

## Characterizing residence patterns of North Atlantic right whales in the southeastern USA with a multistate open robust design model

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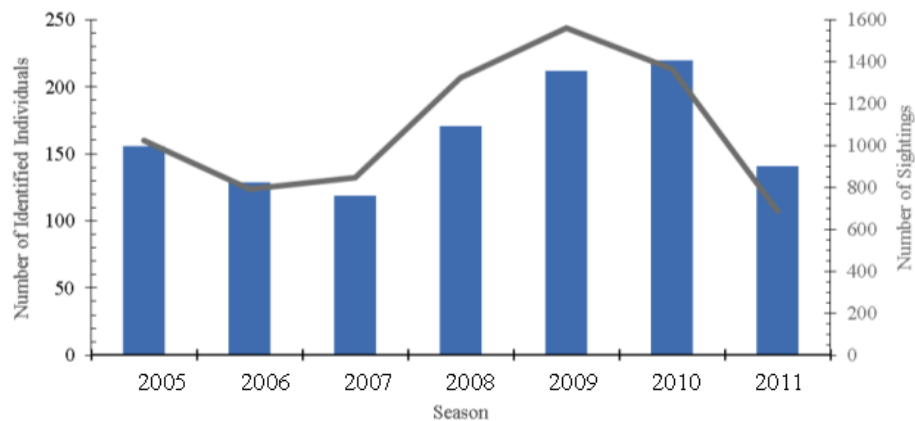


Figure S1. Total number of right whale sightings (gray line, right axis) and photo-identified individuals (blue bars, left axis) within the southeast U.S. study area for each winter season.

Table S1. Seasonal number of photo-identified individuals by demographic group and the proportion of individuals in each demographic group each season (in parentheses). †Cow identified as Eg 2223 was only seen once off of North Carolina and was not included in the analyses.

Primary Period	Calving females	Non-calving adult females	Adult males	Juveniles	Unknown age/sex
2004/2005	28 (0.18)	14 (0.09)	41 (0.26)	54 (0.35)	19 (0.12)
2005/2006	19 (0.15)	7 (0.05)	30 (0.23)	58 (0.45)	15 (0.12)
2006/2007	19 (0.16)	4 (0.03)	24 (0.20)	59 (0.50)	13 (0.11)
2007/2008	21 (0.12)	9 (0.05)	47 (0.27)	83 (0.49)	11 (0.06)
2008/2009	38† (0.18)	10 (0.05)	51 (0.24)	99 (0.47)	14 (0.07)
2009/2010	19 (0.09)	9 (0.04)	56 (0.25)	116 (0.53)	20 (0.09)
2010/2011	20 (0.14)	8 (0.06)	23 (0.16)	80 (0.57)	10 (0.07)

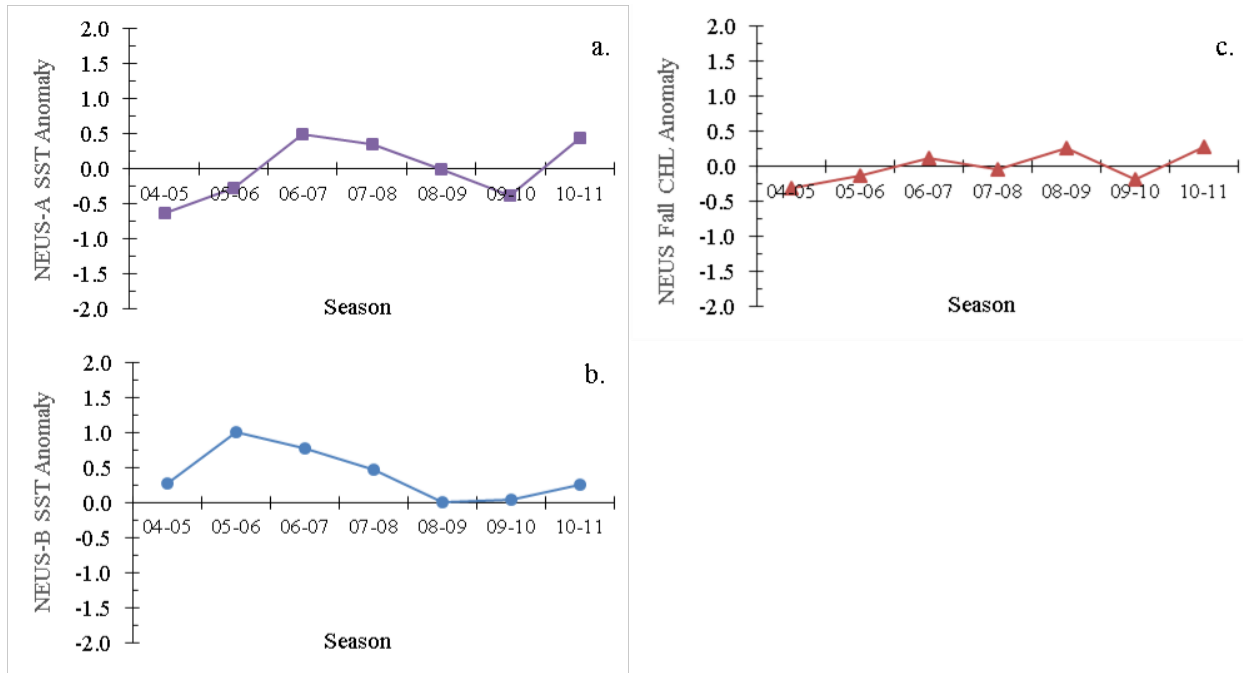


Figure S2. Covariate values for *pent* parameters in top models including anomalies relative to the study period mean for a) sea surface temperature (SST) in the NEUS-A region (Bay of Fundy, Gulf of Maine, Grand Manan Banks, Jeffrey’s Ledge, Cape Cod Bay, and Massachusetts Bay); b) sea surface temperature (SST) in the NEUS-B region (East Scotian Shelf and Roseway Basin); and c) chlorophyll-*a* concentrations (CHL) in the entire northeastern U.S. and Canadian Maritimes (NEUS) region for fall (August to November).

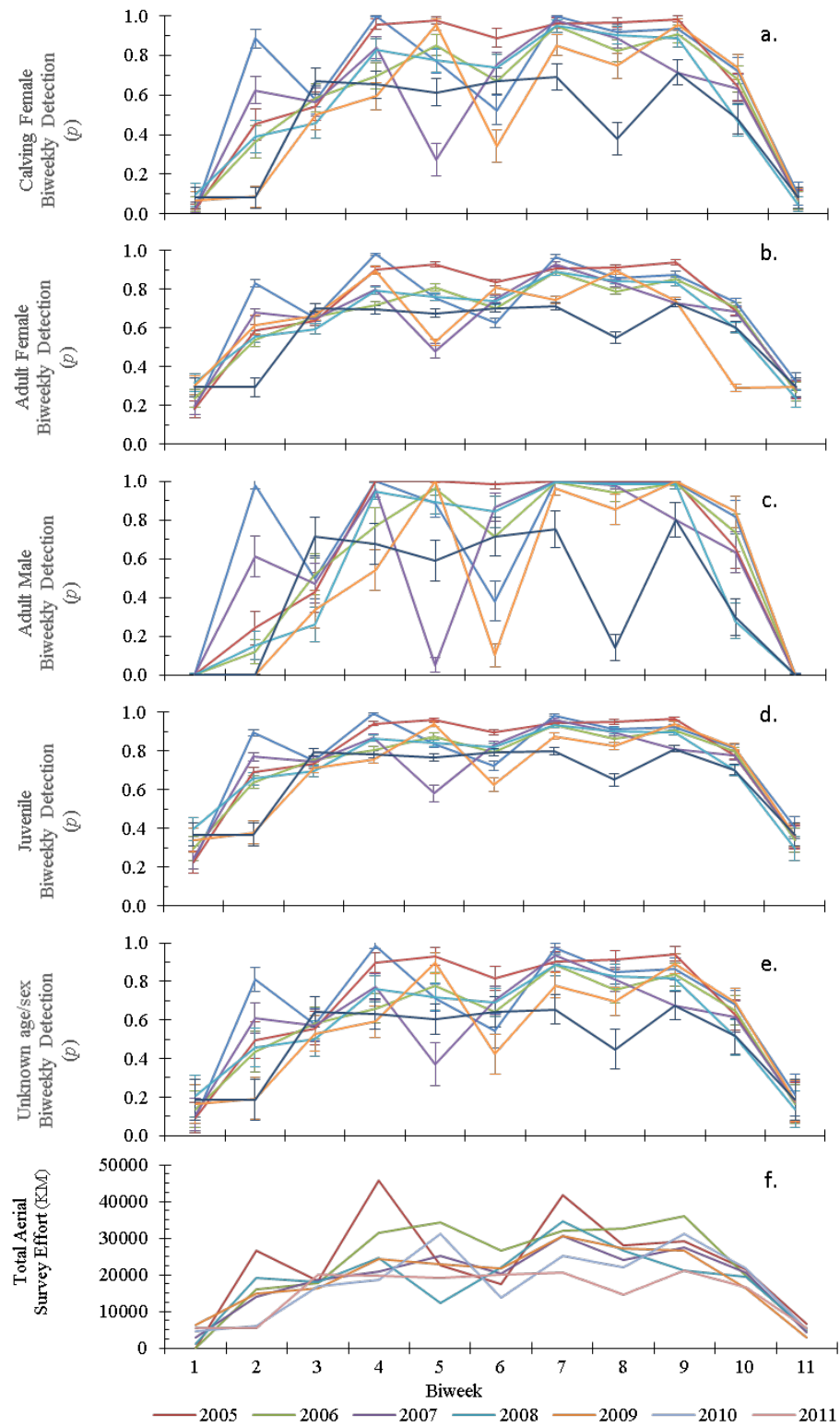


Figure S3. Model averaged biweekly detection probabilities ( $p$ ) for each season and demographic group (a-e) and biweekly survey effort summarized as total kilometers of aerial survey effort (f).

Table S2. Multistate open robust design model selection results for arrival (*pent*), persistence ( $\phi$ ), and sighting probabilities (*p*), where AICc is Akaike’s information criterion corrected for small sample sizes,  $K$  is the total number of beta parameters in each model, and  $\Delta$ AICc is the difference in AICc values from model [1], and  $w_i$  is the AICc weight. Variation in linear and quadratic relationships for secondary periods across seasons are indicated by the QUAD term. Factor variables were demographic group (DG) and the primary period winter seasons (SEASON). Environmental covariates evaluated include standardized biweekly aerial survey effort (EFFORT), the winter North Atlantic Oscillation index (NAO), and seasonal or monthly means or anomalies for sea surface temperature (SST) and surface chlorophyll-*a* (CHL) in northeastern United States and Canadian Maritimes coast (NEUS) or the southeastern United States study area (SEUS). See Table 1 for full definitions of environmental covariates.

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
1 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8164.230	0.000	0.907	8039.49
2 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8170.100	5.863	0.048	7864.27
3 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	46	8171.050	6.814	0.030	8077.49
4 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD + SEASON $\times$ DG) <i>p</i> (DG $\times$ EFFORT)	61	8173.210	8.971	0.010	8048.46
5 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8175.780	11.549	0.003	8051.04
6 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	130	8178.270	14.035	0.001	7905.61
7 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	77	8180.750	16.515	0.000	8022.37
8 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8182.980	18.746	0.000	7877.15
9 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8183.670	19.435	0.000	7877.84
10 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8183.680	19.448	0.000	7877.86
11 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	136	8184.150	19.916	0.000	7898.27
12 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8184.310	20.076	0.000	8059.57
13 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8184.600	20.369	0.000	8059.86
14 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	53	8185.100	20.866	0.000	8077.03
15 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	38	8189.080	24.849	0.000	8112.02
16 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (EFFORT)	137	8190.800	26.561	0.000	7902.70
17 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	53	8191.290	27.059	0.000	8083.23
18 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8192.110	27.879	0.000	8067.37
19 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	53	8192.130	27.891	0.000	8084.06
20 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (EFFORT)	122	8193.390	29.153	0.000	7938.26
21 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	61	8193.390	29.159	0.000	8068.65
22 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8193.810	29.571	0.000	7887.98
23 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8194.990	30.755	0.000	7889.16
24 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	128	8197.400	33.161	0.000	7929.13
25 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTslope <sub>SEUS</sub> ) <i>p</i> (DG $\times$ EFFORT)	70	8197.800	33.566	0.000	8054.19
26 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (EFFORT)	137	8198.250	34.011	0.000	7910.15
27 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (EFFORT)	137	8200.010	35.771	0.000	7911.91
28 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8201.700	37.468	0.000	7895.87
29 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SEASON) <i>p</i> (EFFORT)	53	8201.950	37.717	0.000	8093.88
30 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) <i>p</i> (DG $\times$ EFFORT)	145	8202.440	38.204	0.000	7896.61

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
31 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (EFFORT)	53	8204.220	39.988	0.000	8096.15
32 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	55	8207.260	43.023	0.000	8095.03
33 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	220	8207.950	43.714	0.000	7730.55
34 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (EFFORT)	53	8210.180	45.949	0.000	8102.12
35 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (EFFORT)	137	8210.340	46.102	0.000	7922.24
36 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (EFFORT)	137	8210.610	46.378	0.000	7922.52
37 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (EFFORT)	53	8211.930	47.693	0.000	8103.86
38 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (EFFORT)	137	8217.020	52.782	0.000	7928.92
39 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (EFFORT)	137	8218.900	54.665	0.000	7930.81
40 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8219.820	55.588	0.000	8105.51
41 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8219.880	55.648	0.000	8105.57
42 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8222.130	57.891	0.000	8109.90
43 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8222.350	58.116	0.000	8108.04
44 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8222.440	58.205	0.000	8078.83
45 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8222.550	58.312	0.000	8078.93
46 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (EFFORT)	212	8224.420	60.190	0.000	7765.80
47 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	41	8227.360	63.121	0.000	8144.12
48 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	41	8227.420	63.184	0.000	8144.18
49 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8229.330	65.094	0.000	8115.02
50 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8229.390	65.156	0.000	8115.08
51 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	40	8229.940	65.703	0.000	8148.76
52 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	41	8230.150	65.915	0.000	8146.91
53 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	55	8230.770	66.532	0.000	8118.54
54 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	55	8230.870	66.631	0.000	8118.64
55 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8231.530	67.296	0.000	8117.22
56 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8231.590	67.356	0.000	8117.28
57 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8231.750	67.519	0.000	8119.53
58 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8231.940	67.706	0.000	8117.63
59 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8233.160	68.929	0.000	8089.55
60 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8233.260	69.029	0.000	8089.65
61 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8233.310	69.077	0.000	8089.70
62 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8233.410	69.175	0.000	8089.80
63 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8233.900	69.668	0.000	8121.67
64 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8234.180	69.940	0.000	8119.87
65 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	131	8235.670	71.434	0.000	7960.81
66 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	131	8235.720	71.486	0.000	7960.86
67 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8236.670	72.439	0.000	8093.06
68 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	131	8237.430	73.196	0.000	7962.57
69 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8240.570	76.335	0.000	8126.26
70 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8240.580	76.342	0.000	8126.27

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
71 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8240.630	76.397	0.000	8126.32
72 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8240.640	76.404	0.000	8126.33
73 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	145	8241.100	76.860	0.000	7935.27
74 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	145	8241.190	76.957	0.000	7935.36
75 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8242.420	78.188	0.000	8144.73
76 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8242.480	78.247	0.000	8144.79
77 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	55	8242.530	78.293	0.000	8130.30
78 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8243.050	78.816	0.000	8130.82
79 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8243.090	78.854	0.000	8130.86
80 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8243.240	79.004	0.000	8128.93
81 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8243.340	79.104	0.000	8129.03
82 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8244.070	79.836	0.000	8100.46
83 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8244.170	79.931	0.000	8100.55
84 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8244.330	80.099	0.000	8100.72
85 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8244.670	80.432	0.000	8149.04
86 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8244.760	80.527	0.000	8147.06
87 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8245.810	81.577	0.000	8102.20
88 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8245.920	81.688	0.000	8102.31
89 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8245.990	81.756	0.000	8119.16
90 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8246.090	81.860	0.000	8119.26
91 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	33	8247.070	82.830	0.000	8180.26
92 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8247.100	82.865	0.000	8103.49
93 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	33	8247.130	82.892	0.000	8180.32
94 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8248.230	83.997	0.000	8133.92
95 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8248.290	84.060	0.000	8133.99
96 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8249.450	85.219	0.000	8151.76
97 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8249.480	85.244	0.000	8151.78
98 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8249.490	85.254	0.000	8135.18
99 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8249.510	85.275	0.000	8151.81
100 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8249.540	85.304	0.000	8151.84
101 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	56	8249.550	85.318	0.000	8135.24
102 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	32	8249.630	85.396	0.000	8184.87
103 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	33	8249.820	85.587	0.000	8183.02
104 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	47	8250.650	86.410	0.000	8155.02
105 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	123	8250.730	86.491	0.000	7993.42
106 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	47	8250.750	86.513	0.000	8155.12
107 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8250.780	86.549	0.000	8138.56
108 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	123	8250.780	86.543	0.000	7993.47
109 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8251.030	86.793	0.000	8136.72
110 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8251.080	86.849	0.000	8107.47

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
111 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8251.180	86.943	0.000	8107.56
112 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8251.690	87.458	0.000	8156.07
113 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8251.700	87.464	0.000	8154.00
114 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8251.810	87.579	0.000	8156.19
115 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	55	8252.080	87.848	0.000	8139.86
116 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8252.080	87.840	0.000	8154.38
117 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ EFFORT)	56	8252.310	88.078	0.000	8138.00
118 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	123	8252.570	88.335	0.000	7995.26
119 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8252.690	88.455	0.000	8125.86
120 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8252.790	88.553	0.000	8125.96
121 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8253.120	88.888	0.000	8109.51
122 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	70	8253.220	88.987	0.000	8109.61
123 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8254.140	89.904	0.000	8127.31
124 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8254.240	90.006	0.000	8127.41
125 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	145	8254.530	90.297	0.000	7948.70
126 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8255.990	91.759	0.000	8112.38
127 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	137	8258.090	93.856	0.000	7970.00
128 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	137	8258.180	93.947	0.000	7970.09
129 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8258.400	94.162	0.000	8114.78
130 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8258.920	94.682	0.000	8132.08
131 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8260.040	95.808	0.000	8162.35
132 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8260.100	95.870	0.000	8162.41
133 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8262.190	97.959	0.000	8164.50
134 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8262.250	98.020	0.000	8164.56
135 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	47	8262.350	98.116	0.000	8166.72
136 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8262.460	98.228	0.000	8166.84
137 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8262.540	98.300	0.000	8164.84
138 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8262.700	98.468	0.000	8119.09
139 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8264.530	100.298	0.000	8137.70
140 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8264.710	100.473	0.000	8169.08
141 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8264.930	100.691	0.000	8167.23
142 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ EFFORT)	80	8265.030	100.793	0.000	8100.30
143 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	70	8265.130	100.897	0.000	8121.52
144 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8265.230	100.994	0.000	8138.40
145 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8265.490	101.252	0.000	8138.65
146 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8265.600	101.365	0.000	8138.77
147 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8266.170	101.933	0.000	8139.34
148 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8266.270	102.030	0.000	8139.43
149 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8268.020	103.788	0.000	8170.33
150 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8268.080	103.849	0.000	8170.39

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
151 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	137	8269.310	105.071	0.000	7981.21
152 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8269.420	105.182	0.000	8171.72
153 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	48	8269.480	105.243	0.000	8171.78
154 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8270.480	106.241	0.000	8174.85
155 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8270.670	106.433	0.000	8172.97
156 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8271.730	107.492	0.000	8144.89
157 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8271.820	107.589	0.000	8144.99
158 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	47	8271.970	107.738	0.000	8176.35
159 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (EFFORT)	48	8272.220	107.980	0.000	8174.52
160 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8273.360	109.122	0.000	8146.52
161 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	62	8273.460	109.223	0.000	8146.63
162 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8277.460	113.227	0.000	8150.63
163 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8277.770	113.536	0.000	8150.94
164 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8282.880	118.645	0.000	8156.05
165 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (TIME)	47	8284.480	120.250	0.000	8188.86
166 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (EFFORT)	62	8285.170	120.931	0.000	8158.33
167 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ TIME) $p$ (EFFORT)	72	8286.280	122.041	0.000	8138.45
168 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (TIME)	137	8288.390	124.152	0.000	8000.29
169 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	131	8289.780	125.541	0.000	8014.91
170 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	72	8295.260	131.026	0.000	8147.44
171 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	146	8295.520	131.281	0.000	7987.46
172 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (TIME)	62	8296.650	132.416	0.000	8169.82
173 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	72	8304.090	139.859	0.000	8156.27
174 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	146	8306.260	142.026	0.000	7998.21
175 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (TIME)	62	8307.740	143.510	0.000	8180.91
176 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	146	8309.380	145.148	0.000	8001.33
177 <i>pent</i> (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ EFFORT)	120	8310.990	146.754	0.000	8060.23
178 <i>pent</i> (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ EFFORT)	120	8310.990	146.754	0.000	8060.23
179 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	72	8313.680	149.448	0.000	8165.86
180 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	146	8315.960	151.724	0.000	8007.91
181 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	221	8316.110	151.875	0.000	7836.36
182 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (TIME)	146	8316.790	152.559	0.000	8008.74
183 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	60	8322.010	157.774	0.000	8199.36
184 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (DG $\times$ TIME)	91	8323.380	159.147	0.000	8135.25
185 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + QUAD + Cow: TSA) $p$ (DG $\times$ EFFORT)	60	8326.840	162.604	0.000	8204.19
186 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (DG $\times$ TIME)	181	8329.820	165.589	0.000	7942.86
187 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	190	8332.030	167.799	0.000	7924.44
188 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	175	8332.070	167.838	0.000	7958.78
189 <i>pent</i> (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (EFFORT)	112	8335.330	171.095	0.000	8101.98
190 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (DG $\times$ TIME)	106	8336.420	172.189	0.000	8116.07



Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
191 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + QUAD + Cow: TSA) $p$ (DG $\times$ EFFORT)	60	8336.720	172.488	0.000	8214.07
192 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	190	8341.350	177.110	0.000	7933.75
193 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (DG $\times$ TIME)	106	8346.780	182.544	0.000	8126.42
194 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	190	8347.230	182.999	0.000	7939.64
195 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	190	8349.380	185.146	0.000	7941.78
196 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	42	8353.760	189.529	0.000	8268.46
197 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	42	8353.880	189.650	0.000	8268.58
198 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	132	8355.110	190.878	0.000	8078.05
199 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	132	8355.230	190.997	0.000	8078.17
200 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8355.370	191.133	0.000	8238.98
201 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8357.030	192.792	0.000	8240.63
202 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8357.150	192.911	0.000	8240.75
203 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	56	8358.320	194.086	0.000	8244.01
204 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	56	8358.510	194.278	0.000	8244.20
205 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	190	8359.900	195.665	0.000	7952.30
206 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8360.070	195.834	0.000	8214.35
207 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8361.280	197.041	0.000	8215.56
208 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8361.470	197.233	0.000	8215.75
209 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	41	8361.590	197.350	0.000	8278.35
210 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	42	8361.740	197.502	0.000	8276.44
211 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	132	8362.600	198.367	0.000	8085.54
212 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8362.950	198.717	0.000	8246.56
213 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	146	8363.960	199.721	0.000	8055.90
214 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	146	8364.140	199.908	0.000	8056.09
215 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	56	8364.630	200.399	0.000	8250.32
216 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8364.820	200.584	0.000	8248.43
217 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8366.050	201.819	0.000	8249.66
218 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8366.180	201.940	0.000	8249.78
219 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8371.440	207.204	0.000	8255.05
220 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8371.560	207.324	0.000	8255.17
221 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8372.500	208.264	0.000	8226.78
222 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8372.700	208.466	0.000	8226.98
223 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8373.520	209.286	0.000	8248.78
224 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	56	8373.720	209.485	0.000	8259.41
225 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8373.800	209.569	0.000	8257.41
226 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	46	8373.840	209.601	0.000	8280.28
227 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8374.840	210.603	0.000	8275.07
228 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (TIME)	56	8374.990	210.752	0.000	8260.68
229 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	265	8375.260	211.025	0.000	7790.08
230 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8375.800	211.566	0.000	8135.94

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
231 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8376.630	212.400	0.000	8260.24
232 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8376.700	212.465	0.000	8230.98
233 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8376.760	212.520	0.000	8260.36
234 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8376.890	212.654	0.000	8231.17
235 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8377.250	213.017	0.000	8260.86
236 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	57	8377.370	213.137	0.000	8260.98
237 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	56	8379.170	214.932	0.000	8264.86
238 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8379.340	215.106	0.000	8262.95
239 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8379.910	215.677	0.000	8140.05
240 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (TIME)	146	8379.970	215.735	0.000	8071.92
241 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8379.990	215.760	0.000	8255.25
242 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8380.040	215.806	0.000	8280.27
243 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8380.180	215.948	0.000	8140.32
244 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	34	8381.400	217.163	0.000	8312.54
245 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8381.880	217.644	0.000	8236.16
246 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8381.950	217.712	0.000	8236.23
247 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8382.070	217.837	0.000	8236.35
248 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	71	8382.140	217.901	0.000	8236.42
249 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8383.040	218.806	0.000	8258.30
250 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	56	8384.410	220.174	0.000	8270.10
251 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8384.580	220.350	0.000	8268.19
252 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	56	8384.970	220.740	0.000	8270.66
253 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (TIME)	57	8385.140	220.909	0.000	8268.75
254 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8385.670	221.440	0.000	8176.10
255 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8385.700	221.464	0.000	8285.93
256 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8385.790	221.551	0.000	8176.21
257 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (.)	37	8387.410	223.175	0.000	8312.40
258 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8388.900	224.664	0.000	8264.16
259 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	124	8388.910	224.673	0.000	8129.41
260 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (TIME)	71	8389.490	225.255	0.000	8243.77
261 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	38	8389.680	225.448	0.000	8312.62
262 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8389.780	225.544	0.000	8290.01
263 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	136	8390.990	226.758	0.000	8105.11
264 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	86	8391.040	226.804	0.000	8213.57
265 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8391.040	226.806	0.000	8307.80
266 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	86	8391.060	226.825	0.000	8213.59
267 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8391.340	227.106	0.000	8181.76
268 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	100	8391.540	227.310	0.000	8184.12
269 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8392.100	227.865	0.000	8284.03
270 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8393.500	229.268	0.000	8183.93

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
271 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG + SEASON) $p$ (EFFORT)	26	8394.210	229.974	0.000	8341.71
272 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8394.440	230.204	0.000	8286.37
273 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (.)	127	8394.560	230.324	0.000	8128.49
274 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8395.280	231.049	0.000	8295.52
275 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8395.680	231.441	0.000	8270.93
276 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8395.750	231.510	0.000	8312.51
277 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	176	8396.500	232.268	0.000	8020.94
278 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	176	8396.600	232.368	0.000	8021.04
279 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	138	8396.790	232.553	0.000	8106.48
280 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ EFFORT)	61	8397.050	232.815	0.000	8272.31
281 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	100	8397.280	233.043	0.000	8189.85
282 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8397.320	233.083	0.000	8314.08
283 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	100	8397.490	233.254	0.000	8190.06
284 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	86	8398.070	233.834	0.000	8220.60
285 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	85	8398.080	233.850	0.000	8222.74
286 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	121	8398.400	234.170	0.000	8145.47
287 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (TIME)	71	8398.520	234.285	0.000	8252.80
288 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8400.020	235.787	0.000	8190.44
289 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (.)	52	8400.700	236.470	0.000	8294.71
290 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + SEASON) $p$ (EFFORT)	116	8401.430	237.191	0.000	8159.39
291 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8401.850	237.616	0.000	8302.08
292 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	136	8402.770	238.534	0.000	8116.89
293 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8402.770	238.534	0.000	8294.70
294 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ TIME) $p$ (TIME)	81	8403.070	238.835	0.000	8236.22
295 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8403.830	239.600	0.000	8194.26
296 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8403.850	239.614	0.000	8194.27
297 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	176	8403.960	239.726	0.000	8028.40
298 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ EFFORT)	49	8404.210	239.972	0.000	8304.44
299 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	128	8404.210	239.975	0.000	8135.94
300 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	175	8404.220	239.986	0.000	8030.93
301 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8405.470	241.240	0.000	8297.41
302 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	190	8405.880	241.642	0.000	7998.28
303 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	190	8406.450	242.213	0.000	7998.85
304 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8406.800	242.563	0.000	8323.56
305 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8409.030	244.799	0.000	8325.79
306 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8409.620	245.385	0.000	8200.04
307 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8409.630	245.400	0.000	8200.06
308 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	138	8409.870	245.634	0.000	8119.56
309 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SEASON) $p$ (.)	52	8410.520	246.281	0.000	8304.52
310 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	100	8410.960	246.725	0.000	8203.53

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
311 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8410.970	246.732	0.000	8201.39
312 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8411.600	247.366	0.000	8303.53
313 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	100	8411.810	247.577	0.000	8204.39
314 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8411.940	247.701	0.000	8172.07
315 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8412.140	247.901	0.000	8172.27
316 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (EFFORT)	53	8412.450	248.216	0.000	8304.38
317 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	136	8413.740	249.500	0.000	8127.85
318 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8414.050	249.820	0.000	8204.48
319 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8414.170	249.940	0.000	8204.60
320 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8414.870	250.633	0.000	8331.63
321 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8415.230	250.998	0.000	8205.66
322 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	101	8415.260	251.024	0.000	8205.68
323 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	100	8416.420	252.187	0.000	8209.00
324 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8416.440	252.206	0.000	8206.86
325 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8416.620	252.386	0.000	8176.76
326 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (EFFORT)	41	8416.700	252.462	0.000	8333.46
327 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8416.810	252.571	0.000	8176.94
328 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	136	8417.010	252.775	0.000	8131.13
329 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + Cow:TSA) $p$ (DG $\times$ EFFORT)	138	8418.320	254.088	0.000	8128.02
330 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8419.510	255.273	0.000	8330.08
331 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8419.540	255.306	0.000	8330.11
332 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	190	8421.100	256.864	0.000	8013.50
333 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8421.110	256.874	0.000	8181.25
334 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8421.130	256.898	0.000	8211.56
335 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	100	8421.170	256.935	0.000	8213.74
336 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8421.300	257.061	0.000	8181.43
337 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8421.660	257.429	0.000	8181.80
338 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	115	8421.850	257.619	0.000	8181.99
339 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	100	8422.130	257.895	0.000	8214.70
340 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (DG $\times$ TIME)	101	8422.150	257.915	0.000	8212.57
341 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	136	8422.620	258.389	0.000	8136.74
342 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8423.050	258.813	0.000	8335.69
343 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8423.090	258.854	0.000	8329.53
344 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8423.120	258.888	0.000	8329.56
345 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	136	8424.420	260.184	0.000	8138.54
346 $pent$ (DG $\times$ QUAD) $\phi$ (TIME) $p$ (DG $\times$ EFFORT)	36	8424.500	260.270	0.000	8351.55
347 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8425.100	260.863	0.000	8335.67
348 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	115	8426.740	262.509	0.000	8186.88
349 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8427.290	263.057	0.000	8337.87
350 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8427.330	263.093	0.000	8337.90

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
351 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	29	8427.810	263.577	0.000	8369.19
352 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	29	8427.850	263.612	0.000	8369.22
353 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8428.490	264.254	0.000	8334.93
354 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SEASON) $p$ (.)	211	8428.680	264.449	0.000	7972.39
355 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	119	8428.960	264.724	0.000	8180.38
356 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	119	8428.990	264.750	0.000	8180.41
357 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8430.920	266.684	0.000	8343.56
358 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8430.930	266.696	0.000	8337.37
359 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8430.970	266.737	0.000	8337.41
360 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	31	8431.290	267.055	0.000	8368.58
361 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	31	8431.330	267.093	0.000	8368.62
362 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8431.350	267.112	0.000	8341.92
363 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8431.380	267.144	0.000	8341.95
364 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	118	8431.520	267.286	0.000	8185.13
365 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	28	8431.960	267.730	0.000	8375.38
366 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	121	8432.950	268.712	0.000	8180.01
367 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8432.960	268.720	0.000	8343.53
368 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	121	8432.980	268.743	0.000	8180.04
369 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	119	8433.690	269.460	0.000	8185.12
370 $pent$ (DG $\times$ QUAD) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	29	8434.000	269.767	0.000	8375.38
371 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8434.950	270.714	0.000	8341.39
372 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8434.980	270.745	0.000	8341.42
373 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8435.130	270.893	0.000	8347.77
374 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	115	8435.690	271.458	0.000	8195.83
375 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8436.190	271.959	0.000	8342.64
376 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	31	8437.050	272.812	0.000	8374.34
377 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8437.190	272.956	0.000	8347.76
378 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	121	8437.330	273.091	0.000	8184.39
379 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8437.340	273.101	0.000	8347.91
380 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8437.370	273.138	0.000	8347.95
381 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8438.770	274.531	0.000	8365.81
382 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8438.810	274.570	0.000	8365.85
383 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8440.270	276.039	0.000	8346.71
384 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8440.750	276.512	0.000	8347.19
385 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8440.790	276.555	0.000	8347.23
386 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8441.250	277.011	0.000	8353.88
387 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8441.270	277.037	0.000	8351.85
388 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8441.310	277.071	0.000	8351.88
389 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8442.130	277.897	0.000	8365.07
390 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8442.180	277.943	0.000	8365.11

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
391 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8442.760	278.521	0.000	8371.85
392 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	21	8442.800	278.567	0.000	8400.47
393 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	21	8442.840	278.607	0.000	8400.51
394 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8443.290	279.051	0.000	8353.86
395 <i>pent</i> (DG $\times$ QUAD) $\phi$ (TIME) $p$ (EFFORT)	28	8444.310	280.075	0.000	8387.73
396 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	111	8444.450	280.212	0.000	8213.27
397 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	111	8444.480	280.245	0.000	8213.30
398 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8444.640	280.402	0.000	8371.68
399 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8444.680	280.442	0.000	8371.72
400 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8444.750	280.515	0.000	8371.79
401 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8444.850	280.616	0.000	8351.29
402 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8444.890	280.651	0.000	8351.33
403 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8445.170	280.939	0.000	8372.22
404 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8445.210	280.976	0.000	8372.25
405 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8445.340	281.101	0.000	8357.97
406 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	23	8446.050	281.813	0.000	8399.65
407 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	23	8446.100	281.862	0.000	8399.70
408 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8446.730	282.495	0.000	8353.17
409 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD) $p$ (EFFORT)	20	8447.230	282.995	0.000	8406.93
410 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8447.400	283.161	0.000	8357.97
411 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD) $p$ (EFFORT)	110	8447.490	283.253	0.000	8218.48
412 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8448.060	283.822	0.000	8370.99
413 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8448.110	283.872	0.000	8371.04
414 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	113	8448.330	284.091	0.000	8212.81
415 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8448.360	284.123	0.000	8371.29
416 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	113	8448.360	284.128	0.000	8212.85
417 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8448.460	284.224	0.000	8377.55
418 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8448.600	284.368	0.000	8346.76
419 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8448.600	284.361	0.000	8371.53
420 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8448.640	284.404	0.000	8371.57
421 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8448.830	284.591	0.000	8359.40
422 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8448.860	284.625	0.000	8359.43
423 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG + NAO) $p$ (EFFORT)	21	8449.230	284.990	0.000	8406.90
424 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8449.310	285.079	0.000	8378.41
425 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + NAO) $p$ (EFFORT)	111	8449.610	285.374	0.000	8218.43
426 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8449.970	285.732	0.000	8360.54
427 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	44	8450.000	285.768	0.000	8360.58
428 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8450.430	286.191	0.000	8377.47
429 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8450.460	286.224	0.000	8356.90
430 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ TIME)	125	8450.990	286.757	0.000	8189.30

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
431 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8451.340	287.106	0.000	8378.38
432 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8452.420	288.186	0.000	8358.86
433 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8452.460	288.222	0.000	8358.90
434 <i>pent</i> (DG $\times$ QUAD) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	23	8452.620	288.386	0.000	8406.23
435 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8452.840	288.606	0.000	8365.48
436 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	113	8453.370	289.134	0.000	8217.85
437 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8453.460	289.225	0.000	8359.90
438 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ EFFORT)	46	8453.500	289.263	0.000	8359.94
439 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-B</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8453.950	289.711	0.000	8376.88
440 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	43	8454.150	289.920	0.000	8366.79
441 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8454.770	290.537	0.000	8377.71
442 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8454.900	290.664	0.000	8365.47
443 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8455.550	291.315	0.000	8382.59
444 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8455.590	291.356	0.000	8382.63
445 <i>pent</i> (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (TIME)	121	8455.690	291.453	0.000	8202.75
446 <i>pent</i> (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (TIME)	121	8455.690	291.453	0.000	8202.75
447 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ EFFORT)	44	8456.220	291.982	0.000	8366.79
448 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8457.630	293.399	0.000	8384.68
449 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8457.670	293.439	0.000	8384.72
450 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8457.940	293.710	0.000	8364.39
451 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8458.810	294.577	0.000	8381.75
452 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	32	8458.820	294.582	0.000	8394.06
453 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8458.860	294.628	0.000	8381.80
454 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	32	8458.920	294.682	0.000	8394.16
455 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ EFFORT)	46	8459.250	295.015	0.000	8365.69
456 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD) $p$ (EFFORT)	35	8459.760	295.526	0.000	8388.86
457 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8460.180	295.942	0.000	8358.34
458 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	122	8460.970	296.733	0.000	8205.84
459 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8461.020	296.780	0.000	8383.95
460 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8461.060	296.827	0.000	8384.00
461 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	122	8461.080	296.848	0.000	8205.96
462 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	47	8461.240	297.002	0.000	8365.61
463 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8461.350	297.118	0.000	8365.73
464 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8461.750	297.514	0.000	8388.79
465 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8462.020	297.780	0.000	8391.11
466 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8462.560	298.324	0.000	8366.93
467 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8463.530	299.300	0.000	8390.58
468 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8463.570	299.339	0.000	8390.62
469 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8464.030	299.799	0.000	8391.08
470 <i>pent</i> (DG $\times$ TIME) $\phi$ (TIME) $p$ (DG $\times$ EFFORT)	76	8464.610	300.370	0.000	8308.34

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
471 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8464.820	300.583	0.000	8391.86
472 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	36	8464.860	300.623	0.000	8391.90
473 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	46	8465.190	300.954	0.000	8371.63
474 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8465.300	301.062	0.000	8388.23
475 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	46	8465.390	301.158	0.000	8371.83
476 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD + NAO) $p$ (.)	32	8466.480	302.245	0.000	8401.72
477 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ QUAD) $p$ (.)	31	8466.540	302.305	0.000	8403.83
478 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8466.920	302.687	0.000	8389.86
479 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8466.970	302.733	0.000	8389.90
480 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8467.450	303.218	0.000	8390.39
481 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8467.780	303.548	0.000	8396.88
482 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	61	8467.880	303.641	0.000	8343.13
483 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD + NAO) $p$ (.)	122	8467.930	303.694	0.000	8212.81
484 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8468.080	303.842	0.000	8343.34
485 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8468.080	303.847	0.000	8391.02
486 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (EFFORT)	38	8468.130	303.895	0.000	8391.06
487 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8468.210	303.971	0.000	8366.37
488 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD) $p$ (.)	46	8468.530	304.297	0.000	8374.97
489 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (.)	47	8468.560	304.330	0.000	8372.94
490 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8468.860	304.630	0.000	8367.02
491 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD) $p$ (EFFORT)	35	8469.260	305.029	0.000	8398.36
492 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8469.280	305.049	0.000	8344.54
493 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ QUAD + NAO) $p$ (.)	47	8469.590	305.354	0.000	8373.96
494 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8469.790	305.560	0.000	8396.84
495 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	136	8470.400	306.166	0.000	8184.52
496 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	42	8470.480	306.243	0.000	8385.18
497 <i>pent</i> (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG $\times$ QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	136	8470.590	306.353	0.000	8184.70
498 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (EFFORT)	36	8471.290	307.055	0.000	8398.33
499 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	47	8472.360	308.130	0.000	8376.74
500 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8472.490	308.251	0.000	8376.86
501 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8473.190	308.959	0.000	8396.13
502 <i>pent</i> (DG $\times$ QUAD) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	27	8474.400	310.167	0.000	8419.86
503 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (EFFORT)	38	8474.670	310.438	0.000	8397.61
504 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	47	8475.850	311.612	0.000	8380.22
505 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG $\times$ QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8475.970	311.732	0.000	8380.34
506 <i>pent</i> (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8476.160	311.929	0.000	8374.32
507 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8476.580	312.344	0.000	8374.74
508 <i>pent</i> (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG $\times$ SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	42	8476.670	312.438	0.000	8391.37
509 <i>pent</i> (TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ TIME)	121	8477.480	313.246	0.000	8224.54
510 <i>pent</i> (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	61	8479.470	315.239	0.000	8354.73



Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
511 <i>pent</i> (DG × QUAD × NAO) $\phi$ (DG × QUAD + NAO) $p$ (.)	47	8479.670	315.436	0.000	8384.04
512 <i>pent</i> (DG × QUAD × NAO) $\phi$ (DG × QUAD × SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8479.680	315.446	0.000	8354.94
513 <i>pent</i> (DG × QUAD × NAO) $\phi$ (DG × QUAD) $p$ (.)	46	8479.830	315.600	0.000	8386.28
514 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (DG × SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	117	8480.720	316.485	0.000	8236.50
515 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	47	8481.310	317.076	0.000	8385.68
516 <i>pent</i> (DG × QUAD) $\phi$ (DG × QUAD × NAO) $p$ (.)	46	8481.340	317.102	0.000	8387.78
517 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8481.430	317.195	0.000	8385.80
518 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	47	8481.610	317.375	0.000	8385.98
519 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	47	8481.730	317.491	0.000	8386.10
520 <i>pent</i> (DG × QUAD × CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG × QUAD × SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	61	8482.480	318.243	0.000	8357.74
521 <i>pent</i> (DG × QUAD × CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG × QUAD × SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8482.680	318.446	0.000	8357.94
522 <i>pent</i> (DG × QUAD × CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG × QUAD + NAO) $p$ (.)	47	8483.360	319.127	0.000	8387.73
523 <i>pent</i> (DG × QUAD × CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD × SEASON) $p$ (DG × TIME)	106	8483.470	319.232	0.000	8263.11
524 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (DG × QUAD × NAO) $p$ (.)	136	8485.210	320.979	0.000	8199.33
525 <i>pent</i> (DG × QUAD) $\phi$ (QUAD × SEASON) $p$ (DG × TIME)	91	8485.420	321.182	0.000	8297.28
526 <i>pent</i> (DG × QUAD) $\phi$ (DG + SEASON) $p$ (DG × TIME)	79	8486.390	322.153	0.000	8323.78
527 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (DG + SEASON) $p$ (DG × TIME)	169	8486.680	322.442	0.000	8127.00
528 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × QUAD × SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	61	8487.910	323.678	0.000	8363.17
529 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × QUAD × SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8488.120	323.881	0.000	8363.37
530 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD × SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	61	8488.250	324.012	0.000	8363.51
531 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD × SST <sub>Winter,SEUS</sub> ) $p$ (.)	61	8488.450	324.217	0.000	8363.71
532 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × QUAD + NAO) $p$ (.)	47	8488.700	324.468	0.000	8393.08
533 <i>pent</i> (DG × QUAD × CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG × SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	42	8488.870	324.636	0.000	8403.57
534 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD) $p$ (.)	46	8489.230	324.994	0.000	8395.67
535 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × QUAD + NAO) $p$ (.)	47	8489.260	325.024	0.000	8393.63
536 <i>pent</i> (DG × TIME) $\phi$ (TIME) $p$ (EFFORT)	68	8490.550	326.320	0.000	8351.14
537 <i>pent</i> (DG × QUAD × SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD × SEASON) $p$ (DG × TIME)	106	8491.700	327.464	0.000	8271.34
538 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (QUAD × SEASON) $p$ (DG × TIME)	181	8492.980	328.748	0.000	8106.02
539 <i>pent</i> (DG × QUAD) $\phi$ (QUAD × SEASON) $p$ (TIME)	47	8493.800	329.570	0.000	8398.18
540 <i>pent</i> (DG × QUAD) $\phi$ (DG + SEASON) $p$ (TIME)	35	8494.220	329.990	0.000	8423.32
541 <i>pent</i> (DG × QUAD × SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG × SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	42	8495.050	330.814	0.000	8409.75
542 <i>pent</i> (DG × QUAD × CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG × SSTslope <sub>SEUS</sub> ) $p$ (EFFORT)	42	8495.180	330.945	0.000	8409.88
543 <i>pent</i> (DG × QUAD × NAO) $\phi$ (DG × QUAD × NAO) $p$ (.)	61	8495.410	331.179	0.000	8370.67
544 <i>pent</i> (DG × QUAD × SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD × SEASON) $p$ (TIME)	62	8497.330	333.094	0.000	8370.50
545 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (DG + SEASON) $p$ (TIME)	125	8497.470	333.236	0.000	8235.78
546 <i>pent</i> (DG × QUAD × CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD × SEASON) $p$ (TIME)	62	8498.380	334.145	0.000	8371.55
547 <i>pent</i> (DG × TIME) $\phi$ (DG × TIME) $p$ (.)	111	8498.900	334.661	0.000	8267.72
548 <i>pent</i> (DG × QUAD × NAO) $\phi$ (QUAD × SEASON) $p$ (DG × TIME)	106	8498.910	334.679	0.000	8278.56
549 <i>pent</i> (DG × QUAD × NAO) $\phi$ (DG + SEASON) $p$ (DG × TIME)	94	8499.580	335.342	0.000	8305.02
550 <i>pent</i> (DG × QUAD × SEASON) $\phi$ (QUAD × SEASON) $p$ (TIME)	137	8501.790	337.554	0.000	8213.70

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
551 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	106	8504.090	339.854	0.000	8283.73
552 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG $\times$ QUAD $\times$ NAO) $p$ (.)	61	8504.440	340.205	0.000	8379.70
553 $pent$ (DG $\times$ QUAD) $\phi$ (DG $\times$ TIME) $p$ (.)	71	8504.480	340.240	0.000	8358.76
554 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SEASON) $p$ (TIME)	62	8506.100	341.869	0.000	8379.27
555 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + SEASON) $p$ (TIME)	50	8506.160	341.925	0.000	8404.32
556 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	106	8509.630	345.391	0.000	8289.27
557 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (DG $\times$ TIME)	106	8509.690	345.456	0.000	8289.33
558 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (DG $\times$ TIME)	94	8509.730	345.496	0.000	8315.18
559 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (TIME)	62	8511.730	347.492	0.000	8384.89
560 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ TIME)	165	8516.680	352.443	0.000	8166.05
561 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ TIME)	165	8516.680	352.443	0.000	8166.05
562 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (TIME)	50	8517.110	352.876	0.000	8415.27
563 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (TIME)	62	8517.190	352.958	0.000	8390.36
564 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (TIME)	62	8517.610	353.374	0.000	8390.78
565 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	80	8519.760	355.526	0.000	8355.03
566 $pent$ (TIME) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	81	8520.890	356.653	0.000	8354.04
567 $pent$ (QUAD) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	73	8525.800	361.569	0.000	8375.87
568 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	72	8539.310	375.072	0.000	8391.48
569 $pent$ (QUAD) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ TIME)	113	8542.930	378.696	0.000	8307.41
570 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	164	8544.590	380.351	0.000	8196.21
571 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	164	8544.710	380.470	0.000	8196.33
572 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8545.260	381.023	0.000	8361.39
573 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8545.370	381.137	0.000	8361.51
574 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	166	8546.180	381.945	0.000	8193.29
575 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	166	8546.350	382.116	0.000	8193.46
576 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8547.720	383.482	0.000	8359.58
577 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8547.880	383.648	0.000	8359.75
578 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	74	8548.210	383.980	0.000	8396.17
579 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	74	8548.340	384.103	0.000	8396.30
580 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	76	8549.900	385.662	0.000	8393.63
581 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	76	8550.050	385.814	0.000	8393.78
582 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8552.450	388.214	0.000	8368.58
583 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	120	8552.880	388.646	0.000	8302.13
584 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	120	8552.970	388.738	0.000	8302.22
585 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	30	8553.570	389.336	0.000	8492.90
586 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	30	8553.670	389.431	0.000	8493.00
587 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8554.060	389.828	0.000	8365.93
588 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	32	8554.990	390.755	0.000	8490.23
589 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	32	8555.120	390.888	0.000	8490.37
590 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	122	8555.130	390.892	0.000	8300.00

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
591 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	122	8555.250	391.015	0.000	8300.13
592 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8555.780	391.541	0.000	8464.28
593 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	163	8556.290	392.052	0.000	8210.16
594 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	88	8556.440	392.210	0.000	8374.71
595 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8557.020	392.788	0.000	8465.53
596 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8557.110	392.880	0.000	8465.62
597 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8557.270	393.036	0.000	8461.64
598 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8558.310	394.079	0.000	8374.45
599 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	164	8558.380	394.145	0.000	8210.00
600 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8558.640	394.406	0.000	8463.01
601 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8558.770	394.535	0.000	8463.14
602 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	73	8560.810	396.571	0.000	8410.87
603 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8561.330	397.094	0.000	8377.46
604 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8561.470	397.231	0.000	8377.60
605 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	166	8562.560	398.321	0.000	8209.66
606 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8562.690	398.456	0.000	8374.56
607 $pent$ (DG $\times$ QUAD) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	74	8562.740	398.507	0.000	8410.70
608 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD) $p$ (TIME)	119	8562.780	398.550	0.000	8314.21
609 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8562.830	398.596	0.000	8374.70
610 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD) $p$ (TIME)	29	8564.190	399.951	0.000	8505.56
611 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + NAO) $p$ (TIME)	120	8564.900	400.666	0.000	8314.14
612 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8565.570	401.340	0.000	8474.08
613 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8565.670	401.435	0.000	8474.18
614 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8565.860	401.625	0.000	8381.99
615 $pent$ (DG $\times$ QUAD) $\phi$ (DG + NAO) $p$ (TIME)	30	8566.170	401.930	0.000	8505.50
616 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8566.730	402.490	0.000	8382.86
617 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	76	8566.780	402.547	0.000	8410.52
618 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8566.830	402.595	0.000	8471.20
619 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8566.850	402.614	0.000	8382.98
620 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8566.970	402.731	0.000	8471.34
621 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD) $p$ (TIME)	44	8567.310	403.078	0.000	8477.89
622 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + NAO) $p$ (TIME)	45	8567.880	403.643	0.000	8476.39
623 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8568.870	404.633	0.000	8380.73
624 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8569.020	404.781	0.000	8380.88
625 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ NAO) $p$ (TIME)	122	8569.240	405.009	0.000	8314.12
626 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (TIME)	45	8569.320	405.089	0.000	8477.83
627 $pent$ (DG $\times$ QUAD) $\phi$ (TIME) $p$ (TIME)	37	8569.810	405.580	0.000	8494.80
628 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ NAO) $p$ (TIME)	32	8570.200	405.965	0.000	8505.44
629 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8570.930	406.697	0.000	8387.07
630 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8571.060	406.821	0.000	8387.19

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
631 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8571.120	406.889	0.000	8479.63
632 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8571.220	406.983	0.000	8479.73
633 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8572.130	407.893	0.000	8388.26
634 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	89	8572.250	408.015	0.000	8388.38
635 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8572.750	408.518	0.000	8477.13
636 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8572.750	408.515	0.000	8384.61
637 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8572.880	408.649	0.000	8477.26
638 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8572.950	408.712	0.000	8384.81
639 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	88	8573.760	409.523	0.000	8392.02
640 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8574.070	409.836	0.000	8385.94
641 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (DG $\times$ TIME)	91	8574.220	409.985	0.000	8386.08
642 $pent$ (DG $\times$ QUAD) $\phi$ (TIME) $p$ (DG $\times$ TIME)	81	8575.480	411.244	0.000	8408.63
643 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8575.680	411.449	0.000	8391.82
644 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8576.070	411.839	0.000	8484.58
645 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD) $p$ (TIME)	44	8576.070	411.839	0.000	8486.65
646 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8576.170	411.934	0.000	8484.68
647 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8576.880	412.641	0.000	8485.38
648 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	45	8576.970	412.735	0.000	8485.48
649 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8577.530	413.298	0.000	8481.91
650 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8577.670	413.432	0.000	8482.04
651 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + NAO) $p$ (TIME)	45	8578.060	413.829	0.000	8486.57
652 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8578.420	414.183	0.000	8482.79
653 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (TIME)	47	8578.550	414.315	0.000	8482.92
654 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	88	8579.350	415.111	0.000	8397.61
655 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	91	8579.640	415.402	0.000	8391.50
656 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8581.300	417.070	0.000	8397.44
657 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD) $p$ (TIME)	44	8581.690	417.456	0.000	8492.26
658 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ NAO) $p$ (TIME)	47	8582.160	417.929	0.000	8486.54
659 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (TIME)	45	8583.690	419.458	0.000	8492.20
660 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	88	8584.530	420.293	0.000	8402.79
661 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8585.700	421.469	0.000	8401.84
662 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (DG $\times$ TIME)	89	8586.490	422.251	0.000	8402.62
663 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD) $p$ (TIME)	44	8586.710	422.473	0.000	8497.28
664 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD) $p$ (TIME)	44	8587.340	423.104	0.000	8497.91
665 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (TIME)	45	8588.720	424.481	0.000	8497.22
666 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (TIME)	45	8589.340	425.103	0.000	8497.85
667 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (DG $\times$ TIME)	91	8589.770	425.534	0.000	8401.63
668 $pent$ (DG $\times$ QUAD) $\phi$ (DG + SEASON) $p$ (.)	25	8592.180	427.947	0.000	8541.72
669 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (TIME)	47	8592.810	428.574	0.000	8497.18
670 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	37	8593.830	429.593	0.000	8518.82

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
671 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8596.670	432.434	0.000	8490.68
672 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + SEASON) $p$ (.)	115	8597.200	432.964	0.000	8357.34
673 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8598.690	434.453	0.000	8492.70
674 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ TIME)	125	8601.770	437.538	0.000	8340.08
675 $pent$ (TIME) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ EFFORT)	76	8602.650	438.419	0.000	8446.39
676 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	127	8604.220	439.984	0.000	8338.15
677 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + SEASON) $p$ (.)	40	8605.340	441.101	0.000	8524.16
678 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	81	8606.990	442.751	0.000	8440.14
679 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8607.310	443.071	0.000	8501.31
680 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8610.790	446.554	0.000	8504.80
681 $pent$ (QUAD) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	28	8611.540	447.306	0.000	8554.96
682 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + SEASON) $p$ (.)	40	8615.070	450.832	0.000	8533.89
683 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8616.130	451.895	0.000	8510.14
684 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SEASON) $p$ (.)	52	8617.130	452.899	0.000	8511.14
685 $pent$ (DG $\times$ TIME) $\phi$ (TIME) $p$ (TIME)	77	8619.440	455.208	0.000	8461.06
686 $pent$ (QUAD) $\phi$ (DG $\times$ TIME) $p$ (DG $\times$ EFFORT)	68	8630.350	466.111	0.000	8490.94
687 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	110	8653.910	489.674	0.000	8424.90
688 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	110	8654.000	489.764	0.000	8424.99
689 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	20	8654.410	490.174	0.000	8614.11
690 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	20	8654.500	490.268	0.000	8614.20
691 $pent$ (DG $\times$ TIME) $\phi$ (TIME) $p$ (.)	67	8656.220	491.982	0.000	8518.91
692 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	22	8656.340	492.106	0.000	8611.98
693 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	22	8656.470	492.234	0.000	8612.11
694 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	35	8656.540	492.309	0.000	8585.64
695 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	112	8656.560	492.323	0.000	8423.21
696 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8656.630	492.398	0.000	8585.73
697 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	112	8656.680	492.441	0.000	8423.33
698 $pent$ (TIME) $\phi$ (DG $\times$ TIME) $p$ (TIME)	77	8657.680	493.440	0.000	8499.30
699 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8657.920	493.685	0.000	8587.02
700 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	37	8658.590	494.359	0.000	8583.58
701 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8658.720	494.481	0.000	8583.71
702 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8659.890	495.657	0.000	8584.88
703 $pent$ (DG $\times$ TIME) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	68	8663.180	498.943	0.000	8523.77
704 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD) $p$ (.)	109	8663.400	499.166	0.000	8436.56
705 $pent$ (DG $\times$ QUAD) $\phi$ (TIME) $p$ (.)	27	8663.940	499.704	0.000	8609.40
706 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD) $p$ (.)	19	8664.850	500.616	0.000	8626.58
707 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (SSTSlope <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	42	8665.430	501.197	0.000	8580.13
708 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (DG + NAO) $p$ (.)	110	8665.480	501.247	0.000	8436.47
709 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (QUAD) $p$ (.)	34	8666.580	502.347	0.000	8597.73
710 $pent$ (DG $\times$ QUAD) $\phi$ (DG + NAO) $p$ (.)	20	8666.790	502.551	0.000	8626.49

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
711 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	35	8667.710	503.480	0.000	8596.81
712 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8667.810	503.575	0.000	8596.90
713 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Fall,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (.)	35	8668.560	504.323	0.000	8597.65
714 $pent$ (DG $\times$ TIME) $\phi$ (TIME) $p$ (DG $\times$ TIME)	121	8668.840	504.609	0.000	8415.91
715 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	37	8669.580	505.344	0.000	8594.57
716 $pent$ (DG $\times$ QUAD $\times$ SEASON) $\phi$ (QUAD $\times$ NAO) $p$ (.)	112	8669.680	505.443	0.000	8436.33
717 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8669.710	505.474	0.000	8594.70
718 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Oct,NEUS-A</sub> ) $\phi$ (DG + NAO) $p$ (.)	35	8669.740	505.508	0.000	8598.84
719 $pent$ (DG $\times$ QUAD) $\phi$ (QUAD $\times$ NAO) $p$ (.)	22	8670.710	506.480	0.000	8626.35
720 $pent$ (DG $\times$ TIME) $\phi$ (DG $\times$ QUAD) $p$ (.)	71	8670.790	506.557	0.000	8525.07
721 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	35	8671.140	506.903	0.000	8600.23
722 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8671.230	506.996	0.000	8600.33
723 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	37	8673.220	508.988	0.000	8598.21
724 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8673.350	509.114	0.000	8598.34
725 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	35	8676.570	512.339	0.000	8605.67
726 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8676.670	512.432	0.000	8605.76
727 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	35	8676.850	512.619	0.000	8605.95
728 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD + SST <sub>Winter,SEUS</sub> ) $p$ (.)	35	8676.950	512.713	0.000	8606.04
729 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD) $p$ (.)	34	8677.960	513.722	0.000	8609.10
730 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	37	8678.600	514.362	0.000	8603.59
731 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8678.720	514.488	0.000	8603.71
732 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SSTAnom <sub>Winter,SEUS</sub> ) $p$ (.)	37	8678.850	514.610	0.000	8603.83
733 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ SST <sub>Winter,SEUS</sub> ) $p$ (.)	37	8678.970	514.739	0.000	8603.96
734 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (DG + NAO) $p$ (.)	35	8679.880	515.646	0.000	8608.98
735 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (QUAD) $p$ (.)	34	8681.530	517.295	0.000	8612.68
736 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Summer,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (.)	35	8683.490	519.252	0.000	8612.58
737 $pent$ (DG $\times$ QUAD $\times$ NAO) $\phi$ (QUAD $\times$ NAO) $p$ (.)	37	8683.860	519.626	0.000	8608.85
738 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (QUAD) $p$ (.)	34	8686.810	522.572	0.000	8617.95
739 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD) $p$ (.)	34	8687.330	523.092	0.000	8618.47
740 $pent$ (DG $\times$ QUAD $\times$ CHLAnom <sub>Spring,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (.)	35	8688.760	524.522	0.000	8617.85
741 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (DG + NAO) $p$ (.)	35	8689.300	525.069	0.000	8618.40
742 $pent$ (DG $\times$ QUAD $\times$ SSTAnom <sub>Winter,NEUS</sub> ) $\phi$ (QUAD $\times$ NAO) $p$ (.)	37	8693.280	529.046	0.000	8618.27
743 $pent$ (TIME) $\phi$ (DG $\times$ TIME) $p$ (EFFORT)	68	8704.160	539.925	0.000	8564.75
744 $pent$ (QUAD) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	61	8713.010	548.776	0.000	8588.27
745 $pent$ (DG $\times$ TIME) $\phi$ (QUAD) $p$ (EFFORT)	60	8717.090	552.854	0.000	8594.44
746 $pent$ (TIME) $\phi$ (TIME) $p$ (DG $\times$ TIME)	77	8725.980	561.744	0.000	8567.60
747 $pent$ (TIME) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	28	8729.820	565.586	0.000	8673.24
748 $pent$ (TIME) $\phi$ (DG $\times$ QUAD) $p$ (DG $\times$ EFFORT)	36	8736.520	572.282	0.000	8663.56
749 $pent$ (QUAD) $\phi$ (TIME) $p$ (DG $\times$ TIME)	69	8744.160	579.923	0.000	8602.65
750 $pent$ (DG $\times$ TIME) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	113	8746.140	581.903	0.000	8510.62

Model	$K$	AICc	$\Delta$ AICc	$w_i$	Deviance
751 <i>pent</i> (QUAD) $\phi$ (DG $\times$ QUAD) $p$ (EFFORT)	20	8750.400	586.160	0.000	8710.10
752 <i>pent</i> (TIME) $\phi$ (QUAD) $p$ (DG $\times$ TIME)	69	8764.250	600.017	0.000	8622.74
753 <i>pent</i> (QUAD) $\phi$ (DG $\times$ TIME) $p$ (EFFORT)	60	8786.080	621.847	0.000	8663.43
754 <i>pent</i> (DG $\times$ TIME) $\phi$ (QUAD) $p$ (TIME)	69	8788.110	623.877	0.000	8646.60
755 <i>pent</i> (DG $\times$ TIME) $\phi$ (QUAD) $p$ (.)	59	8850.550	686.319	0.000	8729.99
756 <i>pent</i> (QUAD) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	29	8858.910	694.679	0.000	8800.29
757 <i>pent</i> (QUAD) $\phi$ (DG $\times$ TIME) $p$ (TIME)	69	8866.400	702.162	0.000	8724.89
758 <i>pent</i> (TIME) $\phi$ (DG $\times$ QUAD) $p$ (TIME)	37	8874.920	710.680	0.000	8799.90
759 <i>pent</i> (TIME) $\phi$ (TIME) $p$ (DG $\times$ EFFORT)	32	8891.180	726.943	0.000	8826.42
760 <i>pent</i> (QUAD) $\phi$ (TIME) $p$ (DG $\times$ EFFORT)	24	8901.590	737.350	0.000	8853.16
761 <i>pent</i> (QUAD) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	16	8904.510	740.280	0.000	8872.32
762 <i>pent</i> (DG $\times$ QUAD $\times$ SST <sub>AnomOct,NEUS-A</sub> ) $\phi$ (DG $\times$ SST <sub>SEUS</sub> ) $p$ (DG $\times$ EFFORT)	50	8955.720	791.485	0.000	8853.88
763 <i>pent</i> (TIME) $\phi$ (TIME) $p$ (EFFORT)	24	8960.190	795.959	0.000	8911.76
764 <i>pent</i> (TIME) $\phi$ (QUAD) $p$ (DG $\times$ EFFORT)	24	8964.720	800.484	0.000	8916.29
765 <i>pent</i> (QUAD) $\phi$ (TIME) $p$ (EFFORT)	16	8987.700	823.464	0.000	8955.51
766 <i>pent</i> (QUAD) $\phi$ (QUAD) $p$ (EFFORT)	8	8990.900	826.667	0.000	8974.85
767 <i>pent</i> (QUAD) $\phi$ (DG $\times$ QUAD) $p$ (.)	19	9006.400	842.169	0.000	8968.13
768 <i>pent</i> (TIME) $\phi$ (QUAD) $p$ (EFFORT)	16	9030.960	866.730	0.000	8998.77
769 <i>pent</i> (QUAD) $\phi$ (DG $\times$ TIME) $p$ (.)	59	9044.640	880.400	0.000	8924.07
770 <i>pent</i> (TIME) $\phi$ (DG $\times$ QUAD) $p$ (.)	27	9095.690	931.459	0.000	9041.15
771 <i>pent</i> (TIME) $\phi$ (TIME) $p$ (TIME)	33	9099.930	935.693	0.000	9033.12
772 <i>pent</i> (QUAD) $\phi$ (TIME) $p$ (TIME)	25	9106.040	941.803	0.000	9055.57
773 <i>pent</i> (QUAD) $\phi$ (QUAD) $p$ (TIME)	17	9114.640	950.405	0.000	9080.42
774 <i>pent</i> (TIME) $\phi$ (TIME) $p$ (.)	23	9137.510	973.276	0.000	9091.12
775 <i>pent</i> (TIME) $\phi$ (QUAD) $p$ (TIME)	25	9171.370	1007.134	0.000	9120.90
776 <i>pent</i> (QUAD) $\phi$ (TIME) $p$ (.)	15	9210.930	1046.700	0.000	9180.76
777 <i>pent</i> (QUAD) $\phi$ (QUAD) $p$ (.)	7	9212.310	1048.073	0.000	9198.27
778 <i>pent</i> (TIME) $\phi$ (DG $\times$ TIME) $p$ (.)	67	9238.030	1073.794	0.000	9100.72
779 <i>pent</i> (TIME) $\phi$ (QUAD) $p$ (.)	15	9281.000	1116.769	0.000	9250.83