Table S1. Descriptions of sample sites. A single lat/long was created for each shoreline segment (representing different shoreline types) within each site by snapping subtidal station coordinates within each site to nearest shoreline feature then using then generating centroid points. Basin codes are derived from the Puget Sound nearshore and Estuarine Research Program (PSNERP) designations: San Juan Islands (SJ), WH (Whidbey Basin), South Central (SC), and South Puget Sound (SP). Core sites were sampled monthly during the field season over 4 years and supplemental sites (supp) were sampled only in June 2021 and 2022. Armor type at armored shorelines within sites is represented as either bulkhead (bulk) or riprap revetment (rev). Restoration year corresponds with the restored shorelines within sites. Distances between depth stations represents the range of Euclidean distances between paired shallow and deep sampling stations, in meters. The final four rows contain survey coverage details where C designates complete sampling (i.e. a lampara net set at each depth station at each shoreline type).

	Family Tides	**Turn Island**	**Cornet Bay**	**Maylor Point**	**Waterman Preserve**	**Howarth Park**	**Seahurst Park**	**Dockton Park**	**Lost Lake**	**Titlow Park**	**Penrose Point**	**Edgewater Beach**
Site code	FAM	TUR	COR	MA	WA	HO	SHR	DOK	LL	TL	PR	EDG
centroid Lat/Long	48.6114, -122.979	48.5309, -122.975	48.4043, -122.627	48.2739, -122.625	47.9987, -122.371	47.9606, -122.246	47.4815, -122.361	47.3710, -122.453	47.3598, 122.488	47.2517, -122.552	47.2624, -122.751	47.1539, -122.929
basin	SJ	SJ	WH	WH	WH	WH	SC	SC	SC	SP	SP	SP
Core/Supp	core	core	core	supp	supp	supp	core	core	supp	supp	supp	core
Eelgrass?	no	yes	yes	no	yes	yes	yes	no	no	yes	yes	no
Land Ownership	Private/ Summer camp	State Park / Private	State Park / Private	Private/ Naval base	Private	State Park	State Park	County Park	Private	County Park	County Park	Private
Dock?	yes	no	yes	no	no	no	no	yes	no	no	no	no
Armor type	rev	bulk	bulk	rev	bulk	rev	bulk	bulk	bulk	bulk	bulk	bulk
Restoration year	2015	N/A	2012	2018	2016	2016	2014	2013	2018	2017	2013	2016
Distances between depth stations (m)	72.3 - 85.1	47.4 - 51.1	75.4 – 82.5	99.6 - 224.4	70.9 - 84.3	70.1 – 89.5	91.6 – 121.4	87.4 – 92.7	51.4 – 57.9	47.7 – 85.0	84.2 – 102.4	73.0 – 117.2
2018 (Jun-Aug)	C	C	C	-	-	-	C	C	-	-	-	C
2019 (Apr-Sept)	C	C	C	-	-	-	C	C	-	-	-	C
2021 (Apr-Aug)	C	C	June	Armored	C	C	Armored, Aug	C	C	C	C	July
2022 (Apr-Sept)	C	C	C	C	C	C	C	C	C	C	C	C

Table S2. Equations for the 8 models used in model selection for each species. The subscript *i* denotes sampling events and $_j$ denotes variable intercepts by site.

Model Name (if applicable)	Model Equation
base	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 log(day\ of\ year)_i + \beta_3 log(day\ of\ year)_i^2 + \beta_4 veg_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 \log(day\ of\ year)_i + \beta_3 \log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 shore\ type_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 \log(day\ of\ year)_i + \beta_3 \log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 \%\ shoreline\ armor\ in\ 500m_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 \log(day\ of\ year)_i + \beta_3 \log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 \%\ shoreline\ armor\ in\ 1.2km_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 log(day\ of\ year)_i + \beta_3 log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 \%\ shoreline\ armor\ in\ 10km_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 log(day\ of\ year)_i + \beta_3 log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 shore\ type_i + \beta_6 \%\ shoreline\ armor\ in\ 500m_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 log(day\ of\ year)_i + \beta_3 log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 shore\ type_i + \beta_6 \%\ shoreline\ armor\ in\ 1.2km_i$ $site_j \sim Normal(0, \sigma^2)$
	$log(\mu_i) = site_{j[i]} + \beta_1 year_i + \beta_2 log(day\ of\ year)_i + \beta_3 log(day\ of\ year)_i^2 + \beta_4 veg_i + \beta_5 shore\ type_i + \beta_6 \%\ shoreline\ armor\ in\ 10km_i$ $site_j \sim Normal(0, \sigma^2)$

Sampling Summary

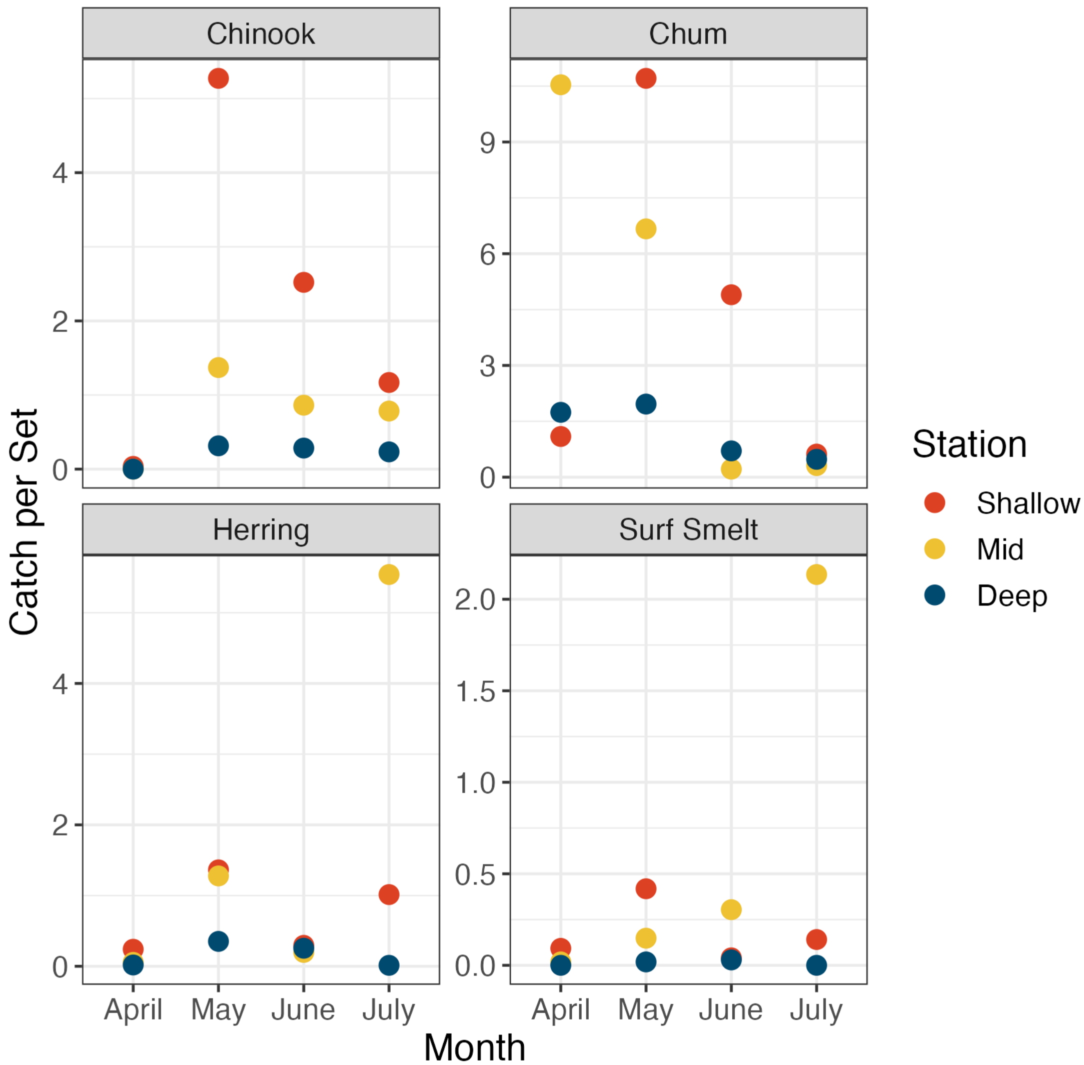

Fig. S1. Average catch per set of target species at three depth stations. Months with peak abundances are displayed, for clarity. The shallow depth station at each site was in 1 meter water depth, the mid station was in about 5 meter water depth, and the deep station was approximately 50 meters offshore of the mid station.

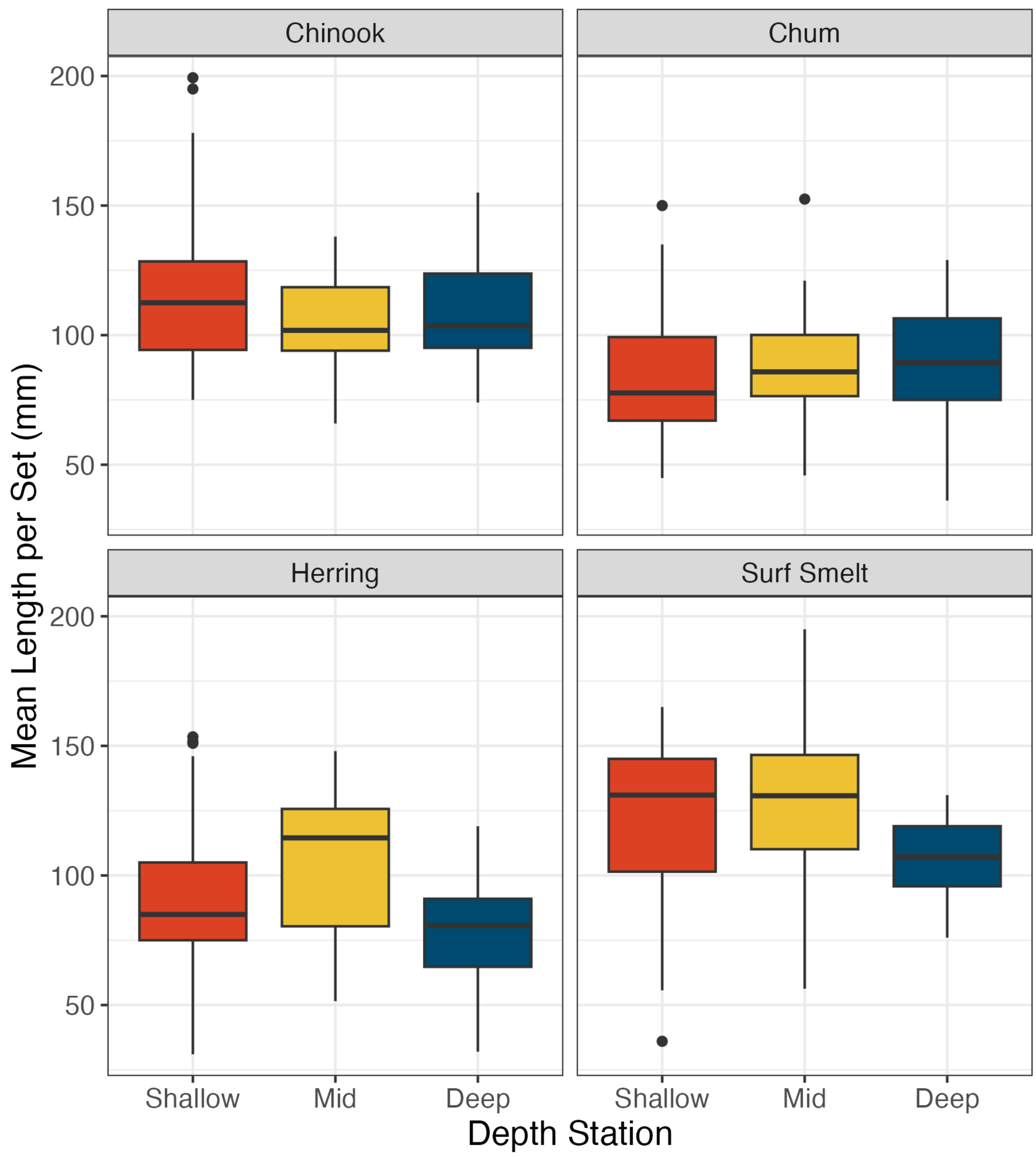

Fig. S2. Mean lengths of target species measured at three depth stations. We measured the fork length of the first 20 individuals of each fish species captured in each net set. The shallow depth station at each site was in 1 meter water depth, the mid station was in about 5 meter water depth, and the deep station was approximately 50 meters offshore of the mid station.

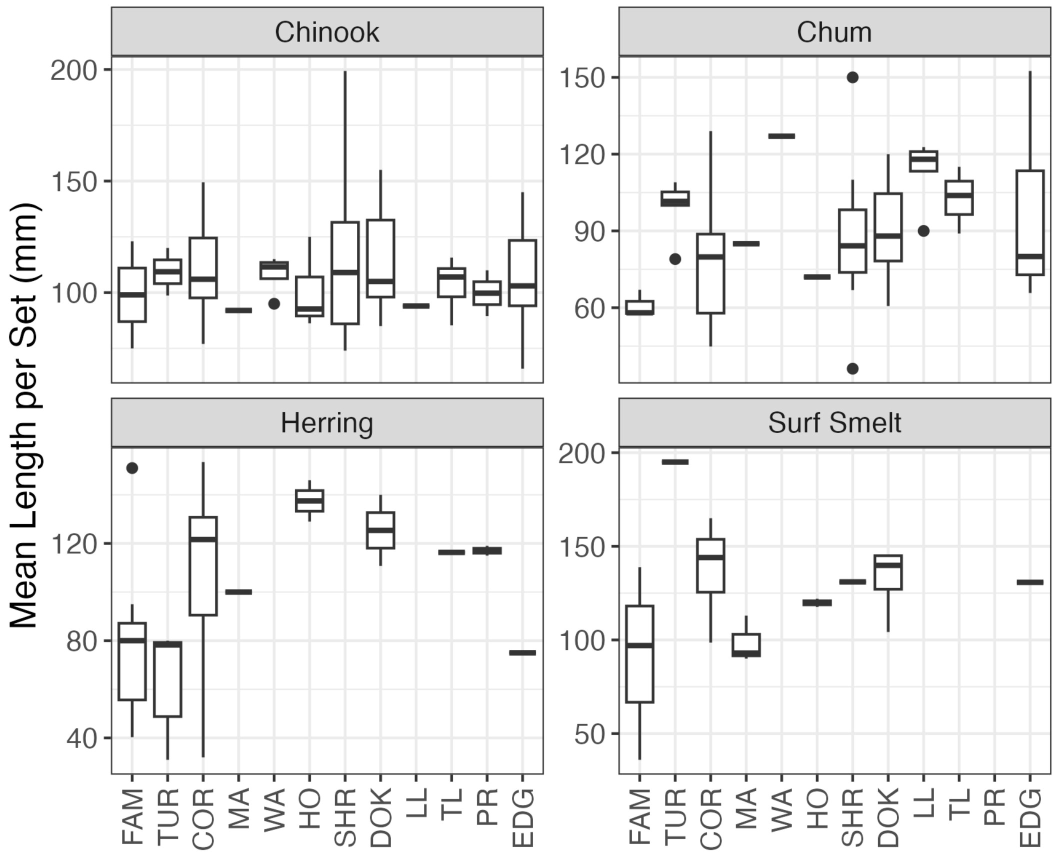

Fig. S3. Mean lengths of target species measured at each site. Site codes are associated with sites described in Table S1. Three letter site codes correspond to core sites, sampled spring-summer over 4 years, while two letter site codes correspond with supplemental sites that were sampled only in June over 2 years. We measured the fork length of the first 20 individuals of each fish species captured in each net set.

Text S1. Model Diagnostics

We conducted diagnostic checks for the model with the lowest AICc value for each species, as follows:

Chinook (armor extent within a 500m radius) and Herring (within a 10km radius)

$$\lambda_i = \alpha + \beta_1 year_i + \beta_2 logyday_i + \beta_3 logyday_i^2 + \beta_4 veg_i + \beta_5 armor.extent_i + site_{\mathrm{j[i]}}$$

Chum

$$\lambda_i = \alpha + \beta_1 year_i + \beta_2 logyday_i + \beta_3 logyday_i^2 + \beta_4 veg_i + \beta_5 shoreline_i + site_{\mathrm{j[i]}}$$

Smelt

$$\lambda_i = \alpha + \beta_1 year_i + \beta_2 logyday_i + \beta_3 logyday_i^2 + \beta_4 veg_i + site_{\mathrm{j[i]}}$$

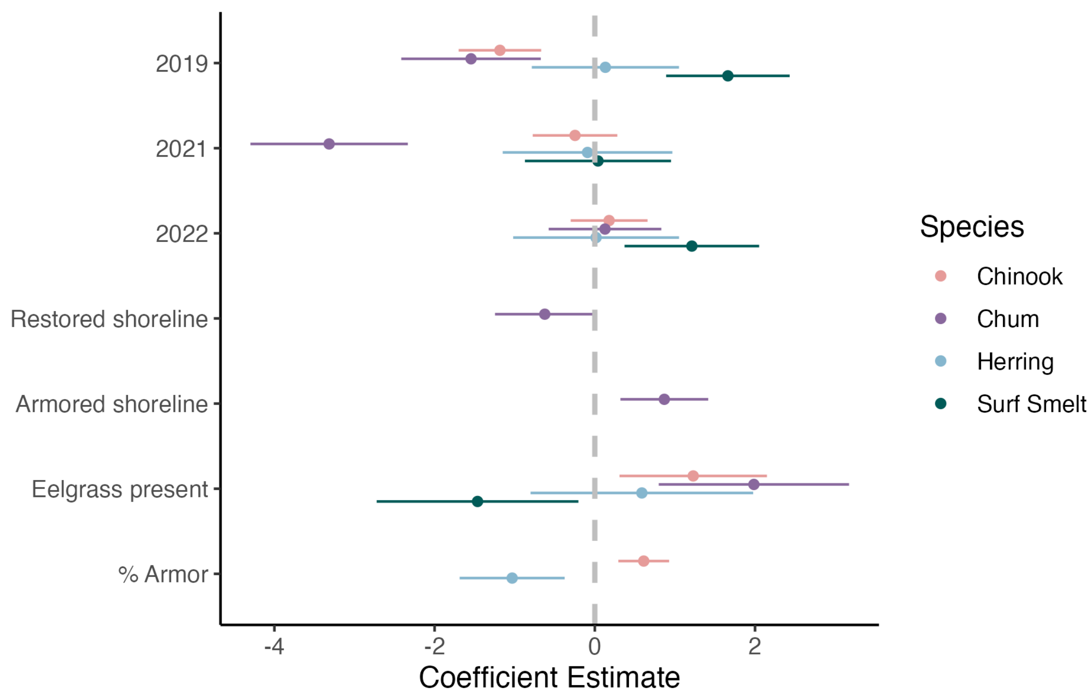

Fig. S4. Coefficient estimates for models with the lowest AICc value for each species

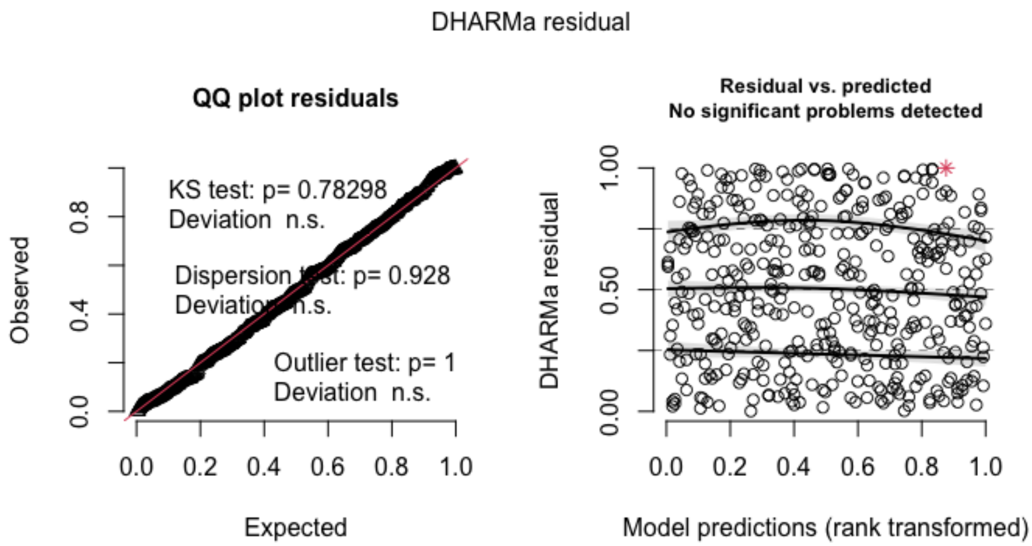

Fig. S5. Chinook salmon model diagnostic plots from the R package DHARMa

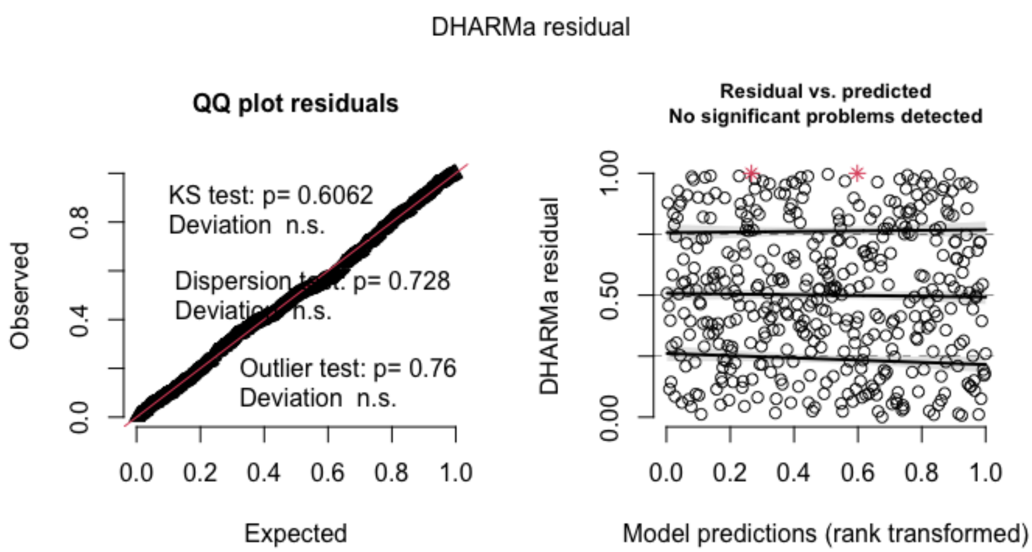

Fig. S6. Chum salmon model diagnostic plots from the R package DHARMa

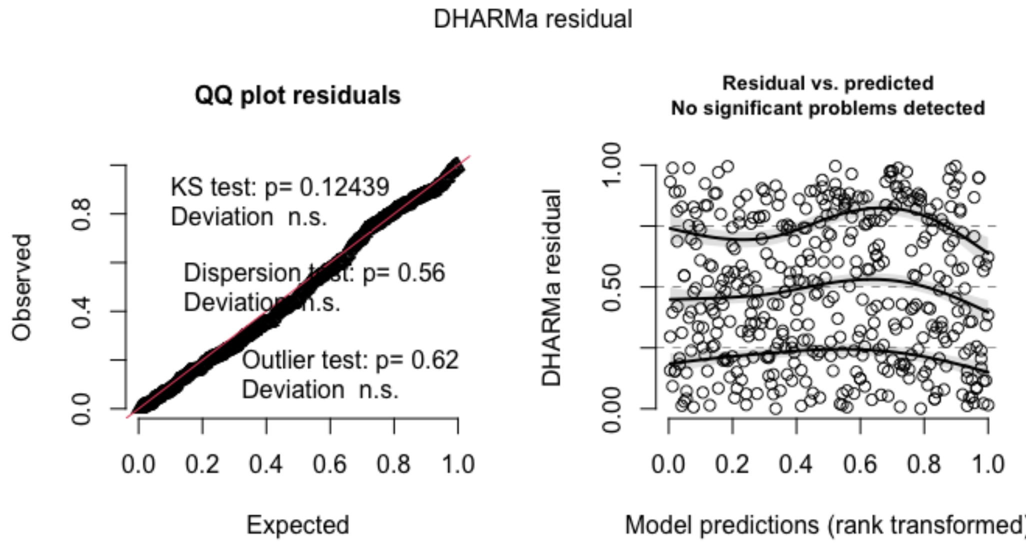

Fig. S7. Pacific Herring model diagnostic plots from the R package DHARMa

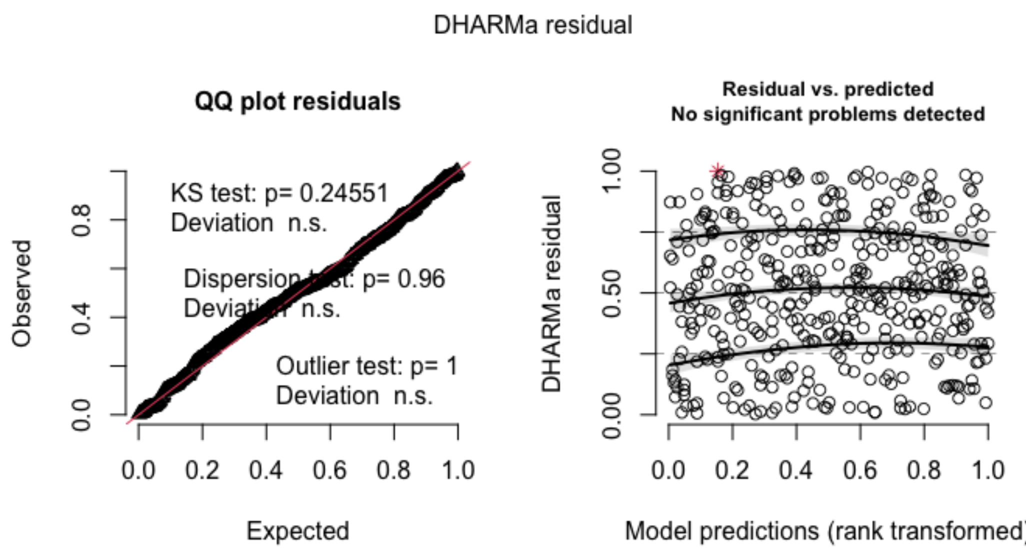

Fig. S8. Surf Smelt model diagnostic plots from the R package DHARMa