

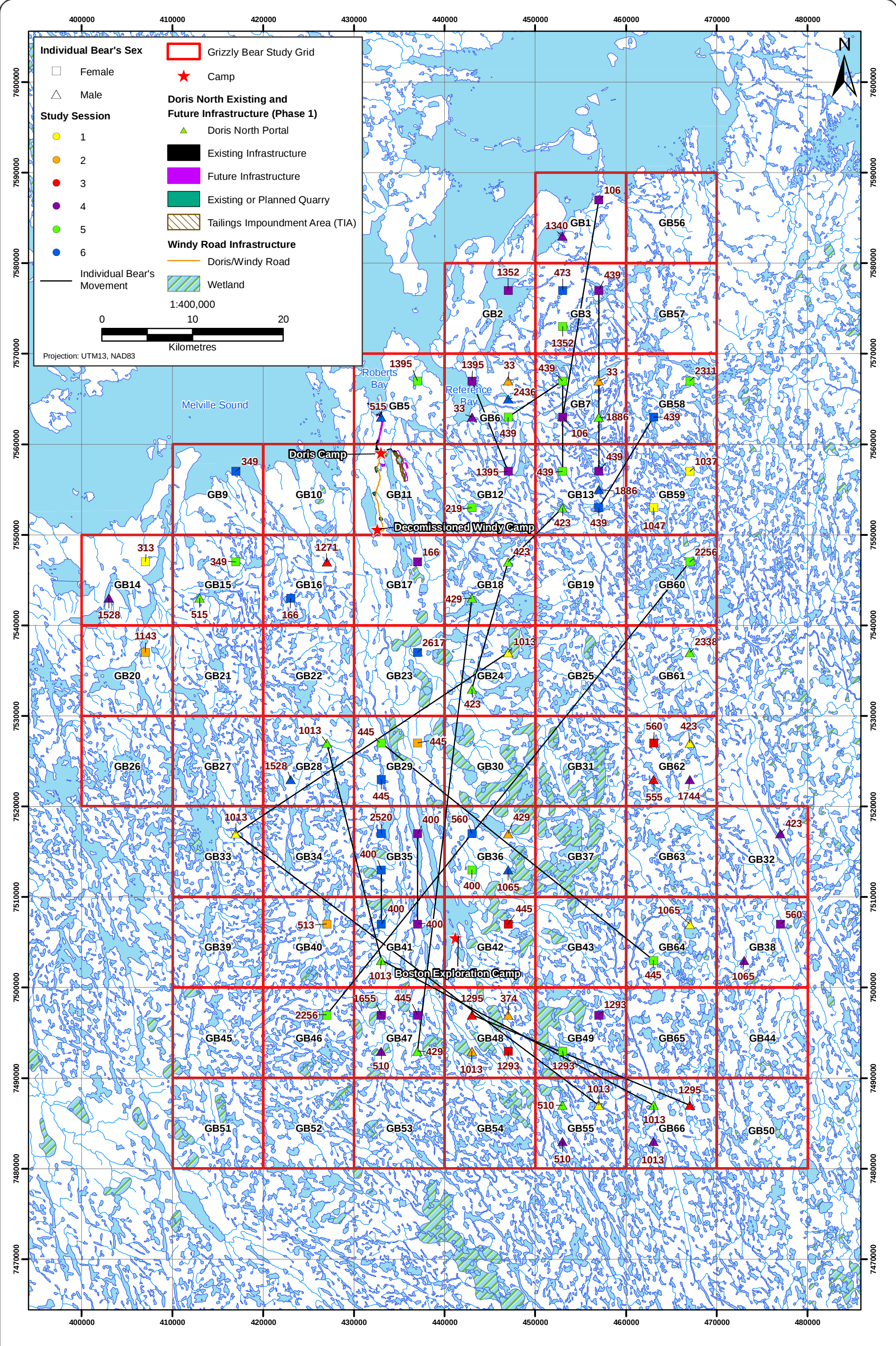


Figure 3.2-2

Figure 3.2-2

4. Discussion

4. Discussion

In 2010, a total of 31 animals were detected in an area of approximately 5,000 km² in the Doris North study area. This number increased to 39 animals detected in an area of approximately 6,500 km² in 2011. Overall, 52 individuals (27M: 25F) were identified during the two years of this program. In comparison, there were 42 incidental observations of grizzly bears near Windy and Doris Camps in 2010, and 45 in 2011. Incidental observations are a poor reflection of population status because a single individual or family unit may be recorded on multiple occasions, and only those animals that are close to mine infrastructure are likely to be observed. DNA inventories remove this bias, and can provide a reliable indication of population trend. The overall goal of the program was to establish a baseline of expected numbers of grizzly bears on the study area that would enable monitoring relative changes over time. Assumptions about population closure are relaxed under a trend monitoring objective, and the study area size is determined relative to expected encounters rather than conditions that satisfy geographic or demographic closure (Apps 2010). As designed, the program has successfully established the minimum sampling conditions to move forward under a trend monitoring objective should the Project resume as planned under the 2005 EIS.

Sampling during 2011 yielded four times as many samples as during 2010. The lower number of successful captures in 2010 (411) may have partially been a function of weather days. Bad weather can result in the dilution or removal of the scented lures, decreasing the effectiveness of sample stations to attract grizzly bears. When weather was not an issue, capture success also seemed to be a function of the amount of lure that was used, with more samples at stations where more lure was applied. In 2011, the study area was increased but the quality and application of the lures also improved, as did site selection in terms of habitat quality. For example, eskers are limited in the Doris North study area, but there are several north - south river systems selected that provide excellent wildlife habitat and movement corridors. For grizzly bears, these river systems may provide access to productive coastal habitats as well as potential foraging opportunities for fish. The use of cow's blood and excess fish oil were also significant improvements, and maintained some potency even through bad weather. Weather was still an issue on some occasions, but nevertheless, there was a near 4-fold increase in the number of samples (1,623) collected. Hence, the experience gained in 2010 has led to an increase in the number of samples taken during 2011.

In both years, it was noted by Wildlife Genetics International (WGI) that the quantity of hair samples was excellent, but successful DNA extraction was not as high as expected. Exposure to sunlight or moisture can degrade DNA samples and likely accounted for the low success rates. A low extraction rate can subsequently result in an underestimate in the number of grizzly bears using the study area. In a large study area (~40,000 km²) to the west of Bathurst Inlet, sample quality declined moderately from 10 to 14 days, with significant degradation found after 14 days of exposure (M. Dumond, GN DOE, pers. comm.). Sample degradation to this extent is less an issue in southern forested study areas, but more frequent hair collections in northern climes may be logistically untenable. All hair samples can be pre-screened for quality, allowing the sub-selection rules to be applied only to high quality samples that remain in each cluster. This should reduce the potential to miss individuals due to sampling bias, and hence potentially underestimate the number of animals on the study area.

Multiple capture events (repeated captures of individuals in a single session, and multiple individuals at a single post) suggest that the subsampling protocol achieves a fair balance between budgetary constraints and detection rates. Multiple capture events of a single individual are still represented as a single detection in the capture history for that session. Combined with the long distance movements

associated with these multiple captures, it may be possible to increase cell sizes to provide greater spatial coverage without reducing overall detections.

Reconfiguring the study area boundaries during 2010 and again in 2011 was in response to anticipated baseline needs for Phase 2 work that incorporated the Boston deposit. These changes, however, make it difficult to quantify capture and recapture rates when opportunities to encounter grizzly bears differ across the landscape in an unpredictable manner. As a result, population estimates (N) were derived only for the original study area (cells 1-37). N represents the number of animals estimated to be on the study area during the sampling period and is estimated for each primary session.

The number of females was similar in both years, consistent with the observation that 11 of 14 females were recaptured in 2011. Female barren-ground grizzly bears tend to have smaller home ranges and demonstrate high fidelity to those home ranges (McLoughlin et al. 1999; 2003). The reduction in the number of males on the study area between 2010 and 2011, as reflected in the low probability of survival and relatively high probability of emigration, is likely not a true decline. This result is more likely a function of study area size relative to the large home ranges and movements of barren-ground grizzly bears. On average, males can range over 7,000 km² per year (McLoughlin et al. 1999; 2003), which means that a majority of males would appear transient, and less likely to be encountered repeatedly. There are several options to address this bias, which includes increasing the number of trapping occasions within a primary session, increasing the number of primary sessions, increasing the study area, or any combination of these options. Apps (2010) suggested that a minimum of 50 bears is required under a trend monitoring objective, suggesting a minimum study area size of 6,500 km² in northern systems; however, 100 animals is ideal, which may require over 10,000 km².

The top model indicated that capture and recapture probabilities could be treated the same, with no difference between males and females. These probabilities were highly variable between trapping occasions and primary sessions, suggesting that grizzly bear movement patterns may not be accurately reflected in a relatively small study area. Typically, capture/recapture probabilities ≥ 0.20 are required to generate accurate population estimates (Proctor et al., 2010). Capture/recapture probabilities averaged 0.15 and 0.23 in 2010 and 2011, respectively, owing primarily to the apparent transient nature of males in the study area, as well as differences in lure quality and application, and site selection for post placement.

Despite some of the limitations, the study confirms that this coastal system in northern Nunavut is highly productive for grizzly bears. Given the study area does not represent a geographically closed population, a density estimate cannot be generated from this data. The results do suggest, however, that in terms of individual detections, approximately 8 to 11 individual grizzly bears may be detected for every 1,000 km². Densities in western Nunavut are approximately 7 bears/1,000 km² (M. Dumond, GN-DOE, pers. comm.). Densities are expected to be lower than detection rates of individuals due to the removal of animals from the edge of a study area in density estimates. The Doris North area supports a large number of grizzly bears for several reasons, including productive coastal forage areas, potential seasonal access to caribou, fish resources in the streams along the Arctic coast, and the relatively low level of hunting in this area. Occasionally, grizzly bears have also been observed hunting seals on the sea ice during spring (M. Dumond, GN-DOE, pers. comm.).

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Appendix 1

Detailed Field Hair Collection and Genetic Marker
Data, 2010

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollection DateComments								GENETIC DATA												
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores											Species
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex	
33	sample	33	A1	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	grizzly
34	Xsubselect		A2	0	GB16	5/30/10		0												
35	sample	33	A3	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
36	Xsubselect		A4	0	GB16	5/30/10		0												
41	sample	33	A1	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
42	sample	33	A2	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
43	Xsubselect		A3	0	GB16	5/30/10		0												
46	Xbomb		A1	0	GB16	5/30/10		6	82.190	184.194	140.160	176.186		208.208	155.161				204.250	
47	sample	33	A2	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
48	Xsubselect		A3	0	GB16	5/30/10		0												
37	sample	33	B1	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
44	sample	33	B1	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
45	Xsubselect		B2	0	GB16	5/30/10		0												
49	sample	49	B1	0	GB16	5/30/10		11	186.186	184.194	156.156	176.186	221.231	208.214	153.161	127.145	223.239	175.175	204.250	
38	Xbomb		C1	0	GB16	5/30/10		0												
50	Xsubselect		C1	0	GB16	5/30/10		0												
51	Xbomb		C2	0	GB16	5/30/10		1	90.190	84.84			221.231	08.208	55.55				04.250	
39	Xbomb		D1	0	GB16	5/30/10	blonde hairs	1	90.190	84.84			221.31.37	208.10	155.161				04.250	
40	sample	33	E1	0	GB16	5/30/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250	
91	Xsubselect		A1	1	GB02	6/12/10		0												
92	sample	92	A2	1	GB02	6/12/10	light hairs	8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
93	sample	92	A3	1	GB02	6/12/10	light hairs	8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
94	sample	92	B1	1	GB02	6/12/10		8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
95	Xinadequate		B2	1	GB02	6/12/10	1 broken shaft	0												
96	Xinadequate		B3	1	GB02	6/12/10	1 broken shaft	0												
97	Xinadequate		B4	1	GB02	6/12/10	2 underfur	0												
98	sample	92	B5	1	GB02	6/12/10		8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
99	Xbomb		C1	1	GB02	6/12/10		2	186.186				221.21	210.14	155.161				04.250	
100	Xsubselect		C2	1	GB02	6/12/10		0												
101	Xbomb		D1	1	GB02	6/12/10		0	90.90				237.39							
102	Xsubselect		D2	1	GB02	6/12/10		0												
103	sample	92	E1	1	GB02	6/12/10		8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
104	Xsubselect		F1	1	GB02	6/12/10		0												
105	sample	92	F2	1	GB02	6/12/10		8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				204.250	
106	sample	106	G1	1	GB02	6/12/10		8	186.190	184.184	160.164	178.186	221.237	210.212	155.161				250.250	
107	Xbomb		A1	1	GB05	6/12/10	light hairs	0	87.194											
108	Xbomb		A1	1	GB10	6/12/10	light hairs	0	86.190											
119	sample	119	A1	1	GB14	6/12/10	blonde hairs	8	186.196	184.184	156.160	178.186	231.237	208.210	141.161				250.250	
120	Xsubselect		A2	1	GB14	6/12/10		0												
121	Xbomb		A3	1	GB14	6/12/10		1	186.196	84.184				208.02.10	141.59.61				04.250	
122	Xsubselect		A4	1	GB14	6/12/10		0												
123	Xbomb		A5	1	GB14	6/12/10		1	86.88.90.96					08.10	41.49.161				250.250	
124	Xsubselect		A6	1	GB14	6/12/10		0												
125	sample	119	A7	1	GB14	6/12/10		8	186.196	184.184	156.160	178.186	231.237	208.210	141.161				250.250	
126	Xsubselect		A8	1	GB14	6/12/10		0												
127	Xbomb		A9	1	GB14	6/12/10		0	188.90.92										250.50	
128	Xsubselect		A10	1	GB14	6/12/10		0												
129	Xsubselect		B1	1	GB14	6/12/10		0												

Notes:
Xinadequate: samples that lacked suitable material for DNA extraction
Xsubselect: samples that were excluded due to subselection rules
Xbomb: samples that failed during microsatellite analysis
Xmixed: samples that showed ecidence of > 2 alleles per marker
sample: successful samples assigned to individuals (see appendix 2)

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollectionDateComments								GENETIC DATA												Species			
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex				
130	Xbomb		B2	1	GB14	6/12/10		0	188.90.94														
131	Xsubselect		C1	1	GB14	6/12/10		0															
132	Xbomb		C2	1	GB14	6/12/10		0	86.87.207					08.208	61.61				50.50				
133	sample	119	C3	1	GB14	6/12/10		8	186.196	184.184	156.160	178.186	231.237	208.210	141.161				250.250				
134	Xbomb		C4	1	GB14	6/12/10		1	190.86.94	84.184			31.237	208.10	141.59.61				250.250				
135	Xsubselect		C5	1	GB14	6/12/10		0															
136	Xbomb		D1	1	GB14	6/12/10	huge sample, full of forest	5	186.88.96.90	184.184	156.60		231.237	208.210	141.161				250.250				
109	Xbomb		A1	1	GB16	6/12/10		0	186.88.90				37.237						50.50				
110	Xbomb		A2	1	GB16	6/12/10		1	190.190				39.41		61.161				204.04				
111	Xinadequate		A3	1	GB16	6/12/10		0															
112	Xinadequate		A4	1	GB16	6/12/10		0															
113	Xbomb		A5	1	GB16	6/12/10		1	88.190					14.214					250.250				
114	Xbomb		B1	1	GB16	6/12/10		2	190.190	184.94			41.41	208.214	155.61				04.250				
115	Xbomb		C1	1	GB16	6/12/10		0					21.31		55.55				50.50				
116	Xbomb		D1	1	GB16	6/12/10		0	90.190					14.214					50.250				
117	Xsubselect		D2	1	GB16	6/12/10		0															
118	Xbomb		E1	1	GB16	6/12/10		0	80.190					08.212	149.53.55				204.50				
137	Xbomb		A1	1	GB21	6/12/10	white hairs	2	190.196	84.184				208.10.12	61.65				250.250				
138	Xsubselect		A2	1	GB21	6/12/10		0															
139	Xsubselect		A3	1	GB21	6/12/10		0															
140	sample	140	A4	1	GB21	6/12/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
141	sample	140	B1	1	GB21	6/12/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
142	Xbomb		A1	1	GB22	6/12/10		1					41.241		59.161				250.250				
143	Xbomb		B1	1	GB22	6/12/10		1	89.189						145.51				250.250				
144	Xbomb		C1	1	GB22	6/12/10		1						212.14					250.250				
82	Xsubselect		A1	1	GB29	6/13/10		0															
83	Xsubselect		A2	1	GB29	6/13/10		0															
84	sample	140	A3	1	GB29	6/13/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
85	Xsubselect		A4	1	GB29	6/13/10		0															
86	sample	140	A5	1	GB29	6/13/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
87	sample	140	A6	1	GB29	6/13/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
88	sample	140	B1	1	GB29	6/13/10	white hairs	8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
89	sample	140	C1	1	GB29	6/13/10		8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
90	sample	140	D1	1	GB29	6/13/10		8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				250.250				
81	Xinadequate		A1	1	GB37	6/13/10		0															
171	sample	171	A1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
176	sample	171	B1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
172	sample	171	C1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
177	sample	171	D1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
173	Xbomb		E1	2	GB03	6/26/10		6	186.190	184.194	156.160	174.78	221.37	210.214	139.161				204.250				
178	Xinadequate		F1	2	GB03	6/26/10	broken shaft	0															
174	sample	171	G1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
179	Xsubselect		G2	2	GB03	6/26/10		0															
175	sample	171	H1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
180	sample	171	I1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
181	Xsubselect		I2	2	GB03	6/26/10		0															
186	sample	171	J1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				
182	sample	171	K1	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250				

Notes:

Xinadequate: samples that lacked suitable material for DNA extraction

Xsubselect: samples that were excluded due to subselection rules

Xbomb: samples that failed during microsatellite analysis

Xmixed: samples that showed evidence of > 2 alleles per marker

sample: successful samples assigned to individuals (see appendix 2)

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollection DateComments								GENETIC DATA												Species
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores											
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex	
187	sample	171	L1	2	GB03	6/26/10	light hairs	8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250	
183	Xsubselect		M1	2	GB03	6/26/10		0												
184	sample	171	M3	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250	
185	Xsubselect		M5	2	GB03	6/26/10		0												
188	sample	171	M2	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250	
189	Xsubselect		M4	2	GB03	6/26/10		0												
190	sample	171	M6	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250	
191	Xsubselect		M8	2	GB03	6/26/10		0												
196	sample	171	M7	2	GB03	6/26/10		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250	
219	sample	219	A1	2	GB12	6/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250	
220	Xsubselect		A2	2	GB12	6/26/10		0												
221	sample	219	A3	2	GB12	6/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250	
222	Xsubselect		A4	2	GB12	6/26/10		0												
223	sample	223	B1	2	GB12	6/26/10		11	186.196	194.194	160.160	172.186	221.231	210.210	161.161	127.145	239.249	175.177	204.250	
224	Xbomb		B2	2	GB12	6/26/10		0	90.90											
225	Xsubselect		B3	2	GB12	6/26/10		0												
226	Xbomb		C1	2	GB12	6/26/10		0	190.96				35.37.239		41.43.59.61					
227	Xsubselect		C2	2	GB12	6/26/10		0												
228	sample	219	D1	2	GB12	6/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250	
229	Xsubselect		E1	2	GB12	6/26/10		0												
230	Xmixed		E2	2	GB12	6/26/10		3	186.90.96	184.194	60.160	172.186	221.31.37	208.210	41.161				04.250	
313	sample	313	A1	2	GB20	6/26/10		8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				250.250	
314	Xsubselect		A2	2	GB20	6/26/10	0													
316	Xmixed		A3	2	GB20	6/26/10	0	180.90.96	94.194	60.60		221.31.33	210.14	53.55.161				04.250		
315	Xbomb		B1	2	GB20	6/26/10	1	190.190												
317	sample	317	C1	2	GB20	6/26/10	8	190.190	184.194	152.160	178.178	221.231	210.210	155.161				204.250		
318	Xsubselect		D1	2	GB20	6/26/10	0													
319	sample	313	D2	2	GB20	6/26/10	8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				250.250		
320	sample	313	E1	2	GB20	6/26/10	8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				250.250		
218	sample	317	F1	2	GB20	6/26/10	8	190.190	184.194	152.160	178.178	221.231	210.210	155.161				204.250		
193	Xbomb		A1	2	GB22	6/26/10	0	190.88.99						08.208	55.155					
198	Xsubselect		A2	2	GB22	6/26/10	0													
194	Xbomb		B1	2	GB22	6/26/10	1	190.01	184.94			221.39.231	208.08	155.161				04.250		
195	sample	33	C2	2	GB22	6/26/10	8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
199	Xsubselect		C1	2	GB22	6/26/10	0													
200	Xbomb		D2	2	GB22	6/26/10	0	89.90.203				249.51	14.214					04.250		
300	Xsubselect		D1	2	GB22	6/26/10	0													
301	sample	33	D3	2	GB22	6/26/10	8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
302	Xbomb		D4	2	GB22	6/26/10	1	190.190	184.94			31.231	06.208	155.61				04.250		
303	Xsubselect		D5	2	GB22	6/26/10	0													
304	Xsubselect		E1	2	GB22	6/26/10	0													
305	Xbomb		E2	2	GB22	6/26/10	0	90.190	84.84				08.08	155.61				04.04		
306	Xbomb		E3	2	GB22	6/26/10	3	190.190				31.31	08.08	155.161				204.250		
307	Xsubselect		F1	2	GB22	6/26/10	0													
308	Xbomb		F2	2	GB22	6/26/10	2	190.190		60.60		31.231	08.08	155.161						
309	sample	33	F3	2	GB22	6/26/10	8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
310	Xbomb		G1	2	GB22	6/26/10	0	187.89.90						14.14				04.250		
311	Xsubselect		H1	2	GB22	6/26/10	0													

Notes:

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Xmixed: samples that showed ecidence of > 2 alleles per marker

sample: successful samples assigned to individuals (see appendix 2)

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollectionDateComments								GENETIC DATA													
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores												Species
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex		
312	Xbomb		H2	2	GB22	6/26/10		2	90.190	184.94			221.231	08.208	155.161				04.250		
169	Xsubselect		I18	2	GB22	6/26/10		0													
201	sample	33	I1	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
202	Xsubselect		I2	2	GB22	6/26/10		0													
203	sample	33	I3	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
204	Xsubselect		I4	2	GB22	6/26/10		0													
205	sample	33	I5	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
206	Xbomb		I6	2	GB22	6/26/10		2	90.190	84.194	140.60	76.186	221.31	08.208	155.161				204.250		
207	Xsubselect		I7	2	GB22	6/26/10		0													
208	sample	33	I8	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
209	Xsubselect		I9	2	GB22	6/26/10		0													
210	sample	33	I10	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
211	Xsubselect		I11	2	GB22	6/26/10		0													
212	sample	33	I12	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
213	Xsubselect		I13	2	GB22	6/26/10		0													
214	Xsubselect		I14	2	GB22	6/26/10		0													
215	sample	33	I15	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
216	sample	33	I16	2	GB22	6/26/10		8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				204.250		
217	Xsubselect		I17	2	GB22	6/26/10		0													
192	Xinadequate		A1	2	GB23	6/26/10		0													
166	sample	166	A1	2	GB29	6/26/10		11	190.190	184.184	140.160	178.186	221.231	208.210	141.161	127.145	229.239	175.177	250.250	grizzly	
151	Xbomb		A1	2	GB34	6/26/10	white hairs	1	190.190	84.94	60.60	76.76	21.233	208.12	141.59.161				04.250		
152	sample	152	B1	2	GB34	6/26/10	looks poss polar, whitish yellow	11	190.190	184.194	160.160	176.186	221.233	208.208	141.161	139.145	223.229	163.175	204.250		
145	sample	152	C6	2	GB34	6/26/10		8	190.190	184.194	160.160	176.186	221.233	208.208	141.161				204.250		
147	sample	152	C2	2	GB34	6/26/10	looks poss polar, whitish yellow	8	190.190	184.194	160.160	176.186	221.233	208.208	141.161				204.250		
148	Xsubselect		C3	2	GB34	6/26/10		0													
149	Xbomb		C4	2	GB34	6/26/10	white hairs	2	90.190				21.33		141.161				250.250		
150	Xsubselect		C5	2	GB34	6/26/10		0													
167	Xsubselect		C1	2	GB34	6/26/10		0													
153	Xbomb		D1	2	GB34	6/26/10	white hairs	1	90.190	94.94	60.60	76.76	21.33	08.208	141.161				04.250		
154	Xbomb		E5	2	GB34	6/26/10	white hairs	1	90.190		60.60		21.221	08.208	141.161				04.250		
155	Xsubselect		E6	2	GB34	6/26/10		0													
156	Xbomb		E1	2	GB34	6/26/10	white hairs	0	90.190					12.12	141.61				04.04		
157	Xsubselect		E2	2	GB34	6/26/10		0													
158	Xbomb		E3	2	GB34	6/26/10	white hairs	6	190.190	184.92.94.96	60.160	176.186	221.233	208.214	141.161				204.250		
159	Xsubselect		E4	2	GB34	6/26/10		0													
160	sample	152	E7	2	GB34	6/26/10	shorter brown hairs	8	190.190	184.194	160.160	176.186	221.233	208.208	141.161				204.250		
161	Xsubselect		E8	2	GB34	6/26/10		0													
423	sample	423	A1	3	GB02	37903		8	186.190	184.184	140.140	178.183	221.221	210.210	161.161				204.250	grizzly	
424	Xbomb		B1	3	GB02	37903		3	186.190				221.221		61.161				204.250		
425	Xsubselect		B2	3	GB02	37903		0													
409	Xbomb		A1	3	GB03	37903	white hairs	0	186.88.90					12.212	139.43.61				04.250		
410	Xsubselect		A2	3	GB03	37903		0													
411	Xbomb		A3	3	GB03	37903		2	186.190	94.194		174.76.78	21.21	210.14.02	139.161				204.50		
412	Xsubselect		B1	3	GB03	37903		0													
413	Xbomb		B2	3	GB03	37903	white hairs	6	186.190	184.194	156.58.60	74.178	221.237	210.214	139.161				204.250		
414	sample	171	C1	3	GB03	37903		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250		
415	Xbomb		C2	3	GB03	37903		4	186.190	80.92.194	56.56	74.178	221.229	210.14	139.161				204.250		

Notes:
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Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Collection								GENETIC DATA														
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores													Species
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex			
Sample ID	Class	Individual	Cluster ID	Session #	Cell ID	Date	Comments															
416	Xsubselect		C3	3	GB03	37903		0														
417	Xsubselect		C4	3	GB03	37903		0														
418	sample	171	C5	3	GB03	37903		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250			
419	Xsubselect		D1	3	GB03	37903		0														
420	Xbomb		D2	3	GB03	37903		2	186.190	184.94		74.78	21.21	210.12.14	139.61				204.250			
421	Xsubselect		D3	3	GB03	37903		0														
422	sample	171	D4	3	GB03	37903		8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				204.250			
408	Xinadequate		A1	3	GB14	37903	4 underfur	0														
407	Xbomb		A1	3	GB22	37806		0	90.190						61.161				04.250			
399	Xsubselect		A1	3	GB29	37903		0														
400	sample	400	A2	3	GB29	37903		8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				250.250			
401	Xsubselect		A3	3	GB29	37903		0														
402	sample	400	A4	3	GB29	37903		8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				250.250			
403	sample	400	A5	3	GB29	37903		8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				250.250			
404	Xsubselect		A6	3	GB29	37903		0														
405	sample	400	B1	3	GB29	37903		8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				250.250			
406	sample	400	C1	3	GB29	37903		8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				250.250			
457	sample	219	A1	4	GB05	7/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250			
458	sample	219	B1	4	GB05	7/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250			
459	Xsubselect		B2	4	GB05	7/26/10		0														
460	sample	219	C1	4	GB05	7/26/10	white hairs	8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250			
461	Xbomb		D1	4	GB05	7/26/10	white hairs	5	190.196	184.194	60.60	178.186	231.37	10.210	141.161				250.250			
462	Xsubselect		D2	4	GB05	7/26/10		0														
463	Xbomb		D3	4	GB05	7/26/10	white hairs	0	86.90.196			84.86		10.210	141.61				50.250			
464	Xbomb		E1	4	GB05	7/26/10		6	186.196	194.194	160.160	172.78.186	221.231	210.210	41.161				204.250			
465	Xsubselect		F1	4	GB05	7/26/10		0														
466	Xbomb		F2	4	GB05	7/26/10		2	186.196						61.161				250.250			
467	Xbomb		G1	4	GB05	7/26/10		0	187.01										50.250			
468	sample	219	H1	4	GB05	7/26/10		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				250.250			
469	Xbomb		I1	4	GB05	7/26/10		2	186.196	94.194		72.78.186	37.221.231	208.210	41.161				04.250			
470	Xbomb		J1	4	GB05	7/26/10		1	186.196	94.194		178.86	221.31.37	208.10	61.161				04.250			
473	sample	473	A1	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
471	sample	473	B1	4	GB06	7/26/10	white hairs	8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
472	Xsubselect		B2	4	GB06	7/26/10		0														
474	sample	473	B1	4	GB06	7/26/10	white hairs	8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
475	sample	473	C1	4	GB06	7/26/10	white hairs	8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
476	Xbomb		D1	4	GB06	7/26/10		0														
477	Xbomb		E1	4	GB06	7/26/10		0					37.37						50.250			
478	Xinadequate		F1	4	GB06	7/26/10		0														
479	Xinadequate		G1	4	GB06	7/26/10		0														
480	Xbomb		H1	4	GB06	7/26/10	white hairs	1	190.190						59.159				50.250			
481	Xsubselect		H2	4	GB06	7/26/10		0														
482	Xbomb		I1	4	GB06	7/26/10		6	190.190	184.194	56.60	80.180	221.221	210.214	141.153				250.250			
483	Xsubselect		I2	4	GB06	7/26/10		0														
484	sample	473	I3	4	GB06	7/26/10	white hairs	8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
485	Xsubselect		I4	4	GB06	7/26/10		0														
486	sample	473	J1	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250			
487	Xsubselect		J2	4	GB06	7/26/10		0														

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Sample IDClassIndividualCluster IDSession #Cell IDCollectionDateComments								GENETIC DATA													
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores												Species
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex		
488	sample	473	J3	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250		
489	Xsubselect		J4	4	GB06	7/26/10		0													
490	sample	473	J5	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250		
491	sample	473	K1	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250		
492	Xsubselect		K2	4	GB06	7/26/10		0													
493	sample	473	K3	4	GB06	7/26/10		8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				250.250		
438	Xbomb		A1	4	GB07	7/26/10		1	195.201				21.21		141.55						
439	sample	439	B1	4	GB07	7/26/10		11	190.190	184.184	160.160	176.178	221.221	208.214	141.165	127.145	239.249	175.177	250.250		
440	sample	439	C1	4	GB07	7/26/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
428	Xsubselect		A1	4	GB10	7/26/10		0													
429	sample	429	A2	4	GB10	7/26/10		11	186.190	184.184	160.160	174.176	221.231	210.210	153.161	133.133	229.239	163.175	204.250		
430	sample	429	A3	4	GB10	7/26/10		8	186.190	184.184	160.160	174.176	221.231	210.210	153.161				204.250		
431	Xsubselect		A4	4	GB10	7/26/10		0													
432	sample	429	A5	4	GB10	7/26/10		8	186.190	184.184	160.160	174.176	221.231	210.210	153.161				204.250		
426	Xbomb		B1	4	GB10	7/26/10		0					219.21	98.198							
427	Xsubselect		B2	4	GB10	7/26/10		0													
433	sample	429	B1	4	GB10	7/26/10		8	186.190	184.184	160.160	174.176	221.231	210.210	153.161				204.250		
434	Xsubselect		B2	4	GB10	7/26/10		0													
435	sample	429	C1	4	GB10	7/26/10		8	186.190	184.184	160.160	174.176	221.231	210.210	153.161				204.250		
437	Xbomb		A1	4	GB16	7/26/10		1							14.14				250.250		
448	sample	448	A1	4	GB22	7/26/10		10	186.190	184.184	156.160	180.186	223.231	210.214	153.161	29.133.145	229.247	175.177	204.250		
449	Xsubselect		A2	4	GB22	7/26/10		0													
450	sample	448	A3	4	GB22	7/26/10		8	186.190	184.184	156.160	180.186	223.231	210.214	153.161				204.250		
451	Xsubselect		B1	4	GB22	7/26/10		0													
452	sample	448	B2	4	GB22	7/26/10		8	186.190	184.184	156.160	180.186	223.231	210.214	153.161				204.250		
456	sample	448	B1	4	GB22	7/26/10	white hairs	8	186.190	184.184	156.160	180.186	223.231	210.214	153.161				204.250		
453	sample	448	C1	4	GB22	7/26/10	rx 2/11/2011	8	186.190	184.184	156.160	180.186	223.231	210.214	153.161				204.250		
454	Xbomb		D1	4	GB22	7/26/10		0	90.190						06.08				50.250		
455	Xsubselect		D2	4	GB22	7/26/10		0													
436	Xbomb		A1	4	GB23	7/26/10		5	190.190	184.194	58.158	72.88.78.86	21.23.231	208.210	141.161				250.250		
442	Xbomb		A1	4	GB29	7/26/10	rx 2/11/2011	7	186.186	184.194	152.58.60	176.186	231.237	210.210	141.161				250.250		
443	Xsubselect		A2	4	GB29	7/26/10		0													
444	Xbomb		A3	4	GB29	7/26/10		4	186.186	84.184	156.58		231.237	10.210	141.161				250.250		
445	sample	445	B1	4	GB29	7/26/10	rx 2/11/2011	8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				250.250		
446	sample	445	C1	4	GB29	7/26/10	rx 2/11/2011	8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				250.250		
447	Xbomb		D1	4	GB29	7/26/10		1	191.201						12.12				50.250		
441	sample	445	G1	4	GB29	7/26/10	rx 2/11/2011	8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				250.250		
359	sample	439	A1	5	GB03	8/14/10	rx 2/11/2011	8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
360	Xsubselect		A2	5	GB03	8/14/10		0													
361	sample	439	B1	5	GB03	8/14/10	rx 2/11/2011	8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
362	Xbomb		C1	5	GB03	8/14/10		8	190.190	184.184	158.160	176.178	221.221	208.214	141.165				250.250		
363	sample	439	C2	5	GB03	8/14/10	rx 2/11/2011	8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
364	Xsubselect		C3	5	GB03	8/14/10		0													
365	Xbomb		D1	5	GB03	8/14/10		7	190.190	184.184	156.58.60	176.178	221.221	208.214	141.165				250.250		
358	sample	448	A1	5	GB05	8/14/10	rx 2/11/2011	7	186.190	184.184	156.58.160	180.186	223.231	210.214	153.161				204.250		
348	Xsubselect		A1	5	GB10	8/14/10		0													
349	sample	349	A2	5	GB10	8/14/10	rx 2/11/2011	8	190.196	184.184	156.160	186.186	221.231	208.208	155.161				250.250		
350	Xbomb		B1	5	GB10	8/14/10	white hairs. rx 2/11/2011	7	190.196	184.184	156.58.60	186.186	221.231	208.208	155.161				250.250		

Notes:
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sample: successful samples assigned to individuals (see appendix 2)

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollection DateComments								GENETIC DATA												Species
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores										Sex	
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U		
351	Xbomb		C1	5	GB10	8/14/10	white hairs	0	90.190											
352	Xsubselect		D1	5	GB10	8/14/10		0												
353	sample	349	D2	5	GB10	8/14/10	white hairs. rx 2/11/2011	8	190.196	184.184	156.160	186.186	221.231	208.208	155.161				250.250	
354	sample	313	A1	5	GB16	8/14/10	rx 2/11/2011	7	180.196	194.194	56.58.160	178.186	221.233	210.214	153.161				250.250	
355	Xbomb		B1	5	GB16	8/14/10		1											250.250	
356	Xbomb		C1	5	GB16	8/14/10		5	180.196	94.194		78.78	221.261	210.214	153.161				250.250	
357	Xbomb		D1	5	GB16	8/14/10	shrivelled roots	0												
378	Xbomb		A1	5	GB23	8/14/10		5	186.90	194.194		172.178	221.31	208.210	141.161				250.250	
379	Xbomb		A2	5	GB23	8/14/10	white hairs	5	186.190	84.194		78.178	221.231	210.210	141.161				250.250	
380	Xsubselect		A3	5	GB23	8/14/10		0												
381	Xbomb		B1	5	GB23	8/14/10	white hairs	1											250.250	
382	Xbomb		C1	5	GB23	8/14/10		0	86.190						41.141				250.50	
383	Xbomb		D1	5	GB23	8/14/10		0												
384	Xbomb		E1	5	GB23	8/14/10		0												
385	Xsubselect		F1	5	GB23	8/14/10		0												
386	Xbomb		F2	5	GB23	8/14/10		0	84.184				33.33							
387	Xbomb		G1	5	GB23	8/14/10		0												
373	Xsubselect		A1	5	GB29	8/14/10		0												
374	sample	374	A2	5	GB29	8/14/10		8	180.186	184.184	152.160	176.178	231.237	208.210	141.161				204.250	
375	Xbomb		B1	5	GB29	8/14/10		5	180.186	184.94		176.78.86	231.237	208.210	141.161				204.250	
376	sample	374	C1	5	GB29	8/14/10	rx 2/11/2011	8	180.186	184.184	152.160	176.178	231.237	208.210	141.161				204.250	
377	sample	445	D1	5	GB29	8/14/10	rx 2/11/2011	8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				250.250	
371	sample	506	A1	5	GB34	8/14/10	white hairs	7	186.190	184.194	16.140.58.160	178.178	221.231	210.210	141.161				250.250	
372	sample	400	B1	5	GB34	8/14/10		7	186.190	184.194	16.140.58.150	176.186	221.231	210.214	141.161				250.250	
366	Xsubselect		A1	5	GB41	8/14/10		0												
367	Xbomb		A2	5	GB41	8/14/10	white hairs	3	180.186	94.194		178.186	21.221	208.210	61.161				04.250	
368	sample	400	B1	5	GB41	8/14/10		7	186.190	184.194	16.140.58.60.1	176.186	221.231	210.214	141.161				250.250	
369	Xbomb		G1	5	GB41	8/14/10		2	180.186	94.94			21.221	10.10	141.161				04.250	
370	Xsubselect		G2	5	GB41	8/14/10		0												
525	sample	439	A1	6	GB03	8/30/10		7	190.190	184.184	56.58.160	176.178	221.221	208.214	141.165				250.250	
526	Xinadequate		B1	6	GB03	8/30/10	1 underfur	0												
534	Xbomb		A1	6	GB07	8/30/10		7	190.190	184.184	156.58.60	176.178	221.221	208.214	141.165				250.250	
535	sample	439	B1	6	GB07	8/30/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250	
537	Xsubselect		B1	6	GB07	8/30/10		0												
538	Xbomb		B2	6	GB07	8/30/10	rx 2/11/2011	7	190.190	184.184	156.58.60	176.178	221.221	208.214	141.165				250.250	
536	Xbomb		C1	6	GB07	8/30/10		7	190.190	184.184	156.58.60	176.178	221.221	208.214	141.165				250.250	
527	sample	527	A1	6	GB09	8/30/10		7	190.190	184.184	56.58.60.140	178.184	221.221	208.214	141.161				204.250	
528	sample	528	B1	6	GB09	8/30/10		7	186.190	184.194	40.56.58.60	178.186	221.237	208.214	141.155				204.250	
529	sample	527	C1	6	GB09	8/30/10		7	190.190	184.184	58.60.140	178.184	221.221	208.214	141.161				204.250	
530	Xbomb		A1	6	GB10	8/30/10		0	03.203											
531	Xinadequate		B1	6	GB10	8/30/10	1 underfur	0												
532	Xinadequate		C1	6	GB10	8/30/10	2 underfur	0												
533	Xbomb		D1	6	GB10	8/30/10		2	184.194										250.250	
555	sample	555	A1	6	GB12	8/30/10	rx 2/11/2011	8	186.186	184.184	140.160	176.183	221.221	208.210	161.161				204.250	
556	sample	555	B1	6	GB12	8/30/10	rx 2/11/2011	8	186.186	184.184	140.160	176.183	221.221	208.210	161.161				204.250	
557	Xsubselect		B2	6	GB12	8/30/10		0												
562	Xbomb		B1	6	GB12	8/30/10	dirty	1	186.190						151.61					
558	Xbomb		C1	6	GB12	8/30/10	rx 2/11/2011	7	186.186	184.184	40.56.58.60	176.183	221.221	208.210	161.161				204.250	

Notes:
Xinadequate: samples that lacked suitable material for DNA extraction
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sample: successful samples assigned to individuals (see appendix 2)

Appendix 1. Detailed Field Hair Collection and Genetic Marker Data, 2010

Sample IDClassIndividualCluster IDSession #Cell IDCollectionDateComments								GENETIC DATA													
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores												Species
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex		
559	Xbomb		D1	6	GB12	8/30/10		1	188.190			76.176							50.250		
560	sample	560	E1	6	GB12	8/30/10	rx 2/11/2011	8	186.190	184.184	152.160	176.186	221.231	208.210	161.161				250.250		
561	Xsubselect		E2	6	GB12	8/30/10		0													
563	sample	560	G1	6	GB12	8/30/10	very dirty	11	186.190	184.184	152.160	176.186	221.231	208.210	161.161	133.133	229.229	175.175	250.250		
545	Xbomb		A1	6	GB13	8/30/10		2	190.190	84.184					141.165						
546	sample	439	B1	6	GB13	8/30/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
553	Xsubselect		B1	6	GB13	8/30/10		0													
547	sample	439	C1	6	GB13	8/30/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
548	sample	439	D1	6	GB13	8/30/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
549	Xbomb		E1	6	GB13	8/30/10		6	186.190	184.184	152.40.60	176.186	221.231	208.210	161.161				04.250		
550	Xsubselect		E2	6	GB13	8/30/10		0													
551	sample	439	F1	6	GB13	8/30/10		8	190.190	184.184	160.160	176.178	221.221	208.214	141.165				250.250		
552	Xsubselect		F2	6	GB13	8/30/10		0													
554	Xbomb		G1	6	GB13	8/30/10	extremely dirty	2	190.190	84.184		76.78		08.14	141.61.65				250.250		
500	Xinadequate		A1	6	GB14	8/30/10		0													
501	Xinadequate		B1	6	GB14	8/30/10	2 broken shafts	0													
502	sample	313	C1	6	GB14	8/30/10		8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				250.250		
503	Xsubselect		C2	6	GB14	8/30/10		0													
504	sample	313	D1	6	GB14	8/30/10		8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				250.250		
539	Xinadequate		A1	6	GB17	8/30/10	2 broken shafts	0													
540	sample	540	B1	6	GB17	8/30/10		8	190.190	184.194	160.160	184.186	221.237	208.214	153.161				204.250		
541	sample	540	B2	6	GB17	8/30/10		8	190.190	184.194	160.160	184.186	221.237	208.214	153.161				204.250		
542	Xsubselect		B3	6	GB17	8/30/10		0													
543	Xbomb		C1	6	GB17	8/30/10		1	90.190		56.58				153.61				204.204		
544	Xbomb		D1	6	GB17	8/30/10		7	190.190	184.194	58.160	184.186	221.237	208.214	153.161				204.250		
515	sample	515	A1	6	GB22	8/30/10		8	186.186	194.194	160.160	172.178	221.221	208.210	161.161				204.250		
517	Xbomb		A7	6	GB24	8/30/10	white hairs	0	90.190		58.158			12.14							
519	sample	560	A1	6	GB25	8/30/10		8	186.190	184.184	152.160	176.186	221.231	208.210	161.161				250.250		
520	Xsubselect		B1	6	GB25	8/30/10		0													
522	sample	560	B1	6	GB25	8/30/10		8	186.190	184.184	152.160	176.186	221.231	208.210	161.161				250.250		
523	Xsubselect		B2	6	GB25	8/30/10		0													
524	Xbomb		B3	6	GB25	8/30/10		2	186.90.97	84.84	52.56.58		221.231						250.250		
521	Xbomb		C1	6	GB25	8/30/10		1			156.58				61.161				204.250		
505	Xsubselect		A1	6	GB28	8/30/10		0													
506	sample	506	A2	6	GB28	8/30/10		8	186.190	184.194	140.160	178.178	221.231	210.210	141.161				250.250		
507	sample	506	B1	6	GB28	8/30/10		11	186.190	184.194	140.160	178.178	221.231	210.210	141.161	133.145	229.229	175.175	250.250		
494	Xsubselect		A1	6	GB29	8/30/10		0													
495	Xbomb		A2	6	GB29	8/30/10		0			56.158				51.51						
496	sample	445	A3	6	GB29	8/30/10		8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				250.250		
497	Xbomb		B1	6	GB29	8/30/10		1	186.186	92.94	56.158		221.25		61.161				04.250		
498	Xbomb		C1	6	GB29	8/30/10		1	89.196	186.94	56.158	84.184	221.51.53	210.12	151.59				204.250		
499	Xbomb		D1	6	GB29	8/30/10		7	186.186	184.194	52.60.158	176.186	231.237	210.210	141.161				250.250		
516	Xbomb		A1	6	GB34	8/30/10		0	80.80		56.158				61.61						
508	Xinadequate		A1	6	GB40	8/30/10	3 broken shafts	0													
509	Xbomb		B1	6	GB40	8/30/10		0			156.58				61.161						
510	sample	510	B2	6	GB40	8/30/10		9	180.186	184.184	152.160	178.186	231.233	208.210	139.161	45.127	223.239	75.161	204.250		
511	Xsubselect		B3	6	GB40	8/30/10		0													
512	Xsubselect		C1	6	GB40	8/30/10		0													

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Sample IDClassIndividualCluster IDSession #Cell IDCollection DateComments								GENETIC DATA												Species
								Confidence Score (high is 5 or >)	Genetic Markers and Corresponding Allele Scores											
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59	G10U	Sex	
513	sample	513	C2	6	GB40	8/30/10		8	186.196	184.184	160.160	178.186	233.237	210.210	161.161			250.250	grizzly	
518	Xinadequate		A1	6	GB41	8/30/10	2 underfur	0												
514	Xinadequate		A1	6	GB46	8/30/10		0												
52	sample	515	A1	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
54	sample	515	A3	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
56	sample	515	A5	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
58	sample	515	A7	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
59	sample	515	A1	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
60	sample	515	A2	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
63	sample	515	A5	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
65	sample	515	A5	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
66	sample	515	A1	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
68	sample	515	A3	3	GB02	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
75	sample	49	A1	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
77	sample	49	A3	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
80	sample	515	A6	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
388	sample	515	A7	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161			204.250		
389	Xbomb		B1	3	GB09	5/10/2010	wolverine? Also looks like bear.	5	186.90	184.194	156.60	176.186	221.231	208.214	41.153.161			204.250		
391	sample	49	B3	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
392	sample	49	A1	3	GB09	5/10/2010		8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
394	Xbomb		B2	3	GB09	5/10/2010	wolverine? Also looks like bear.	5	186.90	184.194	156.58.60	176.186	221.231	208.214	41.153.161			204.250		
395	sample	49	A1	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
397	sample	49	B2	3	GB09	5/10/2010	wolverine? Also looks like bear.	8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
398	sample	49	G1	3	GB09	5/10/2010		8	186.186	184.194	156.156	176.186	221.231	208.214	153.161			204.250		
70	sample	349	A1	3	GB20	5/10/2010	wolverine? Also looks like bear.	8	190.196	184.184	156.160	186.186	221.231	208.208	155.161			250.250		
72	sample	349	G1	3	GB20	5/10/2010	wolverine? Also looks like bear.	8	190.196	184.184	156.160	186.186	221.231	208.208	155.161			250.250		
73	Xbomb		B1	3	GB20	5/10/2010	wolverine? Also looks like bear.	2		84.184		86.186		208.208	55.161			250.250		

Notes:

Xinadequate: samples that lacked suitable material for DNA extraction

Xsubselect: samples that were excluded due to subselection rules

Xbomb: samples that failed during microsatellite analysis

Xmixed: samples that showed ecidence of > 2 alleles per marker

sample: successful samples assigned to individuals (see appendix 2)

Appendix 2

Summary of Individual Bear Genotypes and
Capture/Recapture Rates, 2010

Appendix 2. Summary of Individual Bear Genotypes and Capture/Recapture Rates, 2010

Individual			List of Samples			#	Captures						Genetic Data									
							check 1	check 2	check 3	check 4	check 5	check 6	Loci	G10J	G1A	G10B	G1D	G10H	G10M	G10P	Cxx20	Mu59
92	92; 93; 94; 98; 103; 105;	6	1							8	186.186	184.194	160.160	183.186	221.221	210.214	155.161				M	
560	560; 563; 519; 522;	4							1	11	186.190	184.184	152.160	176.186	221.231	208.210	161.161	133.133	229.229	175.175	F	
555	555; 556;	2							1	8	186.186	184.184	140.160	176.183	221.221	208.210	161.161				M	
540	540; 541;	2							1	8	190.190	184.194	160.160	184.186	221.237	208.214	153.161				M	
515	515; 52; 54; 56; 58; 59; 60; 63; 65; 66; 68; 80; 388;	13							1	8	186.186	194.194	160.160	172.178	221.221	208.210	161.161				M	
513	513;	1							1	8	186.196	184.184	160.160	178.186	233.237	210.210	161.161				F	
510	510;	1							1	9	180.186	184.184	152.160	178.186	231.233	208.210	139.161	45.127	223.239	75.161	M	
506	371; 506; 507;	3						1	1	11	186.190	184.194	140.160	178.178	221.231	210.210	141.161	133.145	229.229	175.175	F	
49	49; 75; 77; 391; 392; 395; 397; 398;	8	1							11	186.186	184.194	156.156	176.186	221.231	208.214	153.161	127.145	223.239	175.175	M	
473	473; 471; 474; 475; 484; 486; 488; 490; 491; 493;	10				1				8	190.190	184.194	156.160	178.180	221.221	210.214	141.153				F	
448	448; 450; 452; 456; 453; 358;	6				1		1		10	186.190	184.184	156.160	180.186	223.231	210.214	153.161	29.133.145	229.247	175.177	M	
445	445; 446; 441; 377; 496;	5				1		1	1	8	186.186	184.194	152.160	176.186	231.237	210.210	141.161				F	
439	439; 440; 359; 361; 363; 525; 535; 546; 547; 548; 551;	11				1		1	1	11	190.190	184.184	160.160	176.178	221.221	208.214	141.165	127.145	239.249	175.177	F	
429	429; 430; 432; 433; 435;	5						1		11	186.190	184.184	160.160	174.176	221.231	210.210	153.161	133.133	229.239	163.175	M	
423	423;	1			1					8	186.190	184.184	140.140	178.183	221.221	210.210	161.161				M	
400	400; 402; 403; 405; 406; 372; 368;	7				1			1	8	186.190	184.194	140.152	176.186	221.231	210.214	141.161				F	
374	374; 376;	2							1	8	180.186	184.184	152.160	176.178	231.237	208.210	141.161				M	
349	349; 353; 70; 72;	4							1	8	190.196	184.184	156.160	186.186	221.231	208.208	155.161				F	
33	33; 35; 41; 42; 47; 37; 44; 40; 195; 301; 309; 201; 203; 205; 208; 210; 212; 215; 216;	19	1	1						8	190.190	184.194	140.160	176.186	221.231	208.208	155.161				M	
317	317; 218;	2		1						8	190.190	184.194	152.160	178.178	221.231	210.210	155.161				M	
313	313; 319; 320; 354; 502; 504;	6		1					1	8	180.196	194.194	160.160	178.186	221.233	210.214	153.161				F	
223	223;	1		1						11	186.196	194.194	160.160	172.186	221.231	210.210	161.161	127.145	239.249	175.177	M	
219	219; 221; 228; 457; 458; 460; 468;	7		1				1		8	190.196	184.194	160.160	178.186	231.237	210.210	141.161				F	
171	171; 176; 172; 177; 174; 175; 180; 186; 182; 187; 184; 188; 190; 196; 414; 418; 422;	17		1	1					8	186.190	184.194	156.160	174.178	221.237	210.214	139.161				M	
166	166;	1		1						11	190.190	184.184	140.160	178.186	221.231	208.210	141.161	127.145	229.239	175.177	F	
152	152; 145; 147; 160;	4		1						11	190.190	184.194	160.160	176.186	221.233	208.208	141.161	139.145	223.229	163.175	M	
140	140; 141; 84; 86; 87; 88; 89; 90;	8	1							8	196.196	184.184	160.160	176.186	231.237	210.210	161.165				F	
119	119; 125; 133;	3	1							8	186.196	184.184	156.160	178.186	231.237	208.210	141.161				F	
106	106;	1	1							8	186.190	184.184	160.164	178.186	221.237	210.212	155.161				F	
527	527; 529;	2							1	7	190.190	184.184	56.58.60.140	178.184	221.221	208.214	141.161				M	
528	528;	1							1	7	186.190	184.194	40.56.58.60	178.186	221.237	208.214	141.155				M	

Appendix 3

Detailed Field Hair Collection and Genetic Marker
Data, 2011

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA											Species
									Genetic Markers and Corresponding Allele Scores											
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	
1000	sample	313	A1	1	GB14	6/16/2011		9	180.196	194.194	160.160	178.186	221.233	210.214	153.161	153.155		250.250		
1001	Xbomb		A1	1	GB15	6/14/2011	white hair	0						96.96						
1002	Xspecies		A1	1	GB17	6/14/2011	banded hairs, wolverine? didn't look like griz	0												
1003	Xinadequate		A1	1	GB24	6/15/2011	one root, unsure, but maybe griz	0												
1004	Xsubselect		A2	1	GB24	6/15/2011		0												
1005	Xsubselect		A3	1	GB24	6/15/2011		0												
1006	sample	1013	A4	1	GB24	6/15/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1007	Xsubselect		A5	1	GB24	6/15/2011		0												
1008	Xsubselect		A6	1	GB24	6/15/2011		0												
1009	Xbomb		B1	1	GB24	6/15/2011		1								151.155				
1010	Xsubselect		K1	1	GB24	6/15/2011		0												
1011	Xsubselect		K2	1	GB24	6/15/2011		0												
1012	Xsubselect		K3	1	GB24	6/15/2011		0												
1013	sample	1013	K4	1	GB24	6/15/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1014	Xbomb		L1	1	GB24	6/15/2011		2					21.221	08.08		151.155		204.250		
1015	Xsubselect		L2	1	GB24	6/15/2011		0												
1016	Xsubselect		R1	1	GB24	6/15/2011		0												
1017	sample	1013	R2	1	GB24	6/15/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1018	Xbomb		S1	1	GB24	6/15/2011		0								49.51.53.55		04.50		
1019	Xsubselect		S2	1	GB24	6/15/2011		0												
1020	sample	1013	GR1	1	GB24	6/15/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1021	Xspecies		A1	1	GB25	6/15/2011	banded fur	0												
1022	Xbomb		A1	1	GB33	6/16/2011	fine roots	1	86.186	94.94	52.152	78.84	21.221	08.10	61.161	151.155		04.250		
1023	sample	1013	B1	1	GB33	6/16/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1024	Xinadequate		K1	1	GB33	6/16/2011		0												
1025	sample	1013	L1	1	GB33	6/16/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1026	Xinadequate		L2	1	GB33	6/16/2011	4 underfur	0												
1027	sample	1013	M1	1	GB33	6/16/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1028	sample	1013	R1	1	GB33	6/16/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1029	sample	1013	S1	1	GB33	6/16/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1030	Xsubselect		S2	1	GB33	6/16/2011		0												
1031	Xsubselect		S3	1	GB33	6/16/2011		0												
1032	Xsubselect		S4	1	GB33	6/16/2011		0												
1033	Xbomb		GR1	1	GB33	6/16/2011		3	186.80.90	184.194		178.84.86	221.221	208.210	61.161	49.51.55.59		04.250		
1034	sample	1013	A1	1	GB55	6/16/2011	only one root; only 1 in collection event	9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155		204.250		
1035	Xinadequate		K1	1	GB55	6/16/2011		0												
1036	Xsubselect		A1	1	GB59	6/14/2011		0												
1037	sample	1037	A2	1	GB59	6/14/2011		9	186.186	184.184	160.160	174.176	221.233	208.210	161.165	151.153		250.250		
1038	Xsubselect		A3	1	GB59	6/14/2011		0												
1039	Xsubselect		A4	1	GB59	6/14/2011		0												
1040	Xsubselect		A5	1	GB59	6/14/2011		0												
1041	Xbomb		B1	1	GB59	6/14/2011		0												
1042	Xsubselect		B2	1	GB59	6/14/2011		0												
1043	sample	1037	K1	1	GB59	6/14/2011	white	9	186.186	184.184	160.160	174.176	221.233	208.210	161.165	151.153		250.250		
1044	Xbomb		K2	1	GB59	6/14/2011		2	186.90				21.31.233	08.10	161.65	151.153		250.250		
1045	Xsubselect		K3	1	GB59	6/14/2011		0												
1046	Xinadequate		L1	1	GB59	6/14/2011	couldn't find any hairs	0												

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA												Species	
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
1047	sample	1047	GR1	1	GB59	6/14/2011	lots of debris accompanying hairs	9	186.190	184.194	140.160	174.176	231.233	208.210	161.165	151.153		250.250				
1048	sample	423	A1	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1049	Xsubselect		A2	1	GB62	6/16/2011		0														
1050	Xsubselect		B1	1	GB62	6/16/2011		0														
1051	Xsubselect		B2	1	GB62	6/16/2011		0														
1052	sample	423	B3	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1053	Xsubselect		C1	1	GB62	6/16/2011		0														
1054	Xsubselect		D1	1	GB62	6/16/2011		0														
1055	sample	423	D2	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1056	Xsubselect		E1	1	GB62	6/16/2011		0														
1057	sample	423	K1	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1058	Xsubselect		L1	1	GB62	6/16/2011		0														
1059	sample	423	L2	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1060	Xsubselect		R1	1	GB62	6/16/2011		0														
1061	sample	423	S1	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1062	Xsubselect		T1	1	GB62	6/16/2011		0														
1063	sample	423	U1	1	GB62	6/16/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155		204.250				
1064	Xbomb		A1	1	GB64	6/16/2011		0								53.53						
1065	sample	1065	K1	1	GB64	6/16/2011		9	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153		204.250				
1066	Xinadequate		A1	2	GB1	6/28/2011	one hair no roots	0														
1067	Xbomb		B1	2	GB1	6/28/2011		0										50.50				
1068	Xsubselect		A1	2	GB6	6/28/2011		0														
1069	Xsubselect		A2	2	GB6	6/28/2011		0														
1070	Xsubselect		A3	2	GB6	6/28/2011		0														
1071	sample	33	A4	2	GB6	6/28/2011	added 100 ml to lysis mix	9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155		204.250				
1072	Xsubselect		A5	2	GB6	6/28/2011		0														
1073	Xsubselect		A6	2	GB6	6/28/2011		0														
1074	Xsubselect		A7	2	GB6	6/28/2011		0														
1075	Xsubselect		B1	2	GB6	6/28/2011		0														
1076	Xsubselect		B2	2	GB6	6/28/2011		0														
1077	Xsubselect		B3	2	GB6	6/28/2011		0														
1078	sample	33	B4	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155		204.250				
1079	Xsubselect		C1	2	GB6	6/28/2011		0														
1080	Xsubselect		D1	2	GB6	6/28/2011		0														
1081	Xsubselect		K1	2	GB6	6/28/2011		0														
1082	Xsubselect		L1	2	GB6	6/28/2011		0														
1083	Xsubselect		M1	2	GB6	6/28/2011		0														
1084	Xsubselect		M2	2	GB6	6/28/2011		0														
1085	sample	33	M3	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155		204.250				
1086	Xsubselect		M4	2	GB6	6/28/2011		0														
1087	Xsubselect		N1	2	GB6	6/28/2011		0														
1088	sample	33	N2	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155		204.250				
1089	Xsubselect		N3	2	GB6	6/28/2011		0														
1090	Xsubselect		N4	2	GB6	6/28/2011		0														
1091	Xsubselect		O1	2	GB6	6/28/2011		0														
1092	Xsubselect		R1	2	GB6	6/28/2011		0														
1093	Xsubselect		S1	2	GB6	6/28/2011		0														
1094	Xsubselect		S2	2	GB6	6/28/2011		0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID Class Individual Cluster ID Session # Cell Collection Date Comments								Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1095	Xsubselect		S3	2	GB6	6/28/2011		0															
1096	Xsubselect		S4	2	GB6	6/28/2011		0															
1097	Xsubselect		T1	2	GB6	6/28/2011		0															
1098	sample	33	U1	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1099	Xsubselect		U2	2	GB6	6/28/2011		0															
1100	Xsubselect		V1	2	GB6	6/28/2011		0															
1101	Xsubselect		V2	2	GB6	6/28/2011		0															
1102	sample	33	W1	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1103	sample	33	AA1	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1104	sample	33	GR1	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1105	Xsubselect		GR2	2	GB6	6/28/2011		0															
1106	Xsubselect		GR3	2	GB6	6/28/2011		0															
1107	Xsubselect		GR4	2	GB6	6/28/2011		0															
1108	Xsubselect		GR5	2	GB6	6/28/2011		0															
1109	Xsubselect		GR6	2	GB6	6/28/2011		0															
1110	Xsubselect		GR7	2	GB6	6/28/2011		0															
1111	Xsubselect		GR8	2	GB6	6/28/2011		0															
1112	Xsubselect		GR9	2	GB6	6/28/2011		0															
1113	sample	33	GR10	2	GB6	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1114	Xsubselect		GR11	2	GB6	6/28/2011		0															
1115	Xsubselect		GR12	2	GB6	6/28/2011		0															
1116	Xsubselect		GR13	2	GB6	6/28/2011		0															
1117	Xsubselect		GR14	2	GB6	6/28/2011		0															
1118	Xsubselect		GR15	2	GB6	6/28/2011		0															
1119	Xsubselect		GR16	2	GB6	6/28/2011		0															
1120	Xsubselect		GR17	2	GB6	6/28/2011		0															
1121	Xsubselect		GR18	2	GB6	6/28/2011		0															
1122	Xinadequate		A1	2	GB7	6/28/2011	3 uf	0															
1123	Xinadequate		B1	2	GB7	6/28/2011		0															
1124	Xbomb		B2	2	GB7	6/28/2011		1	190.190		60.140		31.221	08.208	53.55.161				04.250				
1125	sample	33	K1	2	GB7	6/28/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155				204.250			
1126	Xinadequate		K2	2	GB7	6/28/2011	no hair in env	0															
1127	Xinadequate		L1	2	GB7	6/28/2011	one rootless hair	0															
1128	Xinadequate		M1	2	GB7	6/28/2011	3 uf	0															
1129	Xbomb		R1	2	GB7	6/28/2011		0															
1130	Xinadequate		S1	2	GB7	6/28/2011	could not see hair in env.	0															
1131	Xbomb		GR1	2	GB7	6/28/2011		6	190.190	184.194	140.160	176.186	221.231	08.208	55.59	153.55				204.250			
1132	Xinadequate		GR2	2	GB7	6/28/2011	3 uf	0															
1133	Xbomb		A1	2	GB15	6/28/2011		1			54.58									250.250			
1134	Xinadequate		K1	2	GB15	6/28/2011	one root	0															
1135	Xbomb		L1	2	GB15	6/28/2011	hairs shorter andlight at both tips	2			142.154									250.250			
1136	Xbomb		A1	2	GB17	6/28/2011		6	186.190	184.194	152.156	84.84	21.233	02.02	153.153	153.155				204.250			
1137	Xbomb		K1	2	GB17	6/28/2011		0															
1138	Xinadequate		A1	2	GB18	6/28/2011	one hair no root	0															
1139	Xinadequate		K1	2	GB18	6/28/2011	2 small fragments no roots	0															
1140	Xinadequate		R1	2	GB18	6/28/2011	1 small frag no roots	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA														Species
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1141	Xinadequate		A1	2	GB21	6/28/2011	out of order in cell ie. GB21 appears before GB20; one fragment no roots	0															
1142	Xbomb		A1	2	GB20	6/28/2011	fine hairs	2	190.196	84.94	140.60			210.14	163.65						250.250		
1143	sample	1143	K1	2	GB20	6/28/2011		9	190.196	184.194	140.160	178.186	221.237	210.214	153.161	151.153					250.250		
1144	Xinadequate		L1	2	GB20	6/28/2011	4 uf	0															
1145	Xinadequate		R1	2	GB20	6/28/2011	1 uf	0															
1146	Xinadequate		S1	2	GB20	6/28/2011		0															
1147	Xbomb		T1	2	GB20	6/28/2011		1	87.196												250.250		
1148	Xinadequate		U1	2	GB20	6/28/2011	1 uf	0															
1149	sample	1143	V1	2	GB20	6/28/2011		9	190.196	184.194	140.160	178.186	221.237	210.214	153.161	151.153					250.250		
1150	sample	1143	AA1	2	GB20	6/28/2011		9	190.196	184.194	140.160	178.186	221.237	210.214	153.161	151.153					250.250		
1151	Xbomb		GR1	2	GB20	6/28/2011		0															
1152	Xinadequate		GR2	2	GB20	6/28/2011	3 uf	0															
1153	Xinadequate		GR3	2	GB20	6/28/2011	2 uf	0															
1154	Xbomb		GR4	2	GB20	6/28/2011		2	190.196		40.60				53.61.165						250.250		
1155	Xbomb		A1	2	GB24	6/28/2011		0	80.186														
1156	Xinadequate		B1	2	GB24	6/28/2011	2 frags	0															
1157	Xinadequate		K1	2	GB24	6/28/2011	2 fine hairs no roots	0															
1158	Xinadequate		A1	2	GB25	6/28/2011	could not find hair in env	0															
1159	Xinadequate		A2	2	GB25	6/28/2011	could not find hair in env	0															
1160	Xbomb		A1	2	GB34	6/28/2011		2	186.190		140.140				61.61								
1161	Xinadequate		A2	2	GB34	6/28/2011	a hair no root	0															
1162	Xinadequate		A3	2	GB34	6/28/2011	no hair in env	0															
1163	Xinadequate		A4	2	GB34	6/28/2011	no hair in env	0															
1164	Xinadequate		K1	2	GB34	6/28/2011	could not find hair in env	0															
1165	Xbomb		R1	2	GB34	6/28/2011		2	186.190		140.140		21.221		161.67						04.204		
1166	Xbomb		S1	2	GB34	6/28/2011		8	186.190	184.184	140.140	178.186	221.221	210.210	161.161	151.59.155					204.250		
1167	Xinadequate		GR1	2	GB34	6/28/2011	less than 5 underhair	0															
1168	Xbomb		A1	2	GB36	6/27/2011		2	186.190		60.160			10.10							204.250		
1169	Xinadequate		A2	2	GB36	6/27/2011		0															
1170	Xinadequate		A3	2	GB36	6/27/2011		0															
1171	Xinadequate		A4	2	GB36	6/27/2011		0															
1172	Xinadequate		B1	2	GB36	6/27/2011	couldn't see hair in env	0															
1173	Xbomb		K1	2	GB36	6/27/2011		0	90.190														
1174	Xsubselect		K2	2	GB36	6/27/2011		0															
1175	sample	429	L1	2	GB36	6/27/2011		9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155					204.250		
1176	Xsubselect		M1	2	GB36	6/27/2011		0															
1177	Xsubselect		R1	2	GB36	6/27/2011		0															
1178	Xbomb		S1	2	GB36	6/27/2011		0						10.210	61.61								
1179	Xinadequate		T1	2	GB36	6/27/2011	around 10 hair fragments but no roots	0															
1180	Xinadequate		T2	2	GB36	6/27/2011	20 or 3 fine hair fragments	0															
1181	Xbomb		U1	2	GB36	6/27/2011		1	86.90		58.60			08.10	53.61	151.155					04.50		
1182	sample	429	GR1	2	GB36	6/27/2011		9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155					204.250		
1183	sample	429	GR2	2	GB36	6/27/2011	env full of debris; poss there may be more roots	9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155					204.250		
1184	Xsubselect		GR3	2	GB36	6/27/2011		0															
1185	Xinadequate		GR4	2	GB36	6/27/2011	one hair no root	0															
1186	Xinadequate		A1	2	GB40	6/27/2011	one hair in there, maybe a root	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
1187	Xinadequate	513	B1	2	GB40	6/27/2011	one root in there	0														
1188	sample		C1	2	GB40	6/27/2011		9	186.196	184.184	160.160	178.186	233.237	210.210	161.161	151.153				250.250		
1189	Xinadequate		GR1	2	GB40	6/27/2011	one hair in there	0														
1190	Xbomb		GR2	2	GB40	6/27/2011	Ground samples in this cell only have 2 hairs per env.	0														
1191	Xinadequate		GR3	2	GB40	6/27/2011	2 hairs only one root	0														
1192	Xbomb		GR4	2	GB40	6/27/2011	fine hair	0								51.51						
1193	Xinadequate		GR5	2	GB40	6/27/2011	frags (2)	0														
1194	Xinadequate		GR6	2	GB40	6/27/2011	1 uf, frags	0														
1195	Xinadequate		GR7	2	GB40	6/27/2011	1 root	0														
1196	Xinadequate		GR8	2	GB40	6/27/2011	no root one hair	0														
1197	Xinadequate		A1	2	GB45	6/27/2011	one frag	0														
1198	Xbomb		K1	2	GB45	6/27/2011		0														
1199	Xinadequate	1013	A1	2	GB48	6/27/2011	1 root	0														
1200	Xinadequate		B1	2	GB48	6/27/2011	didn't see a hair in there	0														
1201	Xinadequate		C1	2	GB48	6/27/2011	2 uf	0														
1202	Xinadequate		D1	2	GB48	6/27/2011	didn't see a hair in there	0														
1203	Xinadequate		D2	2	GB48	6/27/2011	1uf	0														
1204	Xinadequate		D3	2	GB48	6/27/2011	1 uf	0														
1205	Xinadequate		E1	2	GB48	6/27/2011	1 uf	0														
1206	Xinadequate		F1	2	GB48	6/27/2011	1 uf	0														
1207	Xinadequate	374	G1	2	GB48	6/27/2011	a few frags	0														
1208	sample		G2	2	GB48	6/27/2011	fine hair	9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155			204.250			
1209	Xinadequate		G3	2	GB48	6/27/2011	didn't see a hair	0														
1210	Xinadequate		G4	2	GB48	6/27/2011	a few hairs	0														
1211	Xbomb	374	G5	2	GB48	6/27/2011		0			52.52					47.155						
1212	Xsubselect		G6	2	GB48	6/27/2011		0														
1213	sample		K1	2	GB48	6/27/2011		9	180.186	184.184	152.160	176.178	231.237	208.210	141.161	155.161			204.250			
1214	Xinadequate		K2	2	GB48	6/27/2011	didn't see a hair in there	0														
1215	Xinadequate	374	K3	2	GB48	6/27/2011	1 uf	0														
1216	Xinadequate		K4	2	GB48	6/27/2011	one hair	0														
1217	Xinadequate		L1	2	GB48	6/27/2011	one hair	0														
1218	sample		M1	2	GB48	6/27/2011		9	180.186	184.184	152.160	176.178	231.237	208.210	141.161	155.161			204.250			
1219	Xsubselect		M2	2	GB48	6/27/2011		0														
1220	Xsubselect		N1	2	GB48	6/27/2011		0														
1221	Xsubselect		O1	2	GB48	6/27/2011		0														
1222	Xsubselect		O2	2	GB48	6/27/2011		0														
1223	Xinadequate		R1	2	GB48	6/27/2011	one root, a bunch of frags	0														
1224	Xinadequate		S1	2	GB48	6/27/2011	one uf, a few frags	0														
1225	Xinadequate		T1	2	GB48	6/27/2011		0														
1226	Xinadequate		U1	2	GB48	6/27/2011		0														
1227	Xinadequate		V1	2	GB48	6/27/2011		0														
1228	Xinadequate		V2	2	GB48	6/27/2011		0														
1229	Xinadequate		V3	2	GB48	6/27/2011	one hair	0														
1230	sample	1013	GR1	2	GB48	6/27/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155			204.250			
1231	sample	374	GR2	2	GB48	6/27/2011		9	180.186	184.184	152.160	176.178	231.237	208.210	141.161	155.161			204.250			
1232	Xsubselect		GR3	2	GB48	6/27/2011		0														
1233	Xsubselect		GR4	2	GB48	6/27/2011		0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1234	Xsubselect		GR5	2	GB48	6/27/2011		0															
1235	Xsubselect		GR6	2	GB48	6/27/2011		0															
1236	Xsubselect		GR7	2	GB48	6/27/2011		0															
1237	Xsubselect		GR8	2	GB48	6/27/2011		0															
1238	Xsubselect		GR9	2	GB48	6/27/2011		0															
1239	Xsubselect		GR10	2	GB48	6/27/2011		0															
1240	Xsubselect		GR11	2	GB48	6/27/2011		0															
1241	Xsubselect		GR12	2	GB48	6/27/2011		0															
1242	Xsubselect		GR13	2	GB48	6/27/2011		0															
1243	Xsubselect		GR14	2	GB48	6/27/2011		0															
1244	Xsubselect		GR15	2	GB48	6/27/2011		0															
1245	Xsubselect		GR16	2	GB48	6/27/2011		0															
1246	Xsubselect		GR17	2	GB48	6/27/2011		0															
1247	Xsubselect		GR18	2	GB48	6/27/2011		0															
1248	Xsubselect		GR19	2	GB48	6/27/2011		0															
1249	Xsubselect		GR20	2	GB48	6/27/2011		0															
1250	Xsubselect		GR21	2	GB48	6/27/2011		0															
1251	Xsubselect		GR22	2	GB48	6/27/2011		0															
1252	Xsubselect		GR23	2	GB48	6/27/2011		0															
1253	Xsubselect		GR24	2	GB48	6/27/2011		0															
1254	Xsubselect		GR25	2	GB48	6/27/2011		0															
1255	Xsubselect		GR26	2	GB48	6/27/2011		0															
1256	Xsubselect		GR27	2	GB48	6/27/2011		0															
1257	Xsubselect		GR28	2	GB48	6/27/2011		0															
1258	Xsubselect		GR29	2	GB48	6/27/2011		0															
1259	Xsubselect		GR30	2	GB48	6/27/2011		0															
1260	Xsubselect		GR31	2	GB48	6/27/2011		0															
1261	Xsubselect		GR32	2	GB48	6/27/2011		0															
1262	Xsubselect		GR33	2	GB48	6/27/2011		0															
1263	Xinadequate		A1	2	GB49	6/27/2011	one hair no root	0															
1264	Xinadequate		K1	2	GB49	6/27/2011	one frag	0															
1265	Xinadequate		L1	2	GB49	6/27/2011	could not find hair in env	0															
1266	Xinadequate		A1	2	GB59	6/28/2011	one small frag	0															
1267	Xinadequate		A1	2	GB62	6/27/2011	a few very small frags	0															
1268	Xinadequate		B1	2	GB62	6/27/2011	didn't see a hair in env.	0															
1269	Xinadequate		C1	2	GB62	6/27/2011	didn't see a hair in env.	0															
1270	Xinadequate		K1	2	GB62	6/27/2011	saw one very small frag	0															
1271	sample	1271	A1	3	GB16	7/11/2011		9	186.190	184.194	140.160	176.178	221.221	208.208	141.155	151.159					204.250		
1272	sample	1271	K1	3	GB16	7/11/2011		9	186.190	184.194	140.160	176.178	221.221	208.208	141.155	151.159					204.250		
1273	Xbomb		A1	3	GB19	7/11/2011		1														250.250	
1274	Xsubselect		B1	3	GB19	7/11/2011		0															
1275	Xbomb		C1	3	GB19	7/11/2011		0															
1276	Xbomb		K1	3	GB19	7/11/2011		1							45.63	49.59.63						250.250	
1277	Xbomb		L1	3	GB19	7/11/2011		1						212.16									250.250
1278	Xsubselect		M1	3	GB19	7/11/2011		0															
1279	Xbomb		R1	3	GB19	7/11/2011		1						08.22									250.250
1280	sample	445	A1	2	GB29	7/12/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155						250.250	
1281	sample	445	K1	2	GB29	7/12/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155							250.250

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA												Species
									Genetic Markers and Corresponding Allele Scores												
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex	
1282	sample	445	L1	2	GB29	7/12/2011	a few frags	9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155		250.250			
1283	Xinadequate		R1	2	GB29	7/12/2011		0										50.250			
1284	Xbomb		GR1	2	GB29	7/12/2011		0						10.16		151.53.55					
1285	sample	445	A1	3	GB42	7/12/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155		250.250			
1286	Xsubselect		B1	3	GB42	7/12/2011		0													
1287	sample	445	C1	3	GB42	7/12/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155		250.250			
1288	Xsubselect		D1	3	GB42	7/12/2011		0													
1289	Xsubselect		E1	3	GB42	7/12/2011		0													
1290	Xsubselect		F1	3	GB42	7/12/2011		0													
1291	Xbomb		A1	3	GB43	7/12/2011	2	186.186	82.84.92.94					141.65	51.155		250.250				
1292	Xsubselect		A1	3	GB48	7/12/2011	0														
1293	sample	1293	A2	3	GB48	7/12/2011	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161		250.250				
1294	Xsubselect		A3	3	GB48	7/12/2011	0														
1295	sample	1295	B1	3	GB48	7/12/2011	9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	151.161		204.250				
1296	sample	1293	K1	3	GB48	7/12/2011	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161		250.250				
1297	sample	1293	L1	3	GB48	7/12/2011	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161		250.250				
1298	sample	1293	GR1	3	GB48	7/12/2011	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161		250.250				
1299	Xsubselect		GR2	3	GB48	7/12/2011	0														
1300	sample	1293	GR3	3	GB48	7/12/2011	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161		250.250				
1301	sample	555	A1	3	GB62	7/12/2011	hair from this cluster looked the same (whitish) on all samples	9	186.186	184.184	140.160	176.183	221.221	208.210	161.161	153.155		204.250			
1302	Xsubselect		B1	3	GB62	7/12/2011	0														
1303	sample	560	C1	3	GB62	7/12/2011	9	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.153		250.250				
1304	Xsubselect		C2	3	GB62	7/12/2011	0														
1305	sample	555	K1	3	GB62	7/12/2011	9	186.186	184.184	140.160	176.183	221.221	208.210	161.161	153.155		204.250				
1306	sample	555	L1	3	GB62	7/12/2011	9	186.186	184.184	140.160	176.183	221.221	208.210	161.161	153.155		204.250				
1307	Xbomb		A1	3	GB64	7/12/2011	note on env. 'Mom? top')	4	186.186	84.194	152.160	76.176	31.31	10.10	141.61	151.155		250.250			
1308	Xsubselect		B1	3	GB64	7/12/2011	0														
1309	Xsubselect		C1	3	GB64	7/12/2011	0														
1310	Xbomb		D1	3	GB64	7/12/2011	2	186.186				31.31	10.10	63.163	51.151		250.250				
1311	Xbomb		K1	3	GB64	7/12/2011	0	86.186							149.51.55						
1312	Xinadequate		A1	3	GB66	7/12/2011	15 uf	0													
1313	Xbomb		B1	3	GB66	7/12/2011	0	86.186				31.31		39.161	151.61.65		04.250				
1314	sample	1295	K1	3	GB66	7/12/2011	9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	151.161		204.250				
1315	sample	1295	L1	3	GB66	7/12/2011	9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	151.161		204.250				
1316	sample	1295	R1	3	GB66	7/12/2011	9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	151.161		204.250				
1317	sample	1295	S1	3	GB66	7/12/2011	9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	151.161		204.250				
1318	Xinadequate		A1	4	GB1	7/25/2011	2 frags	0													
1319	sample	106	B1	4	GB1	7/25/2011	9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149		250.250				
1320	Xsubselect		C1	4	GB1	7/25/2011	0														
1321	sample	106	D1	4	GB1	7/25/2011	9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149		250.250				
1322	Xinadequate		E1	4	GB1	7/25/2011	2 uf	0													
1323	Xinadequate		E2	4	GB1	7/25/2011	10 uf	0													
1324	Xinadequate		K1	4	GB1	7/25/2011	one hair	0													
1325	Xsubselect		K2	4	GB1	7/25/2011	0														
1326	Xsubselect		K3	4	GB1	7/25/2011	0														
1327	sample	106	K4	4	GB1	7/25/2011	9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149		250.250				
1328	Xsubselect		K5	4	GB1	7/25/2011	0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID Class Individual Cluster ID Session # Cell Collection Date Comments								Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1329	Xsubselect		L1	4	GB1	7/25/2011		0															
1330	Xsubselect		M1	4	GB1	7/25/2011		0															
1331	sample	106	N1	4	GB1	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1332	Xsubselect		O1	4	GB1	7/25/2011		0															
1333	Xsubselect		P1	4	GB1	7/25/2011		0															
1334	Xsubselect		Q1	4	GB1	7/25/2011		0															
1335	Xinadequate		R1	4	GB1	7/25/2011	a few frags	0															
1336	Xinadequate		R2	4	GB1	7/25/2011	a few frags	0															
1337	Xinadequate		R3	4	GB1	7/25/2011	10 uf	0															
1338	Xinadequate		R4	4	GB1	7/25/2011	didn't see any hair	0															
1339	Xinadequate		R5	4	GB1	7/25/2011	10 uf	0															
1340	sample	1340	R6	4	GB1	7/25/2011		9	186.186	184.184	160.164	178.186	221.221	210.212	161.161	149.155			204.250				
1341	Xinadequate		S1	4	GB1	7/25/2011	5 uf	0															
1342	Xinadequate		S2	4	GB1	7/25/2011	15 uf	0															
1343	Xinadequate		S3	4	GB1	7/25/2011	3 uf	0															
1344	Xinadequate		T1	4	GB1	7/25/2011	didn't see any hair	0															
1345	Xinadequate		T2	4	GB1	7/25/2011	one fine hair	0															
1346	Xinadequate		T3	4	GB1	7/25/2011	4 uf	0															
1347	sample	106	T4	4	GB1	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1348	sample	106	GR1	4	GB1	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1349	Xsubselect		GR2	4	GB1	7/25/2011		0															
1350	Xsubselect		GR3	4	GB1	7/25/2011		0															
1351	sample	106	GR4	4	GB1	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1352	sample	1352	A1	4	GB2	7/25/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149			250.250				
1353	Xsubselect		B1	4	GB2	7/25/2011		0															
1354	Xsubselect		B2	4	GB2	7/25/2011		0															
1355	Xsubselect		B3	4	GB2	7/25/2011		0															
1356	Xsubselect		B4	4	GB2	7/25/2011		0															
1357	Xsubselect		C1	4	GB2	7/25/2011		0															
1358	Xsubselect		C2	4	GB2	7/25/2011		0															
1359	Xsubselect		D1	4	GB2	7/25/2011		0															
1360	sample	1352	D2	4	GB2	7/25/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149			250.250				
1361	Xinadequate		K1	4	GB2	7/25/2011	one root	0															
1362	Xinadequate		K2	4	GB2	7/25/2011	no hair in env	0															
1363	sample	1352	K3	4	GB2	7/25/2011	white	9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149			250.250				
1364	Xsubselect		K4	4	GB2	7/25/2011		0															
1365	Xsubselect		K5	4	GB2	7/25/2011		0															
1366	Xsubselect		L1	4	GB2	7/25/2011		0															
1367	Xsubselect		L2	4	GB2	7/25/2011		0															
1368	sample	1352	M1	4	GB2	7/25/2011	white	9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149			250.250				
1369	Xinadequate		R1	4	GB2	7/25/2011		0															
1370	Xinadequate		R2	4	GB2	7/25/2011	didn't see a hair	0															
1371	Xinadequate		R3	4	GB2	7/25/2011	1 gh	0															
1372	sample	1352	R4	4	GB2	7/25/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149			250.250				
1373	Xinadequate		S1	4	GB2	7/25/2011	10 uf	0															
1374	Xinadequate		S2	4	GB2	7/25/2011	2 uf	0															
1375	Xinadequate		T1	4	GB2	7/25/2011	small frag	0															
1376	Xinadequate		U1	4	GB2	7/25/2011	1 uf	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1377	Xbomb		V1	4	GB2	7/25/2011		6	190.190	184.184	156.160	174.178	23.37	10.14	139.61	149.149			250.250			
1378	Xsubselect		W1	4	GB2	7/25/2011		0														
1379	Xbomb		GR1	4	GB2	7/25/2011		0	90.90													
1380	Xbomb		GR2	4	GB2	7/25/2011		1	90.90	84.184				10.14					250.250			
1381	Xsubselect		GR3	4	GB2	7/25/2011		0														
1382	Xsubselect		GR4	4	GB2	7/25/2011		0														
1383	Xsubselect		GR5	4	GB2	7/25/2011		0														
1384	Xsubselect		GR6	4	GB2	7/25/2011		0														
1385	Xsubselect		GR7	4	GB2	7/25/2011		0														
1386	Xsubselect		GR8	4	GB2	7/25/2011		0														
1387	sample	439	A1	4	GB3	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161			250.250			
1388	Xsubselect		K1	4	GB3	7/25/2011		0														
1389	sample	439	K2	4	GB3	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161			250.250			
1390	Xbomb		L1	4	GB3	7/25/2011	fine roots	1	90.90							61.61			250.250			
1391	Xinadequate		R1	4	GB3	7/25/2011	only saw one hair	0														
1392	sample	439	GR1	4	GB3	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161			250.250			
1393	Xsubselect		GR2	4	GB3	7/25/2011		0														
1394	sample	439	GR3	4	GB3	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161			250.250			
1395	sample	1395	A1	4	GB6	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161			250.250			
1396	Xsubselect		A2	4	GB6	7/25/2011		0														
1397	Xsubselect		B1	4	GB6	7/25/2011		0														
1398	Xsubselect		B2	4	GB6	7/25/2011		0														
1399	Xsubselect		B3	4	GB6	7/25/2011		0														
1400	Xinadequate		B4	4	GB6	7/25/2011		0														
1401	Xinadequate		C1	4	GB6	7/25/2011	5 uf	0														
1402	Xinadequate		D1	4	GB6	7/25/2011	a frag	0														
1403	Xinadequate		E1	4	GB6	7/25/2011	didn't see any hairs	0														
1404	Xinadequate		E2	4	GB6	7/25/2011	didn't see any hairs	0														
1405	sample	33	F1	4	GB6	7/25/2011		9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155			204.250			
1406	Xbomb		K1	4	GB6	7/25/2011		1		84.184	40.40			210.14		49.59.61			250.250			
1407	Xsubselect		K2	4	GB6	7/25/2011		0														
1408	Xsubselect		K3	4	GB6	7/25/2011		0														
1409	sample	33	L1	4	GB6	7/25/2011	forgot extr. data	9	190.190	184.194	140.160	176.186	221.231	208.208	155.161	153.155			204.250			
1410	Xinadequate		M1	4	GB6	7/25/2011	10 uf	0														
1411	Xinadequate		R1	4	GB6	7/25/2011	1 uf	0														
1412	Xinadequate		S1	4	GB6	7/25/2011	1 gh	0														
1413	Xinadequate		T1	4	GB6	7/25/2011	10 uf	0														
1414	sample	1395	GR1	4	GB6	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161			250.250			
1415	Xsubselect		GR2	4	GB6	7/25/2011		0														
1416	Xsubselect		GR3	4	GB6	7/25/2011		0														
1417	Xsubselect		GR4	4	GB6	7/25/2011		0														
1418	Xsubselect		GR5	4	GB6	7/25/2011		0														
1419	Xsubselect		GR6	4	GB6	7/25/2011		0														
1420	Xsubselect		GR7	4	GB6	7/25/2011		0														
1421	Xsubselect		GR8	4	GB6	7/25/2011		0														
1422	sample	1395	GR9	4	GB6	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161			250.250			
1423	Xsubselect		GR10	4	GB6	7/25/2011		0														
1424	Xsubselect		GR11	4	GB6	7/25/2011		0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID Class Individual Cluster ID Session # Cell Collection Date Comments								Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1425	Xsubselect		GR12	4	GB6	7/25/2011		0															
1426	Xsubselect		GR13	4	GB6	7/25/2011		0															
1427	Xsubselect		GR14	4	GB6	7/25/2011		0															
1428	Xsubselect		GR15	4	GB6	7/25/2011		0															
1429	Xsubselect		GR16	4	GB6	7/25/2011		0															
1430	Xsubselect		GR17	4	GB6	7/25/2011		0															
1431	Xsubselect		GR18	4	GB6	7/25/2011		0															
1432	Xsubselect		GR19	4	GB6	7/25/2011		0															
1433	Xsubselect		GR20	4	GB6	7/25/2011		0															
1434	Xsubselect		GR21	4	GB6	7/25/2011		0															
1435	Xsubselect		GR22	4	GB6	7/25/2011		0															
1436	Xsubselect		GR23	4	GB6	7/25/2011		0															
1437	Xsubselect		GR24	4	GB6	7/25/2011		0															
1438	Xsubselect		A1	4	GB7	7/25/2011		0															
1439	Xsubselect		A2	4	GB7	7/25/2011		0															
1440	sample	106	A3	4	GB7	7/25/2011	fine roots	9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1441	Xsubselect		A4	4	GB7	7/25/2011		0															
1442	sample	106	B1	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1443	Xsubselect		C1	4	GB7	7/25/2011		0															
1444	Xinadequate		D1	4	GB7	7/25/2011	5 uf	0															
1445	sample	106	K1	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1446	Xsubselect		K2	4	GB7	7/25/2011		0															
1447	sample	106	L1	4	GB7	7/25/2011	fine roots	9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1448	Xsubselect		L2	4	GB7	7/25/2011		0															
1449	Xsubselect		L3	4	GB7	7/25/2011		0															
1450	Xsubselect		M1	4	GB7	7/25/2011		0															
1451	Xsubselect		M2	4	GB7	7/25/2011		0															
1452	Xsubselect		R1	4	GB7	7/25/2011		0															
1453	Xsubselect		S1	4	GB7	7/25/2011		0															
1454	sample	106	S2	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1455	sample	106	T1	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1456	Xinadequate		T2	4	GB7	7/25/2011	3 uf	0															
1457	Xinadequate		U1	4	GB7	7/25/2011	one hair	0															
1458	Xinadequate		U2	4	GB7	7/25/2011	5 uf	0															
1459	Xsubselect		GR1	4	GB7	7/25/2011		0															
1460	Xsubselect		GR2	4	GB7	7/25/2011		0															
1461	sample	106	GR3	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1462	Xsubselect		GR4	4	GB7	7/25/2011		0															
1463	Xsubselect		GR5	4	GB7	7/25/2011		0															
1464	Xsubselect		GR6	4	GB7	7/25/2011		0															
1465	sample	106	GR7	4	GB7	7/25/2011		9	186.190	184.184	160.164	178.186	221.237	210.212	155.161	149.149			250.250				
1466	Xsubselect		GR8	4	GB7	7/25/2011		0															
1467	Xsubselect		GR9	4	GB7	7/25/2011		0															
1468	Xsubselect		GR10	4	GB7	7/25/2011		0															
1469	Xinadequate		A1	4	GB12	7/25/2011	10 uf	0															
1470	Xinadequate		B1	4	GB12	7/25/2011	one hair	0															
1471	sample	1395	C1	4	GB12	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161			250.250				
1472	Xinadequate		D1	4	GB12	7/25/2011	one frag	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
1473	Xinadequate		E1	4	GB12	7/25/2011	one frag	0														
1474	Xinadequate		F1	4	GB12	7/25/2011	one hair	0														
1475	sample	1395	K1	4	GB12	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161				250.250		
1476	Xinadequate		K2	4	GB12	7/25/2011	no hair in env	0														
1477	sample	1395	K3	4	GB12	7/25/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161				250.250		
1478	Xsubselect		K4	4	GB12	7/25/2011		0														
1479	Xinadequate		L1	4	GB12	7/25/2011	one frag	0														
1480	Xinadequate		A1	4	GB13	7/25/2011	1 gh, plus a few frags	0														
1481	Xinadequate		A2	4	GB13	7/25/2011	10 uf	0														
1482	sample	439	A3	4	GB13	7/25/2011	fine roots	9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1483	Xsubselect		A4	4	GB13	7/25/2011		0														
1484	Xsubselect		B1	4	GB13	7/25/2011		0														
1485	sample	439	B2	4	GB13	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1486	Xsubselect		B3	4	GB13	7/25/2011		0														
1487	Xsubselect		B4	4	GB13	7/25/2011		0														
1488	Xsubselect		B5	4	GB13	7/25/2011		0														
1489	Xsubselect		K1	4	GB13	7/25/2011		0														
1490	Xsubselect		L1	4	GB13	7/25/2011		0														
1491	sample	439	L2	4	GB13	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1492	Xsubselect		L3	4	GB13	7/25/2011		0														
1493	Xsubselect		L4	4	GB13	7/25/2011		0														
1494	Xsubselect		L5	4	GB13	7/25/2011		0														
1495	Xsubselect		L6	4	GB13	7/25/2011		0														
1496	sample	439	M1	4	GB13	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1497	Xsubselect		M2	4	GB13	7/25/2011		0														
1498	Xsubselect		N1	4	GB13	7/25/2011		0														
1499	Xsubselect		N2	4	GB13	7/25/2011		0														
1500	Xsubselect		O1	4	GB13	7/25/2011		0														
1501	Xsubselect		O2	4	GB13	7/25/2011		0														
1502	Xsubselect		O3	4	GB13	7/25/2011		0														
1503	Xsubselect		R1	4	GB13	7/25/2011		0														
1504	Xsubselect		R2	4	GB13	7/25/2011		0														
1505	sample	439	R3	4	GB13	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1506	Xsubselect		R4	4	GB13	7/25/2011		0														
1507	Xinadequate		S1	4	GB13	7/25/2011	bunch of frags with one root	0														
1508	Xinadequate		S2	4	GB13	7/25/2011	frags	0														
1509	Xinadequate		S3	4	GB13	7/25/2011	5 uf	0														
1510	Xinadequate		T1	4	GB13	7/25/2011	1 gh	0														
1511	sample	439	U1	4	GB13	7/25/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1512	Xsubselect		U2	4	GB13	7/25/2011		0														
1513	Xsubselect		U3	4	GB13	7/25/2011		0														
1514	Xsubselect		U4	4	GB13	7/25/2011		0														
1515	sample	439	GR1	4	GB13	7/25/2011	very dirty; fine roots	9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1516	sample	439	GR2	4	GB13	7/25/2011	very dirty	9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250		
1517	Xinadequate		GR3	4	GB13	7/25/2011	very dirty; a bunch of hairs but could only find one root	0														
1518	Xsubselect		GR4	4	GB13	7/25/2011	very dirty	0														
1519	Xbomb		A1	4	GB14	7/25/2011		0						10.10		153.55				04.50		

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1520	Xinadequate		A2	4	GB14	7/25/2011	one or two hairs	0															
1521	Xinadequate		K1	4	GB14	7/25/2011	two hairs no roots	0															
1522	Xinadequate		K2	4	GB14	7/25/2011	1 gh	0															
1523	Xinadequate		K3	4	GB14	7/25/2011	one hair	0															
1524	Xinadequate		K4	4	GB14	7/25/2011	a small bunch of hair no roots	0															
1525	Xinadequate		K5	4	GB14	7/25/2011	1 uf	0															
1526	Xinadequate		L1	4	GB14	7/25/2011	1 uf	0															
1527	Xinadequate		M1	4	GB14	7/25/2011	1 uf	0															
1528	sample	1528	M2	4	GB14	7/25/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155					204.250		
1529	sample	1528	R1	4	GB14	7/25/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155					204.250		
1530	Xsubselect		R2	4	GB14	7/25/2011		0															
1531	Xsubselect		R3	4	GB14	7/25/2011		0															
1532	Xsubselect		R4	4	GB14	7/25/2011		0															
1533	Xinadequate		S1	4	GB14	7/25/2011	a few frags	0															
1534	sample	1528	S2	4	GB14	7/25/2011	fine roots	9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155					204.250		
1535	Xbomb		GR1	4	GB14	7/25/2011		1							10.10		153.155					204.50	
1536	Xsubselect		GR2	4	GB14	7/25/2011		0															
1537	sample	1528	GR3	4	GB14	7/25/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155					204.250		
1538	Xbomb		A1	4	GB17	7/25/2011	hair inch to 2 inches, still light at the end	1									55.61					250.250	
1539	sample	166	K1	4	GB17	7/25/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161					250.250		
1540	Xsubselect		K2	4	GB17	7/25/2011		0															
1541	sample	166	K3	4	GB17	7/25/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161					250.250		
1542	Xinadequate		L1	4	GB17	7/25/2011	1 gh	0															
1543	Xinadequate		M1	4	GB17	7/25/2011	1gh	0															
1544	Xinadequate		A1	4	GB19	7/25/2011	5 uf	0															
1545	Xinadequate		B1	4	GB19	7/25/2011	5 uf	0															
1546	Xinadequate		C1	4	GB19	7/25/2011	a small bunch of hairs no roots	0															
1547	Xinadequate		C2	4	GB19	7/25/2011	a small bunch of hairs no roots	0															
1548	Xbomb		K1	4	GB19	7/25/2011	light brown straightish hairs about 1 inch long	0														50.250	
1549	Xinadequate		L1	4	GB19	7/25/2011	2 frags	0															
1550	Xinadequate		R1	4	GB19	7/25/2011	2 frags	0															
1551	Xbomb		A1	4	GB32	7/26/2011	sample had a bit of debris in it	2		84.184	140.140	178.83	21.221	10.210	61.61	151.155					04.250		
1552	Xsubselect		B1	4	GB32	7/26/2011		0															
1553	sample	423	B2	4	GB32	7/26/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155					204.250		
1554	Xsubselect		B3	4	GB32	7/26/2011		0															
1555	Xbomb		K1	4	GB32	7/26/2011		0		84.84	40.140			10.10		51.53.55.57					204.50		
1556	Xsubselect		K2	4	GB32	7/26/2011		0															
1557	Xspecies		L1	4	GB32	7/26/2011	white straight hair, 2 inches long with darker tan to brown tips	0															
1558	Xbomb		M1	4	GB32	7/26/2011		0															
1559	sample	423	GR1	4	GB32	7/26/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155					204.250		
1560	Xbomb		GR2	4	GB32	7/26/2011	used lrg clump with fine roots	0															
1561	Xsubselect		GR3	4	GB32	7/26/2011		0															
1562	Xsubselect		GR4	4	GB32	7/26/2011		0															
1563	Xsubselect		GR5	4	GB32	7/26/2011		0															
1564	Xsubselect		GR6	4	GB32	7/26/2011		0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1565	Xinadequate	400	A1	4	GB35	7/25/2011	2 uf	0														
1566	Xinadequate		B1	4	GB35	7/25/2011	5 uf	0														
1567	Xinadequate		B2	4	GB35	7/25/2011	didn't see a hair in env	0														
1568	Xinadequate		C1	4	GB35	7/25/2011	3 uf	0														
1569	Xinadequate		K1	4	GB35	7/25/2011	a few frags	0														
1570	Xinadequate		L1	4	GB35	7/25/2011	1 gh	0														
1571	Xinadequate		M1	4	GB35	7/25/2011	15 uf	0														
1572	Xinadequate		R1	4	GB35	7/25/2011	2 uf	0														
1573	Xinadequate		GR1	4	GB35	7/25/2011		0														
1574	Xbomb		GR2	4	GB35	7/25/2011		0														
1575	Xsubselect		GR3	4	GB35	7/25/2011		0														
1576	Xsubselect		GR4	4	GB35	7/25/2011		0														
1577	sample	GR5	4	GB35	7/25/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151				250.250			
1578	Xsubselect	GR6	4	GB35	7/25/2011		0															
1579	Xsubselect	GR7	4	GB35	7/25/2011		0															
1580	Xinadequate	1065	A1	4	GB36	7/25/2011	didn't see any hairs	0														
1581	Xinadequate		A2	4	GB36	7/25/2011	2 uf	0														
1582	Xinadequate		A3	4	GB36	7/25/2011	didn't see any hairs	0														
1583	Xbomb		A4	4	GB36	7/25/2011	only 1 in collection event	0														
1584	Xinadequate		K1	4	GB36	7/25/2011	1 uf, plus a few frags	0														
1585	Xinadequate		L1	4	GB36	7/25/2011		0														
1586	Xinadequate		R1	4	GB36	7/25/2011	1uf	0														
1587	Xinadequate		S1	4	GB36	7/25/2011	a few frags	0														
1588	Xinadequate		T1	4	GB36	7/25/2011	very small frag	0														
1589	Xinadequate		A1	4	GB38	7/26/2011	1 uf	0														
1590	Xinadequate		B1	4	GB38	7/26/2011	1 gh	0														
1591	sample		C1	4	GB38	7/26/2011		9	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153				204.250		
1592	Xsubselect	C2	4	GB38	7/26/2011		0															
1593	Xbomb	D1	4	GB38	7/26/2011	fine roots	0									51.51						
1594	sample	K1	4	GB38	7/26/2011		9	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153				204.250			
1595	Xsubselect	K2	4	GB38	7/26/2011		0															
1596	Xsubselect	L1	4	GB38	7/26/2011		0															
1597	Xsubselect	M1	4	GB38	7/26/2011		0															
1598	Xsubselect	N1	4	GB38	7/26/2011		0															
1599	Xsubselect	O1	4	GB38	7/26/2011		0															
1600	sample	560	P1	4	GB38	7/26/2011	fine roots	9	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.153				250.250		
1601	Xsubselect		P2	4	GB38	7/26/2011		0														
1602	Xsubselect		Q1	4	GB38	7/26/2011		0														
1603	sample	560	R1	4	GB38	7/26/2011		9	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.153				250.250		
1604	Xsubselect		R2	4	GB38	7/26/2011		0														
1605	Xsubselect		R3	4	GB38	7/26/2011		0														
1606	Xsubselect	R4	4	GB38	7/26/2011		0															
1607	Xsubselect	R5	4	GB38	7/26/2011		0															
1608	Xsubselect	R6	4	GB38	7/26/2011		0															
1609	sample	560	S1	4	GB38	7/26/2011		9	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.153				250.250		
1610	Xsubselect		GR1	4	GB38	7/26/2011		0														
1611	Xsubselect		GR2	4	GB38	7/26/2011		0														
1612	Xsubselect		GR3	4	GB38	7/26/2011		0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
1613	Xsubselect	1065	GR4	4	GB38	7/26/2011	5 uf	0	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153			204.250			
1614	Xsubselect		GR5	4	GB38	7/26/2011		0														
1615	sample		GR6	4	GB38	7/26/2011		9														
1616	Xsubselect		GR7	4	GB38	7/26/2011		0														
1617	Xsubselect		GR8	4	GB38	7/26/2011		0														
1618	Xsubselect	1065	GR9	4	GB38	7/26/2011	one hair	0	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153			204.250			
1619	sample		GR10	4	GB38	7/26/2011		9														
1620	Xsubselect		GR11	4	GB38	7/26/2011		0														
1621	Xsubselect		GR12	4	GB38	7/26/2011		0														
1622	Xsubselect		A1	4	GB41	7/26/2011		0														
1623	Xsubselect	400	B1	4	GB41	7/26/2011	lots of underfur left, but didn't use because of potentially having a mixed sample	0	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151			250.250			
1624	Xinadequate		C1	4	GB41	7/26/2011		0														
1625	Xbomb		D1	4	GB41	7/26/2011		0														
1626	Xsubselect		E1	4	GB41	7/26/2011		0														
1627	Xsubselect		F1	4	GB41	7/26/2011		0														
1628	Xinadequate	400	G1	4	GB41	7/26/2011	a few frags; only 1 in collection event	0	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151			250.250			
1629	Xbomb		H1	4	GB41	7/26/2011		2														
1630	Xbomb		K1	4	GB41	7/26/2011		0														
1631	sample		L1	4	GB41	7/26/2011		9														
1632	Xsubselect		GR1	4	GB41	7/26/2011		0														
1633	Xsubselect	445	GR2	4	GB41	7/26/2011	a frag	0	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155			250.250			
1634	Xsubselect		GR3	4	GB41	7/26/2011		0														
1635	Xbomb		GR4	4	GB41	7/26/2011		0														
1636	Xsubselect		GR5	4	GB41	7/26/2011		0														
1637	Xsubselect		GR6	4	GB41	7/26/2011		0														
1638	Xsubselect	1655	GR7	4	GB41	7/26/2011	didn't see a hair	0	180.190	184.184	160.160	176.178	221.231	210.210	155.161	155.161			250.250			
1639	Xsubselect		GR8	4	GB41	7/26/2011		0														
1640	sample		GR9	4	GB41	7/26/2011		9														
1641	Xsubselect		GR10	4	GB41	7/26/2011		0														
1642	Xsubselect		GR11	4	GB41	7/26/2011		0														
1643	Xsubselect	445	GR12	4	GB41	7/26/2011	a frag	0	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155			250.250			
1644	Xsubselect		GR13	4	GB41	7/26/2011		0														
1645	Xsubselect		GR14	4	GB41	7/26/2011		0														
1646	Xsubselect		GR15	4	GB41	7/26/2011		0														
1647	Xsubselect		GR16	4	GB41	7/26/2011		0														
1648	Xsubselect	1655	GR17	4	GB41	7/26/2011	didn't see a hair	0	180.190	184.184	160.160	176.178	221.231	210.210	155.161	155.161			250.250			
1649	Xinadequate		A1	4	GB42	7/26/2011		0														
1650	Xbomb		B1	4	GB42	7/26/2011		0														
1651	Xinadequate		C1	4	GB42	7/26/2011		0														
1652	Xinadequate		D1	4	GB42	7/26/2011		0														
1653	Xsubselect	445	A1	4	GB47	7/26/2011	a frag	0	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155			250.250			
1654	sample		A2	4	GB47	7/26/2011		9														
1655	sample		B1	4	GB47	7/26/2011		9														
1656	Xsubselect		C1	4	GB47	7/26/2011		0														
1657	Xsubselect		D1	4	GB47	7/26/2011		0														
1658	Xsubselect	1655	E1	4	GB47	7/26/2011	a frag	0	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155			250.250			

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1659	Xsubselect		F1	4	GB47	7/26/2011		0														
1660	Xsubselect		G1	4	GB47	7/26/2011		0														
1661	Xsubselect		K1	4	GB47	7/26/2011		0														
1662	sample	510	L1	4	GB47	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250		
1663	Xsubselect		M1	4	GB47	7/26/2011		0														
1664	sample	510	N1	4	GB47	7/26/2011	fine roots	9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250		
1665	Xsubselect		O1	4	GB47	7/26/2011		0														
1666	Xsubselect		R1	4	GB47	7/26/2011		0														
1667	sample	510	S1	4	GB47	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250		
1668	Xsubselect		T1	4	GB47	7/26/2011		0														
1669	sample	510	U1	4	GB47	7/26/2011		11	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161	127.127	239.239		204.250		
1670	Xsubselect		V1	4	GB47	7/26/2011		0														
1671	Xsubselect		GR1	4	GB47	7/26/2011		0														
1672	Xsubselect		GR2	4	GB47	7/26/2011		0														
1673	Xsubselect		GR3	4	GB47	7/26/2011		0														
1674	Xsubselect		GR4	4	GB47	7/26/2011		0														
1675	Xsubselect		GR5	4	GB47	7/26/2011		0														
1676	sample	510	GR6	4	GB47	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250		
1677	Xsubselect		GR7	4	GB47	7/26/2011		0														
1678	Xsubselect		GR8	4	GB47	7/26/2011		0														
1679	Xsubselect		GR9	4	GB47	7/26/2011		0														
1680	Xsubselect		GR10	4	GB47	7/26/2011		0														
1681	sample	510	GR11	4	GB47	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250		
1682	Xsubselect		GR12	4	GB47	7/26/2011		0														
1683	Xsubselect		GR13	4	GB47	7/26/2011		0														
1684	Xsubselect		GR14	4	GB47	7/26/2011		0														
1685	Xsubselect		A1	4	GB49	7/26/2011		0														
1686	Xsubselect		A2	4	GB49	7/26/2011		0														
1687	Xsubselect		A3	4	GB49	7/26/2011		0														
1688	sample	1293	B1	4	GB49	7/26/2011	white	9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161				250.250		
1689	Xsubselect		C1	4	GB49	7/26/2011		0														
1690	Xsubselect		D1	4	GB49	7/26/2011		0														
1691	Xsubselect		D2	4	GB49	7/26/2011		0														
1692	Xsubselect		D3	4	GB49	7/26/2011		0														
1693	Xsubselect		E1	4	GB49	7/26/2011		0														
1694	Xbomb		F1	4	GB49	7/26/2011	fine roots	7	186.186	184.194	158.160	176.186	221.231	10.210	61.161	151.161				250.250		
1695	Xsubselect		K1	4	GB49	7/26/2011		0														
1696	Xinadequate		L1	4	GB49	7/26/2011	a few frags	0														
1697	Xbomb		M1	4	GB49	7/26/2011		2	186.186						61.61	47.51.59.61				204.250		
1698	Xsubselect		M2	4	GB49	7/26/2011		0														
1699	Xsubselect		M3	4	GB49	7/26/2011		0														
1700	Xinadequate		N1	4	GB49	7/26/2011	5 uf	0														
1701	Xinadequate		O1	4	GB49	7/26/2011	5 uf	0														
1702	Xbomb		P1	4	GB49	7/26/2011		1	80.86							151.161				04.250		
1703	Xinadequate		R1	4	GB49	7/26/2011	a frag	0														
1704	Xinadequate		R2	4	GB49	7/26/2011	1 gh	0														
1705	Xinadequate		S1	4	GB49	7/26/2011	a few frags	0														
1706	Xbomb		GR1	4	GB49	7/26/2011		0								151.59.61				50.50		

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA												Species
									Genetic Markers and Corresponding Allele Scores												
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex	
1707	Xbomb		GR2	4	GB49	7/26/2011		6	186.186	184.194	158.160	176.186	221.231	10.210	61.161	151.161		04.250			
1708	Xinadequate		A1	4	GB54	7/26/2011	15 uf	0													
1709	Xinadequate		B1	4	GB54	7/26/2011	1 gh	0													
1710	Xinadequate		K1	4	GB54	7/26/2011	small bunch of frags	0													
1711	Xinadequate		R1	4	GB54	7/26/2011	one root, a few other hairs	0													
1712	Xbomb		GR1	4	GB54	7/26/2011		2								159.161		204.250			
1713	sample	510	A1	4	GB55	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161		204.250			
1714	Xsubselect		A2	4	GB55	7/26/2011		0													
1715	Xsubselect		A3	4	GB55	7/26/2011		0													
1716	Xsubselect		A4	4	GB55	7/26/2011		0													
1717	sample	510	B1	4	GB55	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161		204.250			
1718	Xsubselect		C1	4	GB55	7/26/2011		0													
1719	Xsubselect		D1	4	GB55	7/26/2011		0													
1720	Xsubselect		E1	4	GB55	7/26/2011		0													
1721	Xsubselect		E2	4	GB55	7/26/2011		0													
1722	Xsubselect		E3	4	GB55	7/26/2011		0													
1723	Xsubselect		E4	4	GB55	7/26/2011		0													
1724	Xinadequate		K1	4	GB55	7/26/2011	one hair	0													
1725	Xinadequate		L1	4	GB55	7/26/2011	one hair	0													
1726	sample	510	L2	4	GB55	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161		204.250			
1727	Xsubselect		L3	4	GB55	7/26/2011		0													
1728	Xinadequate		M1	4	GB55	7/26/2011	didn't see a hair	0													
1729	sample	510	N1	4	GB55	7/26/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161		204.250			
1730	Xsubselect		O1	4	GB55	7/26/2011		0													
1731	Xinadequate		P1	4	GB55	7/26/2011	one hair	0													
1732	Xsubselect		A1	4	GB62	7/26/2011		0													
1733	Xsubselect		A2	4	GB62	7/26/2011		0													
1734	Xsubselect		A3	4	GB62	7/26/2011		0													
1735	Xinadequate		A4	4	GB62	7/26/2011		0													
1736	Xbomb		A5	4	GB62	7/26/2011	fine roots	1	186.190	84.84	60.60	172.86		10.210	141.61	153.55		04.250			
1737	Xsubselect		A6	4	GB62	7/26/2011		0													
1738	Xsubselect		A7	4	GB62	7/26/2011		0													
1739	Xsubselect		A8	4	GB62	7/26/2011		0													
1740	Xsubselect		A9	4	GB62	7/26/2011		0													
1741	Xsubselect		A10	4	GB62	7/26/2011		0													
1742	Xsubselect		A11	4	GB62	7/26/2011		0													
1743	Xsubselect		A12	4	GB62	7/26/2011		0													
1744	sample	1744	A13	4	GB62	7/26/2011		9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155		204.250			
1745	Xinadequate		A14	4	GB62	7/26/2011		0													
1746	Xsubselect		A15	4	GB62	7/26/2011		0													
1747	Xinadequate		K1	4	GB62	7/26/2011	one hair	0													
1748	Xinadequate		K2	4	GB62	7/26/2011	one hair	0													
1749	Xbomb		K3	4	GB62	7/26/2011		8	186.190	184.184	160.160	172.186	221.221	02.210	141.161	153.155		204.250			
1750	Xsubselect		K4	4	GB62	7/26/2011		0													
1751	Xsubselect		K5	4	GB62	7/26/2011		0													
1752	Xsubselect		K6	4	GB62	7/26/2011		0													
1753	Xinadequate		L1	4	GB62	7/26/2011	one hair	0													
1754	sample	1744	M1	4	GB62	7/26/2011		9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155		204.250			

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
1755	Xinadequate		R1	4	GB62	7/26/2011	didn't see a hair	0														
1756	Xinadequate		R2	4	GB62	7/26/2011	a few frags	0														
1757	Xinadequate		R3	4	GB62	7/26/2011	a small bunch of fine hair with no visible roots	0														
1758	sample	1744	S1	4	GB62	7/26/2011	fine roots	9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155				204.250		
1759	Xsubselect		S2	4	GB62	7/26/2011		0														
1760	sample	1744	U1	4	GB62	7/26/2011		9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155				204.250		
1761	Xsubselect		U2	4	GB62	7/26/2011		0														
1762	Xsubselect		V1	4	GB62	7/26/2011		0														
1763	Xsubselect		GR1	4	GB62	7/26/2011		0														
1764	Xsubselect		GR2	4	GB62	7/26/2011		0														
1765	Xsubselect		GR3	4	GB62	7/26/2011		0														
1766	Xsubselect		GR4	4	GB62	7/26/2011		0														
1767	Xsubselect		GR5	4	GB62	7/26/2011		0														
1768	Xsubselect		GR6	4	GB62	7/26/2011		0														
1769	sample	1744	GR7	4	GB62	7/26/2011		9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155				204.250		
1770	Xsubselect		GR8	4	GB62	7/26/2011		0														
1771	Xsubselect		GR9	4	GB62	7/26/2011		0														
1772	Xsubselect		GR10	4	GB62	7/26/2011		0														
1773	Xsubselect		GR11	4	GB62	7/26/2011		0														
1774	Xsubselect		GR12	4	GB62	7/26/2011		0														
1775	sample	1744	GR13	4	GB62	7/26/2011		9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	153.155				204.250		
1776	Xsubselect		GR14	4	GB62	7/26/2011		0														
1777	Xsubselect		GR15	4	GB62	7/26/2011		0														
1778	Xsubselect		GR16	4	GB62	7/26/2011		0														
1779	Xsubselect		GR17	4	GB62	7/26/2011		0														
1780	Xsubselect		GR18	4	GB62	7/26/2011		0														
1781	Xsubselect		GR19	4	GB62	7/26/2011		0														
1782	Xsubselect		GR20	4	GB62	7/26/2011		0														
1783	Xsubselect		GR21	4	GB62	7/26/2011		0														
1784	Xsubselect		GR22	4	GB62	7/26/2011		0														
1785	Xinadequate		A1	4	GB66	7/26/2011	1 uf	0														
1786	sample	1013	B1	4	GB66	7/26/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155				204.250		
1787	Xinadequate		K1	4	GB66	7/26/2011	one hair	0														
1788	Xinadequate		K2	4	GB66	7/26/2011	one frag	0														
1789	Xinadequate		K3	4	GB66	7/26/2011	15 uf	0														
1790	Xinadequate		K4	4	GB66	7/26/2011	one frag	0														
1791	Xinadequate		L1	4	GB66	7/26/2011	one hair	0														
1792	Xinadequate		M1	4	GB66	7/26/2011	one hair	0														
1793	Xinadequate		N1	4	GB66	7/26/2011	one frag	0														
1794	Xinadequate		R1	4	GB66	7/26/2011	a few frags	0														
1795	sample	1013	S1	4	GB66	7/26/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155				204.250		
1796	Xinadequate		T1	4	GB66	7/26/2011	a frag	0														
1797	sample	1013	U1	4	GB66	7/26/2011	xspecies? hair is very dark brown, thick, straight with strong roots, about 1 and a half inches long	9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155				204.250		
1798	Xsubselect		A1	5	GB3	8/9/2011		0														
1799	Xbomb		A2	5	GB3	8/9/2011		0								49.149						

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1800	Xsubselect		A3	5	GB3	8/9/2011		0														
1801	Xbomb		A4	5	GB3	8/9/2011		1	90.190	84.184	56.160	74.74					149.149					
1802	Xsubselect		A5	5	GB3	8/9/2011		0														
1803	Xinadequate		B1	5	GB3	8/9/2011	didn't see a hair in the env	0														
1804	Xinadequate		B2	5	GB3	8/9/2011	didn't see a hair in the env	0														
1805	Xsubselect		K1	5	GB3	8/9/2011		0														
1806	Xinadequate		K2	5	GB3	8/9/2011	3 uf	0														
1807	Xsubselect		K3	5	GB3	8/9/2011		0														
1808	sample	1352	K4	5	GB3	8/9/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149				250.250		
1809	Xsubselect		K5	5	GB3	8/9/2011		0														
1810	Xbomb		L1	5	GB3	8/9/2011	a few frags added, fine roots	0														
1811	Xinadequate		R1	5	GB3	8/9/2011	3 uf, one hair plus underfur	0														
1812	Xbomb		R2	5	GB3	8/9/2011		7	90.190	184.184	156.160	174.178	223.37	210.214	139.161	149.149				250.250		
1813	sample	1352	R3	5	GB3	8/9/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149				250.250		
1814	Xsubselect		R4	5	GB3	8/9/2011		0														
1815	Xsubselect		R5	5	GB3	8/9/2011		0														
1816	Xsubselect		R6	5	GB3	8/9/2011		0														
1817	sample	1352	GR1	5	GB3	8/9/2011		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	149.149				250.250		
1818	Xsubselect		GR2	5	GB3	8/9/2011		0														
1819	Xsubselect		GR3	5	GB3	8/9/2011		0														
1820	Xbomb		GR4	5	GB3	8/9/2011	fine roots	6	90.190	184.184	156.160	174.178	223.37	210.14	139.161	149.149				250.250		
1821	Xinadequate		GR5	5	GB3	8/9/2011	1 gh	0														
1822	Xinadequate		GR6	5	GB3	8/9/2011	one hair	0														
1823	Xinadequate		A1	5	GB5	8/9/2011	a frag	0														
1824	Xinadequate		B1	5	GB5	8/9/2011	a few hairs, no roots	0														
1825	Xinadequate		B2	5	GB5	8/9/2011	10 uf	0														
1826	Xinadequate		B3	5	GB5	8/9/2011	didn't see a hair	0														
1827	Xbomb		B4	5	GB5	8/9/2011		1	186.196	84.84	40.160				141.55	149.53.61				50.250		
1828	Xbomb		B5	5	GB5	8/9/2011		1		84.184				210.214	55.55	149.61				50.50		
1829	Xsubselect		B6	5	GB5	8/9/2011		0														
1830	Xinadequate		K1	5	GB5	8/9/2011	7 uf	0														
1831	Xinadequate		L1	5	GB5	8/9/2011	5 uf	0														
1832	Xinadequate		M1	5	GB5	8/9/2011	5 uf	0														
1833	Xsubselect		R1	5	GB5	8/9/2011		0														
1834	sample	1395	S1	5	GB5	8/9/2011	but b might be a different bear	9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161				250.250		
1835	Xsubselect		S2	5	GB5	8/9/2011		0														
1836	Xsubselect		S3	5	GB5	8/9/2011		0														
1837	Xsubselect		S4	5	GB5	8/9/2011		0														
1838	Xsubselect		S5	5	GB5	8/9/2011		0														
1839	Xbomb		T1	5	GB5	8/9/2011		7	186.96	184.184	140.160	86.186	221.231	210.214	141.155	149.161				250.250		
1840	Xsubselect		U1	5	GB5	8/9/2011		0														
1841	Xinadequate		U2	5	GB5	8/9/2011	didn't see a hair	0														
1842	Xinadequate		V1	5	GB5	8/9/2011	one hair	0														
1843	sample	1395	GR1	5	GB5	8/9/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161				250.250		
1844	Xsubselect		GR2	5	GB5	8/9/2011		0														
1845	Xsubselect		GR3	5	GB5	8/9/2011		0														
1846	Xsubselect		GR4	5	GB5	8/9/2011		0														
1847	Xsubselect		GR5	5	GB5	8/9/2011		0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1848	Xsubselect		GR6	5	GB5	8/9/2011		0															
1849	Xsubselect		GR7	5	GB5	8/9/2011		0															
1850	Xsubselect		GR8	5	GB5	8/9/2011		0															
1851	sample	1395	GR9	5	GB5	8/9/2011		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	149.161					250.250		
1852	Xsubselect		GR10	5	GB5	8/9/2011		0															
1853	Xsubselect		GR11	5	GB5	8/9/2011		0															
1854	Xsubselect		GR12	5	GB5	8/9/2011		0															
1855	Xsubselect		GR13	5	GB5	8/9/2011		0															
1856	Xsubselect		GR14	5	GB5	8/9/2011		0															
1857	Xsubselect		GR15	5	GB5	8/9/2011		0															
1858	Xsubselect		GR16	5	GB5	8/9/2011		0															
1859	Xbomb		A1	5	GB6	8/9/2011		0	90.190		60.160		21.221		141.65	151.61					50.250		
1860	Xbomb		A2	5	GB6	8/9/2011		2	90.190	84.84	40.140		21.221		141.161	151.151					04.04		
1861	Xsubselect		A3	5	GB6	8/9/2011		0															
1862	Xinadequate		A4	5	GB6	8/9/2011	one hair	0															
1863	Xbomb		K1	5	GB6	8/9/2011	fine roots	0	90.190	84.84	40.140			08.10	41.61	51.151					04.04		
1864	Xbomb		K2	5	GB6	8/9/2011		6	190.190	84.184	140.160	176.178	21.221	208.210	141.53.65	151.161					204.250		
1865	Xinadequate		K3	5	GB6	8/9/2011	one hair	0															
1866	Xsubselect		R1	5	GB6	8/9/2011		0															
1867	Xsubselect		R2	5	GB6	8/9/2011		0															
1868	Xsubselect		R3	5	GB6	8/9/2011		0															
1869	sample	439	R4	5	GB6	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1870	sample	439	S1	5	GB6	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1871	Xsubselect		GR1	5	GB6	8/9/2011		0															
1872	Xsubselect		GR2	5	GB6	8/9/2011		0															
1873	Xsubselect		GR3	5	GB6	8/9/2011		0															
1874	Xsubselect		GR4	5	GB6	8/9/2011		0															
1875	sample	439	GR5	5	GB6	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1876	Xsubselect		GR6	5	GB6	8/9/2011		0															
1877	Xsubselect		GR7	5	GB6	8/9/2011		0															
1878	Xbomb		GR8	5	GB6	8/9/2011		0															
1879	Xsubselect		GR9	5	GB6	8/9/2011		0															
1880	Xsubselect		GR10	5	GB6	8/9/2011		0															
1881	Xbomb		A1	5	GB7	8/9/2011		0	90.190	84.184	60.160		21.221	08.08	141.65	151.59.61					04.250		
1882	Xsubselect		A2	5	GB7	8/9/2011		0															
1883	sample	439	A3	5	GB7	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1884	Xsubselect		A4	5	GB7	8/9/2011		0															
1885	Xbomb		K1	5	GB7	8/9/2011		0					21.21								50.250		
1886	sample	1886	L1	5	GB7	8/9/2011		9	190.190	184.184	140.160	176.178	221.221	208.210	161.165	151.161					204.250		
1887	Xsubselect		L2	5	GB7	8/9/2011		0															
1888	Xsubselect		M1	5	GB7	8/9/2011		0															
1889	sample	439	R1	5	GB7	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1890	Xbomb		GR1	5	GB7	8/9/2011	fine roots	0															
1891	Xsubselect		GR2	5	GB7	8/9/2011		0															
1892	Xsubselect		GR3	5	GB7	8/9/2011		0															
1893	Xsubselect		GR4	5	GB7	8/9/2011		0															
1894	Xsubselect		GR5	5	GB7	8/9/2011		0															
1895	Xsubselect		GR6	5	GB7	8/9/2011		0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
1896	Xsubselect		GR7	5	GB7	8/9/2011		0															
1897	sample	439	GR8	5	GB7	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1898	Xsubselect		GR9	5	GB7	8/9/2011		0															
1899	Xsubselect		GR10	5	GB7	8/9/2011		0															
1900	Xsubselect		GR11	5	GB7	8/9/2011		0															
1901	Xsubselect		GR12	5	GB7	8/9/2011		0															
1902	Xsubselect		GR13	5	GB7	8/9/2011		0															
1903	Xsubselect		GR14	5	GB7	8/9/2011		0															
1904	Xsubselect		GR15	5	GB7	8/9/2011		0															
1905	Xsubselect		GR16	5	GB7	8/9/2011		0															
1906	Xsubselect		GR17	5	GB7	8/9/2011		0															
1917	sample	219	A1	5	GB12	8/9/2011		9	190.196	184.194	160.160	178.186	231.237	210.210	141.161	149.161					250.250		
1918	Xbomb		B1	5	GB12	8/9/2011		0								61.161							
1919	Xbomb		A1	5	GB13	8/9/2011		1													250.250		
1920	Xbomb		K1	5	GB13	8/9/2011		0		84.84			21.221	10.210							04.250		
1921	Xsubselect		K2	5	GB13	8/9/2011		0															
1922	sample	423	L1	5	GB13	8/9/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155					204.250		
1923	Xsubselect		M1	5	GB13	8/9/2011		0															
1924	Xbomb		N1	5	GB13	8/9/2011	fine roots	0					21.21		61.161						204.50		
1925	Xsubselect		N2	5	GB13	8/9/2011		0															
1926	Xsubselect		O1	5	GB13	8/9/2011		0															
1927	Xsubselect		GR1	5	GB13	8/9/2011		0															
1928	Xsubselect		GR2	5	GB13	8/9/2011		0															
1929	Xsubselect		GR3	5	GB13	8/9/2011		0															
1930	Xsubselect		GR4	5	GB13	8/9/2011		0															
1931	Xsubselect		GR5	5	GB13	8/9/2011		0															
1932	Xsubselect		GR6	5	GB13	8/9/2011		0															
1933	Xsubselect		GR7	5	GB13	8/9/2011		0															
1934	Xsubselect		GR8	5	GB13	8/9/2011		0															
1935	Xsubselect		GR9	5	GB13	8/9/2011		0															
1936	Xsubselect		GR10	5	GB13	8/9/2011		0															
1937	sample	439	GR11	5	GB13	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1938	Xsubselect		GR12	5	GB13	8/9/2011		0															
1939	Xsubselect		GR13	5	GB13	8/9/2011		0															
1940	Xsubselect		GR14	5	GB13	8/9/2011		0															
1941	Xsubselect		GR15	5	GB13	8/9/2011		0															
1942	Xsubselect		GR16	5	GB13	8/9/2011		0															
1943	Xsubselect		GR17	5	GB13	8/9/2011		0															
1944	Xsubselect		GR18	5	GB13	8/9/2011		0															
1945	Xsubselect		GR19	5	GB13	8/9/2011		0															
1946	sample	439	GR20	5	GB13	8/9/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
1947	Xsubselect		GR21	5	GB13	8/9/2011		0															
1948	Xsubselect		GR22	5	GB13	8/9/2011		0															
1949	Xsubselect		GR23	5	GB13	8/9/2011		0															
1950	Xsubselect		GR24	5	GB13	8/9/2011		0															
1951	Xsubselect		GR25	5	GB13	8/9/2011		0															
1952	Xsubselect		GR26	5	GB13	8/9/2011		0															
1953	Xsubselect		GR27	5	GB13	8/9/2011		0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA														Species	
									Genetic Markers and Corresponding Allele Scores															
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex				
1954	Xsubselect		A1	5	GB15	8/10/2011		0																
1955	sample	349	A2	5	GB15	8/10/2011		9	190.196	184.184	156.160	186.186	221.231	208.208	155.161	149.153				250.250				
1956	Xsubselect		B1	5	GB15	8/10/2011		0																
1957	sample	349	B2	5	GB15	8/10/2011		9	190.196	184.184	156.160	186.186	221.231	208.208	155.161	149.153				250.250				
1958	Xsubselect		B3	5	GB15	8/10/2011		0																
1959	Xsubselect		C1	5	GB15	8/10/2011		0																
1960	Xsubselect		C2	5	GB15	8/10/2011		0																
1961	Xsubselect		C3	5	GB15	8/10/2011		0																
1962	Xinadequate		K1	5	GB15	8/10/2011	3 uf	0																
1963	Xinadequate		K2	5	GB15	8/10/2011	saw some debris but no hair	0																
1964	Xinadequate		K3	5	GB15	8/10/2011	3 uf	0																
1965	Xinadequate		L1	5	GB15	8/10/2011	1 uf	0																
1966	Xbomb		M1	5	GB15	8/10/2011		1		84.184				08.208		149.53				250.250				
1967	Xinadequate		N1	5	GB15	8/10/2011	one hair	0																
1968	Xinadequate		O1	5	GB15	8/10/2011	didn't see a hair	0																
1969	Xsubselect		R1	5	GB15	8/10/2011		0																
1970	Xsubselect		S1	5	GB15	8/10/2011		0																
1971	Xinadequate		T1	5	GB15	8/10/2011	5uf	0																
1972	Xinadequate		T2	5	GB15	8/10/2011	1 uf, plus one hair	0																
1973	sample	515	U1	5	GB15	8/10/2011		9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	149.155				204.250				
1974	Xsubselect		U2	5	GB15	8/10/2011		0																
1975	Xsubselect		U3	5	GB15	8/10/2011		0																
1976	sample	515	V1	5	GB15	8/10/2011	forgot to record sample data	9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	149.155				204.250				
1977	Xsubselect		V2	5	GB15	8/10/2011		0																
1978	Xbomb		GR1	5	GB15	8/10/2011	white hair	1		94.94				10.10		149.155								
1979	Xsubselect		GR2	5	GB15	8/10/2011		0																
1980	Xsubselect		GR3	5	GB15	8/10/2011		0																
1981	Xsubselect		GR4	5	GB15	8/10/2011		0																
1982	Xsubselect		GR5	5	GB15	8/10/2011		0																
1983	Xsubselect		GR6	5	GB15	8/10/2011		0																
1984	Xsubselect		GR7	5	GB15	8/10/2011		0																
1985	Xsubselect		GR8	5	GB15	8/10/2011		0																
1986	Xsubselect		GR9	5	GB15	8/10/2011		0																
1987	Xsubselect		GR10	5	GB15	8/10/2011		0																
1988	Xsubselect		GR11	5	GB15	8/10/2011		0																
1989	Xsubselect		GR12	5	GB15	8/10/2011		0																
1990	Xsubselect		GR13	5	GB15	8/10/2011		0																
1991	Xsubselect		GR14	5	GB15	8/10/2011		0																
1992	Xinadequate		GR15	5	GB15	8/10/2011	one hair	0																
1993	sample	515	GR16	5	GB15	8/10/2011		9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	149.155				204.250				
1994	Xsubselect		GR17	5	GB15	8/10/2011		0																
1995	Xsubselect		GR18	5	GB15	8/10/2011		0																
1996	Xsubselect		GR19	5	GB15	8/10/2011		0																
1997	Xsubselect		GR20	5	GB15	8/10/2011		0																
1998	Xinadequate		A1	5	GB16	8/10/2011	one hair no root	0																
1999	Xinadequate		K1	5	GB16	8/10/2011	didn't see a hair	0																
2000	Xinadequate		R1	5	GB16	8/10/2011	a frag	0																
2001	Xinadequate		A1	5	GB17	8/10/2011	3 uf, plus one hair	0																

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species
									Genetic Markers and Corresponding Allele Scores													
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex		
2002	Xinadequate		A2	5	GB17	8/10/2011	one hair	0														
2003	Xinadequate		K1	5	GB17	8/10/2011	a couple of frags	0														
2004	Xinadequate		GR1	5	GB17	8/10/2011	one hair	0														
2005	Xinadequate		GR2	5	GB17	8/10/2011	1 gh	0														
2006	Xinadequate		GR3	5	GB17	8/10/2011	1 gh	0														
2007	Xinadequate		GR4	5	GB17	8/10/2011	one hair	0														
2008	Xinadequate		GR5	5	GB17	8/10/2011	1 gh	0														
2009	Xinadequate		GR6	5	GB17	8/10/2011	1 uf	0														
2010	Xinadequate		GR7	5	GB17	8/10/2011	one hair	0														
2011	Xinadequate		GR8	5	GB17	8/10/2011	a couple frags	0														
2012	Xbomb		GR9	5	GB17	8/10/2011		0												50.50		
2013	Xinadequate		GR10	5	GB17	8/10/2011	1uf	0														
2014	Xinadequate		GR11	5	GB17	8/10/2011	1 gh	0														
2015	Xinadequate		GR12	5	GB17	8/10/2011	one hair	0														
2016	Xinadequate		GR13	5	GB17	8/10/2011	a few hairs no roots	0														
2017	Xsubselect		A1	5	GB18	8/10/2011		0														
2018	sample	423	A2	5	GB18	8/10/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155				204.250		
2019	Xinadequate		B1	5	GB18	8/10/2011	one hair	0														
2020	sample	423	B2	5	GB18	8/10/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155				204.250		
2021	Xinadequate		C1	5	GB18	8/10/2011	didn't see a hair	0														
2022	Xsubselect		D1	5	GB18	8/10/2011		0														
2023	Xbomb		K1	5	GB18	8/10/2011		0												50.50		
2024	Xsubselect		K2	5	GB18	8/10/2011		0														
2025	Xsubselect		K3	5	GB18	8/10/2011		0														
2026	Xsubselect		K4	5	GB18	8/10/2011		0														
2027	Xbomb		L1	5	GB18	8/10/2011		0									51.151			04.04		
2028	Xinadequate		M1	5	GB18	8/10/2011	2 uf	0														
2029	Xinadequate		R1	5	GB18	8/10/2011	one hair	0														
2030	sample	429	S1	5	GB18	8/10/2011		9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155				204.250		
2031	Xinadequate		T1	5	GB18	8/10/2011	no hair in env	0														
2032	Xsubselect		GR1	5	GB18	8/10/2011		0														
2033	Xbomb		GR2	5	GB18	8/10/2011	fine roots	0														
2034	Xsubselect		GR3	5	GB18	8/10/2011		0														
2035	Xsubselect		GR4	5	GB18	8/10/2011		0														
2036	Xsubselect		GR5	5	GB18	8/10/2011		0														
2037	Xsubselect		GR6	5	GB18	8/10/2011		0														
2038	Xsubselect		GR7	5	GB18	8/10/2011		0														
2039	Xsubselect		GR8	5	GB18	8/10/2011		0														
2040	Xsubselect		GR9	5	GB18	8/10/2011		0														
2041	sample	429	GR10	5	GB18	8/10/2011		9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155				204.250		
2042	Xsubselect		GR11	5	GB18	8/10/2011		0														
2043	Xsubselect		GR12	5	GB18	8/10/2011		0														
2044	Xsubselect		GR13	5	GB18	8/10/2011		0														
2045	Xsubselect		GR14	5	GB18	8/10/2011		0														
2046	Xsubselect		GR15	5	GB18	8/10/2011		0														
2047	Xinadequate		A1	5	GB19	8/10/2011	didn't see a hair in the env.	0														
2048	Xinadequate		A1	5	GB20	8/10/2011	a frag	0														
2049	Xinadequate		A1	5	GB21	8/10/2011	a frag	0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID Class Individual Cluster ID Session # Cell Collection Date Comments Score (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2050	Xinadequate		K1	5	GB21	8/10/2011	a frag	0														
2051	Xinadequate		L1	5	GB21	8/10/2011	a few frags	0														
2052	Xinadequate		M1	5	GB21	8/10/2011	5 uf	0														
2053	Xinadequate		R1	5	GB21	8/10/2011	one hair	0														
2054	Xbomb		GR1	5	GB21	8/10/2011	xspecies? hair is white with tan tip, sim. length to bear hair, dark at root	1		80.80										250.250		
2055	Xinadequate		A1	5	GB23	8/10/2011	didn't see a hair in env.	0														
2056	Xinadequate		A2	5	GB23	8/10/2011	a frag	0														
2057	Xinadequate		A3	5	GB23	8/10/2011	1 gh	0														
2058	Xinadequate		A4	5	GB23	8/10/2011	1 gh	0														
2059	Xinadequate		B1	5	GB23	8/10/2011	1 uf	0														
2060	Xinadequate		B2	5	GB23	8/10/2011	didn't see a hair in env.	0														
2061	Xinadequate		B3	5	GB23	8/10/2011	didn't see a hair in env.	0														
2062	Xinadequate		K1	5	GB23	8/10/2011	a few frags	0														
2063	Xinadequate		K2	5	GB23	8/10/2011	a frag	0														
2064	Xinadequate		L1	5	GB23	8/10/2011	1 gh	0														
2065	Xinadequate		L2	5	GB23	8/10/2011	1 uf	0														
2066	Xinadequate		L3	5	GB23	8/10/2011	a few rootless hairs	0														
2067	Xinadequate		L4	5	GB23	8/10/2011	didn't see a hair in env.	0														
2068	Xinadequate		L5	5	GB23	8/10/2011	1 uf plus a few frags	0														
2069	Xinadequate		L6	5	GB23	8/10/2011	one hair	0														
2070	Xinadequate		M1	5	GB23	8/10/2011	10 uf	0														
2071	Xinadequate		M2	5	GB23	8/10/2011	10 uf	0														
2072	Xbomb		M3	5	GB23	8/10/2011		0														
2073	Xinadequate		M4	5	GB23	8/10/2011	one root	0														
2074	Xinadequate		M5	5	GB23	8/10/2011	a few frags	0														
2075	Xbomb		M6	5	GB23	8/10/2011		0														
2076	Xinadequate		R1	5	GB23	8/10/2011	one hair	0														
2077	Xinadequate		R2	5	GB23	8/10/2011	didn't see a hair in env	0														
2078	Xinadequate		R3	5	GB23	8/10/2011	a couple frags	0														
2079	Xbomb		R4	5	GB23	8/10/2011		8	186.190	194.194	156.160	176.184	221.33.39	208.210	141.161	149.149				250.250		
2080	Xsubselect		R5	5	GB23	8/10/2011		0														
2081	Xsubselect		R6	5	GB23	8/10/2011		0														
2082	Xbomb		S1	5	GB23	8/10/2011		8	186.190	194.194	156.160	176.184	221.233	10.210	141.161	149.149				250.250		
2083	Xsubselect		S2	5	GB23	8/10/2011		0														
2084	Xinadequate		T1	5	GB23	8/10/2011	a few frags	0														
2085	Xbomb		T2	5	GB23	8/10/2011		0														
2086	Xbomb		A1	5	GB24	8/10/2011		0												50.50		
2087	Xinadequate		K1	5	GB24	8/10/2011	1gh	0														
2088	Xinadequate		L1	5	GB24	8/10/2011	10 uf	0														
2089	Xinadequate		L2	5	GB24	8/10/2011	10 uf	0														
2090	sample	423	L3	5	GB24	8/10/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155				204.250		
2091	Xsubselect		M1	5	GB24	8/10/2011		0														
2092	Xbomb		M2	5	GB24	8/10/2011		0	86.90				21.221		61.161	51.155				50.50		
2093	Xsubselect		M3	5	GB24	8/10/2011		0														
2094	Xbomb		N1	5	GB24	8/10/2011		0								51.155						
2095	Xinadequate		R1	5	GB24	8/10/2011	one root but maybe xspecies	0														
2096	Xbomb		GR1	5	GB24	8/10/2011		6	186.92.190	184.184	140.140	178.183	21.221	210.210	61.161	151.155				204.250		

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA														Species
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2097	Xsubselect		GR2	5	GB24	8/10/2011		0															
2098	Xsubselect		GR3	5	GB24	8/10/2011		0															
2099	Xsubselect		GR4	5	GB24	8/10/2011		0															
2100	Xsubselect		GR5	5	GB24	8/10/2011		0															
2101	Xsubselect		GR6	5	GB24	8/10/2011		0															
2102	Xsubselect		GR7	5	GB24	8/10/2011		0															
2103	Xsubselect		GR8	5	GB24	8/10/2011		0															
2104	sample	423	GR9	5	GB24	8/10/2011		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	151.155				204.250			
2105	Xsubselect		GR10	5	GB24	8/10/2011		0															
2106	Xsubselect		GR11	5	GB24	8/10/2011		0															
2107	Xsubselect		GR12	5	GB24	8/10/2011		0															
2108	Xsubselect		GR13	5	GB24	8/10/2011		0															
2109	Xsubselect		GR14	5	GB24	8/10/2011		0															
2110	Xsubselect		GR15	5	GB24	8/10/2011		0															
2111	Xsubselect		GR16	5	GB24	8/10/2011		0															
2112	Xsubselect		GR17	5	GB24	8/10/2011		0															
2113	Xinadequate		A1	5	GB27	8/11/2011	a frag	0															
2114	Xinadequate		A1	5	GB28	8/11/2011	one hair	0															
2115	Xinadequate		A2	5	GB28	8/11/2011	one hair	0															
2116	sample	1013	B1	5	GB28	8/11/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155				204.250			
2117	Xsubselect		B2	5	GB28	8/11/2011		0															
2118	Xbomb		C1	5	GB28	8/11/2011	xspecies? hairs white,slightly darker at tip, same length as gb	0								55.155				04.04			
2119	Xinadequate		C2	5	GB28	8/11/2011		0															
2120	Xinadequate		K1	5	GB28	8/11/2011	no roots 2 hairs	0															
2121	Xspecies		K2	5	GB28	8/11/2011	one root, white hair with dark tip	0															
2122	sample	1013	K3	5	GB28	8/11/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155				204.250			
2123	Xinadequate		L1	5	GB28	8/11/2011	didn't see a hair	0															
2124	Xinadequate		GR1	5	GB28	8/11/2011	1gh	0															
2125	Xinadequate		A1	5	GB29	8/11/2011	no roots a few hairs	0															
2126	sample	445	A2	5	GB29	8/11/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155				250.250			
2127	sample	445	A3	5	GB29	8/11/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155				250.250			
2128	Xsubselect		B1	5	GB29	8/11/2011		0															
2129	Xsubselect		C1	5	GB29	8/11/2011		0															
2130	Xsubselect		C2	5	GB29	8/11/2011		0															
2131	Xsubselect		C3	5	GB29	8/11/2011		0															
2132	Xsubselect		C4	5	GB29	8/11/2011		0															
2133	Xsubselect		C5	5	GB29	8/11/2011		0															
2134	Xsubselect		C6	5	GB29	8/11/2011		0															
2135	Xsubselect		C7	5	GB29	8/11/2011		0															
2136	Xsubselect		C8	5	GB29	8/11/2011		0															
2137	Xsubselect		C9	5	GB29	8/11/2011		0															
2138	Xsubselect		K1	5	GB29	8/11/2011		0															
2139	Xbomb		K2	5	GB29	8/11/2011		0	88.188						41.41	53.55				50.250			
2140	Xsubselect		K3	5	GB29	8/11/2011		0															
2141	Xsubselect		K4	5	GB29	8/11/2011		0															
2142	Xsubselect		K5	5	GB29	8/11/2011		0															
2143	Xsubselect		K6	5	GB29	8/11/2011		0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species		
								Genetic Markers and Corresponding Allele Scores															
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex				
2144	Xbomb		L1	5	GB29	8/11/2011																	
2145	Xsubselect		L2	5	GB29	8/11/2011																	
2146	Xsubselect		L3	5	GB29	8/11/2011																	
2147	Xsubselect		M1	5	GB29	8/11/2011																	
2148	Xbomb		M2	5	GB29	8/11/2011																	
2149	Xsubselect		N1	5	GB29	8/11/2011																	
2150	Xsubselect		N2	5	GB29	8/11/2011																	
2151	sample	445	R1	5	GB29	8/11/2011		186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155						250.250		
2152	Xinadequate		R2	5	GB29	8/11/2011	1gh																
2153	Xinadequate		R3	5	GB29	8/11/2011	a hair																
2154	Xinadequate		R4	5	GB29	8/11/2011	a frag																
2155	Xbomb		GR1	5	GB29	8/11/2011		86.186							47.151						250.250		
2156	Xsubselect		GR2	5	GB29	8/11/2011																	
2157	Xspecies		GR3	5	GB29	8/11/2011																	
2158	Xsubselect		GR4	5	GB29	8/11/2011																	
2159	Xbomb		GR5	5	GB29	8/11/2011		86.186			76.86				55.155						250.250		
2160	Xsubselect		GR6	5	GB29	8/11/2011																	
2161	Xsubselect		GR7	5	GB29	8/11/2011																	
2162	Xsubselect		GR8	5	GB29	8/11/2011																	
2163	Xsubselect		GR9	5	GB29	8/11/2011																	
2164	Xsubselect		GR10	5	GB29	8/11/2011																	
2165	Xsubselect		GR11	5	GB29	8/11/2011																	
2166	Xsubselect		GR12	5	GB29	8/11/2011																	
2167	Xsubselect		GR13	5	GB29	8/11/2011																	
2168	Xsubselect		GR14	5	GB29	8/11/2011																	
2169	Xsubselect		GR15	5	GB29	8/11/2011																	
2170	Xsubselect		GR16	5	GB29	8/11/2011																	
2171	Xsubselect		GR17	5	GB29	8/11/2011																	
2172	Xsubselect		GR18	5	GB29	8/11/2011																	
2173	Xsubselect		GR19	5	GB29	8/11/2011																	
2174	Xbomb		A1	5	GB30	8/11/2011	white hair, bit darker at tip	197.197	184.190					145.45							50.250		
2175	Xinadequate		A1	5	GB34	8/11/2011	2 frags																
2176	Xbomb		A1	5	GB35	8/11/2011	fine roots																
2177	Xinadequate		GR1	5	GB35	8/11/2011	borderline underfur just a couple roots																
2178	Xinadequate		GR2	5	GB35	8/11/2011	1gh																
2179	Xinadequate		GR3	5	GB35	8/11/2011	a small bunch of hair with no roots																
2180	Xinadequate		GR4	5	GB35	8/11/2011	one hair																
2181	sample	400	A1	5	GB36	8/11/2011	fine roots	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151						250.250		
2182	sample	400	B1	5	GB36	8/11/2011		186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151						250.250		
2183	Xsubselect		B2	5	GB36	8/11/2011																	
2184	Xsubselect		B3	5	GB36	8/11/2011																	
2185	Xsubselect		B4	5	GB36	8/11/2011																	
2186	Xsubselect		B5	5	GB36	8/11/2011																	
2187	Xinadequate		K1	5	GB36	8/11/2011	a few frags																
2188	sample	400	L1	5	GB36	8/11/2011		186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151						250.250		
2189	Xsubselect		L2	5	GB36	8/11/2011																	
2190	Xinadequate		M1	5	GB36	8/11/2011	a few frags																
2191	Xinadequate		M2	5	GB36	8/11/2011	a few frags																

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2192	Xinadequate		M3	5	GB36	8/11/2011	2 uf	0															
2193	sample	400	N1	5	GB36	8/11/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2194	Xsubselect		R1	5	GB36	8/11/2011		0															
2195	sample	400	R2	5	GB36	8/11/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2196	sample	400	S1	5	GB36	8/11/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2197	Xsubselect		T1	5	GB36	8/11/2011		0															
2198	Xsubselect		U1	5	GB36	8/11/2011		0															
2199	Xsubselect		V1	5	GB36	8/11/2011		0															
2200	Xsubselect		V2	5	GB36	8/11/2011		0															
2201	Xsubselect		W1	5	GB36	8/11/2011		0															
2202	sample	400	GR1	5	GB36	8/11/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2203	Xsubselect		GR2	5	GB36	8/11/2011		0															
2204	Xsubselect		GR3	5	GB36	8/11/2011		0															
2205	Xbomb		GR4	5	GB36	8/11/2011		0		84.84						51.151					50.250		
2206	Xsubselect		GR5	5	GB36	8/11/2011		0															
2207	Xinadequate		GR6	5	GB36	8/11/2011	didn't see a hair in env	0															
2208	Xspecies		GR7	5	GB36	8/11/2011		0															
2209	Xsubselect		GR8	5	GB36	8/11/2011		0															
2210	Xinadequate		A1	5	GB40	8/11/2011	a hair, no root	0															
2211	Xbomb		B1	5	GB40	8/11/2011		0			58.58												
2212	Xinadequate		C1	5	GB40	8/11/2011	a frag	0															
2213	Xinadequate		D1	5	GB40	8/11/2011	few frags	0															
2214	Xinadequate		K1	5	GB40	8/11/2011	1 uf	0															
2215	Xinadequate		A1	5	GB41	8/11/2011	a few frags	0															
2216	Xinadequate		B1	5	GB41	8/11/2011	one hair	0															
2217	Xinadequate		B2	5	GB41	8/11/2011	1gh	0															
2218	sample	1013	C1	5	GB41	8/11/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155					204.250		
2219	Xinadequate		D1	5	GB41	8/11/2011	a hair	0															
2220	Xbomb		D2	5	GB41	8/11/2011		0			52.52	78.86				51.51							
2221	Xsubselect		D3	5	GB41	8/11/2011		0															
2222	Xinadequate		D4	5	GB41	8/11/2011	1gh	0															
2223	Xinadequate		K1	5	GB41	8/11/2011	1 uf	0															
2224	Xinadequate		L1	5	GB41	8/11/2011	a hair	0															
2225	Xsubselect		GR1	5	GB41	8/11/2011		0															
2226	sample	1013	GR2	5	GB41	8/11/2011		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155					204.250		
2227	Xsubselect		GR3	5	GB41	8/11/2011		0															
2228	Xsubselect		GR4	5	GB41	8/11/2011		0															
2229	Xsubselect		GR5	5	GB41	8/11/2011		0															
2230	Xbomb		GR6	5	GB41	8/11/2011		1													250.250		
2231	Xinadequate		A1	5	GB42	8/11/2011	a few frags	0															
2232	Xinadequate		B1	5	GB42	8/11/2011	a frag	0															
2233	Xbomb		GR1	5	GB42	8/11/2011		0															
2234	Xinadequate		GR2	5	GB42	8/11/2011	one hair	0															
2235	Xinadequate		A1	5	GB45	8/11/2011	one hair	0															
2236	Xinadequate		B1	5	GB45	8/11/2011	one hair	0															
2237	Xinadequate		C1	5	GB45	8/11/2011	one hair	0															
2238	Xbomb		D1	5	GB45	8/11/2011		1													250.250		
2239	Xinadequate		GR1	5	GB45	8/11/2011	1gh	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2240	Xinadequate		GR2	5	GB45	8/11/2011	5 uf	0															
2241	Xbomb		GR3	5	GB45	8/11/2011	xspecies? very white	1														250.250	
2242	Xbomb		GR4	5	GB45	8/11/2011	xspecies? very white with tan tips	0														50.250	
2243	Xsubselect		A1	5	GB46	8/11/2011		0															
2244	Xinadequate		B1	5	GB46	8/11/2011	a frag	0															
2245	Xbomb		C1	5	GB46	8/11/2011		2	86.186								149.155				250.250		
2246	Xbomb		D1	5	GB46	8/11/2011		0															
2247	Xinadequate		E1	5	GB46	8/11/2011	2 uf	0															
2248	Xbomb		K1	5	GB46	8/11/2011		2	86.186	184.194	60.60	86.86			61.61	149.53.55				250.250			
2249	Xsubselect		K2	5	GB46	8/11/2011		0															
2250	Xinadequate		L1	5	GB46	8/11/2011	a frag	0															
2251	Xbomb		M1	5	GB46	8/11/2011		1	86.186								155.155						
2252	Xinadequate		N1	5	GB46	8/11/2011	a couple frags	0															
2253	Xsubselect		O1	5	GB46	8/11/2011		0															
2254	Xinadequate		O2	5	GB46	8/11/2011	a few frags	0															
2255	Xinadequate		P1	5	GB46	8/11/2011	a hair	0															
2256	sample	2256	R1	5	GB46	8/11/2011		9	186.186	184.194	160.160	183.186	221.231	210.214	161.161	149.155				250.250			
2257	Xinadequate		R2	5	GB46	8/11/2011	1gh	0															
2258	sample	2256	S1	5	GB46	8/11/2011		9	186.186	184.194	160.160	183.186	221.231	210.214	161.161	149.155				250.250			
2259	Xsubselect		S2	5	GB46	8/11/2011		0															
2260	Xsubselect		T1	5	GB46	8/11/2011		0															
2261	Xsubselect		T2	5	GB46	8/11/2011		0															
2262	Xsubselect		U1	5	GB46	8/11/2011		0															
2263	Xsubselect		V1	5	GB46	8/11/2011		0															
2264	Xsubselect		V2	5	GB46	8/11/2011		0															
2265	Xsubselect		GR1	5	GB46	8/11/2011		0															
2266	Xbomb		GR2	5	GB46	8/11/2011	xspecies? white with a dark band in the middle	8	186.186	184.194	160.160	183.186	221.31	210.214	161.161	149.155				250.250			
2267	Xsubselect		GR3	5	GB46	8/11/2011		0															
2268	Xsubselect		GR4	5	GB46	8/11/2011		0															
2269	Xsubselect		GR5	5	GB46	8/11/2011		0															
2270	Xsubselect		GR6	5	GB46	8/11/2011		0															
2271	Xinadequate		GR7	5	GB46	8/11/2011	a hair	0															
2272	Xsubselect		GR8	5	GB46	8/11/2011		0															
2273	Xbomb		GR9	5	GB46	8/11/2011		7	186.186	184.194	160.160	83.84.186	21.231	210.214	161.161	149.155				250.250			
2274	Xsubselect		GR10	5	GB46	8/11/2011		0															
2275	Xsubselect		GR11	5	GB46	8/11/2011		0															
2276	Xsubselect		GR12	5	GB46	8/11/2011		0															
2277	Xsubselect		GR13	5	GB46	8/11/2011		0															
2278	Xsubselect		GR14	5	GB46	8/11/2011		0															
2279	Xsubselect		GR15	5	GB46	8/11/2011		0															
2280	Xsubselect		GR16	5	GB46	8/11/2011		0															
2281	Xinadequate		GR17	5	GB46	8/11/2011	a couple frags	0															
2282	Xsubselect		GR18	5	GB46	8/11/2011		0															
2283	Xsubselect		GR19	5	GB46	8/11/2011		0															
2284	Xinadequate		A1	5	GB47	8/12/2011	a few frags	0															
2285	Xbomb		K1	5	GB47	8/12/2011	1 cm long hair that does one curl	0															
2286	sample	429	GR1	5	GB47	8/12/2011		9	186.190	184.184	160.160	174.176	221.231	210.210	153.161	151.155				204.250			

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA														Species	
									Genetic Markers and Corresponding Allele Scores															
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex				
2287	Xinadequate		A1	5	GB48	8/12/2011	didn't see a hair	0																
2288	Xbomb		A2	5	GB48	8/12/2011	hair light at tip, but for a more length than typical gb hair. also narrower and darker at root	2	80.180		142.150				55.55						250.250			
2289	Xinadequate		B1	5	GB48	8/12/2011	1gh	0																
2290	Xinadequate		C1	5	GB48	8/12/2011	a hair	0																
2291	Xinadequate		GR1	5	GB48	8/12/2011	a hair	0																
2292	Xinadequate		GR2	5	GB48	8/12/2011	2 hairs	0																
2293	Xinadequate		GR3	5	GB48	8/12/2011	1gh	0																
2294	Xinadequate		A1	5	GB49	8/12/2011	2 frags	0																
2295	Xinadequate		K1	5	GB49	8/12/2011	one very fine hair	0																
2296	Xinadequate		R1	5	GB49	8/12/2011	some debris	0																
2297	Xinadequate		S1	5	GB49	8/12/2011	a frag	0																
2298	Xsubselect		GR1	5	GB49	8/12/2011		0																
2299	sample	1293	GR2	5	GB49	8/12/2011		9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	151.161				250.250				
2300	Xbomb		GR3	5	GB49	8/12/2011		1	86.186						55.61	151.161								
2301	Xinadequate		A1	5	GB55	8/12/2011	a frag	0																
2302	Xinadequate		B1	5	GB55	8/12/2011	3 uf	0																
2303	Xinadequate		C1	5	GB55	8/12/2011	1 uf	0																
2304	Xinadequate		D1	5	GB55	8/12/2011	a couple frags	0																
2305	Xinadequate		GR1	5	GB55	8/12/2011	frags	0																
2306	sample	510	GR2	5	GB55	8/12/2011		9	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				204.250				
2307	Xsubselect		GR3	5	GB55	8/12/2011		0																
2308	Xbomb		GR4	5	GB55	8/12/2011	fine roots	9	180.186	184.184	152.160	78.186	31.231	208.210	139.161	155.161	127.127	239.239		204.250				
2309	Xsubselect		GR5	5	GB55	8/12/2011		0																
2310	Xsubselect		A1	5	GB58	8/9/2011		0																
2311	sample	2311	A2	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2312	Xsubselect		A3	5	GB58	8/9/2011		0																
2313	Xsubselect		B1	5	GB58	8/9/2011	one hair	0																
2314	sample	2311	B2	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2315	Xinadequate		K1	5	GB58	8/9/2011	2 hairs no roots	0																
2316	sample	2311	L1	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2317	Xsubselect		R1	5	GB58	8/9/2011		0																
2318	Xsubselect		S1	5	GB58	8/9/2011		0																
2319	sample	2311	S2	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2320	sample	2311	T1	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2321	sample	2311	GR1	5	GB58	8/9/2011		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	153.165				250.250				
2322	Xbomb		GR2	5	GB58	8/9/2011		8	186.186	194.194	156.160	178.180	221.23	210.214	161.161	153.165				250.250				
2323	Xsubselect		GR3	5	GB58	8/9/2011		0																
2324	Xsubselect		GR4	5	GB58	8/9/2011		0																
2325	Xsubselect		GR5	5	GB58	8/9/2011		0																
2326	Xsubselect		GR6	5	GB58	8/9/2011		0																
2327	Xinadequate		A1	5	GB60	8/10/2011	7 uf	0																
2328	Xinadequate		B1	5	GB60	8/10/2011	one small fine hair	0																
2329	sample	2256	K1	5	GB60	8/10/2011		9	186.186	184.194	160.160	183.186	221.231	210.214	161.161	149.155				250.250				
2330	Xinadequate		K2	5	GB60	8/10/2011	one root	0																
2331	Xinadequate		R1	5	GB60	8/10/2011	one hair	0																
2332	Xbomb		S1	5	GB60	8/10/2011		4	186.186	84.194	60.74.168			210.214		149.149				250.250				

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample IDClassIndividualCluster IDSession #CellCollection DateCommentsScore (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2333	Xsubselect		A1	5	GB61	8/10/2011		0														
2334	Xinadequate		A2	5	GB61	8/10/2011	a few frags	0														
2335	Xinadequate		A3	5	GB61	8/10/2011	10 uf	0														
2336	Xbomb		A4	5	GB61	8/10/2011		0	186.90													
2337	Xsubselect		A5	5	GB61	8/10/2011		0														
2338	sample	2338	B1	5	GB61	8/10/2011		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.151				204.250		
2339	Xsubselect		B2	5	GB61	8/10/2011		0														
2340	sample	2338	K1	5	GB61	8/10/2011		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.151				204.250		
2341	Xsubselect		K2	5	GB61	8/10/2011		0														
2342	Xsubselect		K3	5	GB61	8/10/2011		0														
2343	Xsubselect		K4	5	GB61	8/10/2011		0														
2344	Xsubselect		K5	5	GB61	8/10/2011		0														
2345	Xsubselect		K6	5	GB61	8/10/2011		0														
2346	Xsubselect		K7	5	GB61	8/10/2011	xspecies?	0														
2347	Xbomb		L1	5	GB61	8/10/2011		7	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.51.53				04.250		
2348	Xsubselect		R1	5	GB61	8/10/2011		0														
2349	Xsubselect		R2	5	GB61	8/10/2011		0														
2350	sample	2338	S1	5	GB61	8/10/2011		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.151				204.250		
2351	Xsubselect		T1	5	GB61	8/10/2011		0														
2352	Xinadequate		T2	5	GB61	8/10/2011	5 uf	0														
2353	Xsubselect		U1	5	GB61	8/10/2011		0														
2354	Xbomb		U2	5	GB61	8/10/2011		0														
2355	sample	2338	GR1	5	GB61	8/10/2011		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.151				204.250		
2356	Xsubselect		GR2	5	GB61	8/10/2011		0														
2357	Xsubselect		GR3	5	GB61	8/10/2011		0														
2358	Xsubselect		GR4	5	GB61	8/10/2011		0														
2359	Xsubselect		GR5	5	GB61	8/10/2011		0														
2360	Xsubselect		GR6	5	GB61	8/10/2011		0														
2361	Xsubselect		GR7	5	GB61	8/10/2011		0														
2362	Xsubselect		GR8	5	GB61	8/10/2011		0														
2363	Xsubselect		GR9	5	GB61	8/10/2011		0														
2364	Xsubselect		GR10	5	GB61	8/10/2011		0														
2365	sample	2338	GR11	5	GB61	8/10/2011		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	149.151				204.250		
2366	Xsubselect		GR12	5	GB61	8/10/2011		0														
2367	Xsubselect		GR13	5	GB61	8/10/2011		0														
2368	Xsubselect		GR14	5	GB61	8/10/2011		0														
2369	Xsubselect		GR15	5	GB61	8/10/2011		0														
2370	Xsubselect		GR16	5	GB61	8/10/2011		0														
2371	Xsubselect		GR17	5	GB61	8/10/2011		0														
2372	Xinadequate		A1	5	GB64	8/11/2011	didn't see a hair	0														
2373	Xinadequate		A2	5	GB64	8/11/2011	a hair	0														
2374	Xinadequate		B1	5	GB64	8/11/2011	1gh	0														
2375	Xinadequate		B2	5	GB64	8/11/2011	a hair	0														
2376	sample	445	GR1	5	GB64	8/11/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155				250.250		
2377	Xsubselect		GR2	5	GB64	8/11/2011		0														
2378	Xsubselect		GR3	5	GB64	8/11/2011		0														
2379	Xsubselect		GR4	5	GB64	8/11/2011		0														
2380	Xbomb		GR5	5	GB64	8/11/2011		3	186.186	182.84	52.160	76.76		10.210		151.155				250.250		

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2381	Xsubselect		GR6	5	GB64	8/11/2011		0															
2382	Xinadequate		A1	5	GB66	8/12/2011	a few frags	0															
2383	Xbomb		B1	5	GB66	8/12/2011		0															
2384	Xinadequate		C1	5	GB66	8/12/2011	5 uf	0															
2385	Xbomb		K1	5	GB66	8/12/2011	white uf	0															
2386	Xinadequate		K2	5	GB66	8/12/2011	5 uf	0															
2387	Xinadequate		K3	5	GB66	8/12/2011	a hair	0															
2388	Xbomb		K4	5	GB66	8/12/2011		0															
2389	Xinadequate		R1	5	GB66	8/12/2011	a hair	0															
2390	Xinadequate		S1	5	GB66	8/12/2011	a hair	0															
2391	Xinadequate		T1	5	GB66	8/12/2011	a hair	0															
2392	Xbomb		GR1	5	GB66	8/12/2011		2	180.186	94.194	52.152		221.33	08.10	61.61	151.155					04.250		
2393	Xsubselect		GR2	5	GB66	8/12/2011		0															
2394	Xsubselect		GR3	5	GB66	8/12/2011		0															
2395	Xsubselect		GR4	5	GB66	8/12/2011		0															
2396	Xsubselect		GR5	5	GB66	8/12/2011		0															
2397	Xsubselect		GR6	5	GB66	8/12/2011		0															
2398	Xsubselect		GR7	5	GB66	8/12/2011		0															
2399	Xsubselect		GR8	5	GB66	8/12/2011		0															
2400	Xsubselect		GR9	5	GB66	8/12/2011		0															
2401	Xsubselect		GR10	5	GB66	8/12/2011		0															
2402	Xsubselect		GR11	5	GB66	8/12/2011		0															
2403	Xsubselect		GR12	5	GB66	8/12/2011		0															
2404	Xsubselect		GR13	5	GB66	8/12/2011		0															
2405	Xsubselect		GR14	5	GB66	8/12/2011		0															
2406	sample	1013	GR15	5	GB66	8/12/2011	all hair samples similiar (whitish) in GB66 ground	9	180.186	194.194	152.152	178.186	221.221	208.210	161.161	151.155					204.250		
2407	Xsubselect		GR16	5	GB66	8/12/2011		0															
2408	Xinadequate		GR17	5	GB66	8/12/2011	a hair or two	0															
2409	Xinadequate		GR18	5	GB66	8/12/2011	1gh	0															
2410	Xsubselect		GR19	5	GB66	8/12/2011		0															
2411	Xsubselect		GR20	5	GB66	8/12/2011		0															
2412	Xsubselect		GR21	5	GB66	8/12/2011		0															
2413	Xinadequate		A1	6	GB1	8/28/2011	a frag	0															
2414	Xbomb		A1	6	GB3	8/28/2011	one root left	0															
2415	Xinadequate		B1	6	GB3	8/28/2011	1 uf	0															
2416	Xinadequate		K1	6	GB3	8/28/2011	1gh	0															
2417	sample	473	L1	6	GB3	8/28/2011		9	190.190	184.194	156.160	178.180	221.221	210.214	141.153	159.165					250.250		
2418	Xinadequate		M1	6	GB3	8/28/2011	a hair	0															
2419	Xinadequate		GR1	6	GB3	8/28/2011	a hair	0															
2420	Xinadequate		GR2	6	GB3	8/28/2011	a frag	0															
2421	Xinadequate		GR3	6	GB3	8/28/2011	a hair	0															
2422	Xsubselect		A1	6	GB5	8/28/2011		0															
2423	Xbomb		B1	6	GB5	8/28/2011		6	186.186	194.194	60.160	172.178	221.221	10.10	61.161	149.155					204.250		
2424	Xinadequate		C1	6	GB5	8/28/2011	5 uf	0															
2425	sample	515	D1	6	GB5	8/28/2011		9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	149.155					204.250		
2426	Xsubselect		E1	6	GB5	8/28/2011		0															
2427	Xinadequate		K1	6	GB5	8/28/2011	a frag	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA														Species
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2428	Xinadequate		L1	6	GB5	8/28/2011	1gh	0															
2429	Xbomb		M1	6	GB5	8/28/2011		5	186.186	94.194	60.160	172.178	221.221	08.10	61.161	149.155				204.250			
2430	Xbomb		N1	6	GB5	8/28/2011		0	86.186		60.60					147.55				50.250			
2431	Xinadequate		O1	6	GB5	8/28/2011	1gh	0															
2432	sample	515	R1	6	GB5	8/28/2011		9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	149.155				204.250			
2433	Xinadequate		S1	6	GB5	8/28/2011	a frag	0															
2434	Xinadequate		T1	6	GB5	8/28/2011	1 uf	0															
2435	Xbomb		U1	6	GB5	8/28/2011		0	79.179														
2436	sample	2436	A1	6	GB6	8/28/2011	only 1 in collection event	9	186.196	194.194	160.160	178.186	221.231	208.210	161.161	155.161				204.250			
2437	Xinadequate		B1	6	GB6	8/28/2011	a couple frags	0															
2438	Xinadequate		C1	6	GB6	8/28/2011	a couple frags	0															
2439	Xinadequate		K1	6	GB6	8/28/2011	a frag	0															
2440	Xinadequate		A1	6	GB7	8/28/2011	didn't see a hair	0															
2441	sample	349	A1	6	GB9	8/29/2011		9	190.196	184.184	156.160	186.186	221.231	208.208	155.161	149.153				250.250			
2442	Xinadequate		B1	6	GB9	8/29/2011	1gh	0															
2443	sample	349	C1	6	GB9	8/29/2011		9	190.196	184.184	156.160	186.186	221.231	208.208	155.161	149.153				250.250			
2444	Xsubselect		D1	6	GB9	8/29/2011	good sample but looks same as 2443	0															
2445	Xinadequate		E1	6	GB9	8/29/2011	a hair	0															
2446	Xinadequate		K1	6	GB9	8/29/2011	a hair	0															
2447	Xinadequate		L1	6	GB9	8/29/2011	2 uf	0															
2448	Xinadequate		M1	6	GB9	8/29/2011	1 uf	0															
2449	Xbomb		R1	6	GB9	8/29/2011		1					21.21		61.61	149.153							
2450	Xinadequate		S1	6	GB9	8/29/2011	1 gh	0															
2451	Xinadequate		A1	6	GB10	8/28/2011	2 uf	0															
2452	Xbomb		A1	6	GB12	8/28/2011		0			58.58	86.86											
2453	Xsubselect		A2	6	GB12	8/28/2011		0															
2454	Xbomb		B1	6	GB12	8/28/2011		1		84.84	60.160	178.86	31.231	10.10	61.61	149.161				50.250			
2455	Xinadequate		C1	6	GB12	8/28/2011	a hair	0															
2456	Xbomb		K1	6	GB12	8/28/2011		0			60.60	86.186	31.231			49.161							
2457	Xinadequate		K2	6	GB12	8/28/2011	a couple frags	0															
2458	Xinadequate		L1	6	GB12	8/28/2011	1gh	0															
2459	Xinadequate		M1	6	GB12	8/28/2011	a frag	0															
2460	Xbomb		A1	6	GB13	8/28/2011		6	190.190	184.184	140.160	176.178	221.221	208.10.14	141.61.65	151.161				04.250			
2461	Xinadequate		B1	6	GB13	8/28/2011	5 uf	0															
2462	Xinadequate		C1	6	GB13	8/28/2011	didn't see a hair	0															
2463	sample	1886	K1	6	GB13	8/28/2011		9	190.190	184.184	140.160	176.178	221.221	208.210	161.165	151.161				204.250			
2464	Xsubselect		K2	6	GB13	8/28/2011		0															
2465	Xinadequate		L1	6	GB13	8/28/2011	a hair	0															
2466	sample	439	L2	6	GB13	8/28/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250			
2467	Xbomb		R1	6	GB13	8/28/2011		0												50.50			
2468	Xsubselect		S1	6	GB13	8/28/2011		0															
2469	sample	439	T1	6	GB13	8/28/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250			
2470	sample	166	A1	6	GB16	8/26/2011	3 hairs no roots but looked like dander on ends	9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250			
2471	sample	166	K1	6	GB16	8/26/2011	10 hairs no roots but looked like dander on ends	9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250			
2472	Xinadequate		A1	6	GB17	8/26/2011	1 uf	0															
2473	Xinadequate		K1	6	GB17	8/26/2011	2 uf	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID Class Individual Cluster ID Session # Cell Collection Date Comments Score (high is 5 or >)								GENETIC DATA													Species	
								Genetic Markers and Corresponding Allele Scores														
								G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2474	Xinadequate		A1	6	GB18	8/26/2011	2 uf	0														50.250
2475	Xinadequate		A2	6	GB18	8/26/2011		0														
2476	Xbomb		A1	6	GB20	8/29/2011	only 1 in collection event	0														
2477	Xinadequate		B1	6	GB20	8/29/2011	a frag	0														
2478	Xinadequate		A1	6	GB21	8/29/2011	a frag	0														
2479	Xinadequate		A1	6	GB22	8/29/2011	a frag	0														
2480	Xinadequate		A1	6	GB26	8/29/2011	a couple frags	0														
2481	Xinadequate		B1	6	GB26	8/29/2011	didn't see a hair	0														
2482	Xinadequate		C1	6	GB26	8/29/2011	didn't see a hair	0														
2483	Xinadequate		D1	6	GB26	8/29/2011	a few frags	0														
2484	Xinadequate		D2	6	GB26	8/29/2011	a frag	0														
2485	Xinadequate		E1	6	GB26	8/29/2011	4 uf	0														
2486	Xinadequate		A1	6	GB27	8/29/2011	a frag	0														
2487	Xinadequate		B1	6	GB27	8/29/2011	2 uf	0														
2488	Xinadequate		B2	6	GB27	8/29/2011	a frag	0														
2489	Xinadequate		C1	6	GB27	8/29/2011	2 uf	0														
2490	Xinadequate		K1	6	GB27	8/29/2011	a frag	0														
2491	Xinadequate		L1	6	GB27	8/29/2011	1 uf	0														
2492	Xinadequate		M1	6	GB27	8/29/2011	a frag	0														
2493	Xinadequate		R1	6	GB27	8/29/2011	1 uf	0														
2494	Xinadequate		S1	6	GB27	8/29/2011	2 uf	0														
2495	Xinadequate		A1	6	GB28	8/29/2011	a few frags	0														
2496	sample	1528	B1	6	GB28	8/29/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155				204.250		
2497	Xinadequate		K1	6	GB28	8/29/2011	a hair	0														
2498	Xbomb		K2	6	GB28	8/29/2011	short dark fine hair	2	86.190	184.194	152.56	76.184		10.210	55.55	153.55				250.250		
2499	sample	1528	L1	6	GB28	8/29/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155				204.250		
2500	sample	1528	R1	6	GB28	8/29/2011		9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	153.155				204.250		
2501	Xinadequate		A1	6	GB29	8/30/2011	1gh	0														
2502	Xinadequate		A2	6	GB29	8/30/2011	10 uf	0														
2503	Xinadequate		B1	6	GB29	8/30/2011	a frag	0														
2504	Xinadequate		C1	6	GB29	8/30/2011	1gh	0														
2505	sample	445	D1	6	GB29	8/30/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155				250.250		
2506	Xinadequate		K1	6	GB29	8/30/2011	a frag	0														
2507	Xinadequate		L1	6	GB29	8/30/2011	3 frags no roots	0														
2508	Xinadequate		R1	6	GB29	8/30/2011	couple frags	0														
2509	sample	445	S1	6	GB29	8/30/2011		9	186.186	184.194	152.160	176.186	231.237	210.210	141.161	151.155				250.250		
2510	Xinadequate		S2	6	GB29	8/30/2011	1gh	0														
2511	Xinadequate		A1	6	GB30	8/30/2011	a few frags	0														
2512	Xinadequate		A1	6	GB31	8/30/2011	didn't see a hair	0														
2513	Xinadequate		A2	6	GB31	8/30/2011	a couple frags	0														
2514	Xinadequate		A1	6	GB32	8/30/2011	a hair	0														
2515	Xinadequate		A1	6	GB33	8/30/2011	a frag	0														
2516	Xbomb		B1	6	GB33	8/30/2011	only 1 in collection event	0														
2517	Xinadequate		K1	6	GB33	8/30/2011	a frag	0														
2518	Xsubselect		A1	6	GB35	8/30/2011		0														
2519	sample	400	A2	6	GB35	8/30/2011	fine roots	9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151				250.250		
2520	sample	2520	B1	6	GB35	8/30/2011	added a bunch of hair with dander	9	180.190	184.194	140.152	186.186	221.221	208.214	161.161	151.151				250.250		
2521	Xinadequate		K1	6	GB35	8/30/2011	1gh	0														

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2522	Xinadequate		K2	6	GB35	8/30/2011	1gh	0															
2523	Xinadequate		A1	6	GB36	8/30/2011	a few frags	0															
2524	Xbomb		B1	6	GB36	8/30/2011		0									53.53						
2525	Xinadequate		K1	6	GB36	8/30/2011	a frag	0															
2526	sample	560	K2	6	GB36	8/30/2011		9	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.153					250.250		
2527	sample	1065	R1	6	GB36	8/30/2011		9	186.190	184.184	140.160	176.183	221.231	208.210	161.161	151.153					204.250		
2528	Xspecies		S1	6	GB36	8/30/2011	very white, 1 cm long hair	0															
2529	Xinadequate		T1	6	GB36	8/30/2011	1gh	0															
2530	Xsubselect		U1	6	GB36	8/30/2011		0															
2531	Xbomb		V1	6	GB36	8/30/2011		2	186.190						61.161	153.153					50.250		
2532	Xsubselect		V2	6	GB36	8/30/2011		0															
2533	Xinadequate		A1	6	GB38	8/30/2011	a couple frags	0															
2534	Xinadequate		A1	6	GB39	8/30/2011	a few frags	0															
2535	Xinadequate		A2	6	GB39	8/30/2011	a couple frags	0															
2536	Xbomb		A1	6	GB40	8/30/2011	xspecies? black bear?	0															
2537	Xinadequate		A1	6	GB41	8/30/2011	1gh	0															
2538	Xinadequate		B1	6	GB41	8/30/2011	1 uf	0															
2539	Xinadequate		C1	6	GB41	8/30/2011	2 uf	0															
2540	Xinadequate		C2	6	GB41	8/30/2011	1gh	0															
2541	Xsubselect		D1	6	GB41	8/30/2011		0															
2542	sample	400	D2	6	GB41	8/30/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2543	sample	400	D3	6	GB41	8/30/2011		9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151					250.250		
2544	Xsubselect		D4	6	GB41	8/30/2011		0															
2545	Xinadequate		K1	6	GB41	8/30/2011	a frag	0															
2546	Xinadequate		R1	6	GB41	8/30/2011	a few frags	0															
2547	Xinadequate		S1	6	GB41	8/30/2011	a frag	0															
2548	Xinadequate		A1	6	GB46	8/30/2011	a frag	0															
2549	Xinadequate		A1	6	GB48	8/30/2011	a frag	0															
2550	Xinadequate		B1	6	GB48	8/30/2011	a frag	0															
2551	Xinadequate		K1	6	GB48	8/30/2011	a frag	0															
2552	Xinadequate		L1	6	GB48	8/30/2011	a frag	0															
2553	Xinadequate		L2	6	GB48	8/30/2011	a few frags	0															
2554	Xinadequate		L3	6	GB48	8/30/2011	a couple frags	0															
2555	Xbomb		L4	6	GB48	8/30/2011	xspecies? hair copper then beige then darker at tip	1			42.150										250.250		
2556	Xinadequate		L5	6	GB48	8/30/2011	a frag	0															
2557	Xbomb		L6	6	GB48	8/30/2011	xspecies? white with tan tips	0															
2558	Xinadequate		M1	6	GB48	8/30/2011	a hair	0															
2559	Xinadequate		R1	6	GB48	8/30/2011	a frag	0															
2560	Xinadequate		A1	6	GB49	8/30/2011	a frag	0															
2561	Xbomb		A1	6	GB58	8/28/2011		0		84.84						51.161							
2562	Xsubselect		B1	6	GB58	8/28/2011		0															
2563	Xbomb		B2	6	GB58	8/28/2011		1								151.151							
2564	Xinadequate		B3	6	GB58	8/28/2011	didn't see a hair	0															
2565	Xinadequate		B4	6	GB58	8/28/2011	a hair	0															
2566	sample	439	K1	6	GB58	8/28/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161					250.250		
2567	Xsubselect		K2	6	GB58	8/28/2011		0															
2568	Xbomb		L1	6	GB58	8/28/2011	fine roots	7	90.190	184.184	160.160	176.178	221.221	208.214	141.65	151.161					250.250		

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Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA													Species	
									Genetic Markers and Corresponding Allele Scores														
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex			
2569	Xinadequate		M1	6	GB58	8/28/2011	a hair	0															
2570	Xsubselect		N1	6	GB58	8/28/2011		0															
2571	Xsubselect		R1	6	GB58	8/28/2011		0															
2572	Xsubselect		R2	6	GB58	8/28/2011		0															
2573	Xsubselect		R3	6	GB58	8/28/2011		0															
2574	Xbomb		R4	6	GB58	8/28/2011		0															
2575	Xsubselect		R5	6	GB58	8/28/2011		0															
2576	Xsubselect		R6	6	GB58	8/28/2011		0															
2577	Xbomb		S1	6	GB58	8/28/2011		0															
2578	Xinadequate		S2	6	GB58	8/28/2011	a hair	0															
2579	Xinadequate		S3	6	GB58	8/28/2011	a hair	0															
2580	Xsubselect		S4	6	GB58	8/28/2011		0															
2581	sample	439	GR1	6	GB58	8/28/2011		9	190.190	184.184	160.160	176.178	221.221	208.214	141.165	151.161				250.250			
2582	Xsubselect		GR2	6	GB58	8/28/2011		0															
2583	Xsubselect		GR3	6	GB58	8/28/2011		0															
2584	Xsubselect		GR4	6	GB58	8/28/2011		0															
2585	Xsubselect		GR5	6	GB58	8/28/2011		0															
2586	Xbomb		GR6	6	GB58	8/28/2011	fine roots	0															
2587	Xbomb		A1	6	GB59	8/28/2011		0															
2588	Xsubselect		A2	6	GB59	8/28/2011		0															
2589	Xbomb		B1	6	GB59	8/28/2011		0		84.184		76.78		208.14		151.61							
2590	Xbomb		K1	6	GB59	8/28/2011		0								45.51							
2591	Xinadequate		K2	6	GB59	8/28/2011	a hair	0															
2592	Xinadequate		L1	6	GB59	8/28/2011	a hair	0															
2593	Xinadequate		R1	6	GB59	8/28/2011	didn't see a hair	0															
2594	Xbomb		GR1	6	GB59	8/28/2011		1								151.151							
2595	Xsubselect		GR2	6	GB59	8/28/2011		0															
2596	Xbomb		GR3	6	GB59	8/28/2011		0															
2597	Xsubselect		GR4	6	GB59	8/28/2011		0															
2598	Xsubselect		GR5	6	GB59	8/28/2011		0															
2599	Xsubselect		GR6	6	GB59	8/28/2011		0															
2600	Xsubselect		GR7	6	GB59	8/28/2011		0															
2601	Xsubselect		GR8	6	GB59	8/28/2011		0															
2602	Xbomb		A1	6	GB62	8/30/2011	only 1 in collection event	0															
2603	Xinadequate		B1	6	GB62	8/30/2011	didn't see a hair	0															
2604	Xinadequate		C1	6	GB62	8/30/2011	didn't see a hair	0															
2605	Xinadequate		A1	6	GB63	8/30/2011	2 fine hairs	0															
2606	Xbomb		B1	6	GB63	8/30/2011		0															
2607	Xbomb		K1	6	GB63	8/30/2011		0															
2608	Xbomb		K2	6	GB63	8/30/2011	gb? light at tip, but banded	0								49.155							
2609	Xbomb		A1	6	GB64	8/30/2011		0		84.84	60.60					49.149							
2610	Xbomb		A2	6	GB64	8/30/2011		0								149.55							
2611	Xsubselect		A3	6	GB64	8/30/2011		0															
2612	Xsubselect		A4	6	GB64	8/30/2011		0															
2613	Xbomb		K1	6	GB64	8/30/2011		1								149.149							
2614	Xinadequate		R1	6	GB64	8/30/2011	a frag or 2	0															
2615	Xinadequate		S1	6	GB64	8/30/2011	1gh	0															
2616	Xinadequate		T1	6	GB64	8/30/2011	a few frags	0															

Appendix 3. Detailed Field Hair Collection and Genetic Marker Data, 2011

Sample ID	Class	Individual	Cluster ID	Session #	Cell	Collection Date	Comments	Score (high is 5 or >)	GENETIC DATA												Species
									Genetic Markers and Corresponding Allele Scores												
									G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	CXX20	Mu59	G10U	Sex	
2617	sample	2617	A1	6	GB23	8/7/2011	env says tripod moved	9	186.190	194.194	156.160	176.184	221.233	208.210	141.161	149.149				250.250	
2618	sample	2617	K1	6	GB23	8/7/2011	env says tripod moved	9	186.190	194.194	156.160	176.184	221.233	208.210	141.161	149.149				250.250	
2619	sample	2617	R1	6	GB23	8/7/2011	env says tripod moved	9	186.190	194.194	156.160	176.184	221.233	208.210	141.161	149.149				250.250	
2620	sample	2617	GR1	6	GB23	8/7/2011	env says tripod moved	9	186.190	194.194	156.160	176.184	221.233	208.210	141.161	149.149				250.250	
2621	Xbomb		GR1	6	DEN1	8/10/2011		0		84.184				10.210		61.161					
2622	sample	166	GR2	6	DEN1	8/10/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2623	Xbomb		GR3	6	DEN1	8/10/2011		1	90.190				21.31			161.161				50.250	
2624	sample	166	GR4	6	DEN1	8/10/2011	one or two roots left	9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2625	sample	166	GR1	6	DEN2	8/11/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2626	sample	166	GR2	6	DEN2	8/11/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2627	sample	166	GR3	6	DEN2	8/11/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2628	sample	166	GR4	6	DEN2	8/11/2011		9	190.190	184.184	140.160	178.186	221.231	208.210	141.161	161.161				250.250	
2629	Xbomb		GR5	6	DEN2	8/11/2011	cut up a hair fragment	1								161.161					
2630	Xinadequate				DEN3		DEN3 hand-entered; one piece plant debris in env.	0													
2631	Xbomb				DEN3		DEN3 hand-entered	0													
2632	Xbomb				DEN3		DEN3 hand-entered	0													

Notes:
Xinadequate: samples that lacked suitable material for DNA extraction
Xsubselect: samples that were excluded due to subselection rules
Xbomb: samples that failed during microsatellite analysis
Xmixed: samples that showed ecidence of > 2 alleles per marker
sample: successful samples assigned to individuals (see appendix 2)

Appendix 4

Summary of Individual Bear Genotypes and
Capture/Recapture Rates, 2011

Appendix 4. Summary of Individual Bear Genotypes and Capture/Recapture Rates, 2011

Individual	List of Samples	#	Captures						Genetic Data											Sex	
			Check 1	Check 2	Check 3	Check 4	Check 5	Check 6	Loci	G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	Cxx20	Mu59		G10U
33	33; 35; 41; 42; 47; 37; 44; 40; 195; 301; 309; 201; 203; 205; 208; 210; 212; 215; 216; 1071; 1078; 1085; 1088; 1098; 1102; 1103; 1104; 1113; 1125; 1405; 1409;	31		1		1			9	190.190	184.194	140.160	176.186	221.231	208.208	155.161					M
49	49; 75; 77; 391; 392; 395; 397; 398;	8							11	186.186	184.194	156.156	176.186	221.231	208.214	153.161	153.153	133.133	229.229	175.175	F
92	92; 93; 94; 98; 103; 105;	6							8	186.186	184.194	160.160	183.186	221.221	210.214	155.161	153.155				M
106	106; 1319; 1321; 1327; 1331; 1347; 1348; 1351; 1440; 1442; 1445; 1447; 1454; 1455; 1461; 1465;	16				1			9	186.190	184.184	160.164	178.186	221.237	210.212	155.161					M
119	119; 125; 133;	3							8	186.196	184.184	156.160	178.186	231.237	208.210	141.161	149.155				M
140	140; 141; 84; 86; 87; 88; 89; 90;	8							8	196.196	184.184	160.160	176.186	231.237	210.210	161.165	151.153				F
152	152; 145; 147; 160;	4							11	190.190	184.194	160.160	176.186	221.233	208.208	141.161	155.161	127.127	239.239		M
166	166; 1539; 1541; 2470; 2471; 2622; 2624; 2625; 2626; 2627; 2628;	11				1		1	12	190.190	184.184	140.160	178.186	221.231	208.210	141.161		133.145	229.229	175.175	F
171	171; 176; 172; 177; 174; 175; 180; 186; 182; 187; 184; 188; 190; 196; 414; 418; 422;	17							8	186.190	184.194	156.160	174.178	221.237	210.214	139.161		127.145	223.239	175.175	M
219	219; 221; 228; 457; 458; 460; 468; 1917;	8					1		9	190.196	184.194	160.160	178.186	231.237	210.210	141.161	159.165				F
223	223;	1							11	186.196	194.194	160.160	172.186	221.231	210.210	161.161		29.133.145	229.247	175.177	M
313	313; 319; 320; 354; 502; 504; 1000;	7	1						9	180.196	194.194	160.160	178.186	221.233	210.214	153.161	151.155				F
317	317; 218;	2							8	190.190	184.194	152.160	178.178	221.231	210.210	155.161	151.161	127.145	239.249	175.177	F
349	349; 353; 70; 72; 1955; 1957; 2441; 2443;	8					1	1	9	190.196	184.184	156.160	186.186	221.231	208.208	155.161	151.155	133.133	229.239	163.175	M
374	374; 376; 1213; 1218; 1231;	5		1					9	180.186	184.184	152.160	176.178	231.237	208.210	141.161	151.155				M
400	400; 402; 403; 405; 406; 372; 368; 1577; 1631; 1640; 2181; 2182; 2188; 2193; 2195; 2196; 2202; 2519; 2542; 2543;	20				1	1	1	9	186.190	184.194	140.152	176.186	221.231	210.214	141.161	151.151				F
423	423; 1048; 1052; 1055; 1057; 1059; 1061; 1063; 1553; 1559; 1922; 2018; 2020; 2090; 2104;	15	1			1	1		9	186.190	184.184	140.140	178.183	221.221	210.210	161.161	155.161				M
429	429; 430; 432; 433; 435; 1175; 1182; 1183; 2030; 2041; 2286;	11		1			1		12	186.190	184.184	160.160	174.176	221.231	210.210	153.161	149.153				F
439	439; 440; 359; 361; 363; 525; 535; 546; 547; 548; 551; 1387; 1389; 1392; 1394; 1482; 1485; 1491; 1496; 1505; 1511; 1515; 1516; 1869; 1870; 1875; 1883; 1889; 1897; 1937; 1946; 2466; 2469; 2566; 2581;	35				1	1	1	12	190.190	184.184	160.160	176.178	221.221	208.214	141.165	153.155				M
445	445; 446; 441; 377; 496; 1280; 1281; 1282; 1285; 1287; 1654; 2126; 2127; 2151; 2376; 2505; 2509;	17		1	1	1	1	1	9	186.186	184.194	152.160	176.186	231.237	210.210	141.161					M
448	448; 450; 452; 456; 453; 358;	6							10	186.190	184.184	156.160	180.186	223.231	210.214	153.161	153.155				F
473	473; 471; 474; 475; 484; 486; 488; 490; 491; 493; 2417;	11						1	9	190.190	184.194	156.160	178.180	221.221	210.214	141.153	149.149				F
506	371; 506; 507;	3							11	186.190	184.194	140.160	178.178	221.231	210.210	141.161	151.151				F
510	510; 1662; 1664; 1667; 1669; 1676; 1681; 1713; 1717; 1726; 1729; 2306;	12					1	1	11	180.186	184.184	152.160	178.186	231.231	208.210	139.161	155.161				M
513	513; 1188;	2							9	186.196	184.184	160.160	178.186	233.237	210.210	161.161	149.151				M
515	515; 52; 54; 56; 58; 59; 60; 63; 65; 66; 68; 80; 388; 1973; 1976; 1993; 2425; 2432;	18							9	186.186	194.194	160.160	172.178	221.221	208.210	161.161	153.165				F
527	527; 529;	2							7	190.190	184.184	56.58.60.140	178.184	221.221	208.214	141.161	149.155				F
528	528;	1			1				7	186.190	184.194	40.56.58.60	178.186	221.237	208.214	141.155		127.145	239.249	175.177	M
540	540; 541;	2			1	1		1	8	190.190	184.194	160.160	184.186	221.237	208.214	153.161	149.161				F
555	555; 556; 1301; 1305; 1306;	5				1	1		9	186.186	184.184	140.160	176.183	221.221	208.210	161.161	151.161				M
560	560; 563; 519; 522; 1303; 1600; 1603; 1609; 2526;	9		1					12	186.190	184.184	152.160	176.186	221.231	208.210	161.161	153.155				M
1013	1006; 1013; 1017; 1020; 1023; 1025; 1027; 1028; 1029; 1034; 1208; 1230; 1786; 1795; 1797; 2116; 2122; 2218; 2226; 2406;	20	1	1		1	1		9	180.186	194.194	152.152	178.186	221.221	208.210	161.161					M
1037	1037; 1043;	2	1						9	186.186	184.184	160.160	174.176	221.233	208.210	161.165	161.161	127.145	229.239	175.177	F
1047	1047;	1	1						9	186.190	184.194	140.160	174.176	231.233	208.210	161.165	155.161				F
1065	1065; 1591; 1594; 1615; 1619; 2527;	6	1			1		1	9	186.190	184.184	140.160	176.183	221.231	208.210	161.161	153.155				M
1143	1143; 1149; 1150;	3		1					9	190.196	184.194	140.160	178.186	221.237	210.214	153.161		139.145	223.229	163.175	M
1271	1271; 1272;	2			1				9	186.190	184.194	140.160	176.178	221.221	208.208	141.155					F
1293	1293; 1296; 1297; 1298; 1300; 1688; 2299;	7			1	1	1		9	186.186	184.194	158.160	176.186	221.231	210.210	161.161	149.161				F
1295	1295; 1314; 1315; 1316; 1317;	5			1				9	186.186	184.184	158.160	176.186	231.231	210.210	139.161	149.149				F
1340	1340;	1				1			9	186.186	184.184	160.164	178.186	221.221	210.212	161.161	149.155				M

Appendix 4. Summary of Individual Bear Genotypes and Capture/Recapture Rates, 2011

Individual	List of Samples	#	Captures						Genetic Data											Sex	
			Check 1	Check 2	Check 3	Check 4	Check 5	Check 6	Loci	G10J	G1A	G10B	G1D	G10H	G10M	G10P	CXX110	Cxx20	Mu59		G10U
1352	1352; 1360; 1363; 1368; 1372; 1808; 1813; 1817;	8				1	1		9	190.190	184.184	156.160	174.178	223.237	210.214	139.161	151.161				M
1395	1395; 1414; 1422; 1471; 1475; 1477; 1834; 1843; 1851;	9				1	1		9	186.196	184.184	140.160	186.186	221.231	210.214	141.155	151.161				F
1528	1528; 1529; 1534; 1537; 2496; 2499; 2500;	7				1		1	9	186.190	184.194	152.156	176.184	221.233	210.210	155.161	151.159				M
1655	1655;	1				1			9	180.190	184.184	160.160	176.178	221.231	210.210	155.161					F
1744	1744; 1754; 1758; 1760; 1769; 1775;	6				1			9	186.190	184.184	160.160	172.186	221.221	210.210	141.161	151.153				F
1886	1886; 2463;	2					1	1	9	190.190	184.184	140.160	176.178	221.221	208.210	161.165	151.153				M
2256	2256; 2258; 2329;	3					1		9	186.186	184.194	160.160	183.186	221.231	210.214	161.161	149.149				F
2311	2311; 2314; 2316; 2319; 2320; 2321;	6					1		9	186.186	194.194	156.160	178.180	221.223	210.214	161.161	151.153				F
2338	2338; 2340; 2350; 2355; 2365;	5					1		9	186.190	184.184	160.160	174.184	221.221	208.210	151.161	151.153				F
2436	2436;	1						1	9	186.196	194.194	160.160	178.186	221.231	208.210	161.161	151.155				M
2520	2520;	1						1	9	180.190	184.194	140.152	186.186	221.221	208.214	161.161					M
2617	2617; 2618; 2619; 2620;	4						1	9	186.190	194.194	156.160	176.184	221.233	208.210	141.161					M