



— State 1  
— State 2

**S8 Fig. Stationary state probabilities from the best-fit hidden Markov model.** Estimated stationary (equilibrium) state probabilities as a function of (a-b) time of day, (c-d) dissolved oxygen saturation, (e-f) swimming phase, and (g-h) shark ID from the best-fit hidden Markov model. Stationary state probabilities represent the marginal probability of a state at a fixed value of the covariate for deep day and shallow night diel phases. State 1 (orange) and state 2 (blue) correspond to relatively low and high levels of activity, respectively. Error bars represent 95% pointwise confidence limits. Median values (dashed lines) and interquartile ranges (shaded bars) are shown for the (a-b) timing of the end of dawn descent (red) and start of dusk ascent (blue) segments of vertical migrations and (c-d) dissolved oxygen saturations experienced during deep day (red) and shallow night (blue) diel phases.