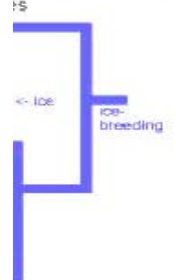
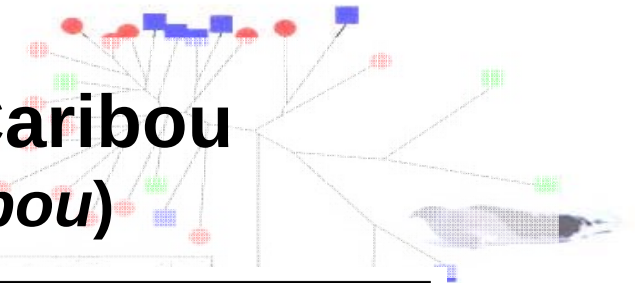
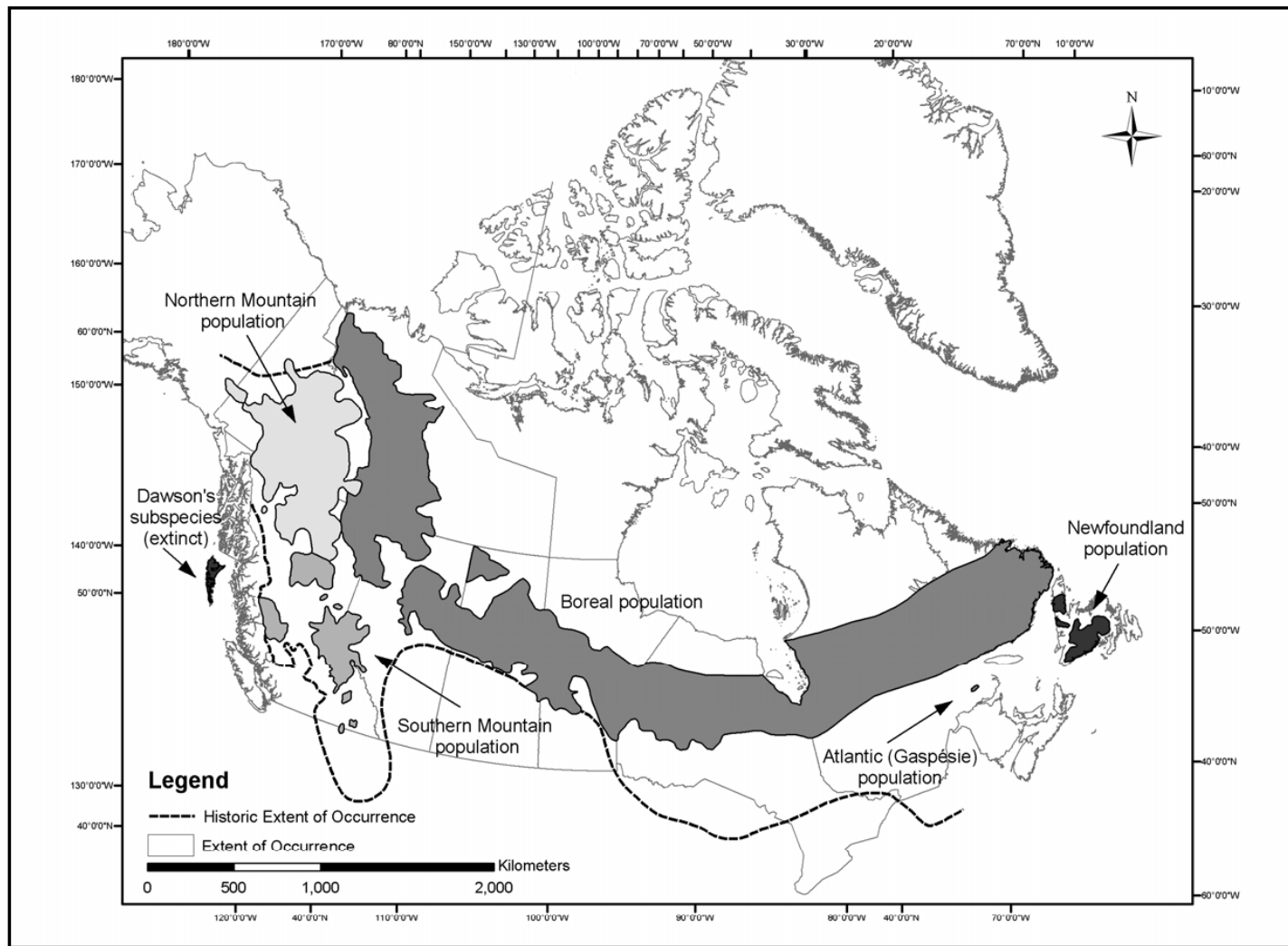
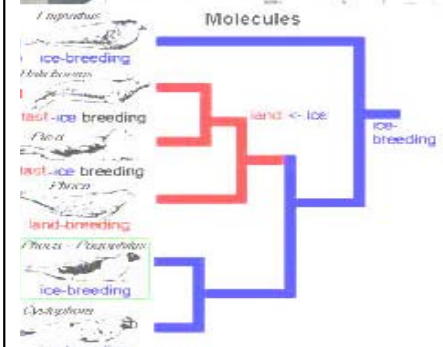
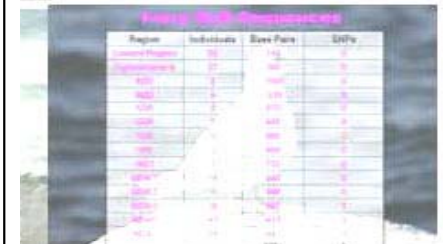
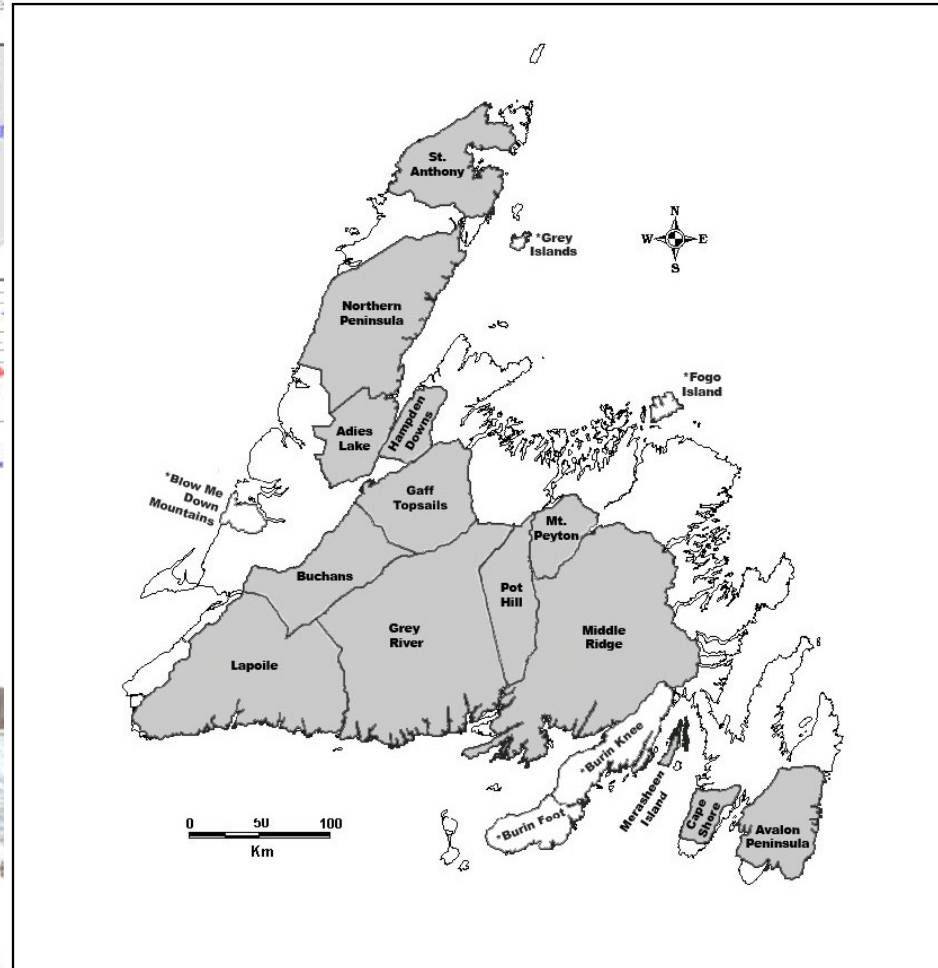
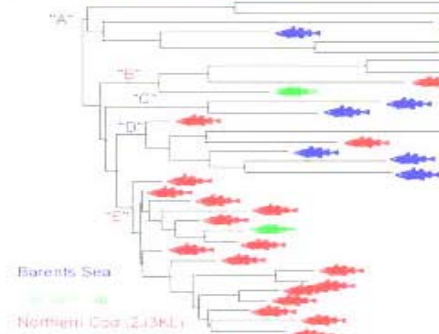


Canadian ecotypes of Caribou (*Rangifer tarandus caribou*)

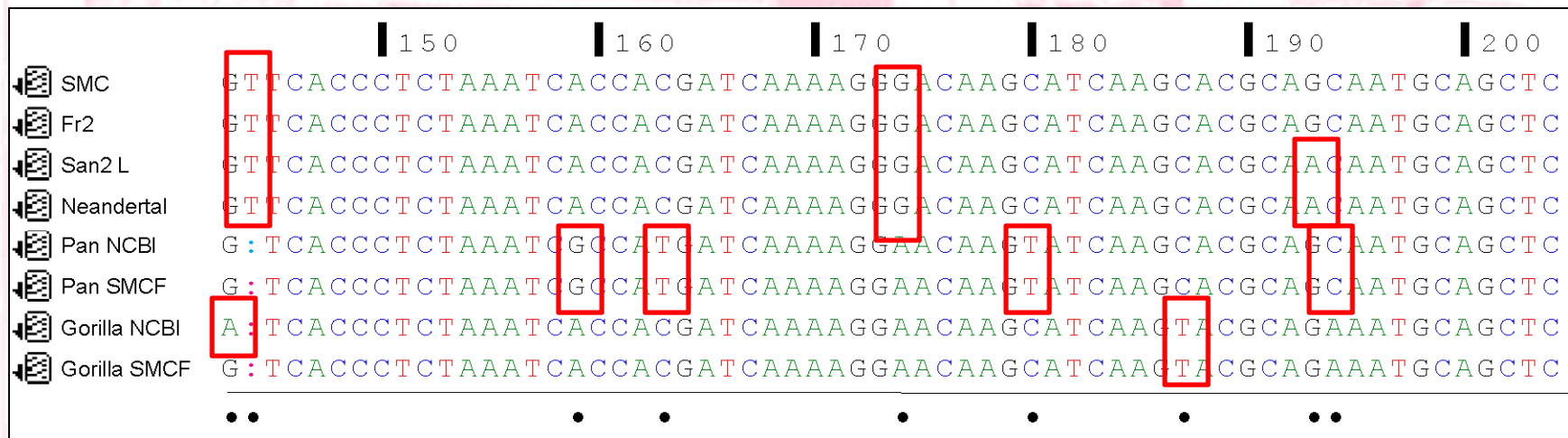


Hunting compartments of Newfoundland Caribou (*Rangifer tarandus caribou*)



DNA sequence variation in Great Apes

•'s indicate single-nucleotide polymorphism (SNP) sites



Pairwise genetic distances among Great Apes

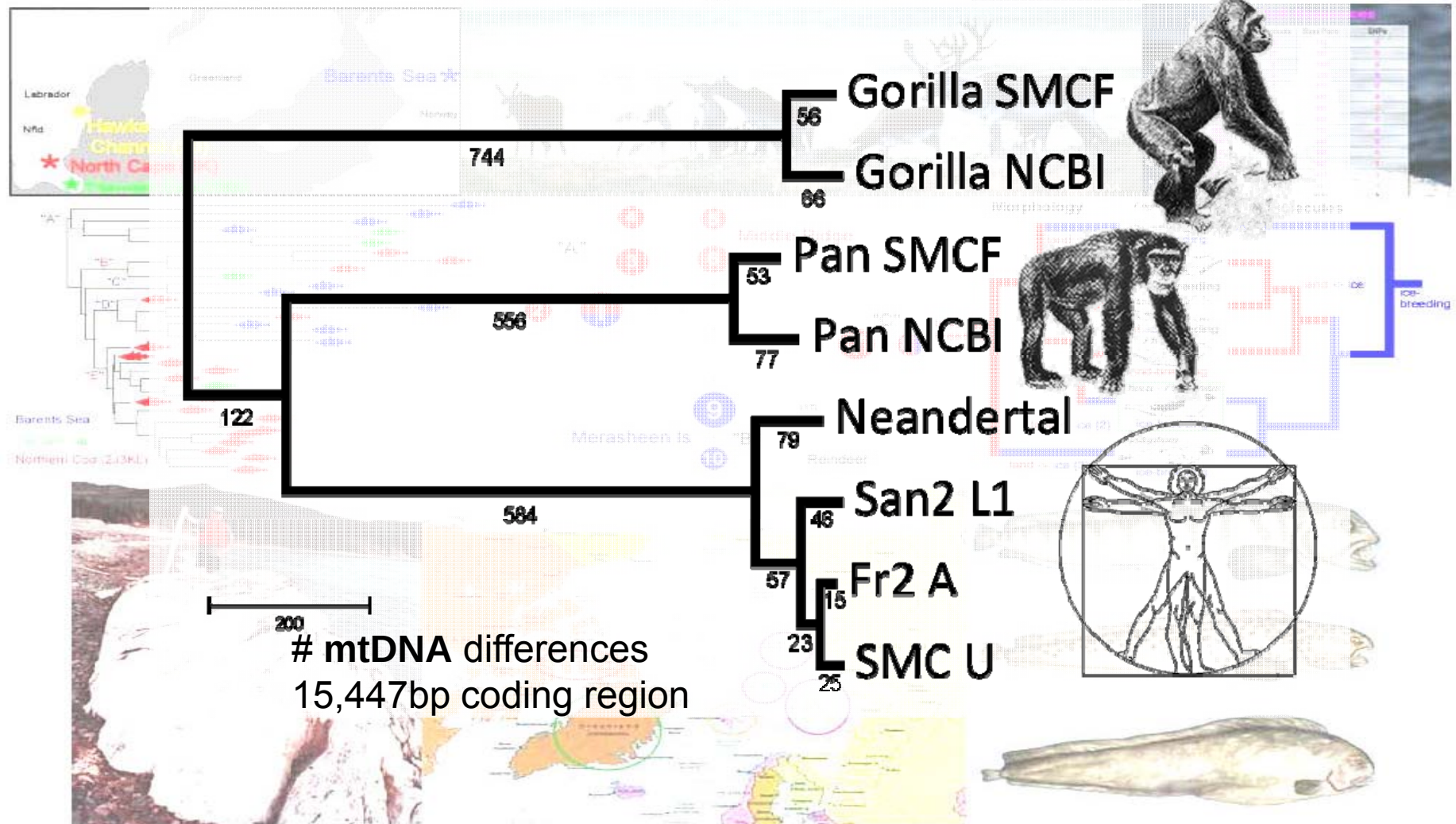
(# Δ out of 15,447bp [below]; % Δ [above])
(after SMC Flynn & SM Carr 2007 BMC Genomics 8,339)

	Gorilla NCBI	Gorilla SMCF	Pan NCBI	Pan SMCF	Neandertal	San2 (L1)	Fr2 (A2)	SMC (U)
Gorilla NCBI	0	0.79	9.97	10.01	10.31	10.36	10.40	10.42
Gorilla SMCF	122	0	10.02	10.09	10.35	10.42	10.46	10.49
Pan NCBI	1540	1548	0	0.84	8.19	8.42	8.31	8.37
Pan SMCF	1547	1559	130	0	8.35	8.61	8.49	8.55
Neandertal	1592	1599	1265	1290	0	1.18	1.12	1.18
San2 (L1)	1601	1610	1301	1330	183	0	0.54	0.61
Fr2 (A2)	1606	1616	1284	1312	173	84	0	0.26
SMC (U)	1610	1620	1293	1321	183	94	40	0

CENTS

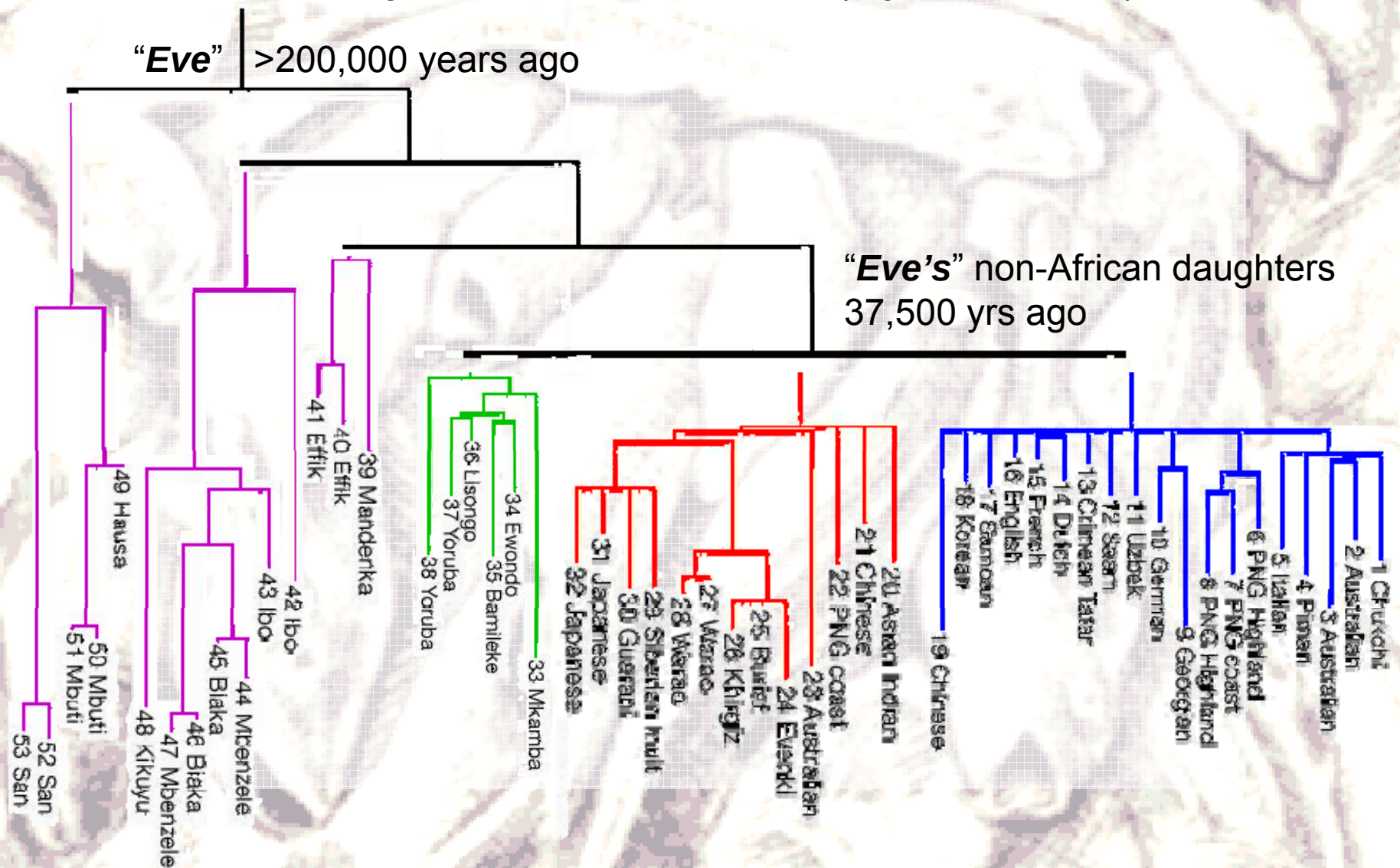
The Descent of Man

Neighbor-joining analysis of mutational differences among Great Apes
(after SMC Flynn & SM Carr 2007 *BMC Genomics* 8,339)



The “*Out of Africa*” Hypothesis

Genetic origins of the “Mitochondrial Eve” (Ingman *et al.* 2000)

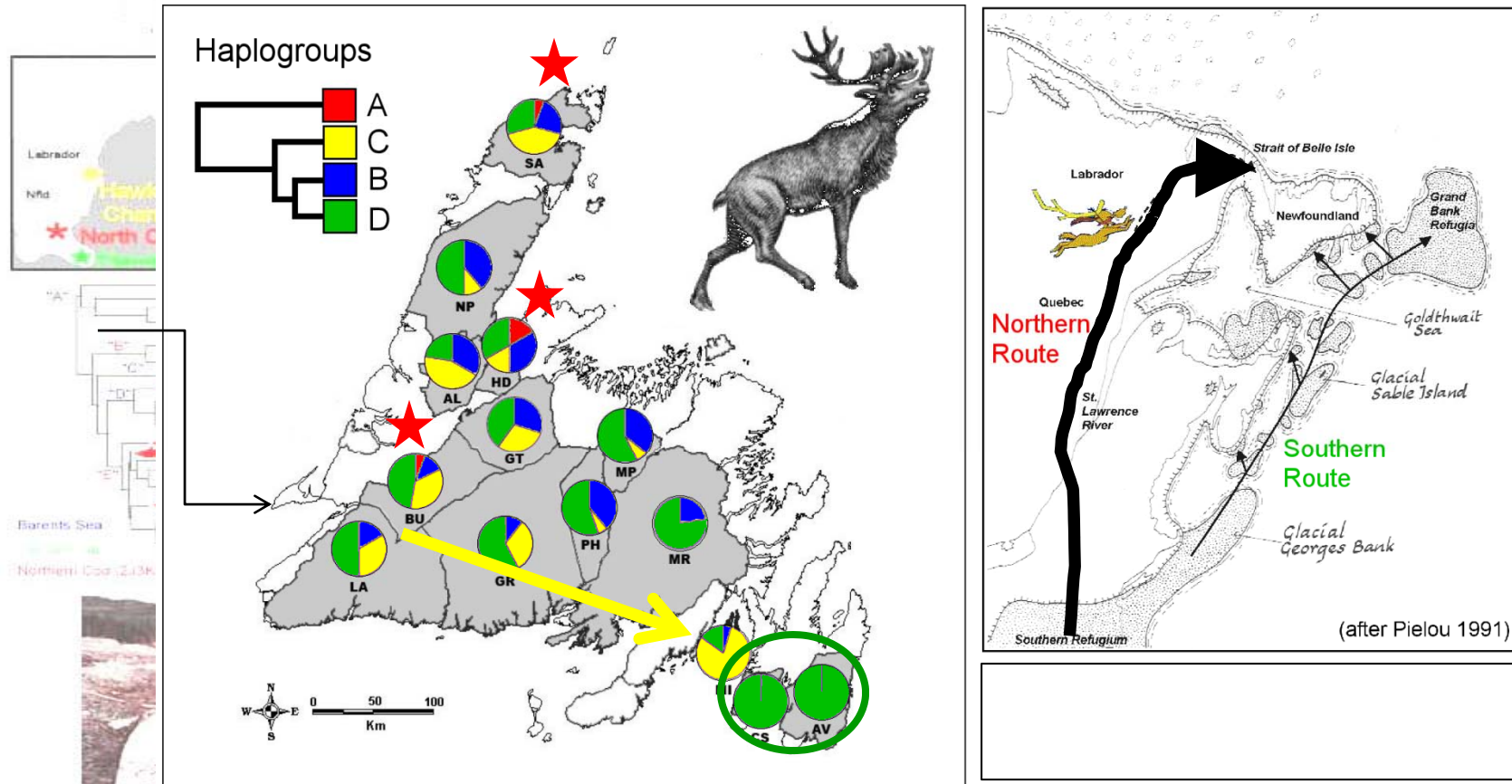


Distribution of 32 mtDNA haplotypes in Nfld Caribou
[CD Wilkerson, MSc, 2010]

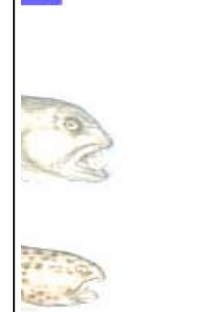
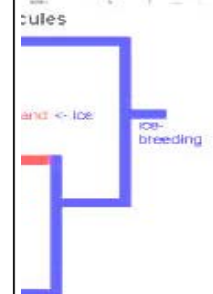
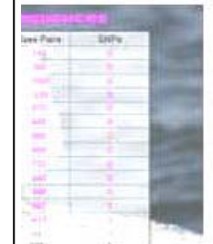
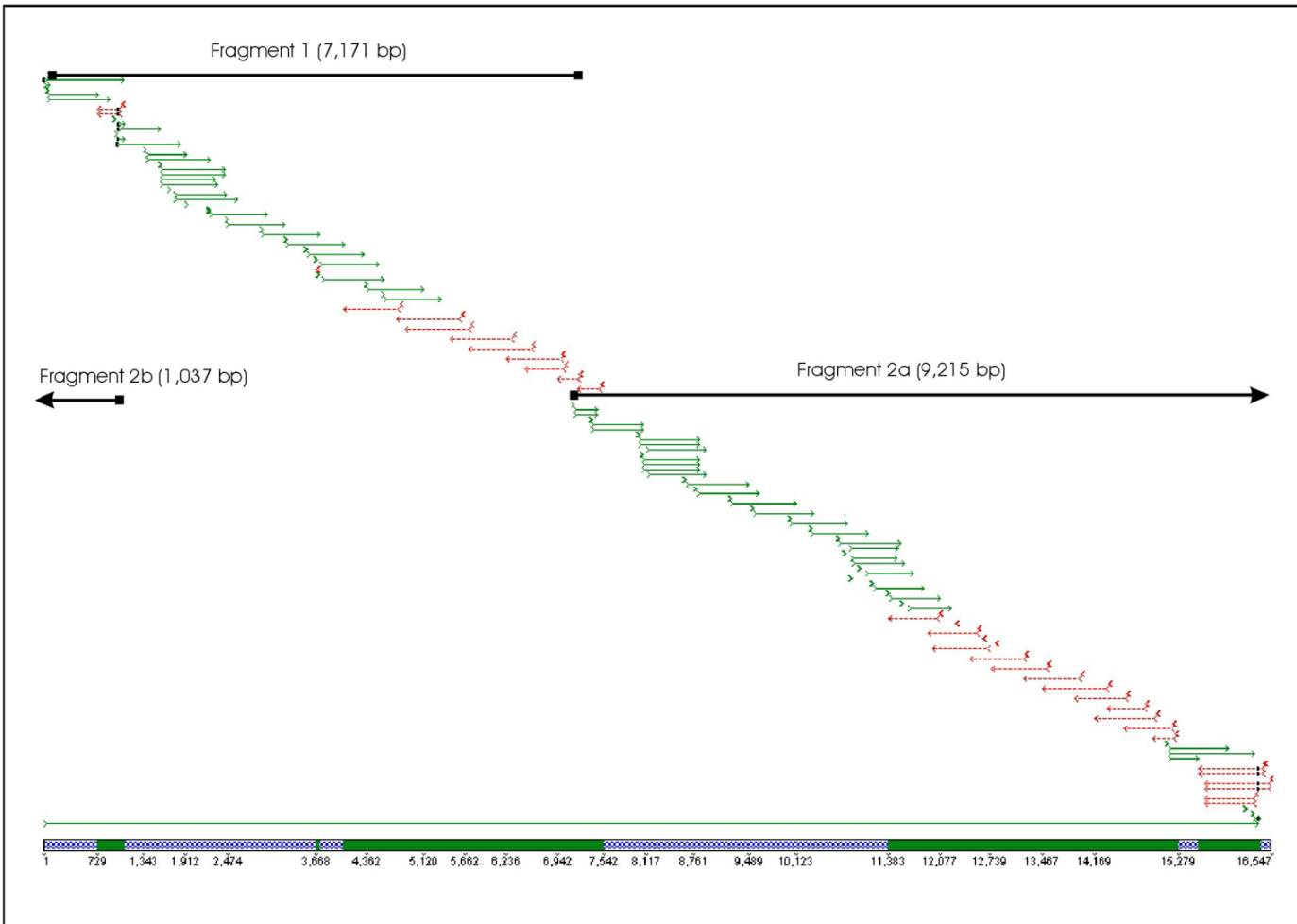


Phylogeography of Newfoundland Caribou

[CD Wilkerson, MSc 2010; Wilkerson, Carr *et al.*, in progress]

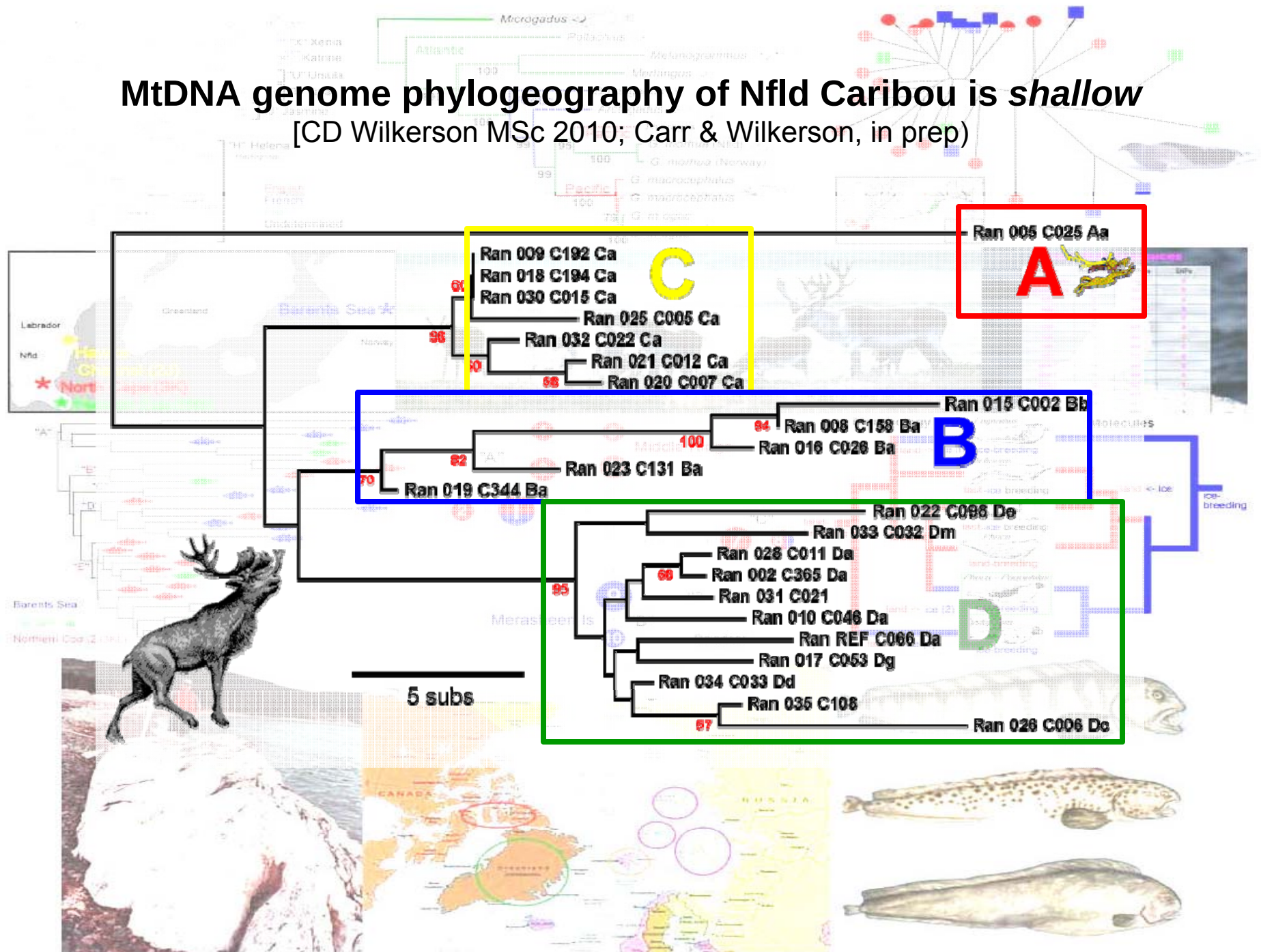


mtDNA contig & whole-genome strategies (*Rangifer tarandus caribou*)

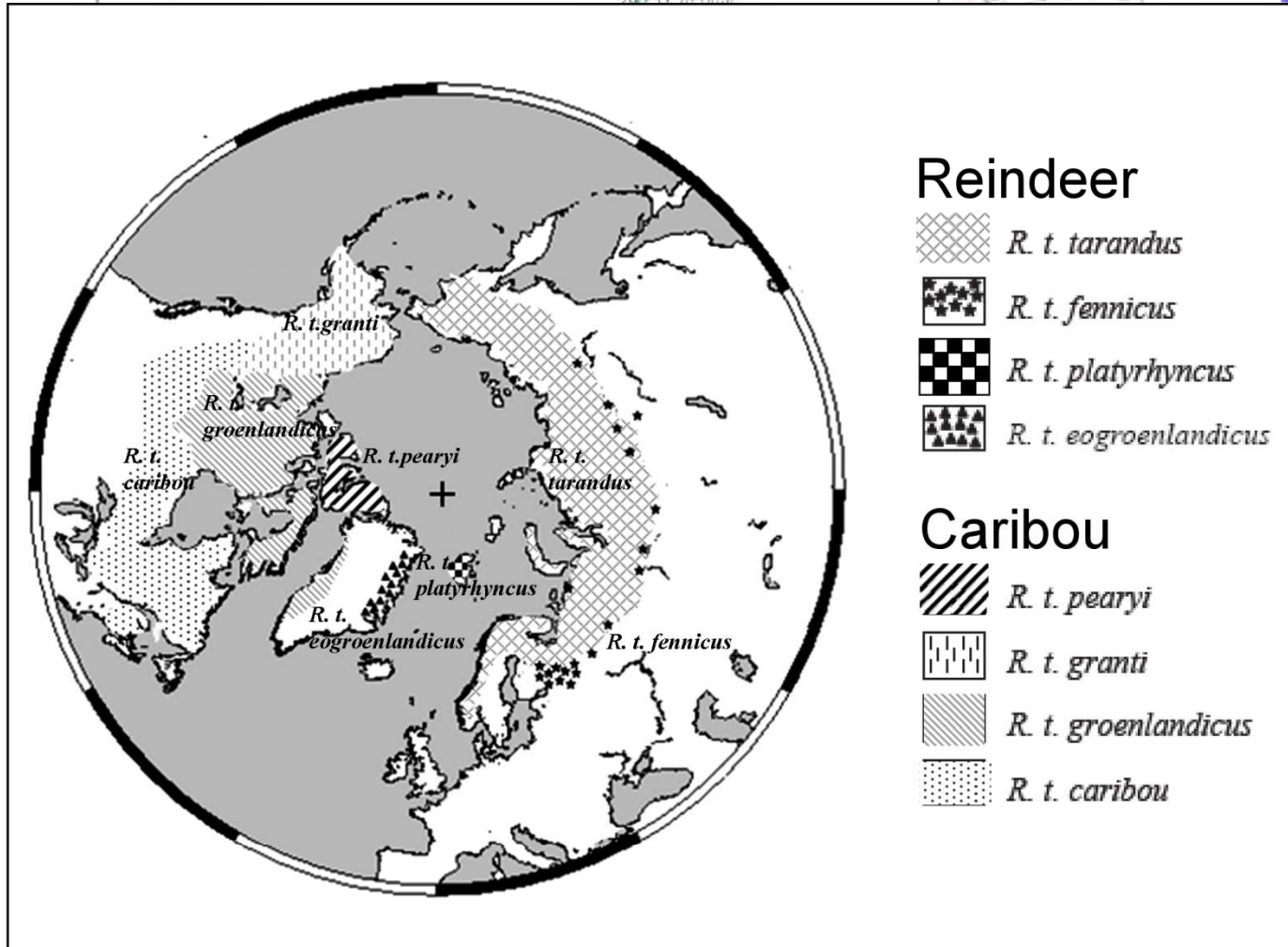
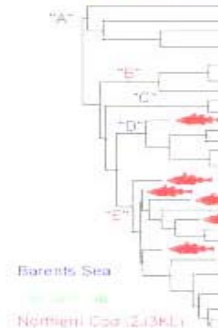


MtDNA genome phylogeography of Nfld Caribou is *shallow*

[CD Wilkerson MSc 2010; Carr & Wilkerson, in prep)



Distribution of subspecies of Nearctic Caribou & Palearctic Reindeer (*Rangifer tarandus* ssp)

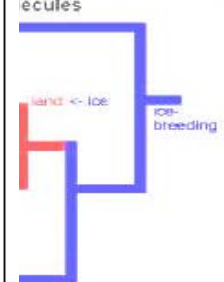
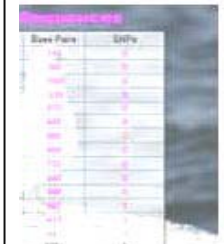


Reindeer

-  *R. t. tarandus*
-  *R. t. fennicus*
-  *R. t. platyrhincus*
-  *R. t. eogroenlandicus*

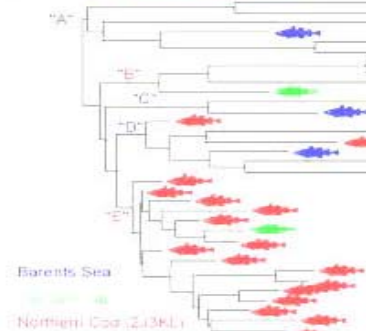
Caribou

-  *R. t. pearyi*
-  *R. t. granti*
-  *R. t. groenlandicus*
-  *R. t. caribou*



eer:
ic *Rangifer* genotypes

Region	Initiatives	Base Price	LCOE
Low-cost Programs	10	1.5	0
Energy Efficiency	27	50	0
Renewable	2	100	0
Renewable	4	110	0
Renewable	6	115	0
Renewable	8	120	0
Renewable	10	125	0
Renewable	12	130	0
Renewable	14	135	0
Renewable	16	140	0
Renewable	18	145	0
Renewable	20	150	0
Renewable	22	155	0
Renewable	24	160	0
Renewable	26	165	0
Renewable	28	170	0
Renewable	30	175	0
Renewable	32	180	0
Renewable	34	185	0
Renewable	36	190	0
Renewable	38	195	0
Renewable	40	200	0
Renewable	42	205	0
Renewable	44	210	0
Renewable	46	215	0
Renewable	48	220	0
Renewable	50	225	0
Renewable	52	230	0
Renewable	54	235	0
Renewable	56	240	0
Renewable	58	245	0
Renewable	60	250	0
Renewable	62	255	0
Renewable	64	260	0
Renewable	66	265	0
Renewable	68	270	0
Renewable	70	275	0
Renewable	72	280	0
Renewable	74	285	0
Renewable	76	290	0
Renewable	78	295	0
Renewable	80	300	0
Renewable	82	305	0
Renewable	84	310	0
Renewable	86	315	0
Renewable	88	320	0
Renewable	90	325	0
Renewable	92	330	0
Renewable	94	335	0
Renewable	96	340	0
Renewable	98	345	0
Renewable	100	350	0
Renewable	102	355	0
Renewable	104	360	0
Renewable	106	365	0
Renewable	108	370	0
Renewable	110	375	0
Renewable	112	380	0
Renewable	114	385	0
Renewable	116	390	0
Renewable	118	395	0
Renewable	120	400	0
Renewable	122	405	0
Renewable	124	410	0
Renewable	126	415	0
Renewable	128	420	0
Renewable	130	425	0
Renewable	132	430	0
Renewable	134	435	0
Renewable	136	440	0
Renewable	138	445	0
Renewable	140	450	0
Renewable	142	455	0
Renewable	144	460	0
Renewable	146	465	0
Renewable	148	470	0
Renewable	150	475	0
Renewable	152	480	0
Renewable	154	485	0
Renewable	156	490	0
Renewable	158	495	0
Renewable	160	500	0
Renewable	162	505	0
Renewable	164	510	0
Renewable	166	515	0
Renewable	168	520	0
Renewable	170	525	0
Renewable	172	530	0
Renewable	174	535	0
Renewable	176	540	0
Renewable	178	545	0
Renewable	180	550	0
Renewable	182	555	0
Renewable	184	560	0
Renewable	186	565	0
Renewable	188	570	0
Renewable	190	575	0
Renewable	192	580	0
Renewable	194</		



Single-locus tree: Nearctic **Haplogroup II** is basal

(conclusion of Flagstad & Röed 2003)

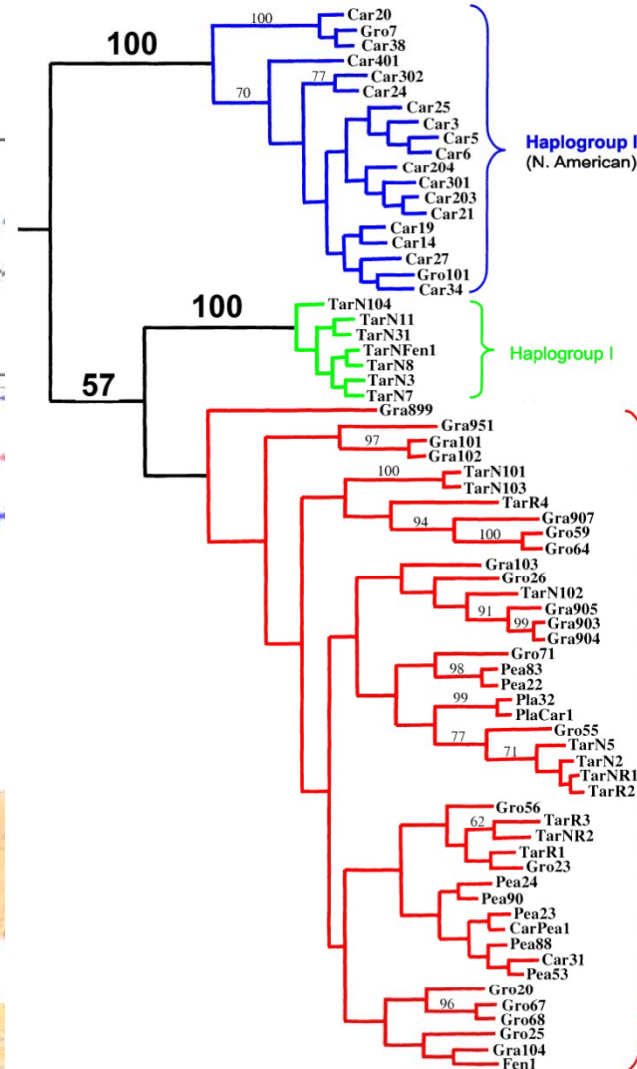
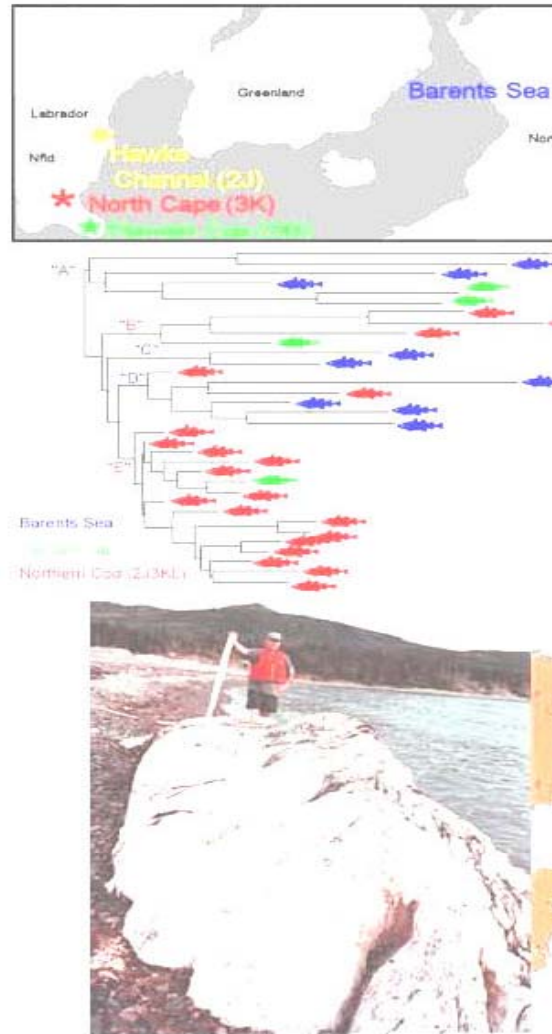
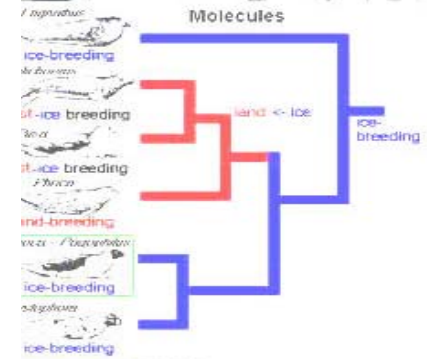


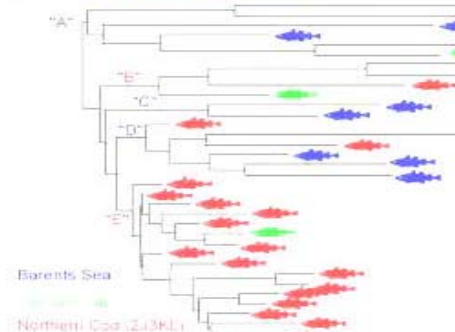
Table with 4 columns: Region, Individuals, Base Pairs, and Sites. The table lists data for various regions and individuals, including the number of base pairs and sites for each.

Region	Individuals	Base Pairs	Sites
Labrador	10	10	10
Greenland	10	10	10
Norway	10	10	10
...	...	...	...



Then all the Reindeer:

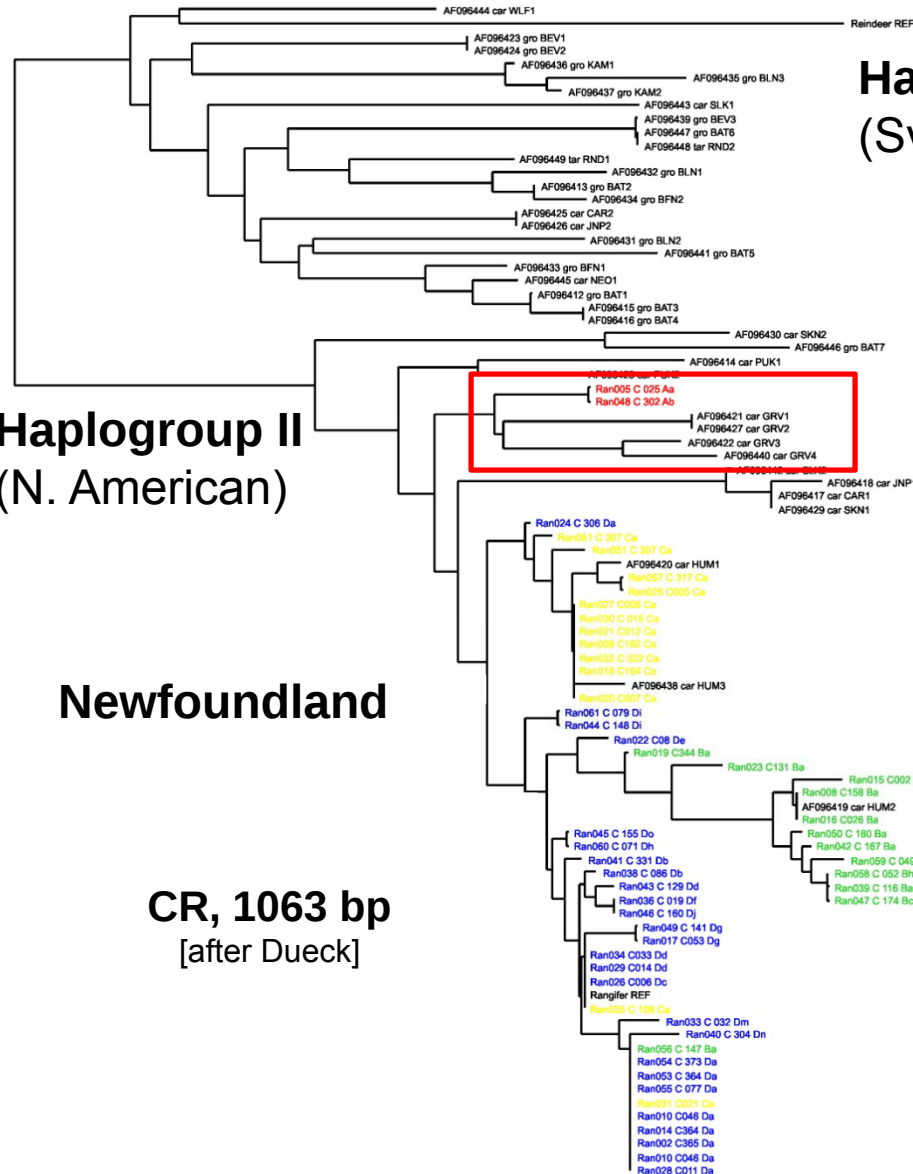
Paleartic Haplogroup III basal; Nfld Caribou a distinct, post-glacial lineage



Haplogroup II
(N. American)

Newfoundland

CR, 1063 bp
[after Dueck]



Haplogroup I
(Svalbard Is)

