Appendix 1. The % mass and frequency of occurrence of each group in male mink diet in the Snæfellsnes Peninsula, W-Iceland.

	2001-2002 (n=52)		2002-2003 (n=92)		2003-2004 (n=49)		2004-2005 (n=54)		2005-2006 (n=11)		2006-2007 (n=47)		2007-2008 (n=37)		2008-2009 (n=14)	
	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq
Fish	41.9	32.7	42.6	34.8	46.9	36.7	38.6	44.4	40.7	36.4	51.4	44.7	54.1	45.9	14.4	21.4
Freshwater	23.2	11.5	31.6	17.4	11.3	14.3	27.2	25.9	4.7	9.1	23.7	19.1	13.3	18.9	7.1	7.1
Marine	7.2	9.6	7.7	9.8	18.5	12.2	2.2	1.9	4.6	9.1	8.6	14.9	34.0	18.9	0.0	0.0
Unidentified	11.5	11.5	3.4	8.7	17.1	10.2	9.1	16.7	31.4	18.2	19.1	10.6	6.8	8.1	7.3	14.3
Birds	57.4	38.5	50.6	29.3	29.6	28.6	52.9	33.3	2.5	9.1	40.9	27.7	37.6	29.7	7.5	21.4
Seabirds	18.2	7.7	14.8	8.7	2.6	2.0	0.5	1.9	0.0	0.0	7.1	4.3	4.8	5.4	0.0	0.0
Waders	6.0	11.5	5.6	4.3	8.1	10.2	48.0	18.5	0.0	0.0	19.2	8.5	7.2	8.1	0.6	7.1
Ducks	20.9	15.4	29.3	10.9	18.6	16.3	1.1	5.6	0.0	0.0	4.9	10.6	7.1	5.4	0.0	0.0
Unidentified	12.2	5.8	1.0	4.3	0.3	4.1	3.3	7.4	2.5	9.1	9.7	10.6	18.5	10.8	6.9	14.3
Wood mouse	0.0	1.9	4.1	3.3	16.7	14.3	1.9	7.4	0.0	0.0	0.5	4.3	2.2	2.7	66.4	21.4
Invertebrates	0.7	5.8	2.7	17.4	6.9	18.4	6.7	31.5	56.8	9.1	7.1	23.4	6.0	40.5	11.7	35.7
Total	**100.0**	**78.8**	**100.0**	**84.8**	**100.0**	**98.0**	**100.0**	**116.7**	**100.0**	**54.5**	**100.0**	**100.0**	**100.0**	**118.9**	**100.0**	**100.0**

Appendix 2. The % mass and frequency of occurrence of each group in female mink diet in the Snæfellsnes Peninsula, W-Iceland.

	2001-2 (n=30)		2002-2003 (n=65)		2003-2004 (n=34)		2004-2005 (n=37)		2005-2006 (n=30)		2006-2007 (n=52)		2007-2008 (n=49)		2008-2009 (n=10)	
	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq	% mass	freq
Fish	62,9	40,0	67,8	55,4	70,1	50,0	35,8	48,6	68,0	53,3	66,2	57,7	65,5	55,1	67,0	50,0
Freshwater	15,7	10,0	20,3	13,8	36,7	23,5	6,5	13,5	0,0	0,0	31,6	25,0	10,3	12,2	51,6	20,0
Marine	9,3	13,3	42,5	27,7	30,4	23,5	16,1	27,0	56,1	36,7	27,2	19,2	35,2	20,4	2,9	10,0
Unidentified	37,9	16,7	5,0	15,4	2,9	5,9	13,2	8,1	11,9	16,7	7,4	13,5	20,0	22,4	12,5	20,0
Birds	8,4	30,0	11,1	16,9	10,3	17,6	39,7	21,6	20,6	20,0	13,1	13,5	19,8	20,4	19,1	10,0
Seabirds	0,0	0,0	0,6	3,1	0,0	0,0	8,2	5,4	0,0	0,0	0,0	0,0	2,9	2,0	0,0	0,0
Waders	5,5	16,7	4,1	6,2	0,4	2,9	30,1	8,1	2,7	6,7	5,0	7,7	10,3	8,2	0,0	0,0
Ducks	2,2	10,0	1,7	1,5	5,2	8,8	0,0	0,0	15,4	6,7	8,0	5,8	4,5	4,1	19,1	10,0
Unidentified	0,6	3,3	4,7	9,2	4,7	5,9	1,4	8,1	2,6	6,7	0,0	0,0	2,2	6,1	0,0	0,0
Wood mouse	22,0	10,0	10,9	6,2	16,1	11,8	21,9	13,5	4,4	3,3	11,3	7,7	6,5	4,1	2,0	10,0
Invertebrates	6,7	26,7	10,1	32,3	3,5	23,5	2,6	24,3	7,0	36,7	9,4	40,4	8,2	34,7	11,9	50,0
Total	**100,0**	**106,7**	**100,0**	**110,8**	**100,0**	**102,9**	**100,0**	**108,1**	**100,0**	**113,3**	**100,0**	**119,2**	**100,0**	**114,3**	**100,0**	**120,0**

Appendix 3. Logistic regression of mink prey type trends in the years 2001-2009 in all Snæfellsnes Peninsula. Trend is classified as % decrease/increase (arrows) per year. *Bad model indicates significant variables but a poor fit for the Hosmer-Lemeshow Goodness of Fit Test. ** Significance limits are 0.1>P>0.05.

	All seasons	Spring	Summer	Autumn	Winter
Both sexes	**n=662**	**n=318**	**n=77**	**n=116**	**n=151**
All fish	-	23% ŷ (P=0.003) n=165	-	-	-
All birds	11% Ź (P=0.011) n=165	25% Ź (P<0.0005) n=72	-	-	Ź** n=27
Seabirds	20% Ź (P=0.046) n=23	Ź** n=11	-	-	-
Ducks	14% Ź (P=0.042) n=52	Ź** n=28	27% Ź (P=0.025) n=12	-	-
Other birds	-	37% Ź (P=0.002) n=20	-	-	-
Invertebrates	17% ŷ (P<0.0005) n=173	ŷ** n=86	-	29% ŷ (P=0.047) n=24	*Bad model ŷ n=40
Multiple prey	9% ŷ (P=0.049) n=170	-	-		ŷ** n=34
Males	**n=356**	**n=160**	**n=31**	**n=62**	**n=103**
All fish	-	ŷ** n=67	-	-	-
All birds	-	Ź** n=45	-	-	Ź** n=22
Seabirds	Ź** n=18	-	-	-	-
Ducks	17% Ź (P=0.046) n=37	-	-	-	-
Invertebrates	26% ŷ (P=0.001) n=74	29% ŷ (P=0.009) n=35	-	-	-
Multiple prey	14% ŷ (P=0.049) n=81	-	-	-	-
Females	**n=306**	**n=158**	**n=46**	**n=54**	**n=48**
All fish	-	23% ŷ (P=0.041) n=98	-	-	-
All birds	-	*Bad model Ź n=27	-	-	-
Invertebrates	-	-	-	ŷ** n=11	ŷ** n=19

Appendix 4. Logistic regression mink prey type trends in the years 2001-2009 in coastal and riparian habitats of Snæfellsnes peninsula. Trend is classified as % decrease/increase (arrows) per year. *Bad model indicates significant variables but a poor fit for the Hosmer-Lemeshow Goodness of Fit Test. ** Significance limits are 0.1>P>0.05.

	All seasons	Spring	Summer	Autumn	Winter
Coastal mink					
Both sexes	**n=455**	**n=249**	**n=54**	**n=60**	**n=92**
All fish	-	22% ŷ (P=0.012) n=126	-	-	-
All birds	12% Ź (P=0.026) n=117	24% Ź (P=0.001) n=58	-	-	-
Seabirds	21% Ź (P=0.05) n=20	-	-	-	-
Ducks	-	Ź** n=24	25% Ź (P=0.047) n=12	-	-
Invertebrates	ŷ** n=121	-	-	-	-
Males	**n=235**	**n=118**	**n=23**	**n=31**	**n=63**
Seabirds	Ź** n=16	-	-	-	-
Invertebrates	20% ŷ (P=0.032) n=49	ŷ** n=25	-	-	-
Females	**n=220**	**n=131**	**n=31**	**n=29**	**n=29**
All birds	-	Bad model* Ź n=21	-	-	-
Riparian mink					
Both sexes	**n=207**	**n=68**	**n=24**	**n=50**	**n=65**
Birds	-	32% Ź (P=0.025) n=14	-	-	-
Invertebrates	34% ŷ (P=0.001) n=52	-	-	-	51% ŷ (P=0.014) n=21
Multiple	22% ŷ (P=0.016) n=47	-	-	-	ŷ** n=18
Males	**n=121**	**n=42**	**n=8**	**n=31**	**n=40**
Invertebrates	39% ŷ (P=0.004) n=25	-	-	-	-
Females	**n=86**	**n=26**	**n=16**	**n=19**	**n=25**
Invertebrates	ŷ** n=27	-	-	-	-

Appendix 5. Test statistics, where significant, for variation in diet of mink between the years 2001-5(2001-2, 2002-3, 2003-4 and 2004-5) and 2005-9(2005-6, 2006-7, 2007-8 and 2008-9). Significant differences in preyôs frequency (Fisher exact test) and weight (Mann-Whitney test) in diet of all, coastal and riparian mink in different seasons. Arrows (↑= higher consumption and ↓= lower consumption) represent in which years the differences were found.

	Habitat	Prey species	Season	Frequency of occurrence	Weight
Males	All	Marine fish	Warm		P=0.0451, ↑2005-8
	Coastal	Marine fish	Warm		P=0.0303, ↑2005-8
	Coastal	Marine fish	Spring	P=0.047, ↑2005-8	P=0.0325, ↑2005-8
	Coastal	Seabirds	All seasons	P=0.0405, ↑ 2001-4	
	All	Ducks	Summer	P=0.0026, ↑ 2001-4	
	Coastal	Ducks	Summer	P=0.0046, ↑ 2001-4	
	All	Invertebrates	All seasons	P=0.0232, ↑2005-8	
	All	Invertebrates	Summer	P=0.0464, ↑2005-8	
	Coastal	Invertebrates	All seasons		P=0.0434, ↑2005-8
	Coastal	Invertebrates	Warm		P=0.0116, ↑2005-8
	Coastal	Invertebrates	Summer	P=0.0373, ↑2005-8	
	Riparian	Invertebrates	Autumn		P=0.0259, ↑2005-8
Females	All	Marine fish	All seasons	P=0.0126, ↑2005-8	
	All	Marine fish	Cold		P=0.0392, ↑ 2001-4
	Coastal	Marine fish	All seasons	P=0.0167, ↑2005-8	
	Coastal	Marine fish	Autumn	P=0.0445, ↑ 2001-4	
	All	All birds	Spring	P=0.0026, ↑ 2001-4	P=0.0064, ↑ 2001-4
	Coastal	All birds	All seasons	P=0.0456, ↑ 2001-4	
	Riparian	All birds	Spring	P=0.0191, ↑ 2001-4	
	All	Ducks	Warm	P=0.0388, ↑ 2001-4	
	All	Other birds	Spring		P=0.0418, ↑ 2001-4
	Riparian	Other birds	All seasons	P=0.0273, ↑ 2001-4	
	All	Invertebrates	All seasons	P=0.0038, ↑2005-8	
	All	Invertebrates	Cold	P=0.0287, ↑2005-8	P=0.0018, ↑2005-8
	All	Invertebrates	Warrm	P=0.0318, ↑2005-8	
	All	Invertebrates	Autumn		P=0.0479, ↑2005-8
	Riparian	Invertebrates	Cold		P=0.0005, ↑2005-8
	Riparian	Invertebrates	Autumn	P=0.022, ↑2005-8	P=0.0127, ↑2005-8

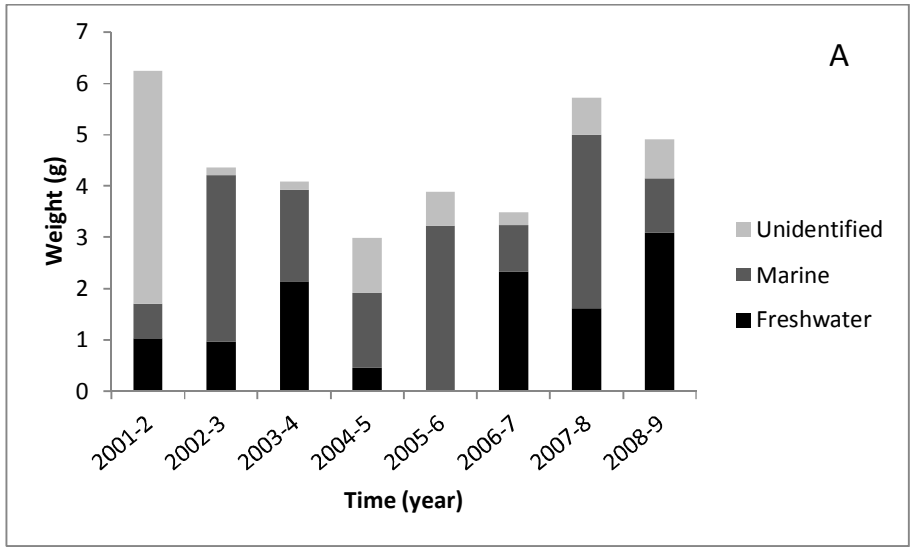
Appendix 6. Test statistics for interannual variation in diet of **male** mink in the years 2001-9. Significant differences in preyôs frequency (Chi square tests and Fisher exact test) and weight (Kruskal-Wallis and Dunnôs post tests) in the diet of coastal, riparian and all mink in different seasons. Arrows (↑= higher consumption and ↓= lower consumption) represent in which years the differences were found.

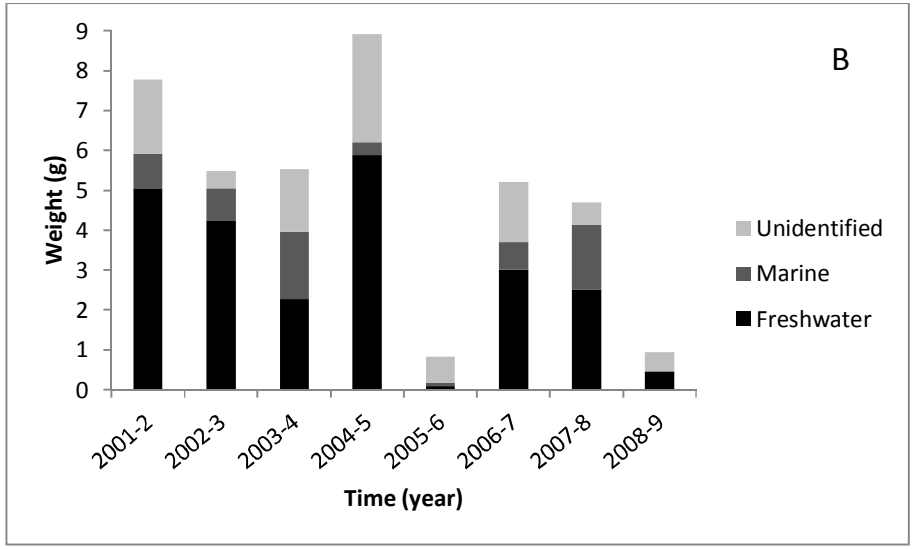
Habitat	Prey species	Season	Frequency of occurrence	Variation	Weight	Dunn's post test
Coastal	All birds	Winter	$G^2 = 11.97$, P = 0.0075, df = 3	Highest in 2002-3, lowest in 2004-5	P=0.038	2002-3↑ / 2004-5↓
All	Ducks	Summer	-	-	P=0.013	2004↑ / 2007↓ +2008↓
Coastal	Ducks	Summer	$G^2 = 9.778$, P = 0.0206, df = 3	Peaks 2003-4, no ducks 2006-7 and 2007-8	P=0.0236	2004↑ / 2008↓
Riparian	Waders	Autumn	$G^2 = 6.343$, P = 0.0419, df = 2	Not significant	-	-
All	Wood mouse	All seasons	$G^2 = 17.05$, P = 0.0091, df = 6	2003-4↑ + 2008-9↑ / 2001-2↓ + 2002–3↓ + 2007–8↓	-	-
Riparian	Wood mouse	All seasons	-	-	P=0.0495	2003-4 ↑/ 2008-9↓
All	Invertebrates	All seasons	$G^2 = 19.22$, P = 0.0038, df =6	2001-2↓ + 2002-3↓ / 2004-5↑ + 2006–7↑ + 2007–8↑ + 2008–9↑	-	-
Coastal	Invertebrates	Summer	$G^2 = 15.34$, P = 0.0015, df =3	No invert 2001-2 and 2002-3, peaks in 2007-8	P=0.0047	2002↓ + 2004↓ / 2008↑
Riparian	Invertebrates	Autumn	$G^2 = 6.432$, P = 0.0401, df =2	Not significant	P=0.0405	Not significant
Riparian	Invertebrates	Winter	$G^2 = 8.793$, P = 0.0322, df =3	2002-3↓ / 2004-5↑	-	-
Riparian	Invertebrates	Spring	$G^2 = 9.651$, P = 0.008, df =2	2003↓ + 2006↓ / 2005↑	P=0.0703	Not significant
Riparian	Invertebrates	All seasons	-	-	P=0.0284	Not significant

Appendix 7. Test statistics for interannual variation in diet of **female** mink in the years 2001-9. Significant differences in preyôs frequency (Chi square tests and Fisher exact test) and weight (Kruskal-Wallis and Dunnôs post tests) in diet of all, coastal and riparian mink in different seasons. Arrows (↑= higher consumption and ↓= lower consumption) represent in which years the differences were found.

Habitat	Prey species	Season	Frequeny of occurrence	Variation	Weight	Dunn's post test
All	All fish	Spring	$\chi 2 = 15.49$, P = 0.0302, df = 7	Lowest in 2001-2, highest in 2006-7	-	-
All	Freshw. fish	Summer	-	-	P=0.0029	2004↑ / 2005↓ + 2007↓+ 2008↓
Coastal	Freshw. fish	Summer	-	-	P=0.0358	2004↑ / 2008↓
All	All birds	Spring	$\chi^2 = 21.42$, P = 0.0032, df = 7	2001-2↑ + 2002-3↑ + 2003-4↑, no birds in 2006-7 + 2007-8	P=0.0026	2002↑ + 2004↑ / 2007↓ + 2008↓
Coastal	All birds	Spring	$\chi^2 = 16.86$, P = 0.0098, df = 6	2001-2↑ + 2003-4↑ / no birds in 2006-7 + 2007-8	P=0.0314	2004↑ / 2008↓
Riparian	All birds	Spring	Fisher exact test: P=0.035	2001-2↑ / 2006-7↓	-	-
Riparian	All birds	All seasons	-	-	P=0.0268	Not significant
All	Ducks	Spring	$\chi^2 = 19.49$, P = 0.0034, df = 6	2002–3↓ / 2003–4↑	P=0.0178	Not significant
Coastal	Ducks	Spring	-	-	P=0.0089	2003↓ / 2004↑
Riparian	Wood mouse	Autumn	-	-	P=0.0452	Not significant
All	Invert	Summer	-	-	P=0.008	2002↓ + 2006↓ / 2008↑

Appendix 8. Weight of fish groups (freshwater, marine and unidentified fish) in stomach content of A) females and B) males.




B
Weight (g)
9
8
7
6
5
4
3
2
1
0
2001-2
2002-3
2003-4
2004-5
2005-6
2006-7
2007-8
2008-9
Time (year)
Unidentified
Marine
Freshwater