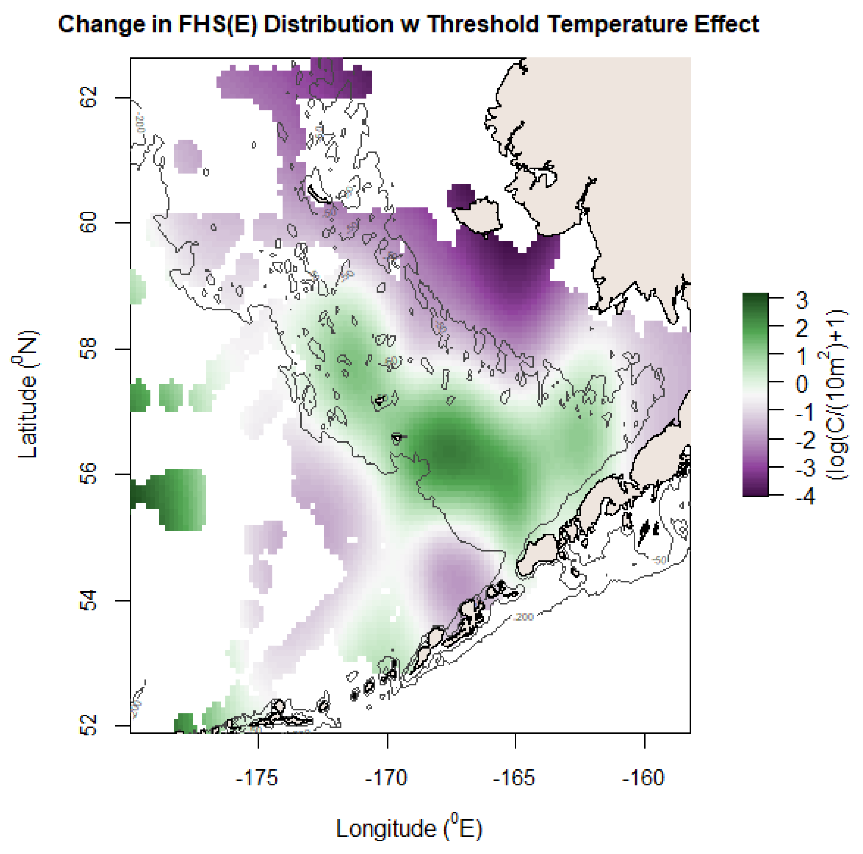
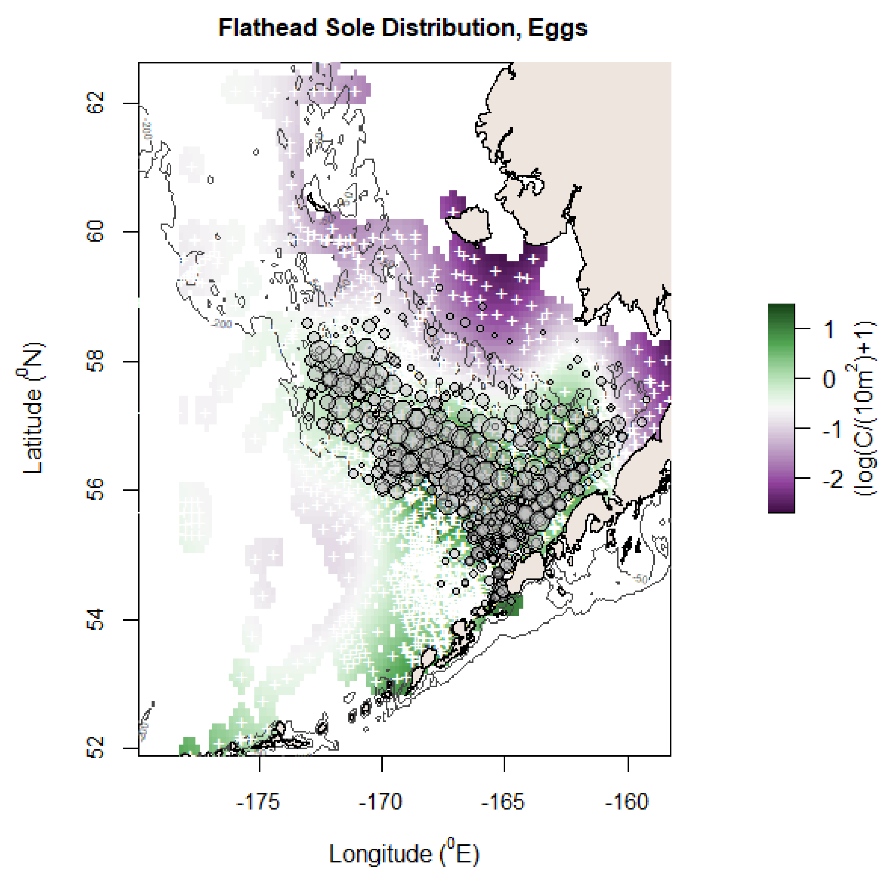
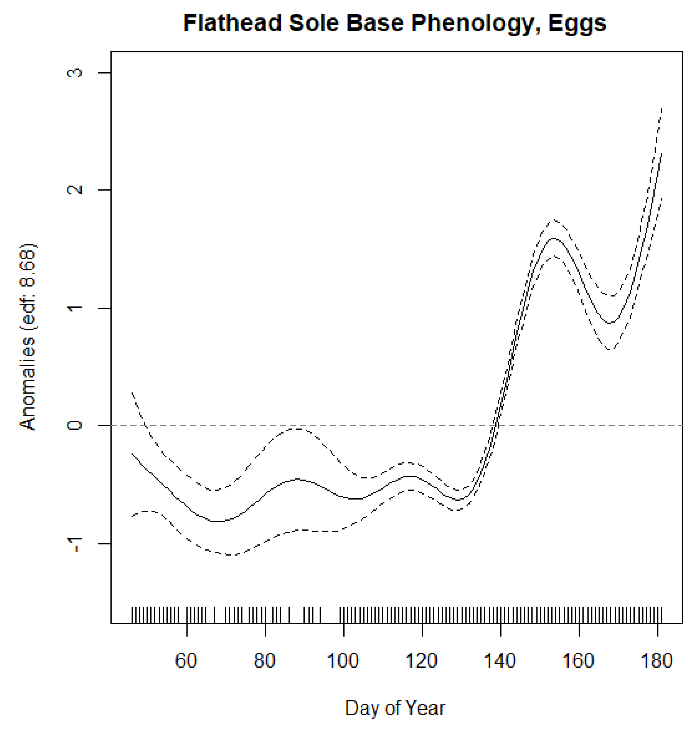
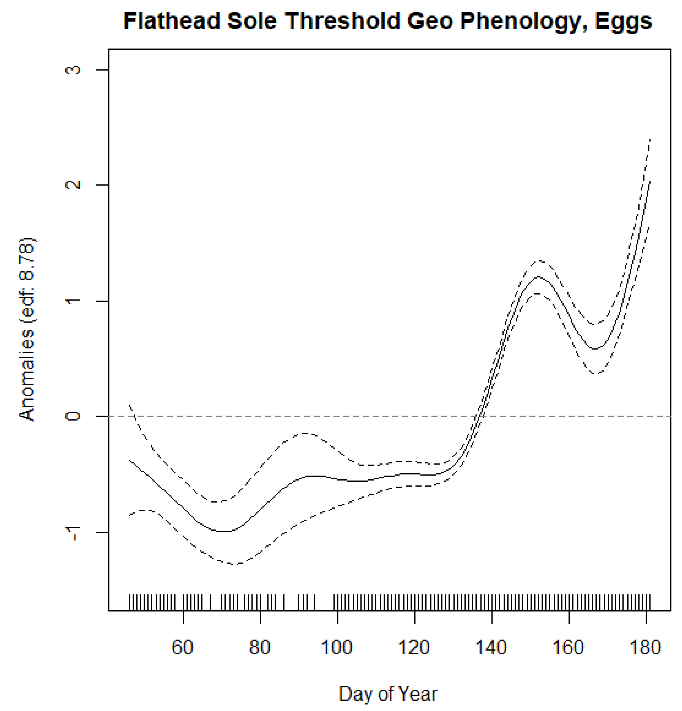
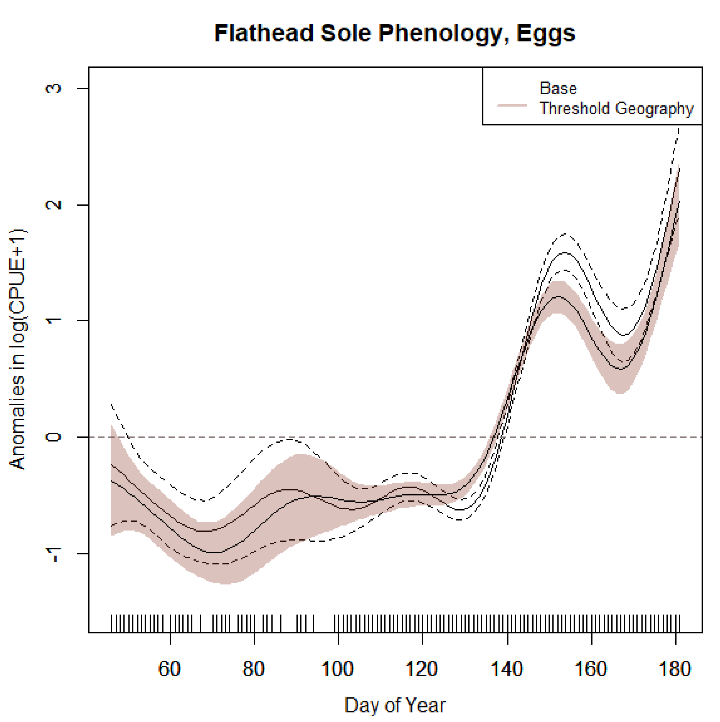
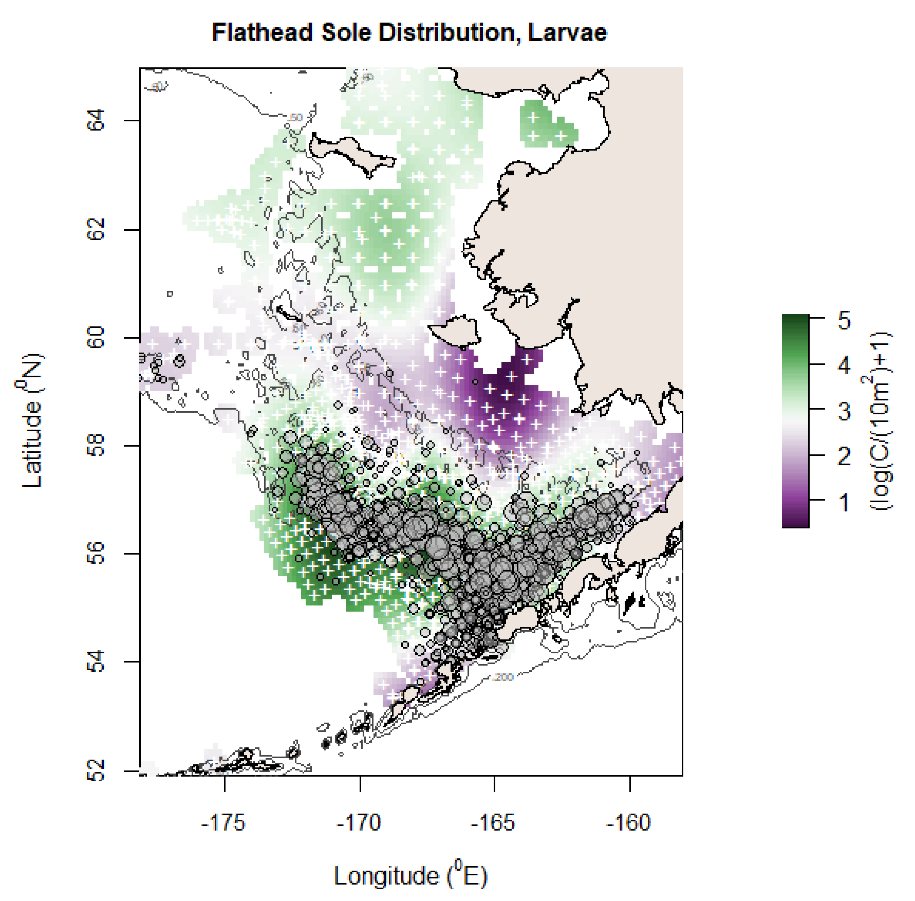
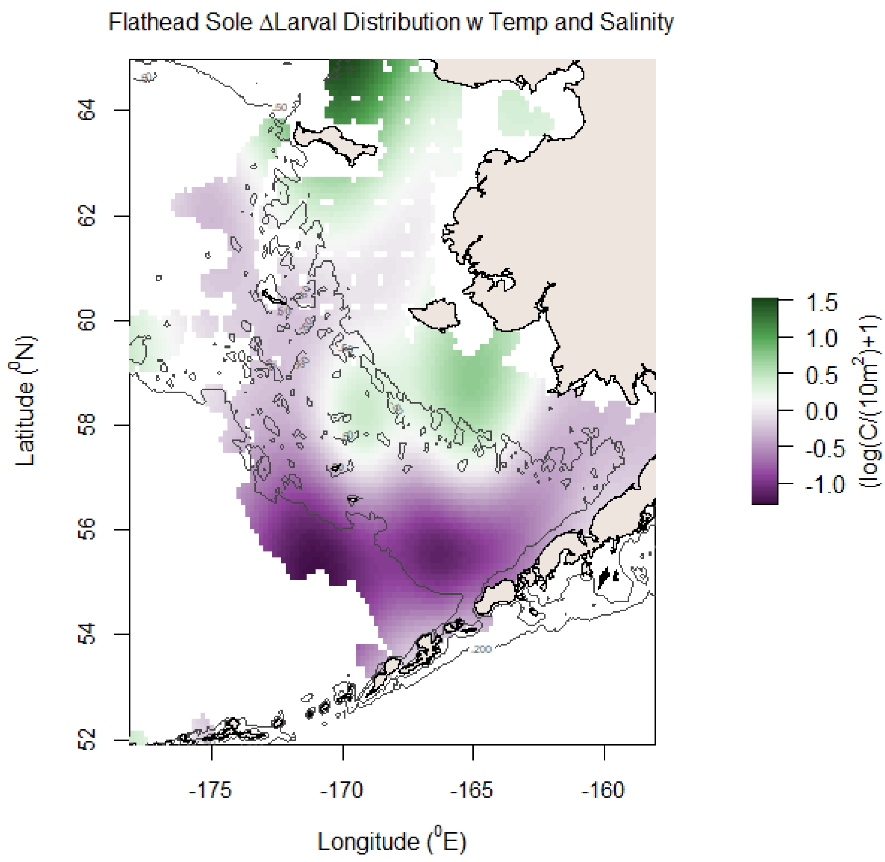
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Species | Life Stage | Best Model | ΔMSE | ΔAIC | Deviance Explained |
| Alaska Plaice | Egg | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy) + *s*(bottom depth, k=5) + *g*(longitude, latitude, by = threshold regional SST) + *e*doy,year,(lon,lat) | 0.104 | 427.5 | 76.6% |
| Larvae | (Log(Catch per 10m2)+1) = *factor*(year) + *s*(doy, k=5) + *s*(bottom depth) + *g*(temperature, salinity) + *e*doy,year,(temperature,salinity) | 0.155 | 494.9 | 83% |
| 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% |

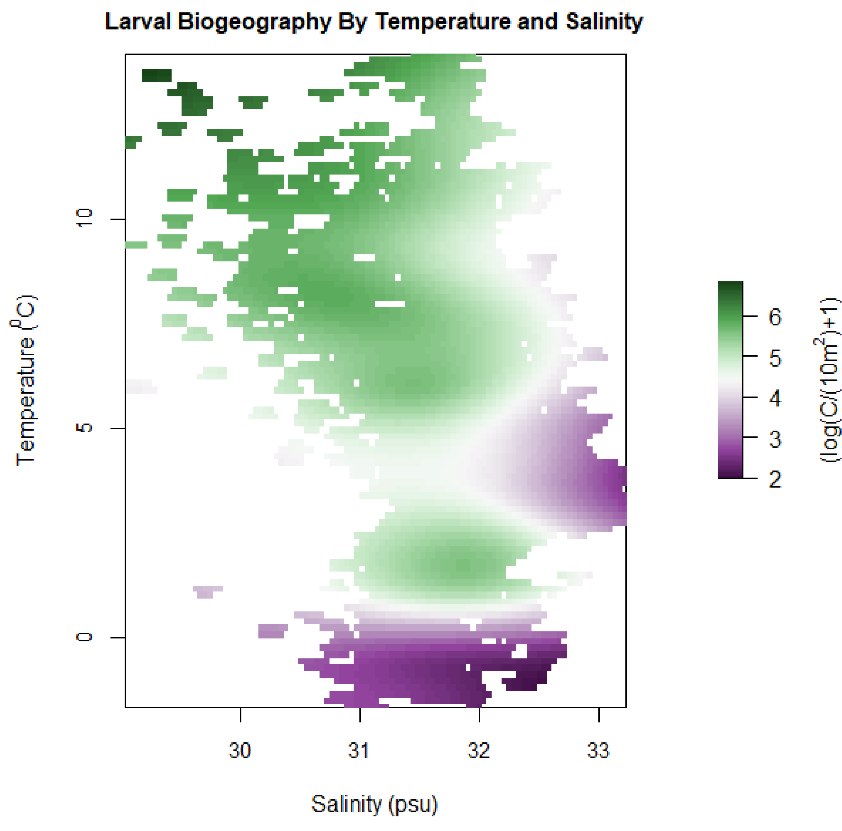
\*MSE was calculated by subtracting best model MSE from base model MSE, therefore positive values indicate a reduction in MSE relative to the base model. AIC was calculated the same way, thus positive differences in AIC indicate a reduction in AIC relative to the base model.







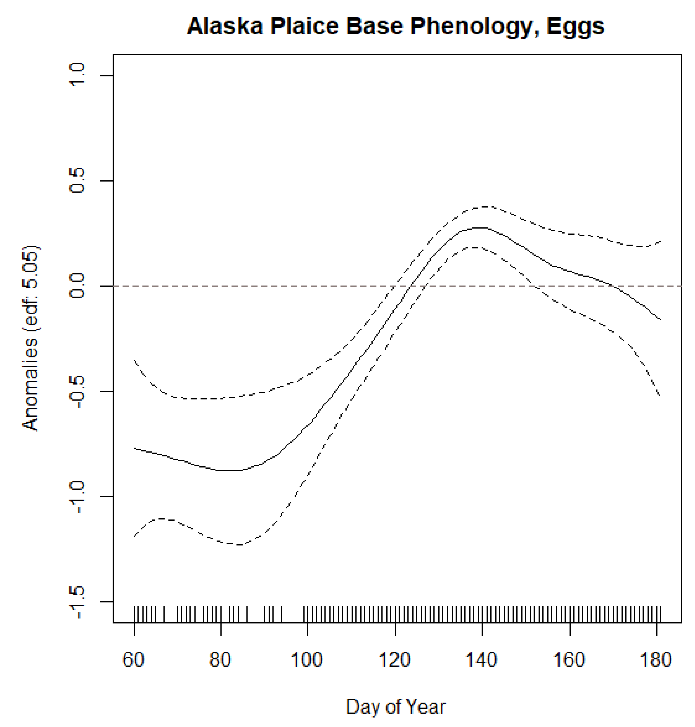
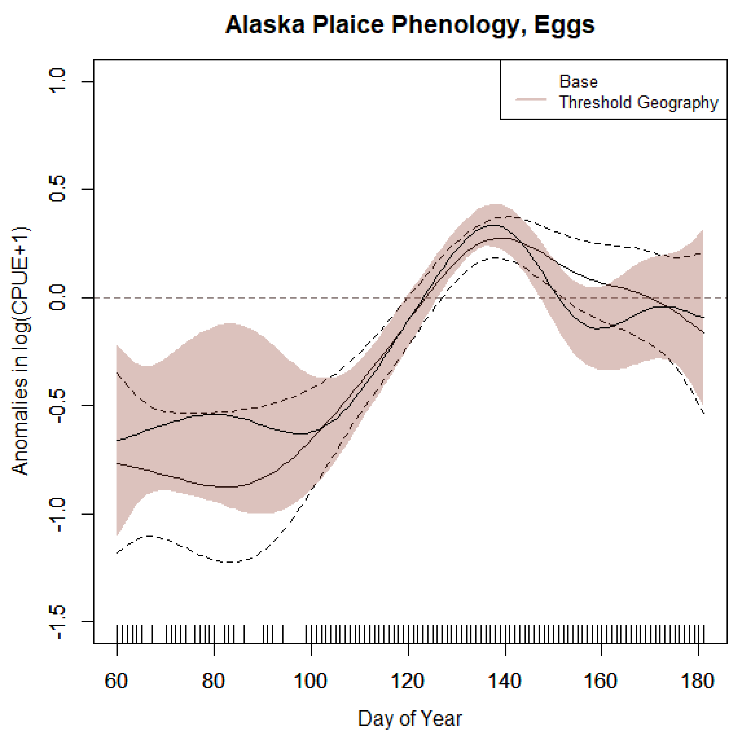




Chart

Description automatically generated with medium confidenceChart, scatter chart

Description automatically generated



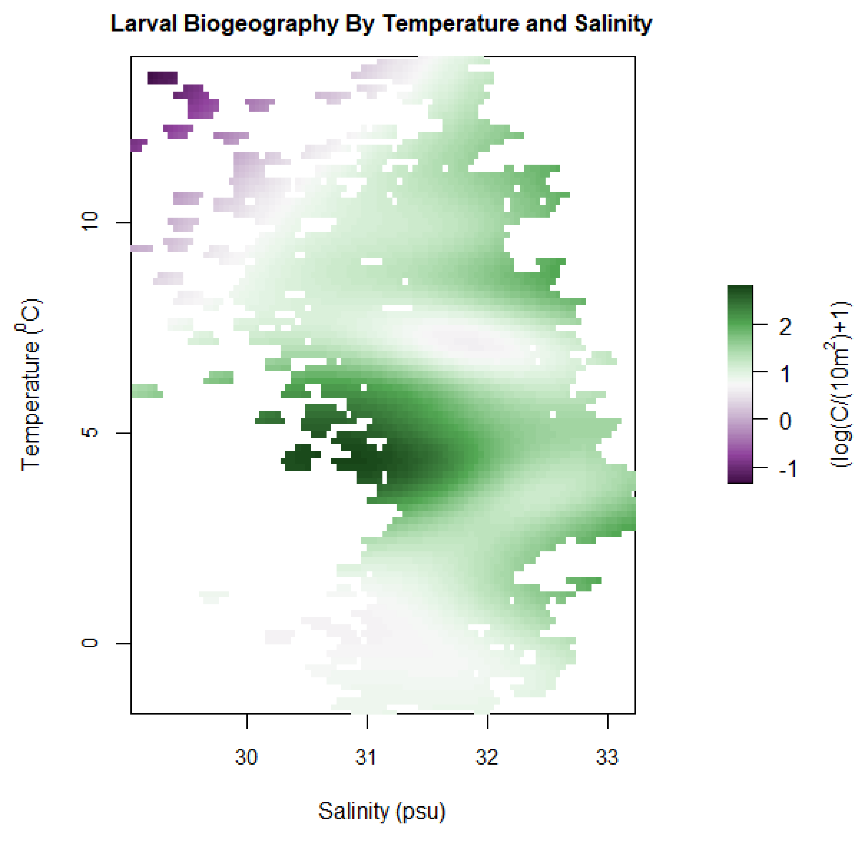
Chart

Description automatically generatedChart

Description automatically generated

A picture containing map

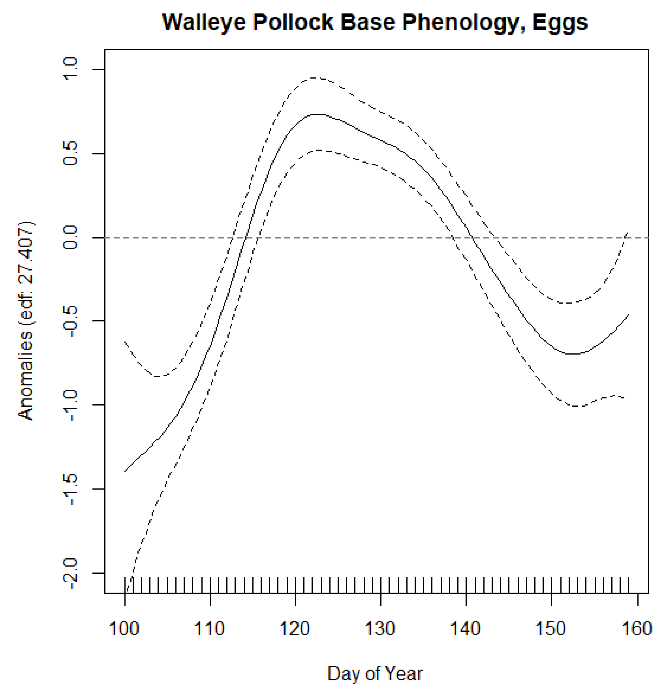
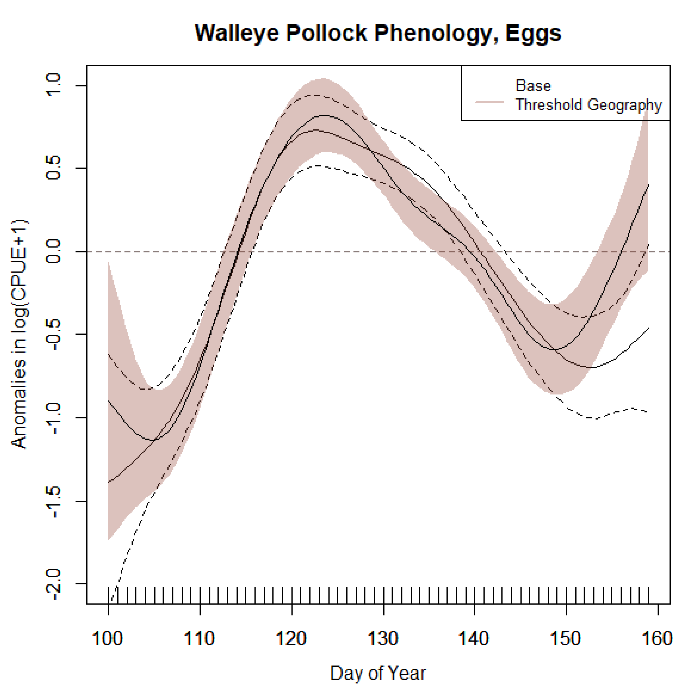
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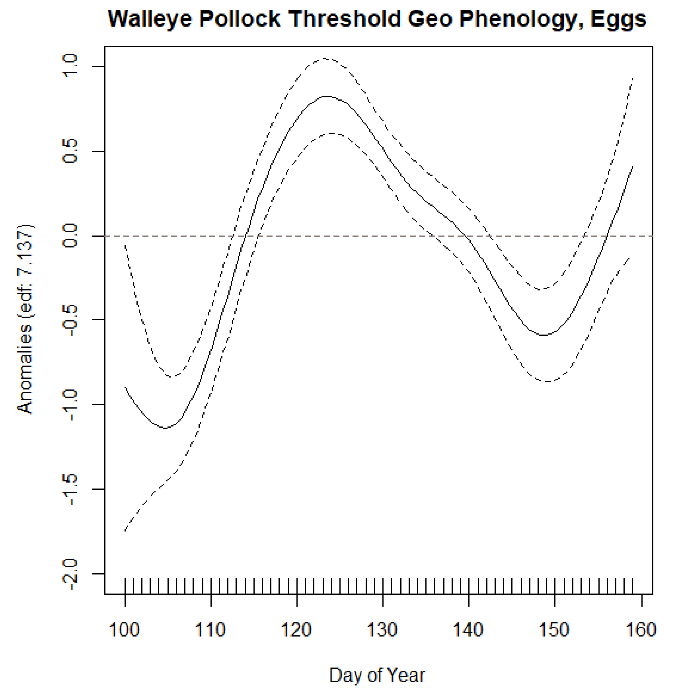


Map

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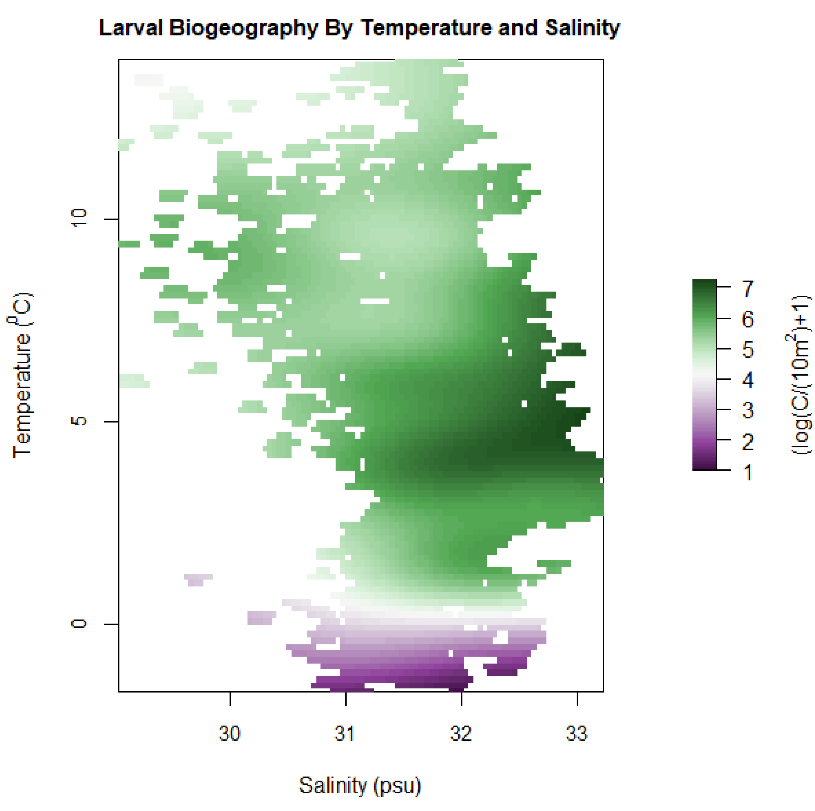
Map

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Chart

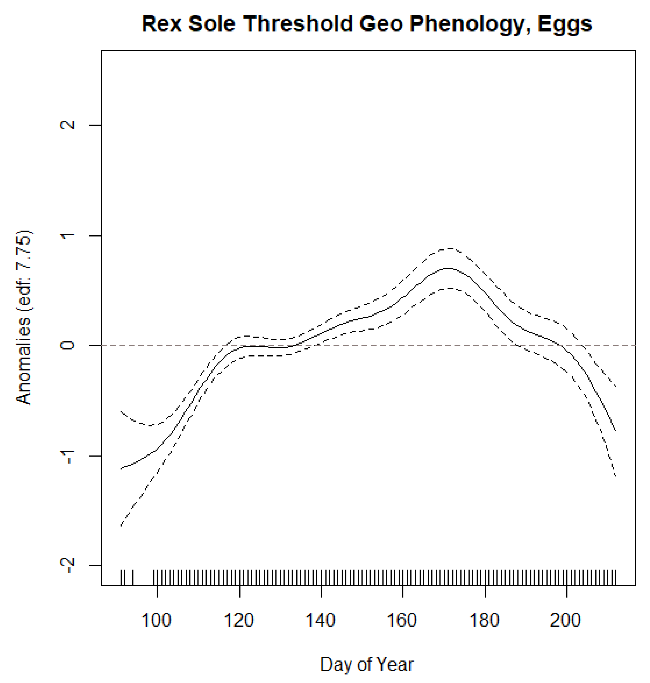
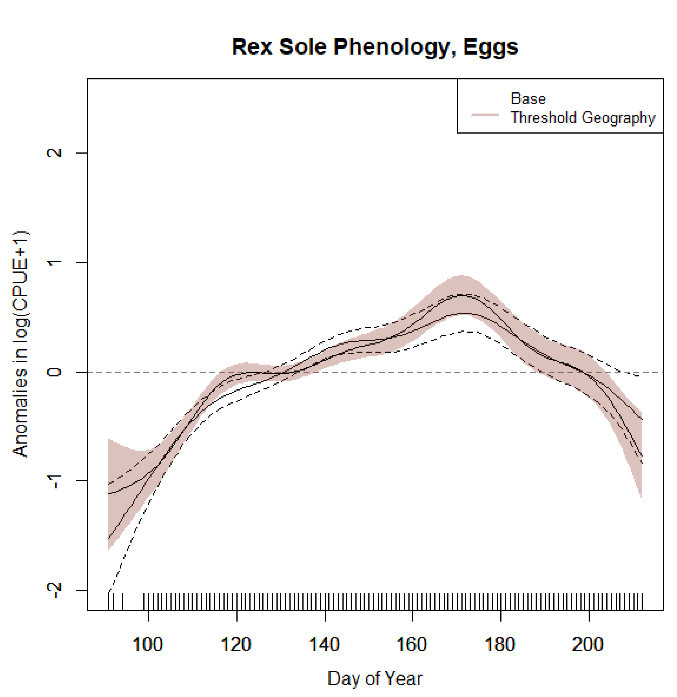
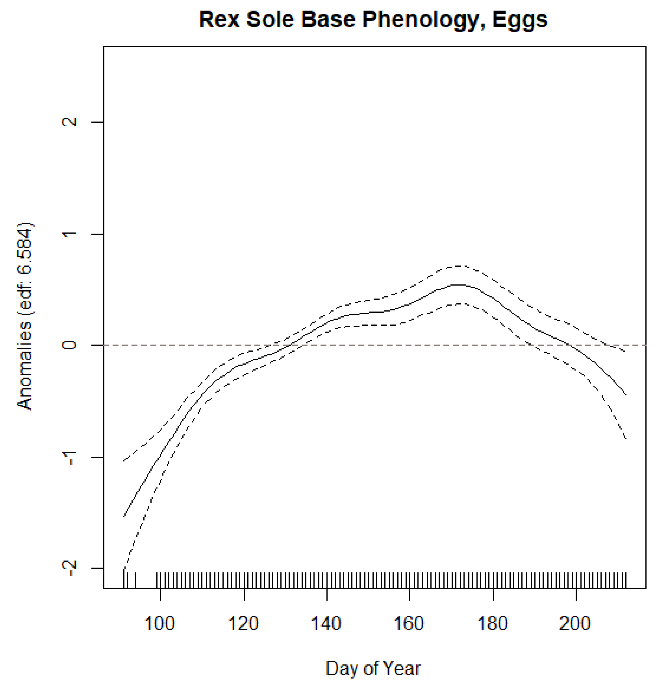
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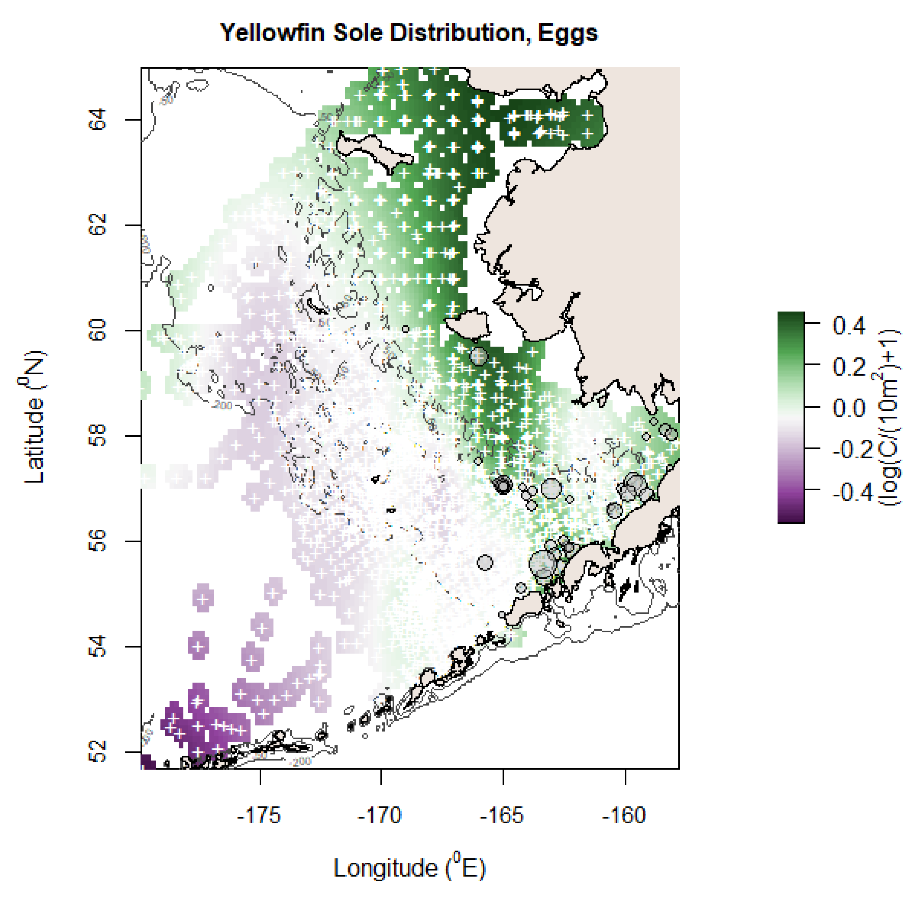


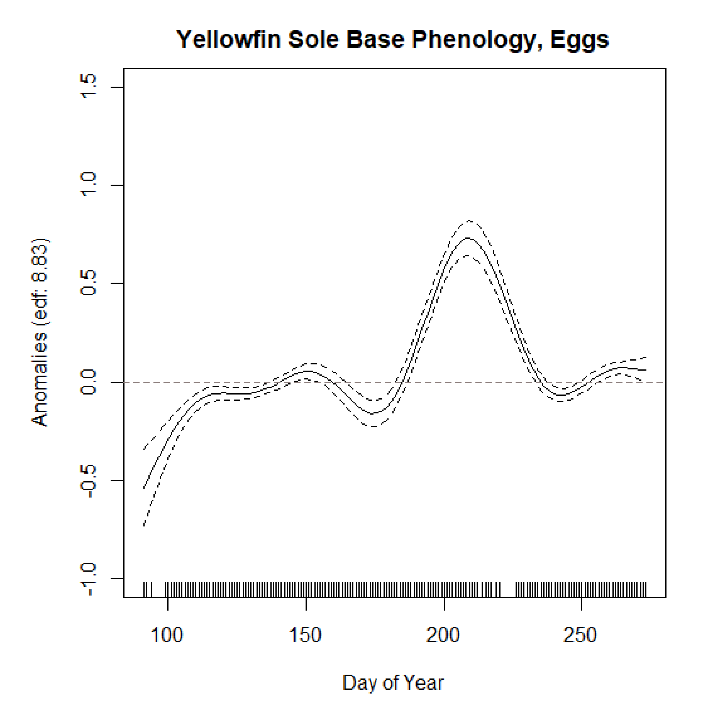
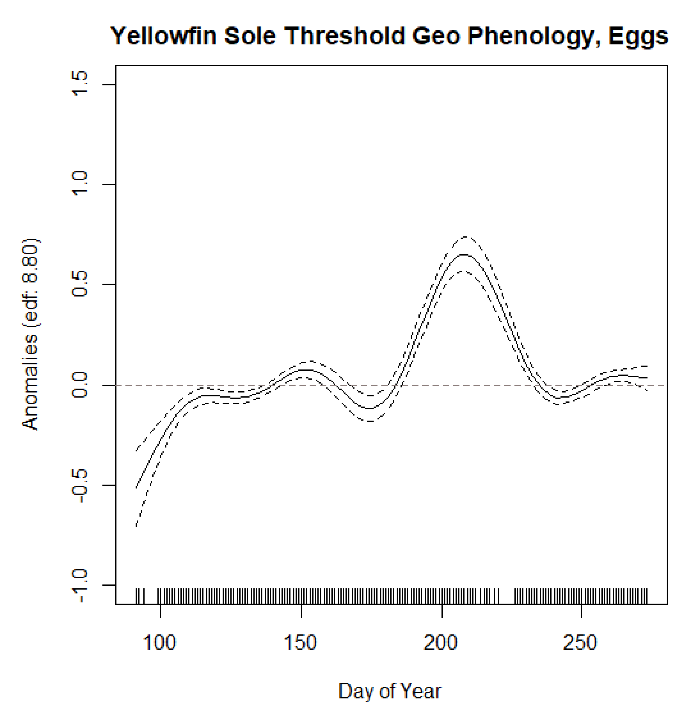
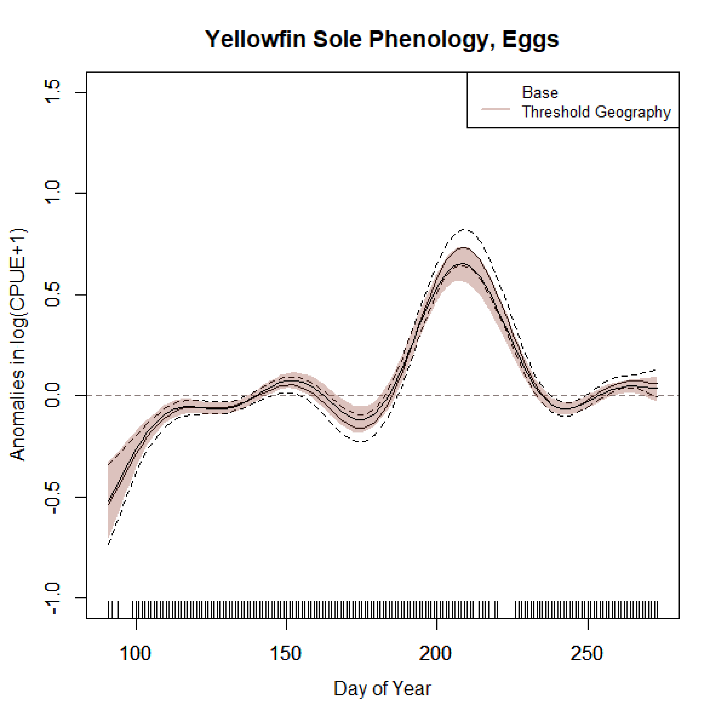
Chart

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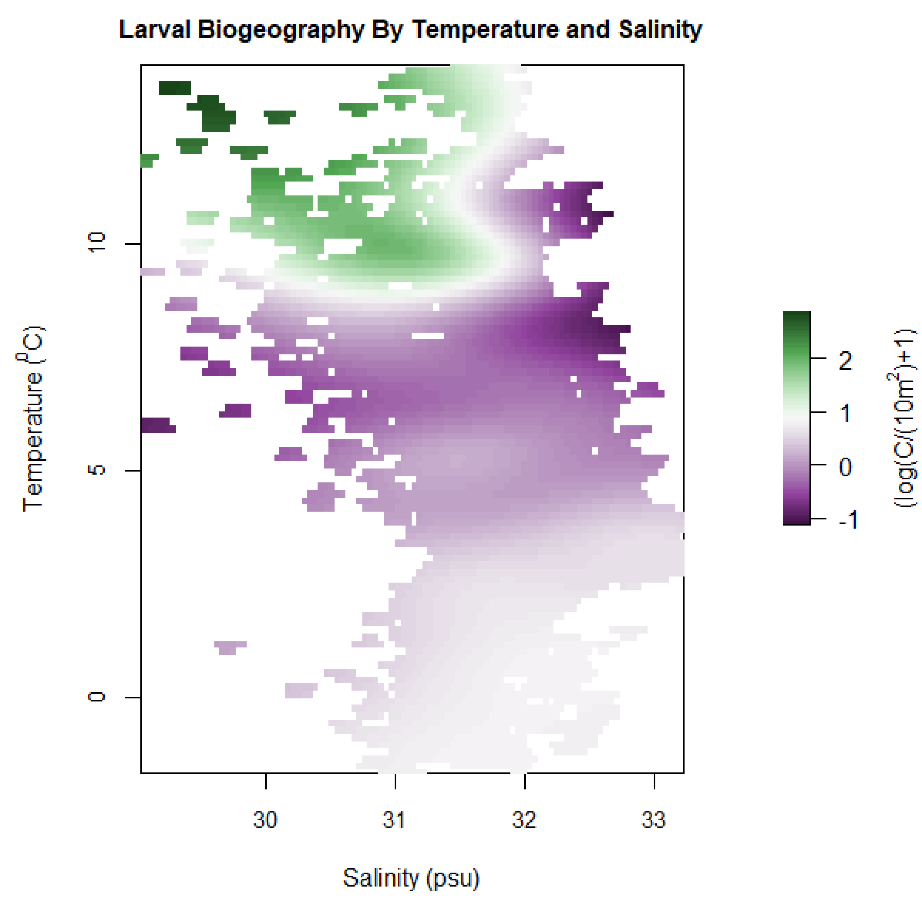


Chart

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Map

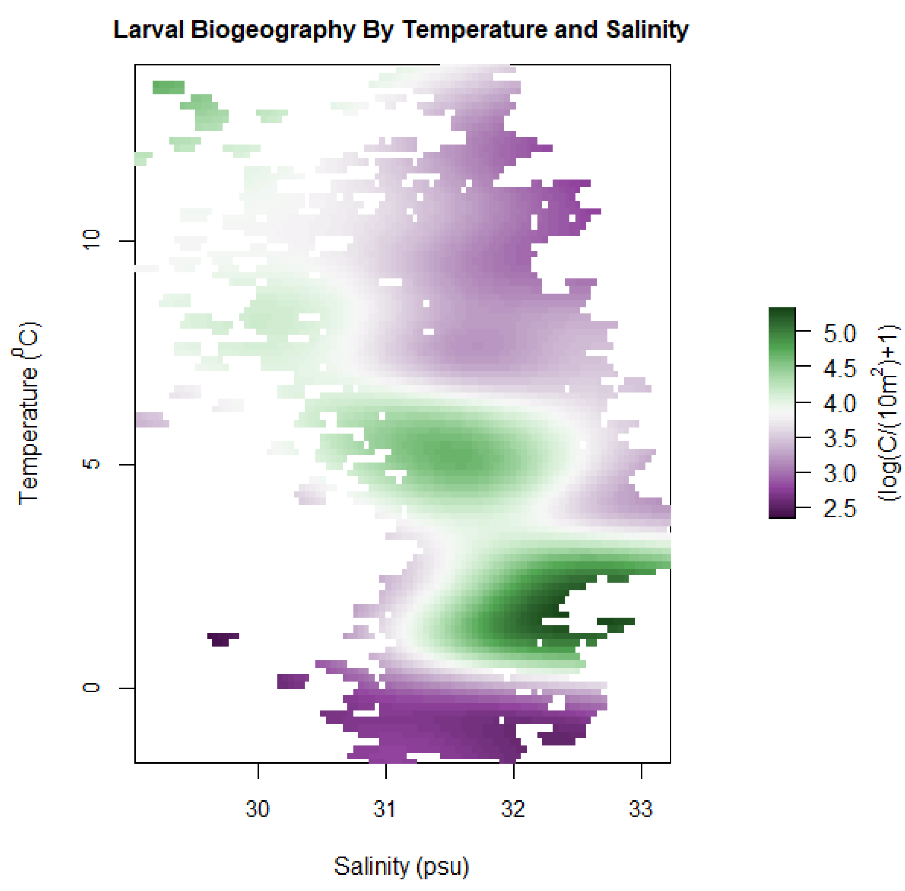
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Chart

Description automatically generated with medium confidenceChart

Description automatically generated with medium confidence

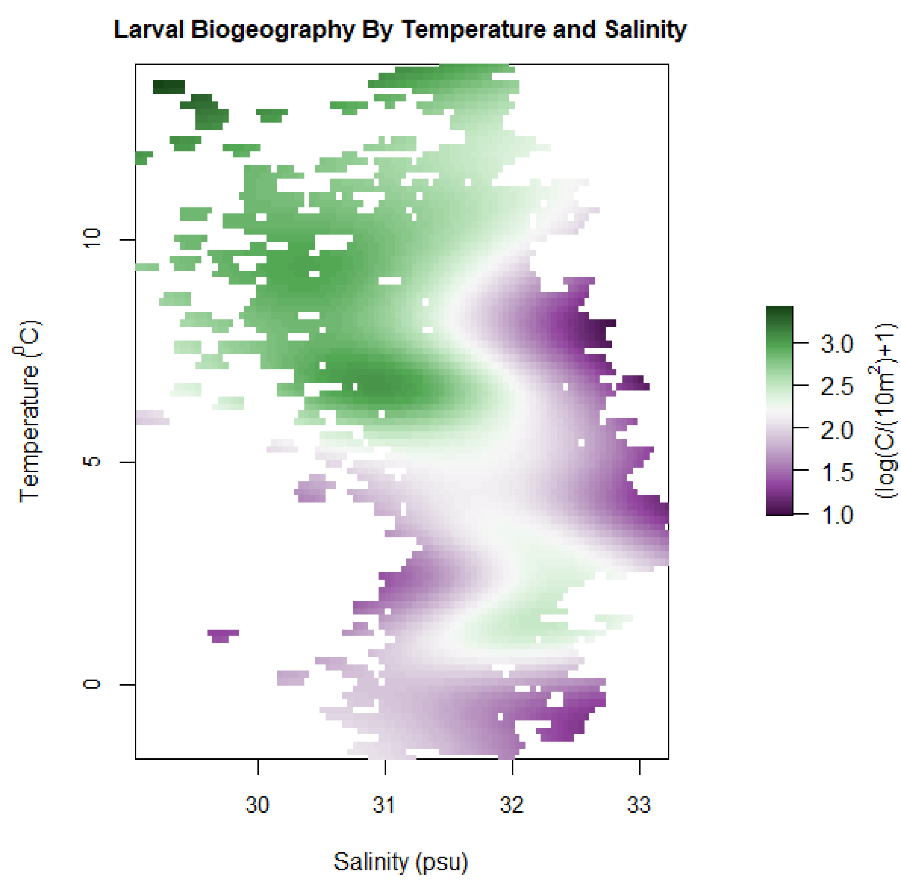
Chart

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