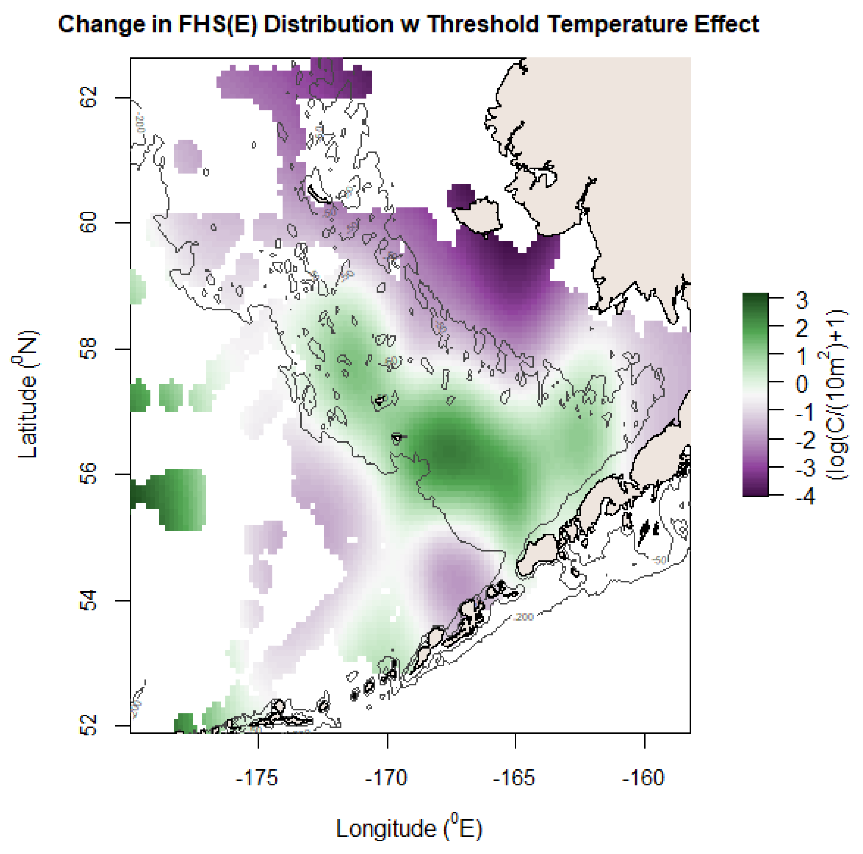
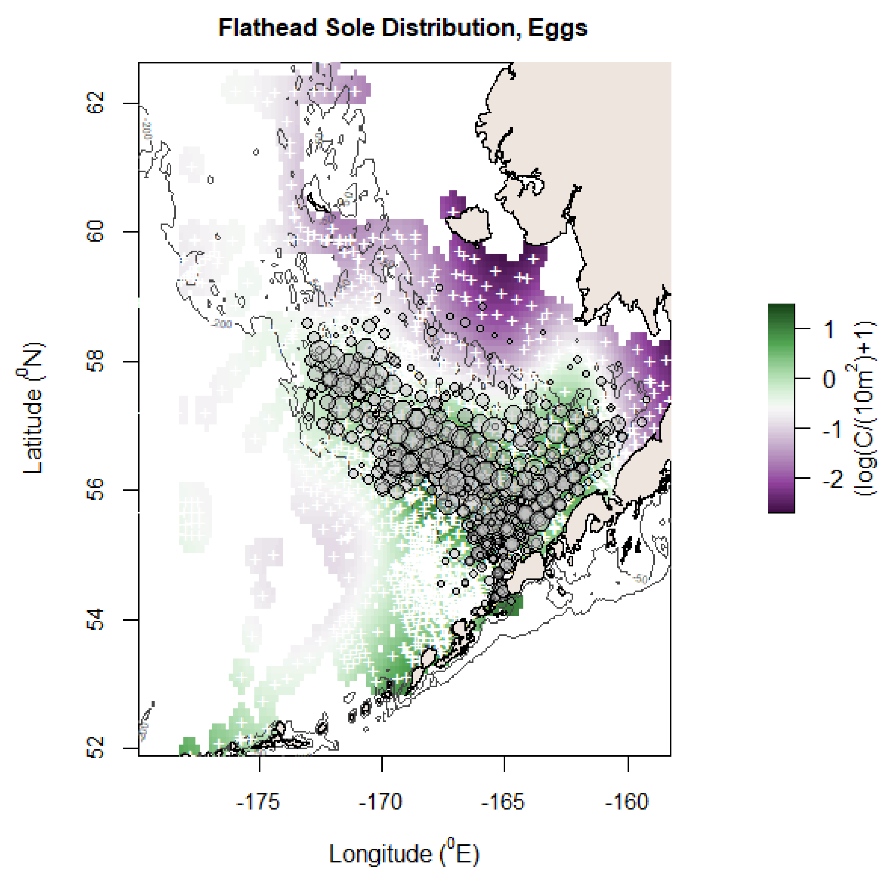
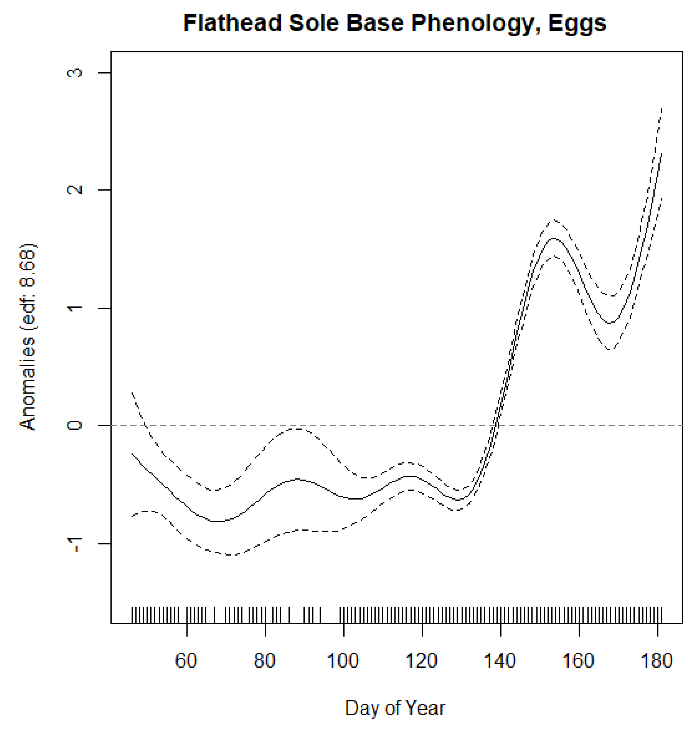
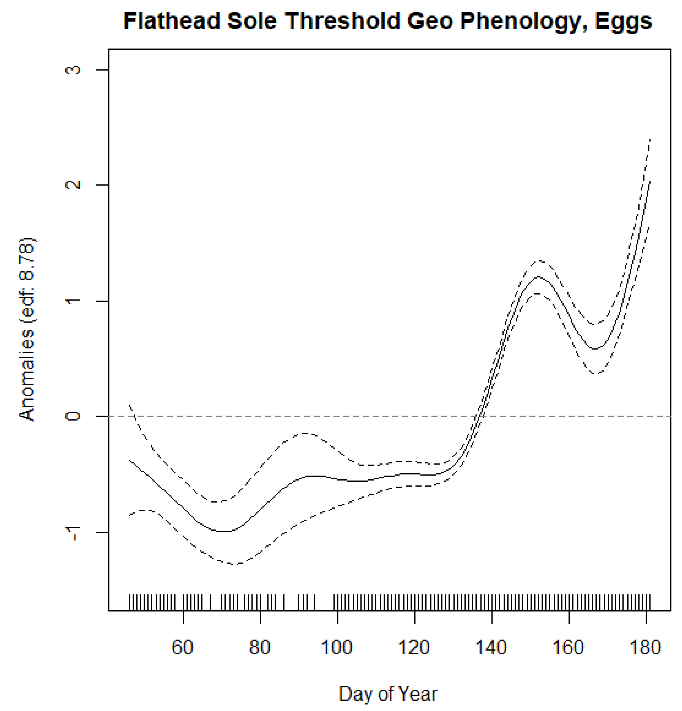
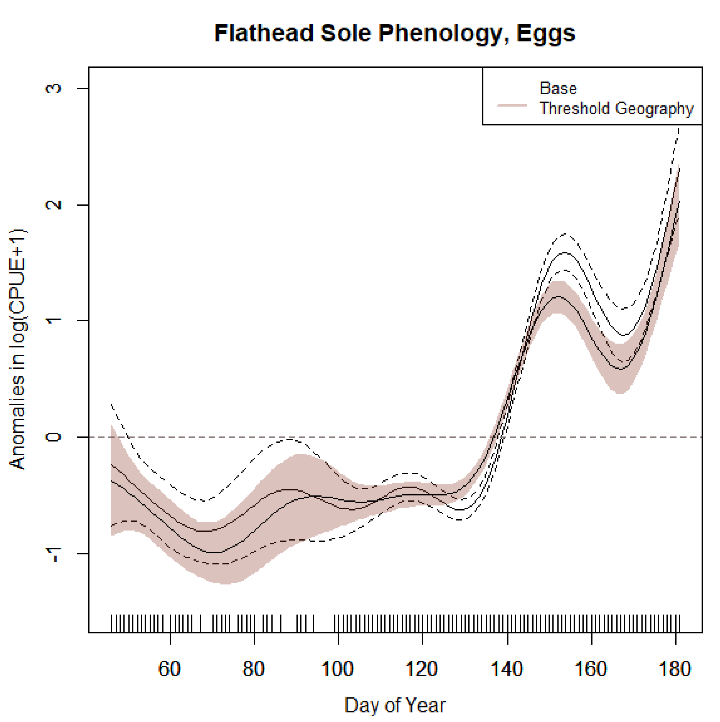
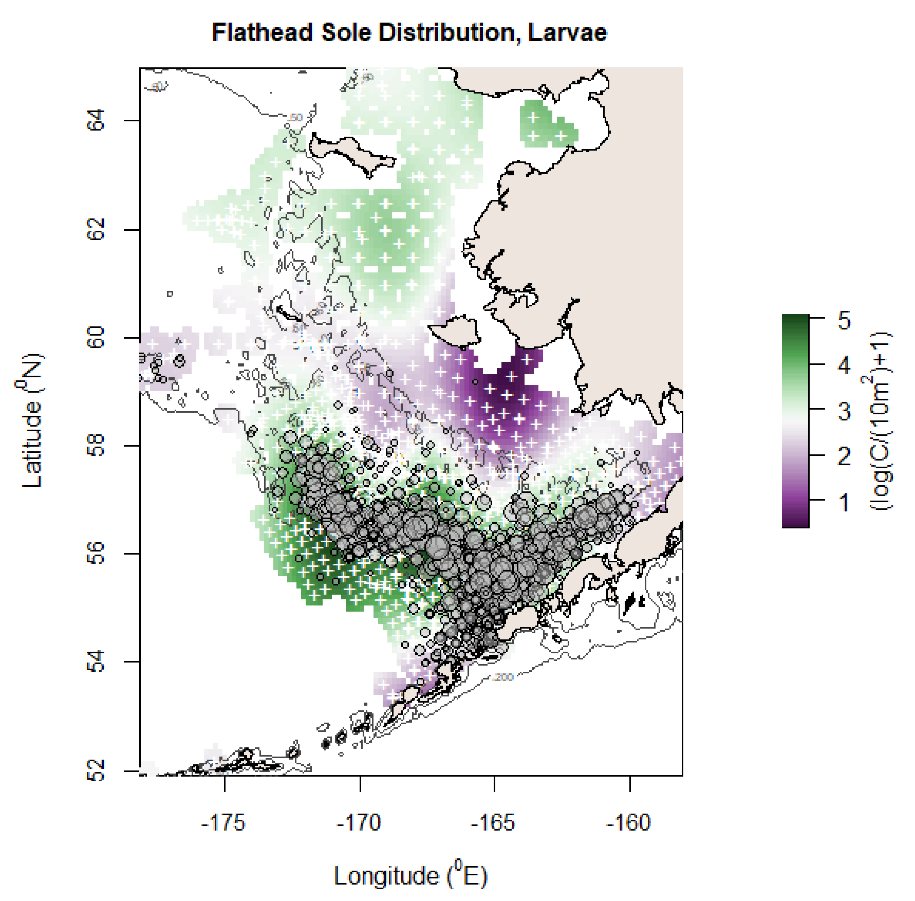
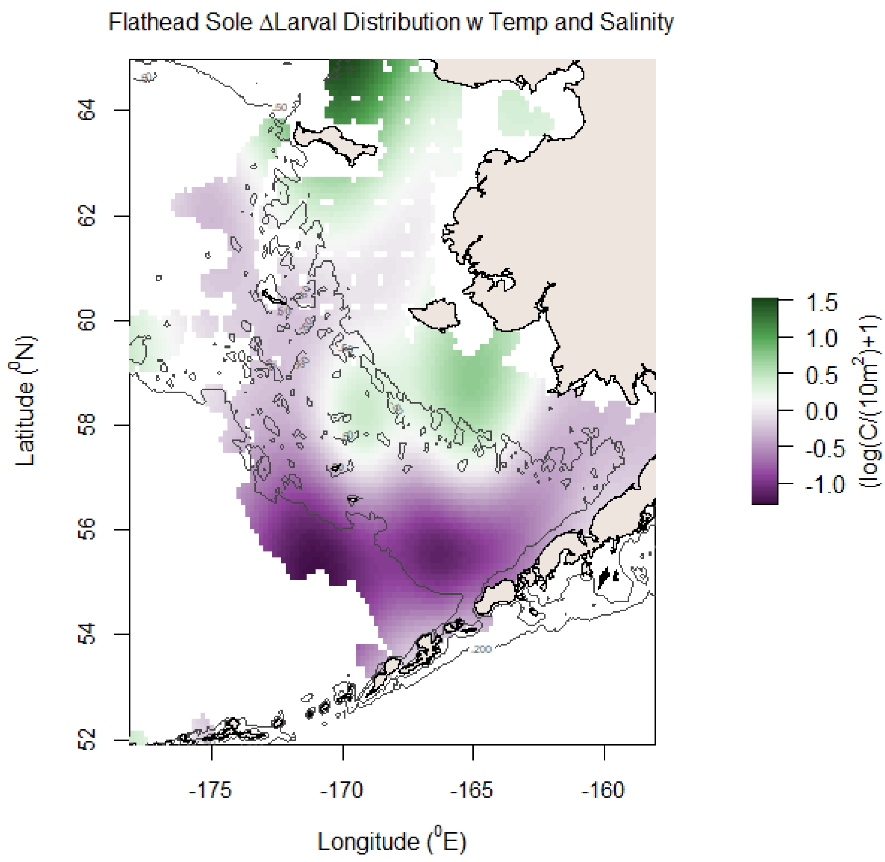
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Species | Life Stage | Best Model | ΔMSE | ΔAIC | Deviance Explained |
| Alaska Plaice | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(longitude, latitude, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.149 | 463.75 | 75% |
| Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(salinity, temperature) + *e*doy,year,(temperature,salinity) | 0.151 | 403.40 | 82.9% |
| Rex Sole | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(longitude, latitude, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.171 | 700.5 | 61.1% |
| Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.046 | 104 | 15.8% |
| Walleye Pollock | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(longitude, latitude, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.133 | 591.2 | 58.1% |
| Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.144 | 578.1 | 71.9% |
| Yellowfin Sole | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(doy, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.111 | 507.03 | 68.7% |
| Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(salinity, temperature) + *e*doy,year,(temperature,salinity) | 0.194 | 569.00 | 83.8% |
| Flathead Sole | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(longitude, latitude, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.167 | 707.9 | 80.6% |
|  | Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.124 | 463.9 | 68.8% |
| Pacific Cod | Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.071 | 225.6 | 71.7% |
| Northern Rock Sole | Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.102 | 371.4 | 69.5% |

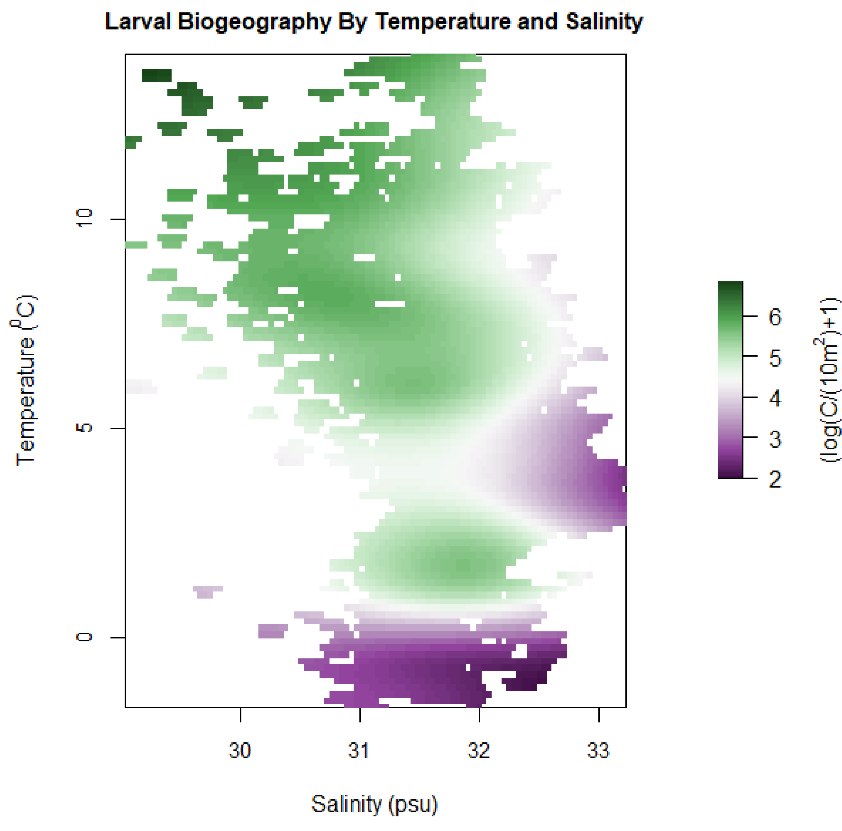
\*MSE was calculated by subtracting best model MSE from base model MSE, therefore positive values indicate a reduction in MSE relative to the base model. AIC was calculated the same way, thus positive differences in AIC indicate a reduction in AIC relative to the base model.

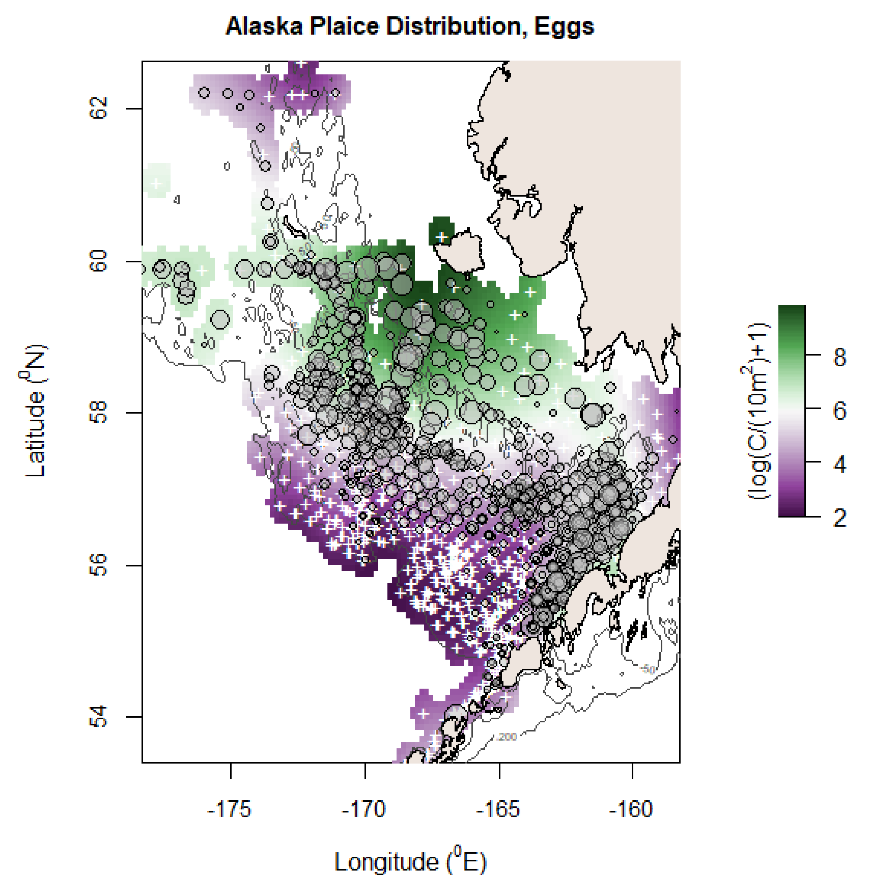
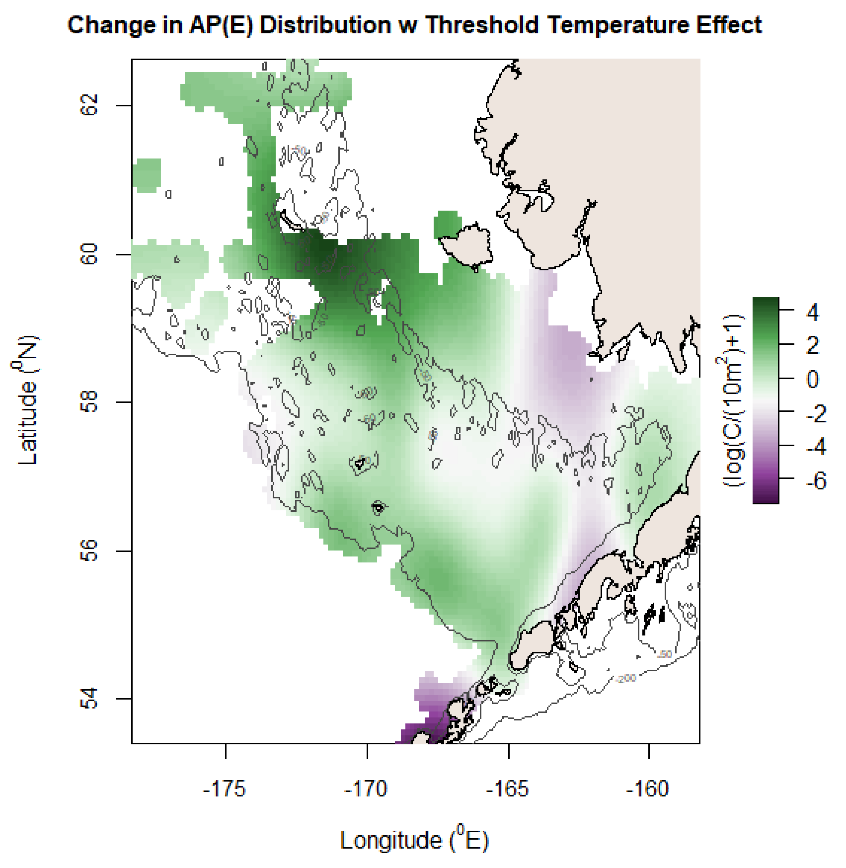


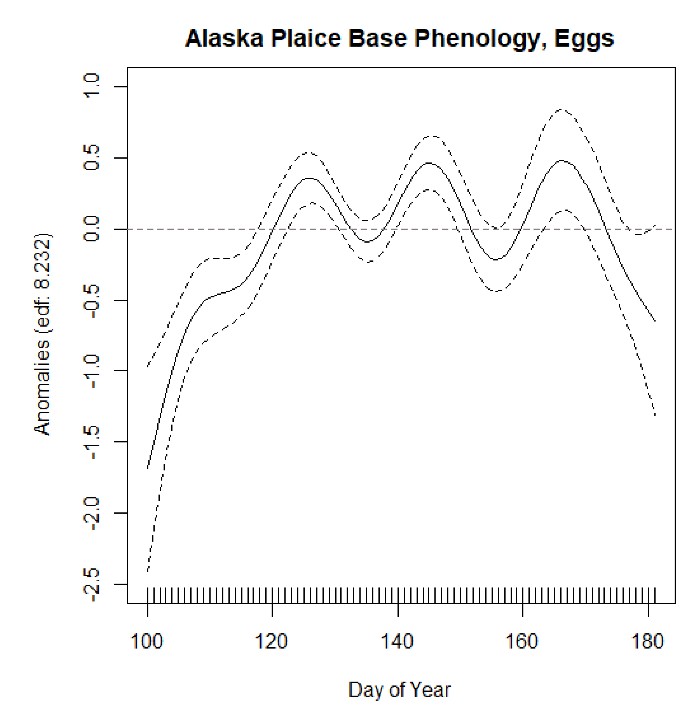
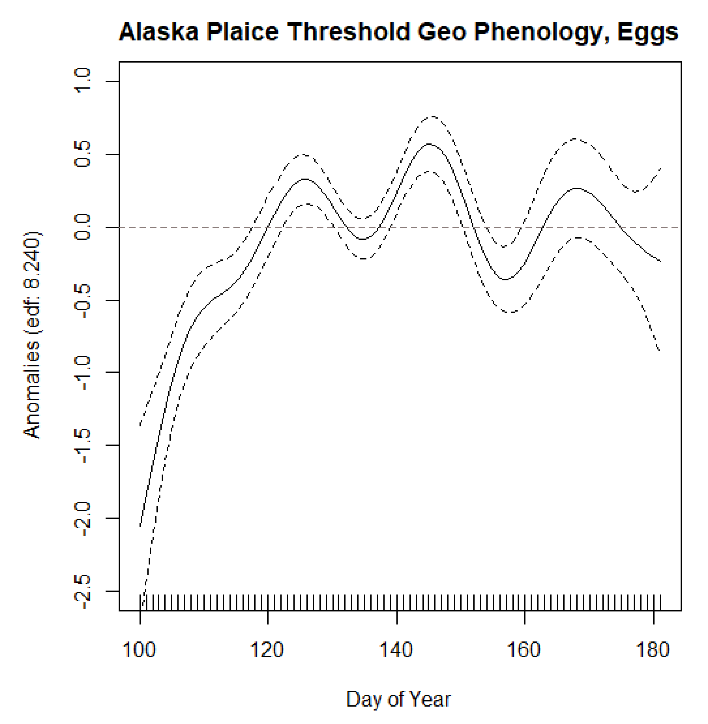
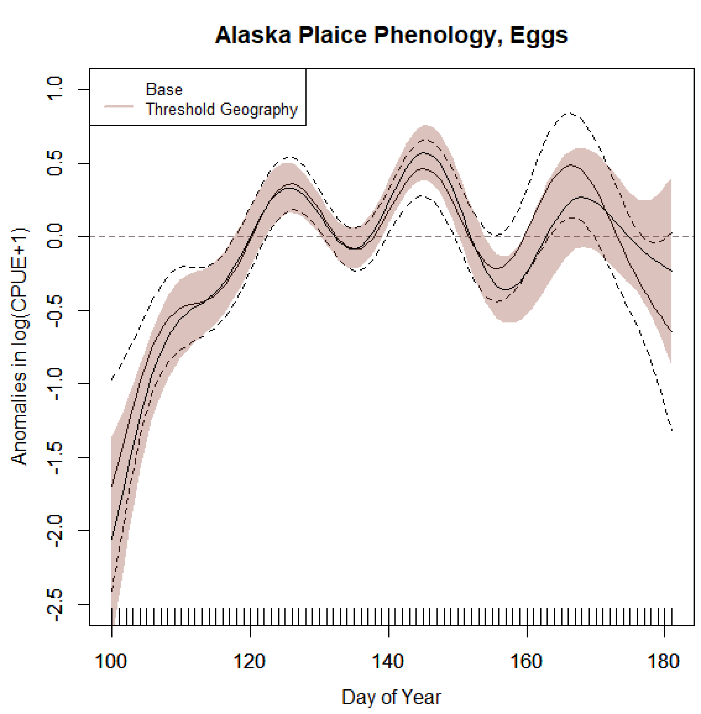












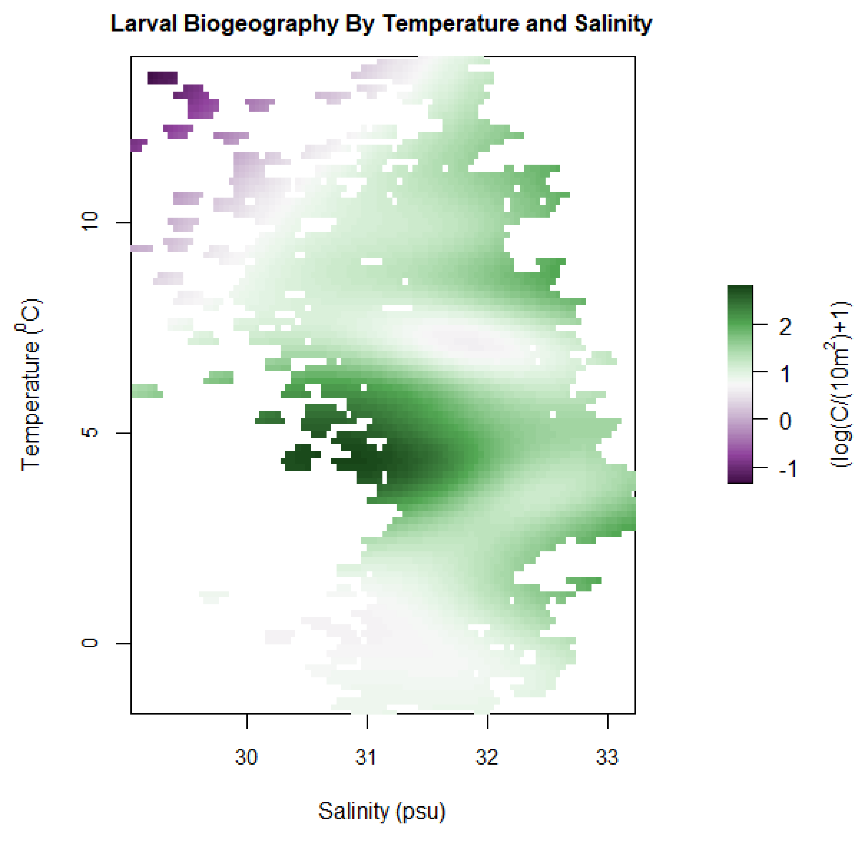
Chart

Description automatically generatedChart

Description automatically generated

A picture containing map

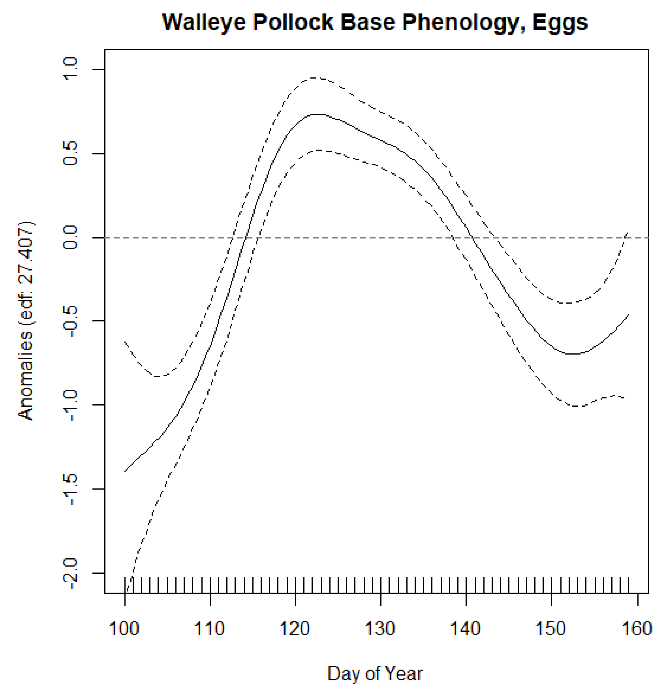
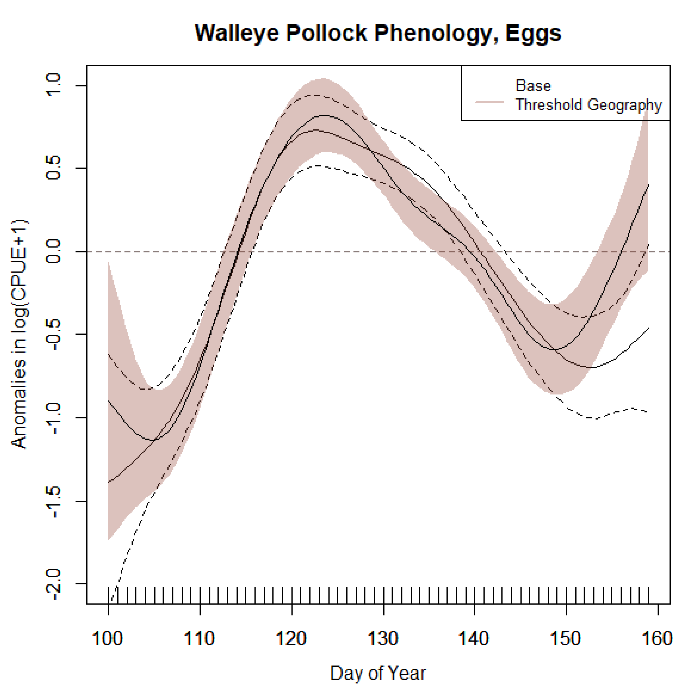
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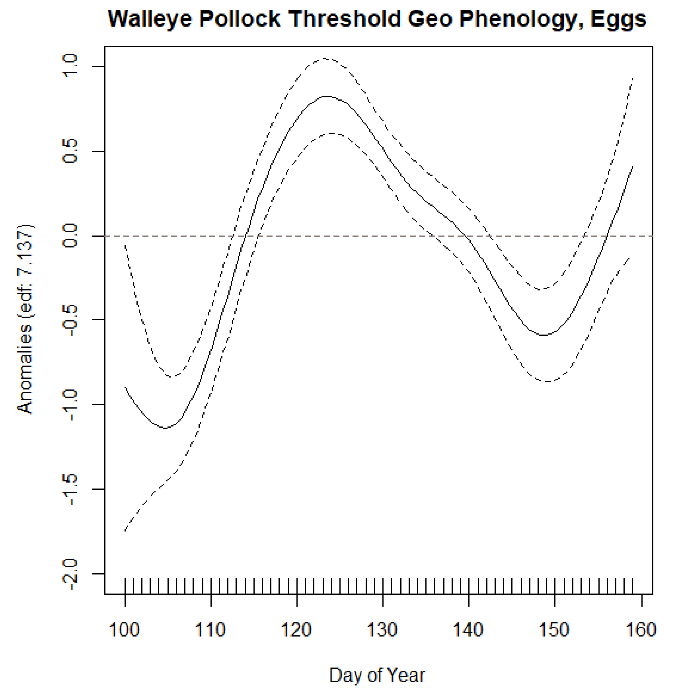


Map

Description automatically generatedChart, scatter chart

Description automatically generated





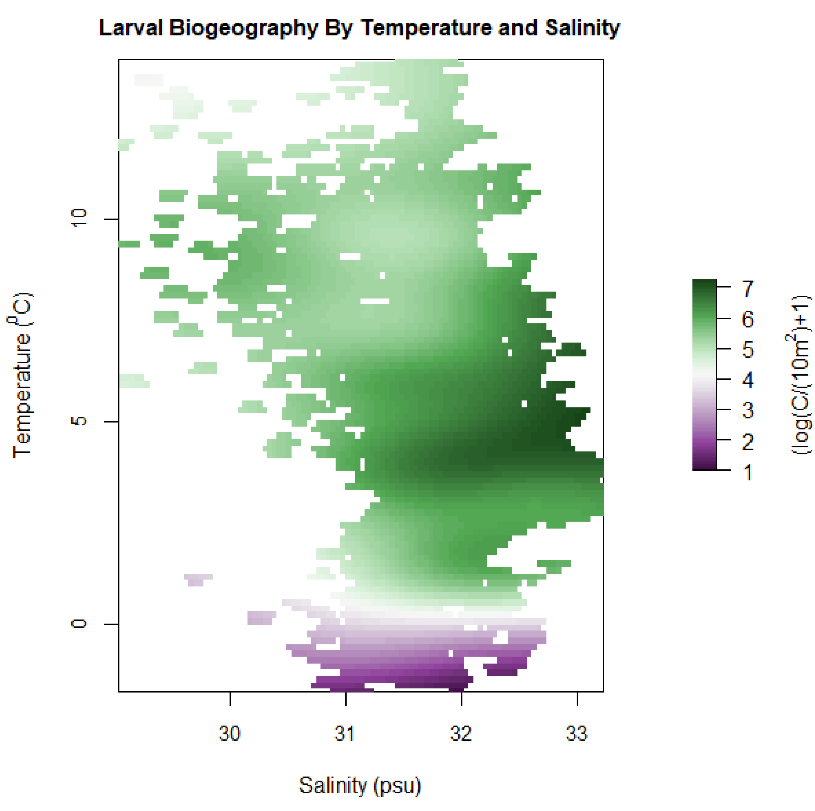
Map

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Chart

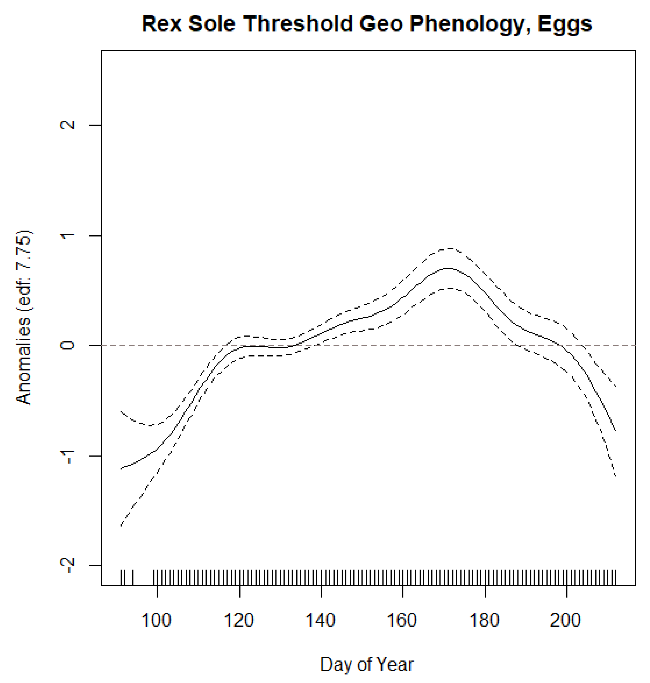
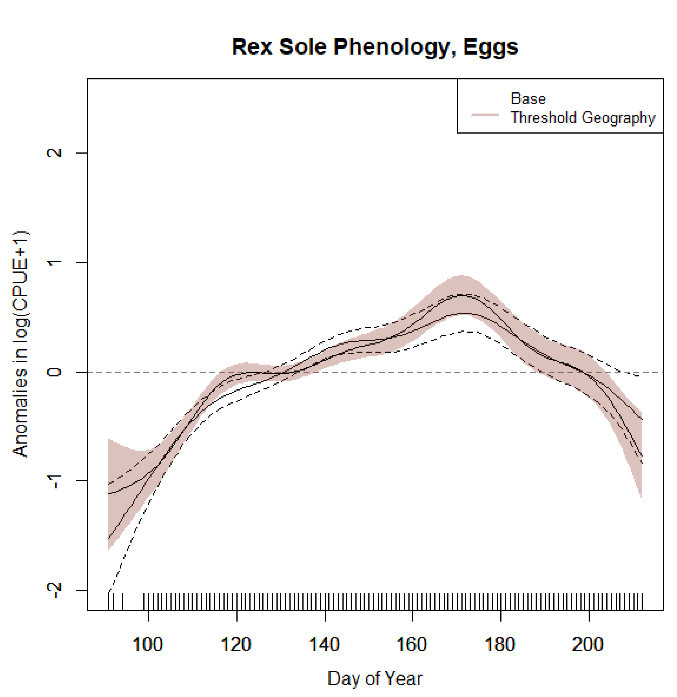
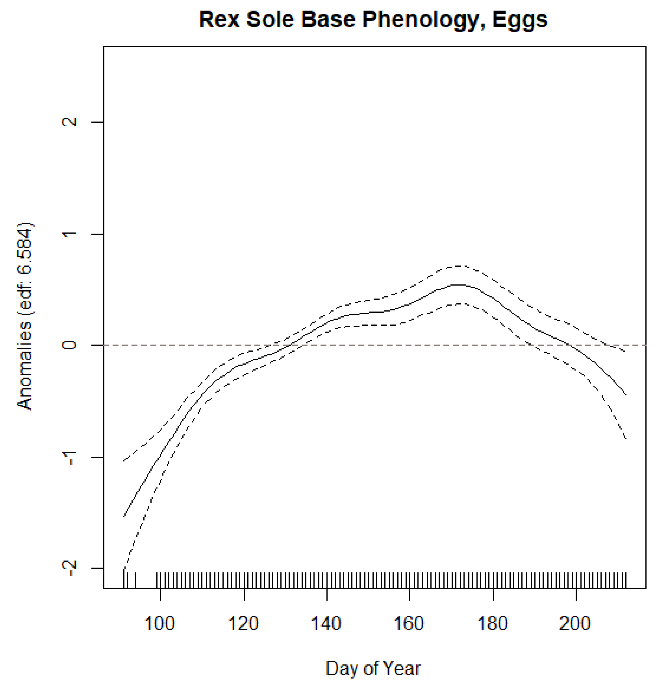
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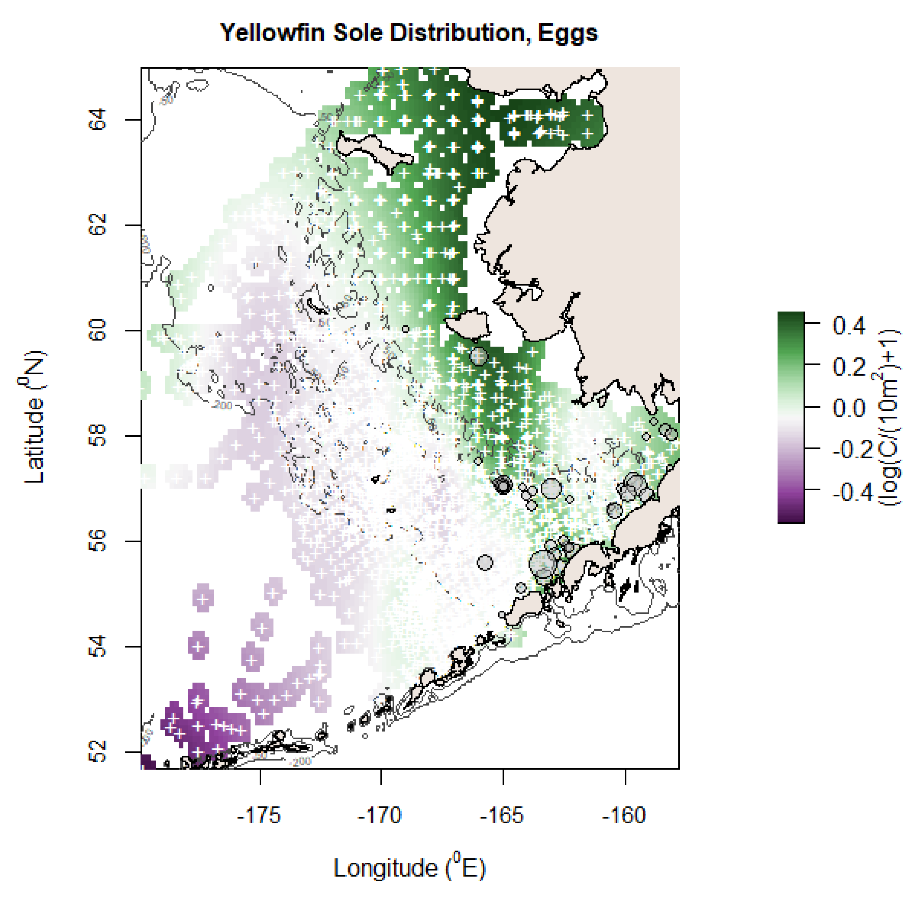


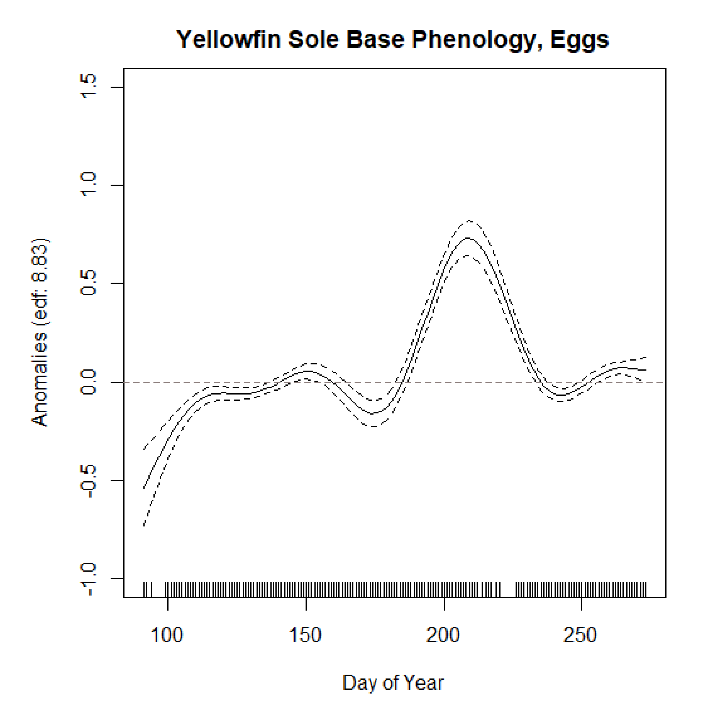
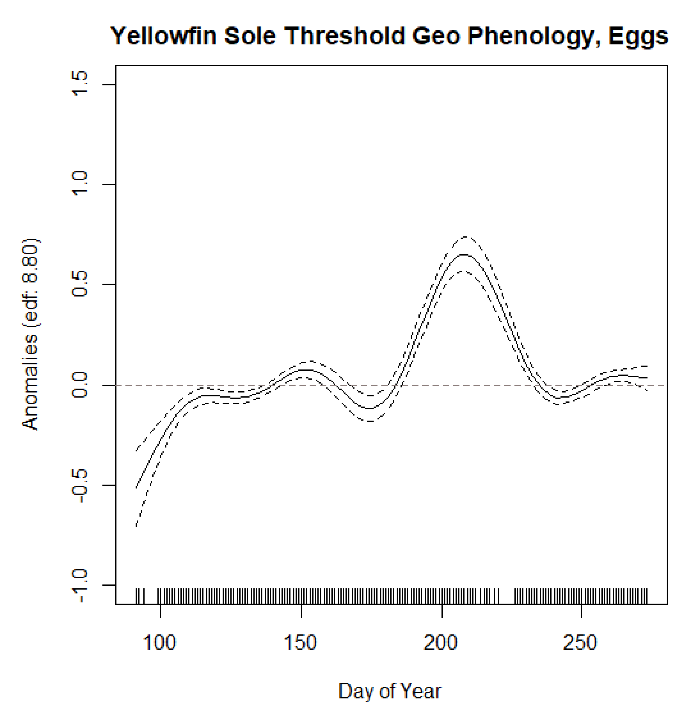
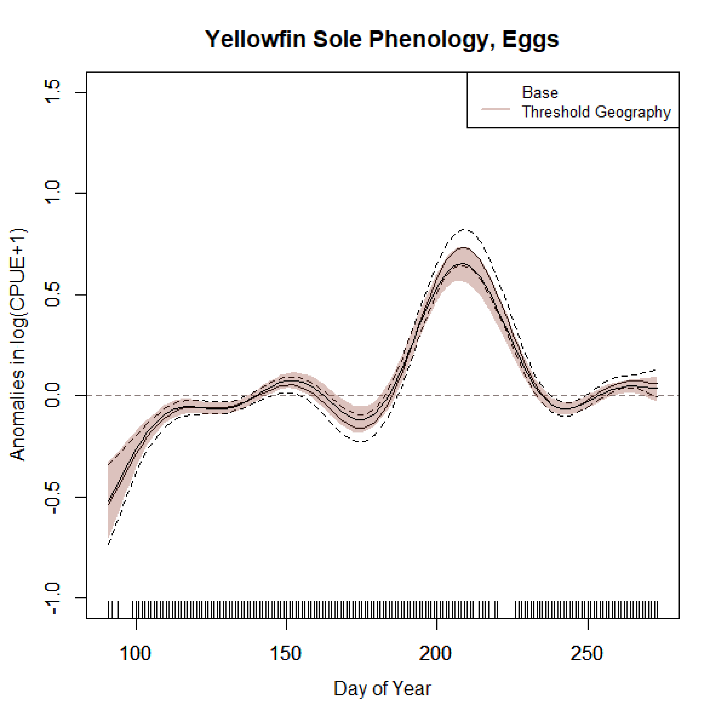
Chart

Description automatically generatedA picture containing chart

Description automatically generated





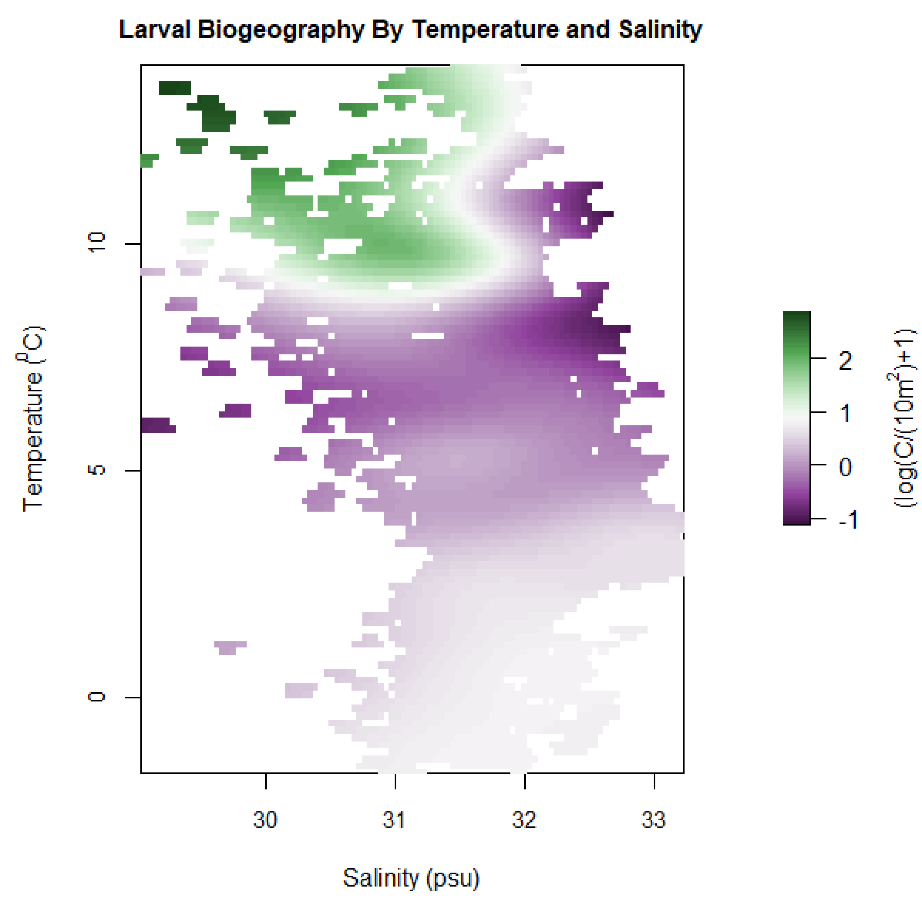


Chart

Description automatically generatedChart, scatter chart

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Map

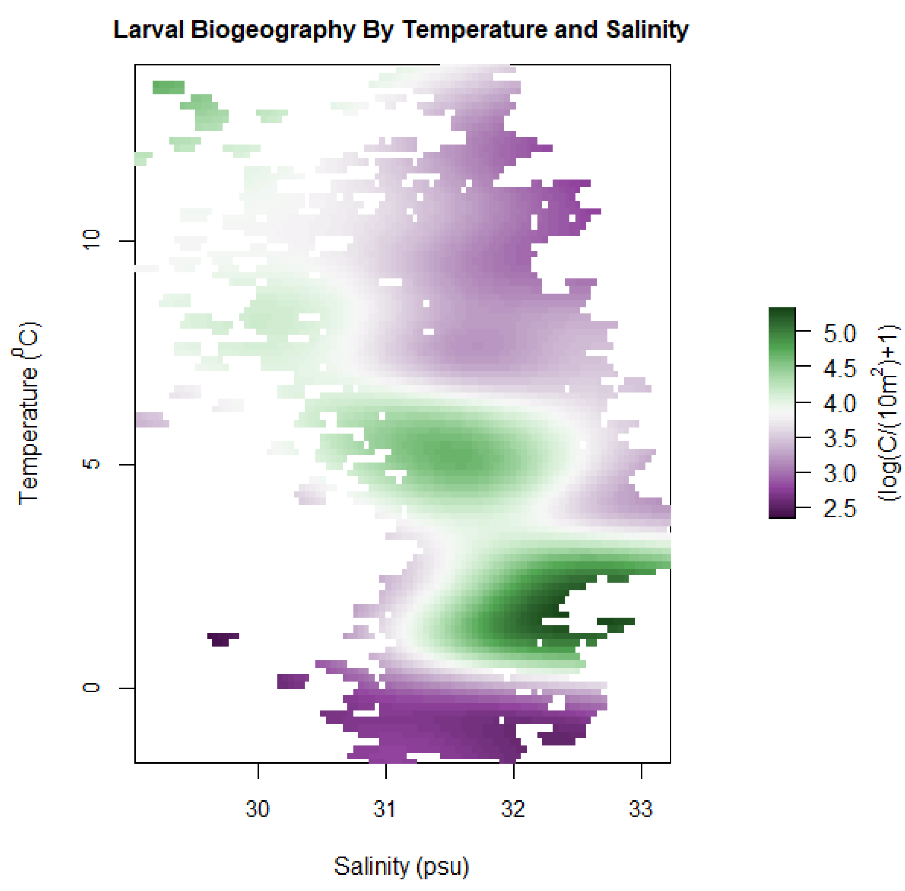
Description automatically generated

Chart

Description automatically generated with medium confidenceChart

Description automatically generated with medium confidence

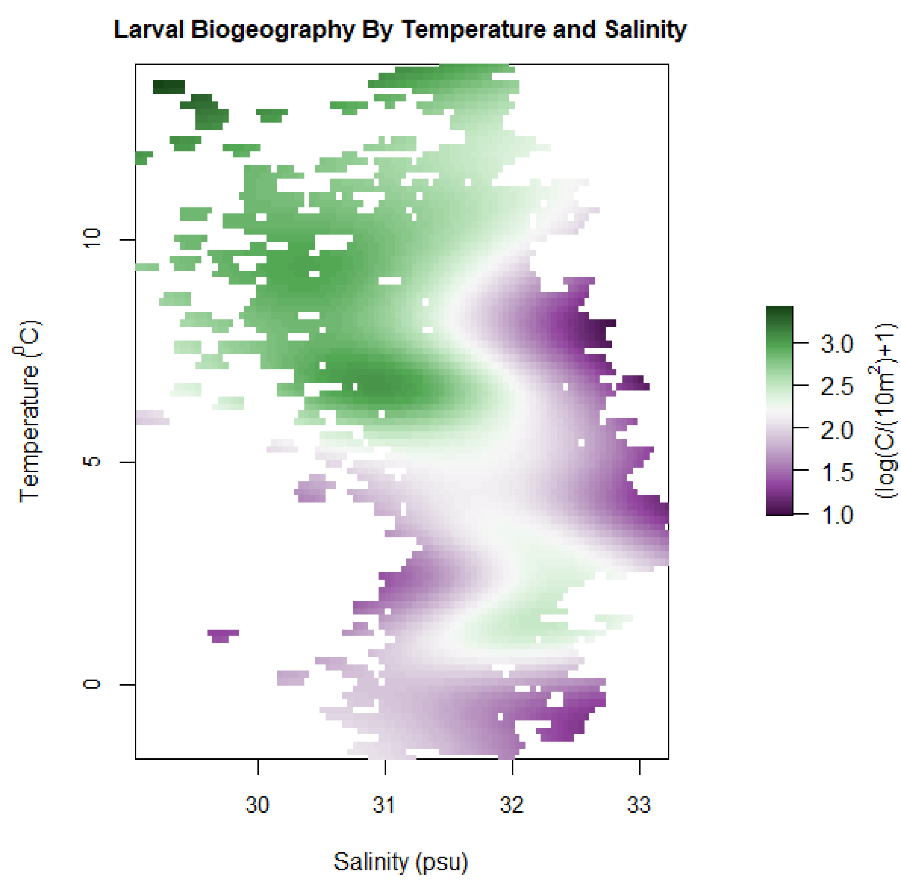
Chart

Description automatically generated

Chart, scatter chart

Description automatically generatedChart, scatter chart

Description automatically generated



A picture containing map

Description automatically generated

Diagram, schematic

Description automatically generated