The following supplement accompanies the article

Stable isotope values in pup vibrissae reveal geographic variation in diets of gestating Steller sea lions *Eumetopias jubatus*

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Marine Ecology Progress Series 527: 261–274 (2015)

Fig. S1. Frequency distribution plot displaying the number of pups included in our analysis by year of capture.

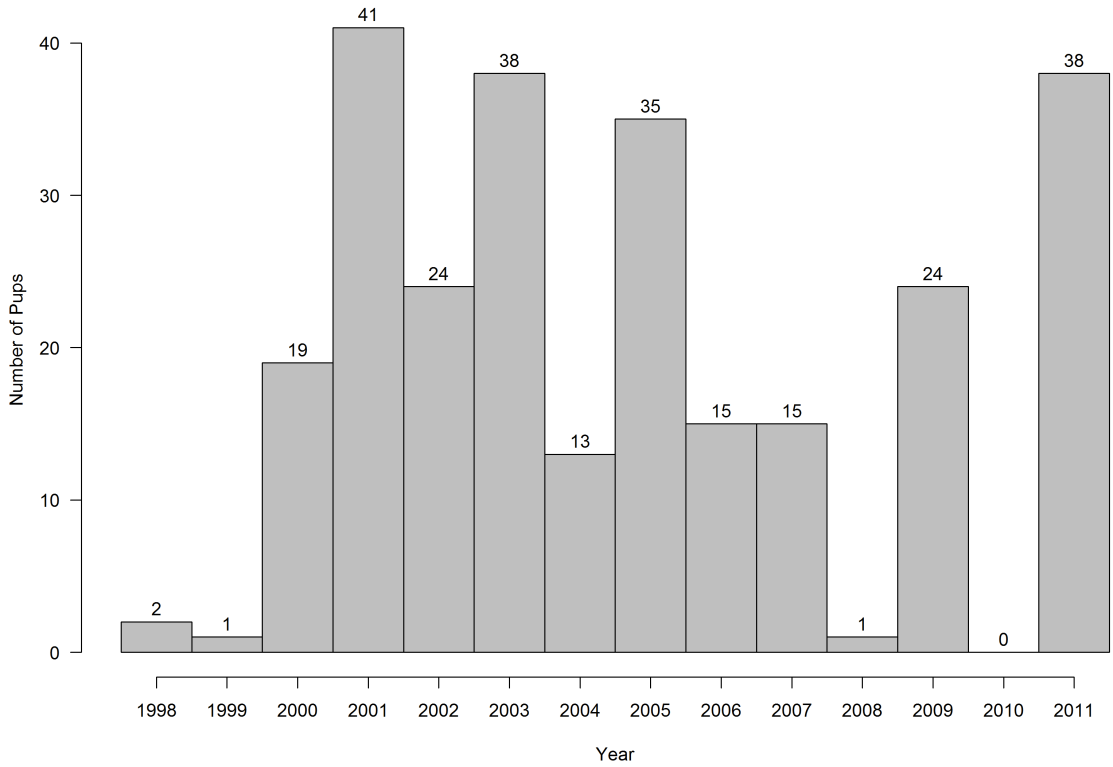
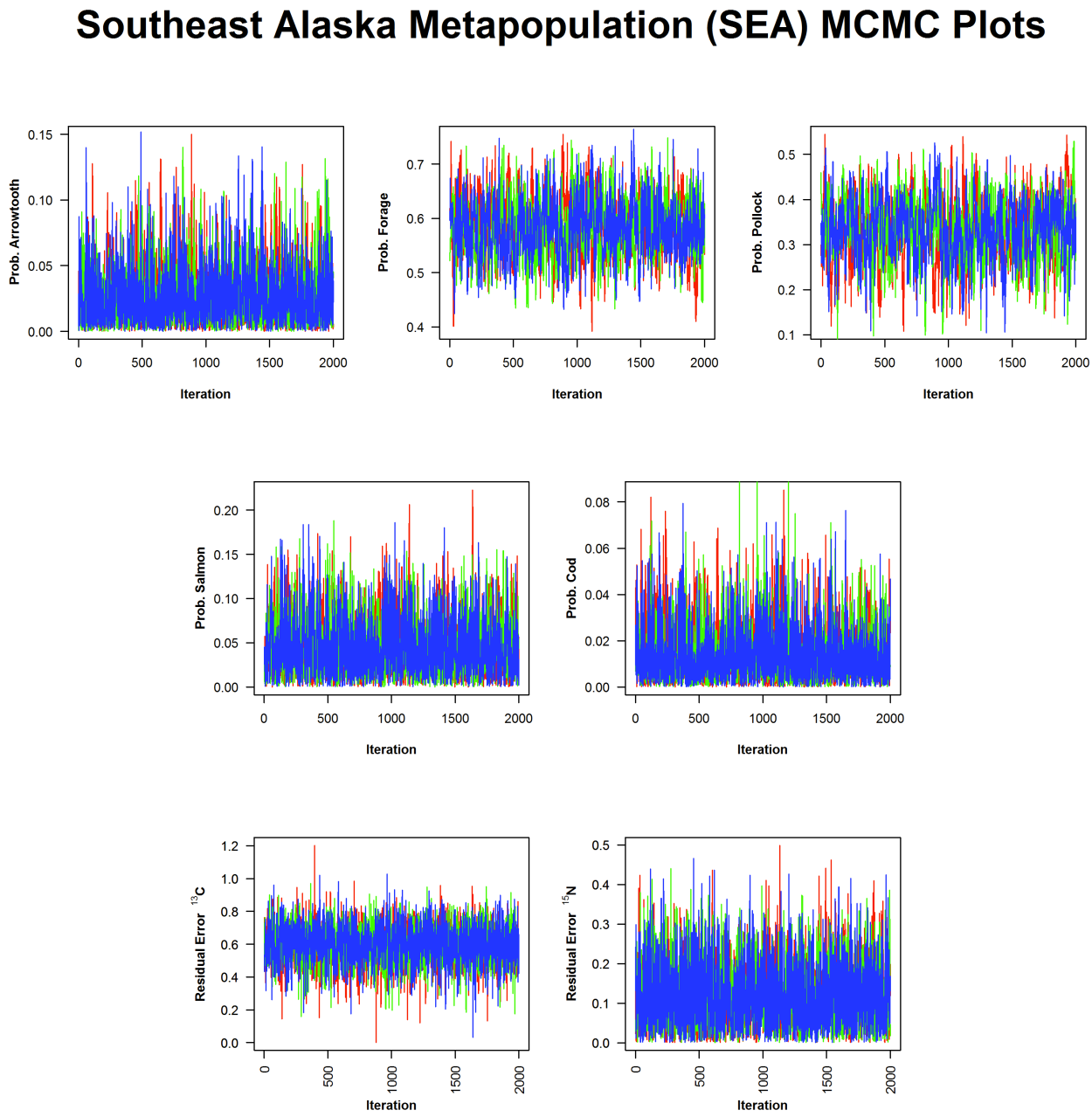


Table S1. Summary of the prey data used in models of the dietary composition of the seven metapopulations of Steller sea lions. Prey data are partitioned into A) samples collected in the Bering Sea (primarily used for the metapopulations in the Aleutian Islands), and B) samples collected in the Gulf of Alaska (primarily used for the metapopulations in the Gulf of Alaska). Capelin, eulachon, sand lance and Pacific herring were combined into a single group (forage species) in the mixing models. Modeling for the Eastern Aleutian Islands and the Western Gulf of Alaska metapopulations combined prey data from groups A and B as described in the main text.

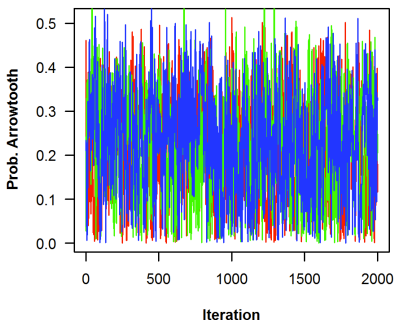
	Species	n	Mean $\delta^{13}C$	SD $\delta^{13}C$	Mean $\delta^{15}N$	SD $\delta^{15}N$	Lipids Extracted	Year(s)	Region of Sample	Season of Sample	Data Source
A	**ATKA MACKEREL**	**31**	**-19.9**	**0.6**	**11.4**	**0.5**					
	Atka mackerel	30	-19.9	0.6	11.3	0.4	Yes	2004	Bering Sea	Fall	Rand 2007
	Atka mackerel	1	-18.7	-	12.8	-	Yes	2000	Bering Sea	Winter	Kurle et al. 2011
	FORAGE GROUP	**103**	**-18.6**	**1.0**	**15.2**	**1.9**					
	Capelin	44	-19.4	0.7	14.3	1.7	No	2006, 2007	Bering Sea	Summer	Alaska Fisheries Science Center
	Eulachon	20	-18.9	0.7	13.8	0.5	Yes	1997, 2000	Bering Sea	Summer	Kurle & Worthy 2001, Kurle et al. 2011
	Pacific sand lance	25	-18.7	0.8	15.3	0.9	No	2006, 2007	Bering Sea	Summer	Alaska Fisheries Science Center
	Pacific herring	14	-18.7	0.5	14.1	0.5	Yes	2000	Bering Sea	Summer	Kurle et al. 2011
	PACIFIC COD	**41**	**-17.5**	**0.6**	**17.3**	**1.3**					
	Pacific cod	10	-17.4	0.9	16.0	1.6	Yes	2000	Bering Sea	Winter	Kurle et al. 2011
	Pacific cod	31	-17.5	0.5	17.7	0.9	No	2007	Bering Sea	Fall	Alaska Fisheries Science Center
	WALLEYE POLLOCK	**192**	**-20.3**	**0.8**	**13.2**	**1.1**					
	Walleye pollock	157	-20.2	0.8	13.3	1.2	No	2007	Bering Sea	Fall	Alaska Fisheries Science Center
	Walleye pollock	32	-20.7	0.7	12.8	0.8	No	2007	Bering Sea	Winter	Alaska Fisheries Science Center
	Walleye pollock	3	-19.1	0.7	12.3	0.5	Yes	2000	Bering Sea	Winter	Kurle et al. 2011
	SQUID	**12**	**-20.4**	**0.6**	**9.9**	**1.3**					
	Squid	12	-20.4	0.6	9.9	1.3	Yes	2000	Bering Sea	Winter	Kurle et al. 2011
	ARROWTOOTH FLOUNDER	**68**	**-19.5**	**0.5**	**15.2**	**0.7**					

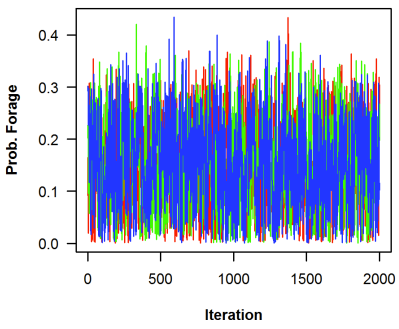
	Arrowtooth flounder	67	-19.5	0.5	15.2	0.7	No	2007	Bering Sea	Fall	Alaska Fisheries Science Center
	Arrowtooth flounder	1	-17.6	-	15.7	-	Yes	2000	Bering Sea	Winter	Kurle et al. 2011
B	**ARROWTOOTH FLOUNDER**	**16**	**-18.6**	**0.6**	**14.5**	**0.4**					
	Arrowtooth flounder	13	-18.8	0.4	14.5	0.4	No	1996	Gulf of Alaska	Winter-Spring	Kline
	Arrowtooth flounder	3	-17.7	0.1	14.5	0.4	Yes	2000	Gulf of Alaska	Winter	Kurle et al. 2011
	FORAGE GROUP	**192**	**18.3**	**1.0**	**13.7**	**1.9**					
	Capelin	36	-18.0	1.4	12.6	1.4	Yes	2003, 2004, 2005, 2008	Gulf of Alaska	Winter-Spring	Witteveen
	Eulachon	36	-17.9	0.6	13.9	0.5	No	2000, 2003, 2004, 2007	Gulf of Alaska	Winter-Spring	Kline,Kurle et al. 2011
	Sand lance	31	-19.0	0.6	12.7	0.5	No	2007	Gulf of Alaska	Winter-Spring	Kline
	Sand lance	1	-19.2	-	13.4	-	Yes	2000	Gulf of Alaska	Winter	Kurle et al. 2011
	Pacific herring	57	-17.8	0.6	13.1	0.6	Yes	2000, 2003, 2005, 2007, 2008, 2009	Gulf of Alaska	Winter-Spring	Kurle et al. 2011, Witteveen
	Pacific herring	31	-19.0	0.4	12.4	0.6	No	2010	Gulf of Alaska	Winter-Spring	Kline
	PACIFIC COD	**1**	**-17.0**	**-**	**17.9**	**-**	Yes	2000	Gulf of Alaska	Winter	Kurle et al. 2011
	WALLEYE POLLOCK	**25**	**-18.1**	**0.8**	**13.7**	**0.5**					
	Walleye pollock	18	-18.3	0.8	13.8	0.6	Yes	2000	Gulf of Alaska	Winter	Kurle et al. 2011
	Walleye pollock	7	-17.4	0.3	13.6	0.3	Yes	2007	Gulf of Alaska	Winter-Spring	Witteveen
	SALMON	**51**	**-19.6**	**0.7**	**13.2**	**0.5**					
	Chum salmon	51	-19.6	0.7	13.2	0.5	No	1995	Gulf of Alaska	Winter-Spring	Kline
	SQUID	**10**	**-18.2**	**0.8**	**13.8**	**0.8**					
	Squid	6	-18.2	0.8	14.4	0.4	Yes	2000	Gulf of Alaska	Winter	Kurle et al. 2011
	Squid	4	-18.1	1.0	12.9	0.2	Yes	2007, 2008	Gulf of Alaska	Winter-Spring	Kline, Witteveen

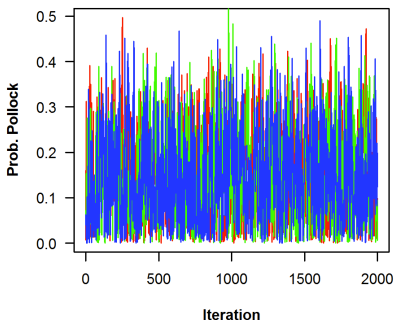
Fig. S2. Plots of MCMC chains.

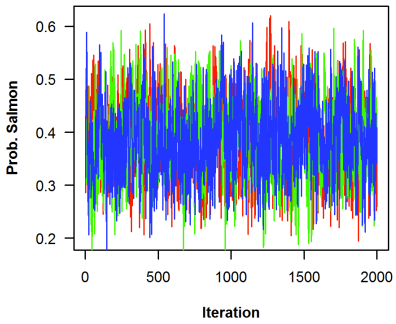


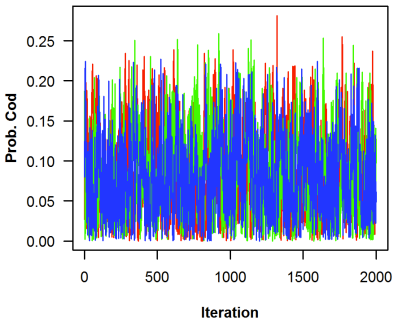
Eastern Gulf of Alaska Metapopulation (EGOA) MCMC Plots

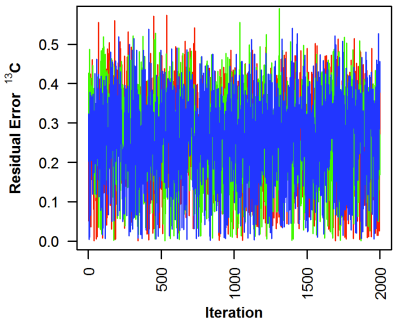


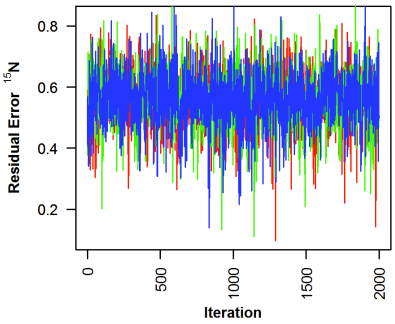




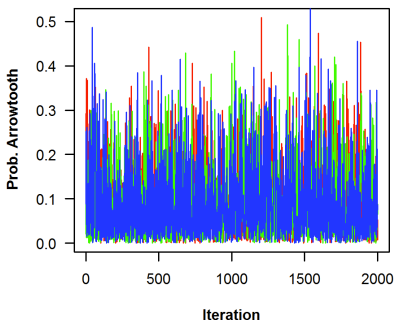


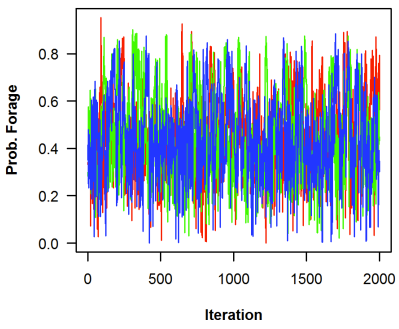


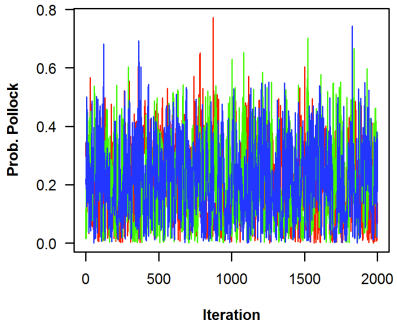


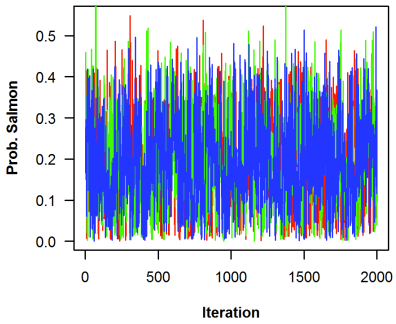


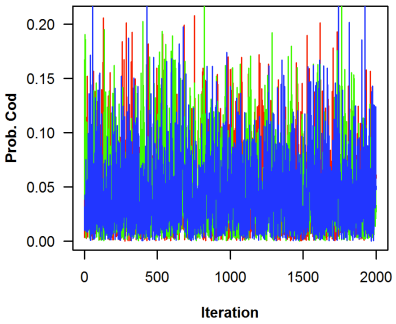
Central Gulf of Alaska Metapopulation (CGOA) MCMC Plots

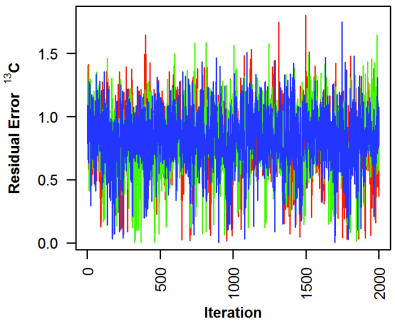


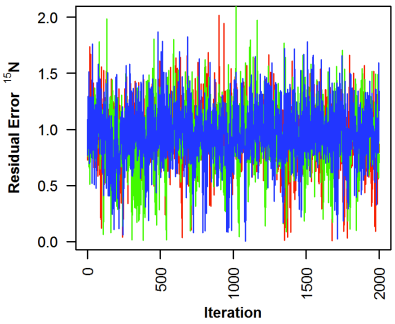




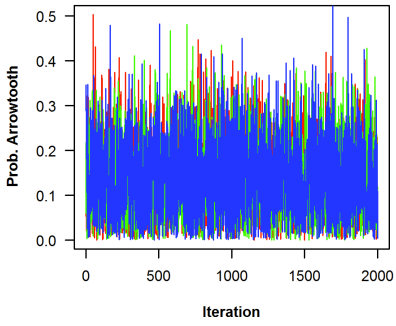


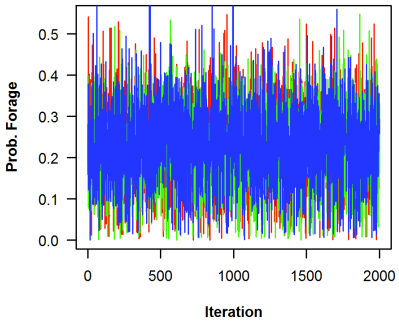


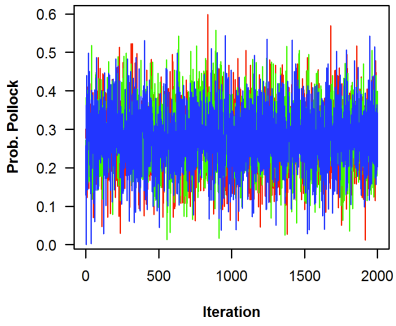


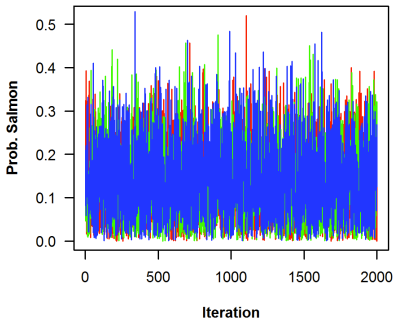


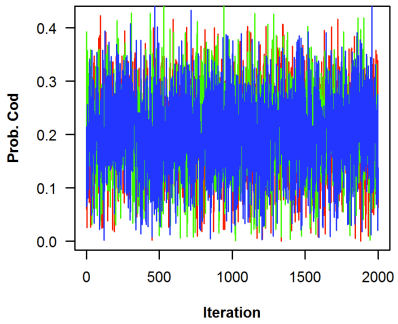
Western Gulf of Alaska Metapopulation (WGOA) MCMC Plots

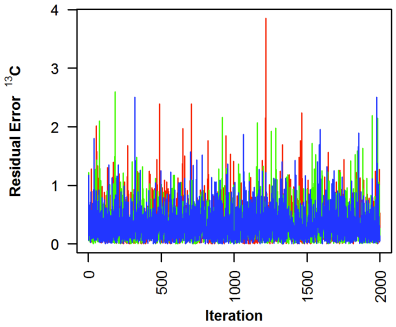


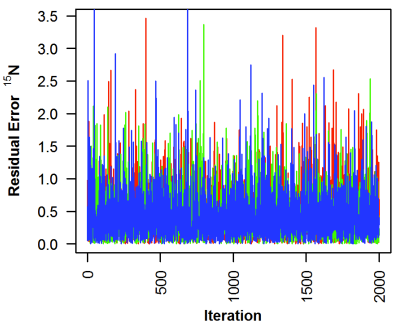




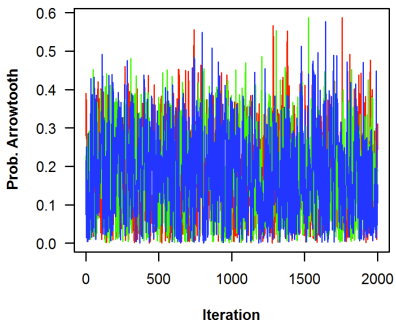


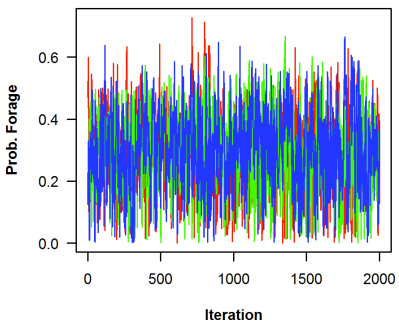


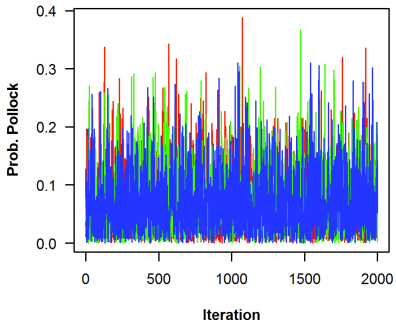


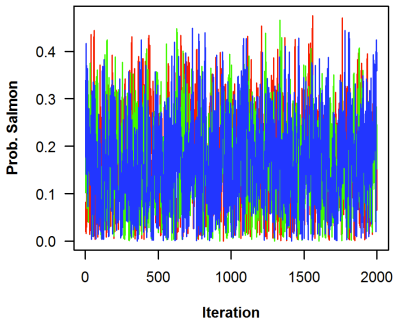


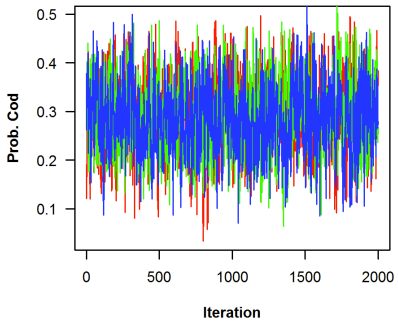
Eastern Aleutian Islands Metapopulation (EAI) MCMC Plots

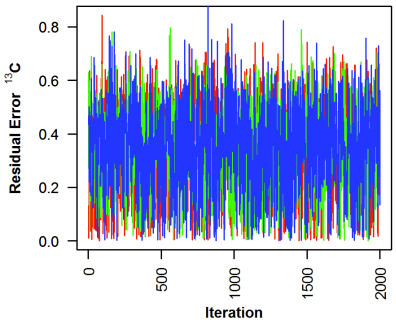


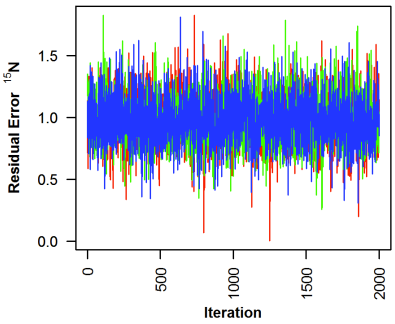




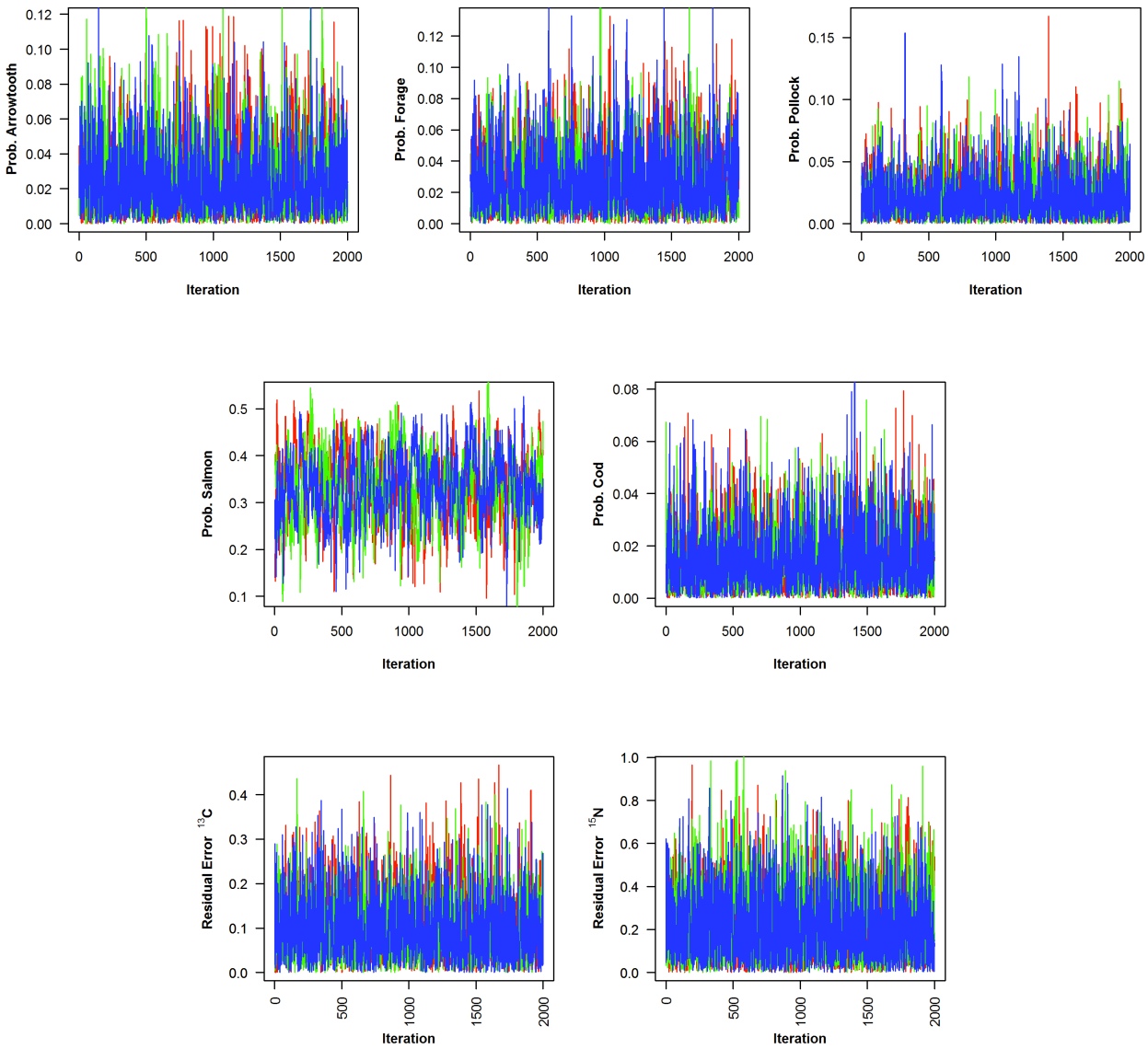








Central Aleutian Islands Metapopulation (CAI) MCMC Plots



Western Aleutian Islands Metapopulation (WAI) MCMC Plots