



Estimates of abundance and capture probabilities by temporal strata and the corresponding true parameters for the data scenario in which data were missing for strata 5-8. Estimates were produced by using the pooled-simple, hierarchical within-year, hierarchical penalized-spline, and hierarchical multiyear (between-year) models. Abundance point estimates are represented as the posterior medians, and the error bars represent the $95 \%$ credible intervals.



Estimates of abundance and capture probabilities by temporal strata and the corresponding true parameters for the data scenario in which data were missing for strata $5-8$ and the number of marked and recaptured individuals is reduced by $60 \%$. Estimates were produced by using the pooled-simple, hierarchical within-year, hierarchical penalized-spline, and hierarchical multiyear (between-year) models. Abundance point estimates are represented as the posterior medians, and the error bars represent the $95 \%$ credible intervals.




