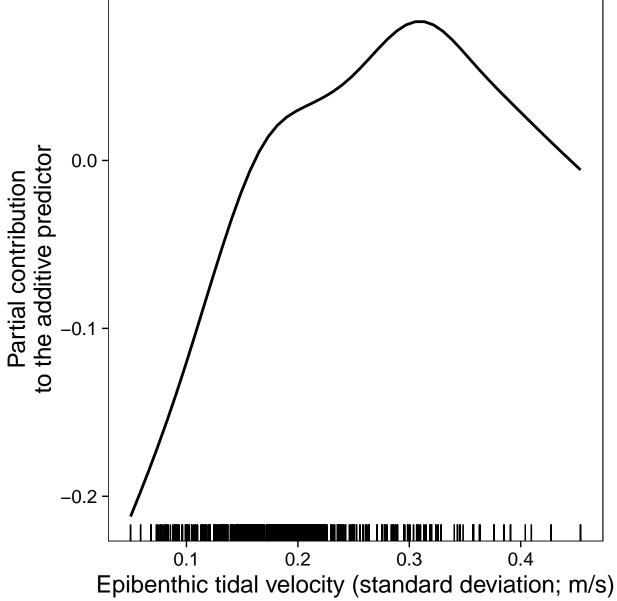


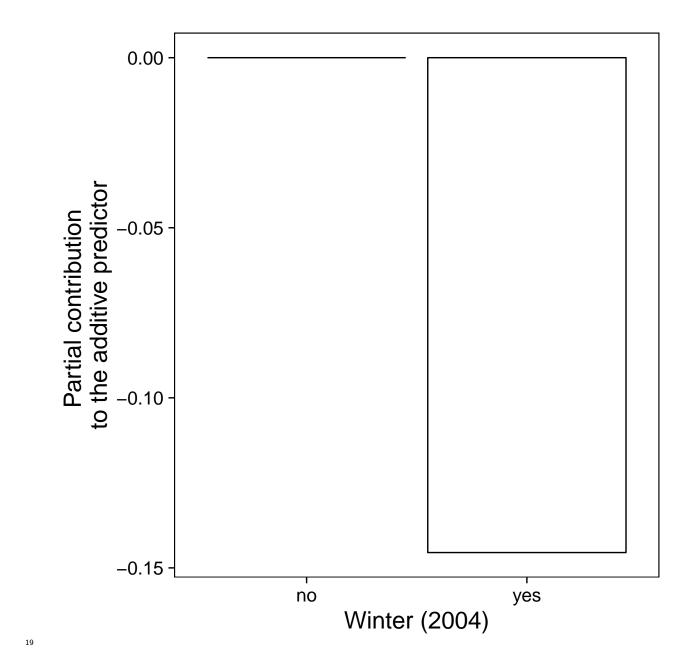


Depth relative to mean sea level (m)  $\frac{1}{2}$ 

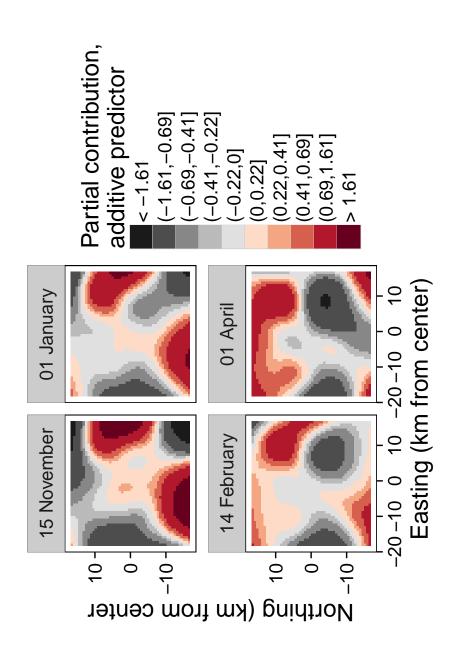
Days from 31 December

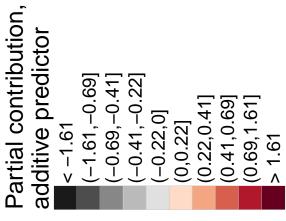


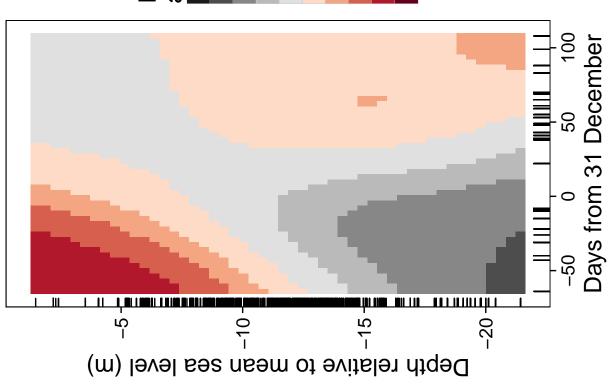


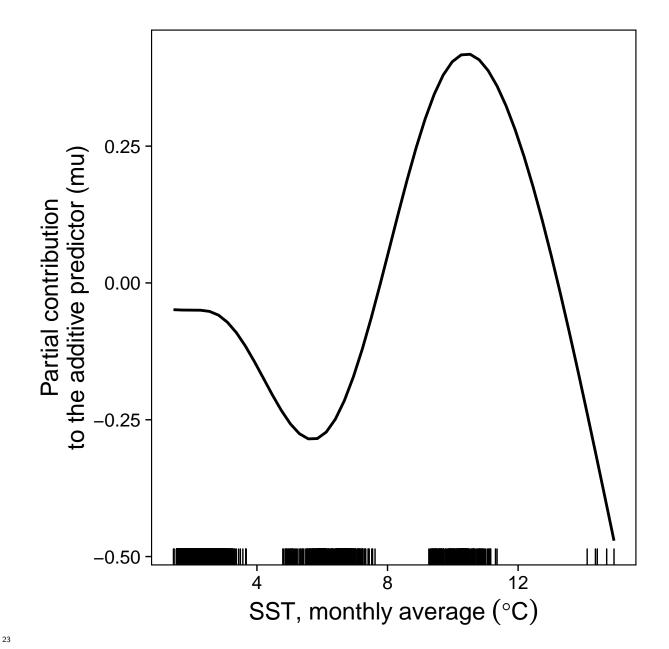


## 20 Conditional mean

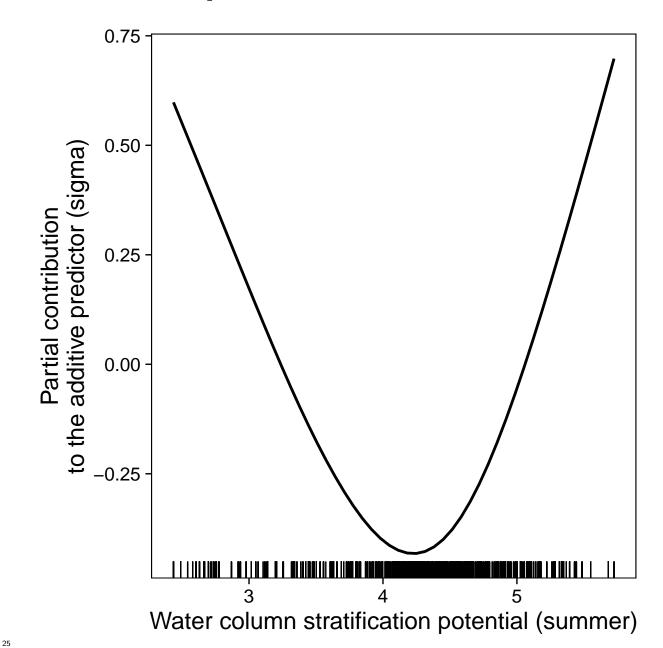








## <sup>24</sup> Conditional overdispersion



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