Federal Aid in Wildlife Restoration Annual Report 1 July 2000 – 30 June 2001

2001 Report

Deer Pellet-Group Surveys in Southeast Alaska

by

Mark J. Kirchhoff and Kevin White

Alaska Department of Fish and Game Division of Wildlife Conservation Douglas, Alaska

January 2002

State of Alaska

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INTRODUCTION

This report summarizes the deer pellet-group survey work conducted by the Alaska Department of Fish and Game and the United States Forest Service in 2001. Pellet-group data are used by biologists to monitor deer population trends in specific watersheds throughout the region. The data also permit general comparisons of deer numbers from area to area within the region. The reader is referred to Kirchhoff and Pitcher (1988) for a more detailed discussion of objectives, sample design, and field methodology of this program.

RESULTS

During 2001, 26 watersheds, (or value comparison units - VCUs) were surveyed. For each VCU, transect locations, physiographic information, deer population density, and trend are described. Overall, deer-pellet group densities were the same or a little higher in Unit 4 (northern Southeast), about the same in Unit 3 (central Southeast), and lower in Units 1 and 2 (southern Southeast). Complete results for each VCU are found in Table 1. A brief summary of deer population trend by game management unit follows:

- **Subunit 1A** Ketchikan and Mainland. In 2001 four VCUs were surveyed in Subunit 1A. Of these four VCUs, two declined from the previous year surveyed, and two stayed about the same. The trend in this subunit is low deer populations holding steady.
- Unit 2 Prince of Wales Island. During 2001 seven VCUs were surveyed in Unit 2. Two were about the same from the previous year surveyed, and five were lower. Deer populations on Prince of Wales appear to be at the low end of the scale based on twenty years of trend counts.
- Subunit 1B and Unit 3 Central Southeast Alaska. Deer pellet-group surveys were concentrated around Wrangell in 2001. Three VCUs were new (in Bradfield Canal, on the mainland at Madan Bay, and on the east side of Etolin Island), and the fourth was at Fools Inlet. The best deer pellet density was found at Fool's Inlet and was the same as a previous survey in 1994.
- Unit 4 Northern Southeast Alaska. Eight VCUs were surveyed in Unit 4 in 2001. Pellet groups were counted at Nakwasina Passage, Kalinin Bay, and on the west and north shorelines of Chichagof Island. Pellet-group counts were the same or a little higher than the last time recorded and show Unit 4 continues to be the place in Southeast Alaska with the most deer.
- **Subunit 1C** Juneau and Mainland. Douglas Island is an important area in Unit 1C for Juneau deer hunters and the VCUs on the island are regularly surveyed to track the deer population. Transects run at the north end of the road system showed deer populations stable at low to moderate levels. Shelter Island was also surveyed and showed high pellet group density.
- Unit 5 Yakutat. No deer pellet counts were run at Yakutat in 2001.

NARRATIVES

North Douglas (VCU 35) - Douglas Island is located immediately opposite the City of Juneau and is heavily used by local hunters. Three transects were established at the end of the road in 1991. The transects rise to over 1000 feet in elevation and traverse moderate volume hemlock stands. Deer pellet-group density in 2001 was similar to past years at 1.01 pellet groups per plot.

Shelter Island (VCU 124) – Located north of Juneau in lower Lynn Canal, this VCU is composed of Shelter and Lincoln islands and is a popular destination for Juneau hunters. Shelter Island, the larger of the two, is primarily forested, while Lincoln Island contains more muskeg. The maximum elevation is 1,170 feet on the northern end of Shelter Island. This VCU was sampled intensively from 1984 to 1986, but this practice was discontinued in 1987, and now only transects 4, 5, 6, 7, 8, and 18 on the north end of Shelter Island are sampled. Pellet-group density on Shelter Island in 2001 was high at 2.07 pellet groups per plot.

Port Althorp (VCU 189) – This Chichagof Island VCU is an important deer hunting area for the residents of Elfin Cove. Three transects were established here in 1988. Transect 1 starts at the head of Salt Chuck Bay and ascends a south-facing slope to 1500 feet. Transect 2 starts near the old Port Althorp cannery and ascends a north-facing slope to 1200 feet. Transect 3 starts at the entrance to Salt Chuck Bay and travels along a ridge through mid-volume old growth. Deer pellet-group density in 2001 was 1.81 pellet groups per plot.

Idaho Inlet (VCU 190) – Three transects were established in Idaho Inlet on northern Chichagof Island in 1988. This is a cold, steep-walled inlet, and all three transects sometimes have snow at higher elevations. All three transects traverse low to mid-volume hemlock-spruce forest. Pellet-group density in 2001 was low at 0.94 pellet groups per plot.

Lisianski (VCU 249) – This VCU on Chichagof Island is an important subsistence area for the residents of nearby Pelican. Six transects were established here in 1988. They are mostly short and steep, with limited forest cover above 1000 feet elevation. Deer pellet-group density in 2001 was medium at 1.71 pellet groups per plot.

Soapstone (VCU 254) – Three transects were established in Soapstone Cove on northern Yakobi Island in 1988. This is a favorite hunting ground for Pelican and Elfin Cove residents. The habitat is in this VCU is mostly low-volume old growth or scrub. In 2001, pellet-group density was moderate at 1.95 pellet groups per plot.

Chichagof (VCU 271) – Three transects were established in Klag Bay on the west coast of Chichagof Island in 1991. Transect 1 crosses a peninsula from east to west and samples muskeg and low-volume old-growth forest. Transect 2 runs up to 1500 feet elevation on Doolth Mountain. Transect 3 samples a SW facing slope at the head of the bay. The habitat traversed is mostly muskeg, non-commercial forest, and low-volume old growth. Deer pellet-group density was moderate in 2001 at 1.23 pellet groups per plot.

Cobol (VCU 275) – This VCU is located in Slocum Arm on the west coast of Chichagof Island. It was first sampled in 1984. The three transects run through low-volume old growth, reaching sub-alpine vegetation at approximately 1000 feet elevation. Pellet group-density in 2001 was moderate at 1.94 pellet groups per plot.

Nakwasina (VCU 300) - This VCU north of Sitka is a popular local hunting area which has been sampled almost every year since 1984. All three transects traverse mid-volume forest to 1500 feet elevation and have a southerly aspect. Deer pellet-group densities have typically been high at Nakwasina, and 2001 was no exception at 2.33 pellet groups per plot.

Sealion Cove (VCU 305) - Located on northern Kruzof Island, this VCU has been sampled almost every year since 1984. Transects 1 and 3 are short and steep and run through low to midvolume timber until breaking out into sub-alpine vegetation at approximately 900 feet elevation. Transect 2 also traverses low to mid-volume timber but is forested all the way to 1500 feet elevation. Deer pellet-group density in 2001 was moderate at 1.40 pellet groups per plot.

Canoe (VCU 474) – Three new transects were established this year at Fisherman's Cove between Etolin and Brownson islands. Crews were trying to get to the south end of Etolin Island to run VCU 473, but snotty weather prevented passage, so this VCU was the default option. Transect 1 starts at the head of a narrow estuary on the north side of Fisherman's Cove. The first 12 plots climb steeply up a ridge topping out at 200 feet elevation. The forest is low volume. From plot 20-90 the transect is mostly muskeg and mixed-conifer forest with a couple of beaver ponds that you need to bend the line around. The last 12 plots are through low-volume mixed-conifer forest. Transect 2 starts at the mouth of a stream on the west side of Fisherman's Cove. The first five plots are even-aged second growth, the next 15 are volume class 5 hemlock-spruce forest, and the remainder of the transect is low-volume red cedar forest with a salal understory. The transect ends after about 40 pulls at the top of a 960 foot high hill. Going any further is difficult because of a steep ravine. Transect 3 starts at the NW tip of Brownson Island. The transect is mostly non-commercial forest and muskeg and ends after 75 plots at a small lake. Deer sign on all three transects was very low.

Fools (VCU 480) – Three transects were established at Fools Inlet on the southern end of Wrangell Island in 1994. The three transects start at the beach and run up a SW facing slope to 1500 feet. Transect 1 is brushy and mostly low-volume timber. Transect 2 is a good line to run for the first 500 feet elevation, but then cliffs make running a straight line difficult. Transect 3 has the best timber of the three, with many tall cedars and spruce along the way. Deer pellet-group density in this VCU was low in 2001 at 0.61 pellet groups per plot.

Madan (VCU 504) – Three new transects were established in 2001 at Madan Bay southeast of Wrangell. A timber sale is scheduled for the area in the near future. Transect 1 starts in a small bight at the head of Madan Bay. The first 30 plots are up and down with some sidehilling through very brushy country. Steady climbing occurs after that with more open understory to 1500 feet elevation. Transect 2 starts at a small grassy delta on the east side of Madan Bay. The terrain is steep to 1500 feet elevation through mid-volume timber. Transect 3 starts on the east side of Madan Bay near a large creek mouth. The transect is steep and brushy and ascends through mid-volume timber up to 1500 feet elevation. Deer sign was low on all three transects.

Harding (VCU 511) – Three new transects were established near the head of Bradfield Canal in 2001. This was an exploratory journey to see if and how far deer lived up the canal. Transect 1 started in a small cove on the north shore. The transect is brushy with low-volume timber and one small stretch of muskeg. No deer sign was found. Transect 2 starts 200 meters NE of the Forest Service cabin at the mouth of the Harding River. The first 10 plots are flat and then the transect becomes steeper with blowdown. Only 51 plots were run because of intense rain, wind, and cold. No deer pellets were counted. Transect 3 starts on the south side of the canal at the head of a small cove just east of Duck Point. The transect is up and down and very brushy. The highest point reached was 500 feet elevation. This was the only transect run that deer pellets were counted, and those were few in number.

Red Bay (VCU 532) – Located on northern Prince of Wales Island, this VCU was first sampled in 1987. Red Bay has been extensively logged, making it difficult to avoid young second growth. In 2001, two new transects were added by Forest Service to avoid this second growth. New transects 4 and 6 replaced old transects 1 and 2. Transect location forms for the new lines are on file at the Douglas Fish and Game office. Deer pellet-group density in Red Bay in 2001 was 0.76 pellet groups per plot.

Sarheen (VCU 549) - Three transects were located at Sarheen on the NW coast of Prince of Wales Island in 1989. Sarheen was selected because it is mostly unlogged, protected from rough seas, and hunters reported good success there. The transects traverse low-volume timber and reach approximately 800 feet elevation. Deer pellet-group density in 2001 was low at 0.45 pellet groups per plot.

Sarkar (VCU 554) – Three transects were established at Sarkar Lake on Prince of Wales Island in 1989. In 2001, one of the transects were changed because of impenetrable second growth. The Forest Service substituted transect 4 for old transect 3. A transect location form is on file at the Douglas Fish and Game office. Deer pellet-group density at Sarkar in 2001 was 0.45 pellet groups per plot.

Coronation (VCU 564) – Four transects were established at Coronation Island in 1988. All originate at Egg Harbor, the best anchorage on the island. Much of the habitat traversed is second-growth hemlock and spruce, a result of blowdown from the severe winds that regularly visit the island. Interspersed with the second growth is some low-volume old growth. Deer pellet-group density in 2001 was 0.85 pellet groups per plot.

Thorne Lake (VCU 575) - Four transects were established along the Thorne River drainage in 1992. All four transects start along Road 3015 and are accessed by vehicle from Thorne Bay. The vegetation on transect 1 is mostly a red cedar-western hemlock overstory and a blueberry understory. Transect 2 starts in a muskeg and low volume forest, but soon encounters the edge of a clearcut. Timber is low to mid-volume with muskegs scattered throughout. Transect 3 is an easy transect through moderate to high volume hemlock. Transect 4 is a steady climb to 1500 feet. The first half is dominated by western red cedar, the second half is spruce-hemlock forest. Volume class is high all the way. Deer pellet-group density in 2001 was 0.53 pellet groups per plot.

Snakey Lakes (VCU 578) - This VCU, located on Prince of Wales Island, encompasses part of the Thorne River drainage. Four transects were established here by the Forest Service in 1986. Since then, roads and clearcuts have drastically altered the landscape and by 1993 one starting tree was missing in action. A new starting point for transects 3 and 4 was flagged in 1993 about 100 feet from the outlet of Snakey Lake. Deer pellet-group density in 2001 was 0.89 pellet groups per plot.

Luck Lake (VCU 581) – Four transects were established in this Prince of Wales Island drainage by the Forest Service in 1986. The transects are located 2.5 to 4 miles inland from the Clarence Strait coast and are accessed by logging road. Much of the original forest has been clearcut and is now in a young second growth condition. Deer pellet-group density in 2001 was 0.60 pellet groups per plot.

Little Ratz (VCU 584) - Four transects were established in this VCU on the east coast of Prince of Wales Island in 1992. Access to all transects is by vehicle from Thorne Bay. Transect 1 starts at a rock face shortly after Mile 9. Second growth and a clearcut have to be traversed before entering a red cedar-mountain hemlock forest. Transect 2 starts at the Sal Creek bridge. The first 24 plots go through a thinned clearcut. From there it's a short walk to the mouth of Sal Creek. The return trip back to the road goes through low-volume old growth and a clearcut. Transect 3 leaves the road after the Sal Creek bridge is passed and goes through young spruce stands where blowdowns are common. Transect 4 leaves the road about two miles past Sal Creek and passes through rolling terrain with low to mid-volume timber. There is some nasty brush at the end. Deer pellet-group density in 2001 was 1.20 pellet groups per plot.

Helm Bay (VCU 716) – Helm Bay is located on the Cleveland Peninsula north of Ketchikan. Three transects were established here in 1984. Transect 1 is long, flat, and traverses extensive muskeg and scrub forest. Transects 2 and 3 reach to 1500 feet elevation and traverse midvolume forest. Deer pellet-group density in 2001 remained low at 0.41 pellet groups per plot.

Port Stewart (VCU 719) – Three transects were established at Port Stewart on the Cleveland Peninsula in 1993. Transect 1 starts on the west side of Port Stewart at the mouth of a large stream. The first 50 plots traverse a non-commercial, brushy forest. The next 40 plots ascend a steep hillside to 1500 feet elevation through mid to high volume forest. Transect 2 starts in the bight on the east side of the bay. The first 60 plots are side-hill walking through volume class 4 and 5 timber. The remainder of the transect traverses a mixed conifer forest with blueberry understory. Transect 3 also starts in the bight on the east side of the bay. Scrubby non-commercial forest is the predominant habitat type with a few large red cedar found along the way. Deer pellet-group density at Port Stewart in 2001 was 0.21 pellet groups per plot.

Spacious Bay (VCU 722) – Three transects were established at Spacious Bay on the Cleveland Peninsula in 1993. Transect 1 starts at the north side of the bay about 200 yards west of a large stream. The transect runs to 1500 feet through a low-volume cedar forest and then a medium volume hemlock-spruce forest. Transect 2 also starts on the north side of the bay at the mouth of a six-foot wide stream. The transect runs to 1500 feet elevation through a mid-volume forest with a brushy blueberry understory. Transect 3 starts on the north shore of Spacious Bay at the head of the first sizeable cove west of Bluff Point. The transect goes over a low pass to Yes Bay and traverses low to mid-volume cedar stands. Deer pellet-group density at Spacious Bay in 2001 was 0.06 pellet groups per plot.

Margaret (VCU 738) – This VCU on northern Revilla Island was first sampled by the Forest Service in 1985. The three transects traverse low to mid-volume forest as well as the occasional clearcut. Pellet-group density in 2001 was 0.44 pellet groups per plot.

LITERATURE CITED

Kirchhoff, M.D., and K.W. Pitcher. 1988. Deer pellet-group surveys in Southeast Alaska, 1981-1987. Alaska Department of Fish and Game. Federal Aid in Wildlife Restoration Progress Report Project W-22-6, Job 2.9 Juneau. 113 pp.

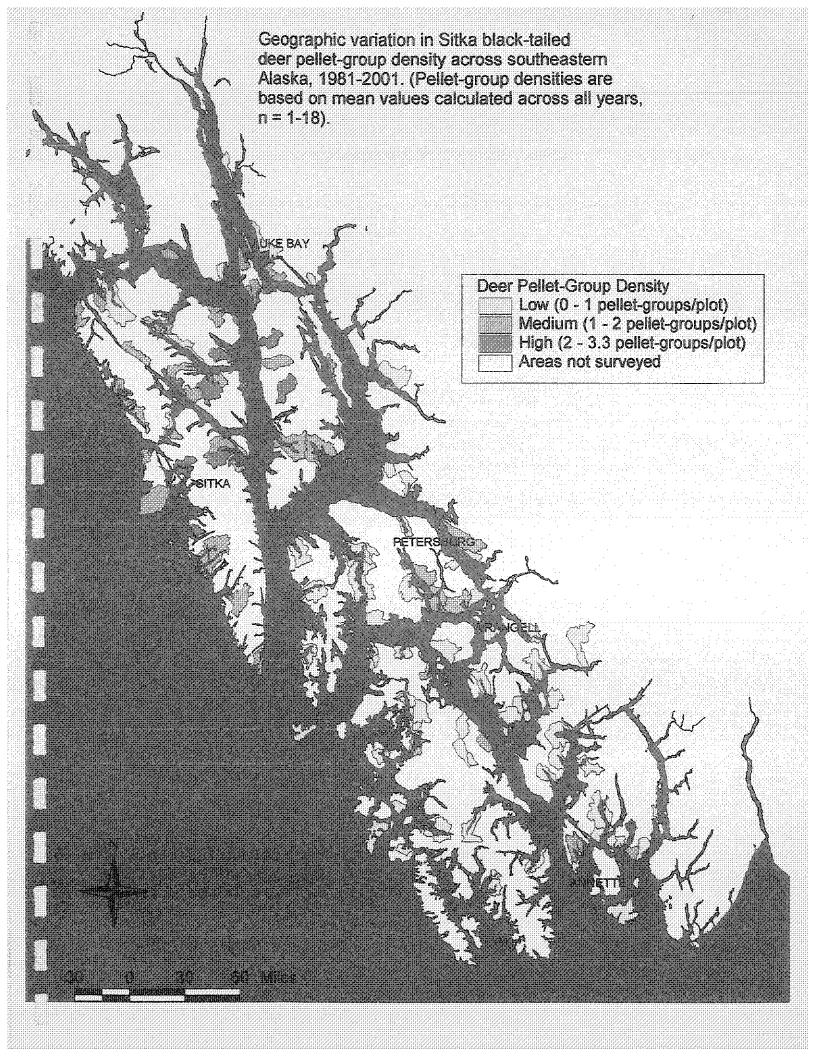


Table 1. Pellet-group count statistics from southeast Alaska, 1981-2001.

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VCU	Name	Land Acres	% CFL	Year	Plots	Mean	et-Group 95% CI
20	Comet	9,662	12%	1994	180	0.00	0.00-0.00
27	Auke Bay	15,245	45%	1987	381	0.99	0.87-1.12
35	North Douglas	4,430	49%	1991 93 94 95 96 97 98 99 00 2001	300 324 315 306 323 323 321 273 282 335	0.80 0.74 0.91 0.86 0.97 1.43 1.54 1.03 0.88 1.01	0.65-0.96 0.62-0.87 0.74-1.09 0.70-1.02 0.81-1.12 1.24-1.62 1.32-1.77 0.86-1.19 0.71-1.04 0.85-1.17
36	Inner Point	3,965	44%	1985 86 87 88 89 92 95 96 97 98 99	256 235 262 200 258 204 254 240 252 280 239 280	1.30 1.97 1.76 1.21 1.31 2.05 1.41 1.68 2.36 0.84 1.06 1.09	1.10-1.51 1.68-2.25 1.53-2.00 1.02-1.39 1.08-1.53 1.75-2.36 1.21-1.60 1.45-1.91 2.08-2.64 0.69-0.98 0.87-1.25 0.90-1.28
38	Rhine Creek	6,357	2%	1997	108	0.31	0.14-0.47
65	Sumdum Glacier	40,906	15%	1987	262	1.76	1.53-2.00
82	Negro Creek	12,212	31%	1989	312	0.21	0.13-0.29
89	Farragut Bay	na	na	1994	314	0.02	0.00-0.04
94	Sullivan Island	3,985	78%	1990 99	250 66	1.39 0.64	1.17-1.62 0.35-0.93

Table 1. Continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
117	Couverden	9,933	10%	1993	350	0.35	0.27-0.44
124	Shelter Island	6,162	43%	1984	713	1.46	1.33-1.60
	(All Transects)			85	774	1.82	1.67-1.97
				86	727	2.20	2.02-2.37
124	Shelter Island			1984	300	1.52	1.34-1.70
	(Trans. 4-8, 18)			85	296	2.52	2.24-2.81
				86	292	3.24	2.91-3.57
				87	288	2.91	2.57-3.24
				88	130	3.16	2.62-3.70
				89	300	1.43	1.23-1.62
				90	300	1.60	1.37-1.82
				93	250	2.00	1.73-2.26
				95	297	1.38	1.20-1.56
				97	312	2.51	2.23-2.78
				99	290	1.63	1.42-1.85
	(Trans. 4-8)			2001	231	2.07	1.79-2.36
124	Lincoln Island	na	na	1998	207	1.52	1.27-1.77
125	Barlow Cove	13,712	24%	1982	2,567	1.07	1.01-1.12
				84	347	1.69	1.46-1.92
				85	347	1.55	1.35-1.76
				90	270	1.42	1.18-1.65
127	Calm Station	4,941	66%	1982	1,054	1.65	1.53-1.77
128	Hawk Inlet	14,318	57%	1982	1,605	1.21	0.99-1.42
				84	339	1.42	1.22-1.63
				85	270	1.69	1.43-1.95
				86	286	1.92	1.64-2.19
				87	278	2.54	2.19-2.89
				89	364	1.82	1.56-2.08
				90	250	2.24	1.94-2.53
				92	319	1.61	1.38-1.83
				96	325	1.26	1.07-1.46
				99	176	1.25	1.00-1.50
140	Dorn Island	9,485	81%	1984	230	1.27	1.02-1.53

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
148	Lake Kathleen	14,693	57%	1987	207	2.13	1.76-2.49
150	Lake Florence	21,342	52%	1988	294	1.48	1.27-1.69
162	Thayer Lake	25,342	79%	1987 89 94 98	313 283 282 308	2.81 2.04 2.27 2.13	2.49-3.12 1.75-2.32 1.98-2.56 1.87-2.38
171	Hood Bay	44,355	79%	1987 89 90 92 94 00	358 366 375 360 371 349	2.31 1.77 1.85 1.91 1.64 1.04	1.99-2.63 1.54-2.00 1.61-2.09 1.64-2.18 1.41-1.88 0.87-1.21
182	Pybus Bay	41,501	62%	1981 84 85 86 87 89 90 92 95	390 300 269 235 242 199 221 236 205 256	1.34 1.02 1.86 2.00 2.03 2.00 1.72 1.13 1.48 1.37	1.16-1.52 0.86-1.18 1.60-2.12 1.70-2.29 1.69-2.37 1.63-2.36 1.44-2.01 0.97-1.30 1.23-1.74 1.16-1.59
185	Pleasant Island	8,738	16%	1991 92 93 94 97 99	311 210 305 356 300 223	1.38 1.34 1.77 1.22 1.80 1.82	1.18-1.57 1.09-1.59 1.52-2.02 1.04-1.40 1.54-2.06 1.55-2.08

Table 1. Continued.

VCH	Nama	Land	% CEI	V	Diete		et-Group 95% CI
VCO	Name	Acres	CFL	Year	Plots	Mean	95 /6 CI
400	Doub Alabana	0.040	070/	1000	105	1.00	1 47 0 10
189	Port Althorp	8,040	27%	1988 91	195 223	1.80 1.92	1.47-2.13 1.55-2.29
				92	223 261	1.36	1.11-1.60
				93	248	1.39	1.15-1.62
				94	253	1.31	1.06-1.56
				98	281	1.48	1.27-1.70
				2001	225	1.81	1.49-2.13
190	Idaho Inlet	53,183	22%	1988	258	1.34	1.09-1.60
		·		92	219	0.94	0.69-1.19
				93	305	0.56	0.45-0.68
				94	294	0.71	0.58-0.84
				98	273	1.11	0.92-1.30
				2001	308	0.94	0.78-1.11
202	Port Frederick	16,619	52%	1988	242	1.87	1.62-2.13
				96	226	1.02	0.82-1.23
208	First No. 2	6,613	32%	1983	1,155	1.12	1.01-1.22
209	Suntaheen Cr.	13,198	49%	1988	272	1.22	1.00-1.44
				92	271	1.13	0.94-1.33
				93	265	0.73	0.58-0.88
				94	272	1.05	0.81-1.29
				96	276	0.98	0.77-1.18
				97	263	1.50	1.23-1.77
				99	112	1.02	0.69-1.34
211	Point Augusta	4,688	63%	1983	757	1.78	1.62-2.01
				93	286	2.08	1.80-2.36
				97	234	3.30	2.90-3.70
218	Pavlof River	18,866	50%	1988	325	1.78	1.50-2.06
				92	341	1.56	1.32-1.81
				96	349	1.50	1.30-1.70
				97	313	1.71	1.47-1.94
				99	213	2.24	1.83-2.67
221	Whip Station	4,708	53%	1981	193	0.86	0.64-1.08

Table 1. Continued.

VO.	Nama	Land	%	V	Diete		et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
222	Sand Station	12,231	50%	1981	253	0.60	0.48-0.73
222	Oand Otation	12,201	30 /0	1501	200	0.00	0.40 0.70
223	Upper Tenakee	3,833	54%	1988	253	1.47	1.24-1.70
				92	265	0.58	0.47-0.70
				93	249	0.47	0.36-0.58
				94	319	0.61	0.48-0.74
				96	263	0.56	0.38-0.75
231	Saltery Bay	18,478	31%	1988	256	2.02	1.69-2.35
				92	256	0.96	0.79-1.14
				93	227	0.76	0.56-0.96
				94	193	0.97	0.79-1.15
				96	152	1.90	1.47-2.33
				97	170	1.99	1.59-2.39
234	Inbetween	6,002	62%	1981	35	0.49	0.08-0.89
235	Kadashan	33,641	53%	1981	96	0.54	0.32-0.76
				88	221	2.67	2.18-3.16
				92	282	1.62	1.38-1.86
				93	385	1.12	0.95-1.30
				94	294	1.39	1.18-1.60
				95	195	2.64	2.20-3.07
				96	204	2.36	1.96-2.76
236	Corner Bay	10,930	66%	1981	60	0.35	0.17-0.53
				92	206	2.27	1.91-2.64
				93	50	1.72	1.25-2.19
				94	198	1.69	1.41-1.98
246	Broad Island	17,145	38%	1981	209	1.41	1.18-1.63

Table 1. Continued.

VCU Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
247 Finger Mountain	15,918	38%	84 85 86 87 89 90 91 92 93 94 96 97	2,145 302 279 277 236 305 225 150 207 179 275 221 227 169	1.17 1.83 3.23 2.88 3.11 2.99 3.36 3.93 2.85 3.03 2.29 2.62 3.53 3.04	1.11-1.24 1.57-2.09 2.79-3.67 2.57-3.19 2.71-3.52 2.57-3.40 2.99-3.74 3.36-4.51 2.48-3.22 2.60-3.47 1.96-2.62 2.20-3.04 3.05-4.02 2.59-3.50
249 Lisianski	19,677	24%	91 95 98 2001	217 255 170 317 321 239	2.87 0.97 1.53 0.70 0.88 1.71	2.45-3.30 0.79-1.14 1.22-1.84 0.56-0.85 0.75-1.02 1.46-1.96
254 Soapstone	17,695	29%	1988 91 93 94 95 2001	274 270 243 310 283 246	1.92 2.05 1.88 1.34 1.48 1.95	1.67-2.17 1.77-2.33 1.59-2.16 1.16-1.52 1.27-1.69 1.65-2.25
271 Chichagof	20,680	10%	1991 95 98 2001	301 303 319 291	1.39 0.98 1.34 1.23	1.19-1.58 0.83-1.14 1.16-1.53 1.04-1.43
275 Cobol	14,618	49%	1984 91 95 98 2001	224 185 218 219 180	1.15 2.96 1.45 2.19 1.94	0.92-1.37 2.37-3.54 1.16-1.74 1.86-2.51 1.59-2.30

Table 1. Continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
279	Rapids Point	7,637	65%	1983	2,734	0.77	0.73-0.81
281	Ushk Bay	20,770	38%	1981	94	0.63	0.41-0.85
288	Range Creek	6,929	33%	1983 84 85 97	1,788 303 224 353	0.51 0.71 1.32 1.44	0.46-0.55 0.61-0.92 1.02-1.62 1.21-1.67
295	Lake Eva	12,362	65%	1987	172	1.81	1.46-2.15
296	Portage Arm	16,101	59%	1981 90 97	213 214 39	0.53 3.09 1.59	0.39-0.68 2.70-3.48 0.86-2.32
298	M. Arm Kelp Bay	28,424	21%	1990 97	306 100	2.68 2.67	2.35-3.01 2.04-3.30
300	Nakwasina (All Transects)	19,575	48%	1984 85 86	196 1046 715	2.51 3.92 3.50	2.14-2.88 3.67-4.17 3.26-3.76
300	Nakwasina (Trans. 2,3,8)	19,575	48%	1984 85 86 87 89 90 91 92 93 94 95 96 97 98 99 00 2001	138 218 205 195 244 255 175 223 188 230 216 210 188 217 146 181 186	2.51 3.65 3.38 2.31 2.32 2.98 3.98 1.64 3.15 1.46 1.75 2.82 2.79 2.99 3.20 2.64 2.33	2.10-2.93 3.13-4.17 2.91-3.84 1.90-2.71 2.00-2.65 2.56-3.40 3.39-4.57 1.37-1.90 2.70-3.60 1.24-1.68 1.48-2.10 2.35-3.29 2.31-3.27 2.48-3.49 2.64-3.76 2.23-3.05 1.91-2.75

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
305	Sealion Cove	9,293	69%	1984	320	1.36	1.15-1.58
				85	292	2.57	2.23-2.91
				86	235	2.87	2.44-3.29
				87	226	3.31	2.82-3.80
				89	303	1.75	1.50-2.00
				90	227	2.03	1.71-2.35
				91	219	1.63	1.36-1.91
				92	239	1.30	1.08-1.51
				93	198	1.70	1.38-2.02
				94	221	1.29	1.09-1.48
				95	210	1.30	1.08-1.52
				96	225	1.63	1.35-1.90
				97	223	1.76	1.43-2.10
				98	241	1.71	1.44-1.99
				00	201	1.42	1.09-1.76
				2001	231	1.40	1.14-1.66
308	South Kruzof	71,158	25%	1993	345	1.62	1.41-1.83
		71,100	20 70	94	370	1.71	1.52-1.90
				99	365	1.38	1.16-1.58
315	Basin Kelp Bay	8,460	60%	1990	151	1.85	1.41-2.28
321	Redoubt Bay	9,045	58%	1989	304	2.17	1.88-2.47
339	Cape Ommaney	13,725	32%	1988	172	1.74	1.43-2.05
344	Whale Bay	na	na	2000	260	1.40	1.17-1.62
348	West Crawfish	57,434	16%	1989	360	1.35	1.36-1.57
				00	211	1.34	1.07-1.61
361	Knight Island	10,419	40%	1991	100	0.81	0.61-1.01
	-	•		92	100	0.95	0.74-1.16
				94	90	0.44	0.25-0.64
				96	153	0.00	0.00-0.00
				97	192	0.03	0.01-0.05
363	Humpback	7,721	74%	1991	118	0.01	0.00-0.03

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
368	Yakutat Islands	1,021	99%	1991	415	0.32	0.24-0.39
		·		92	243	0.48	0.37-0.58
				93	106	1.07	0.81-1.32
				94	251	0.66	0.52-0.80
				96	379	0.59	0.48-0.69
				97	344	0.59	0.48-0.70
				00	145	0.90	0.85-0.95
369	Ankau	na	na	1991	116	0.03	0.00-0.05
400	Security Bay	28,040	79%	1984	360	0.02	0.01-0.04
				89	304	0.25	0.16-0.34
				95	268	0.22	0.15-0.29
				00	200	0.09	0.05-0.14
403	Pillar Bay	28,227	65%	1988	337	0.16	0.10-0.22
				00	265	0.18	0.13-0.23
408	Malmesbury	18,151	68%	1990	206	0.11	0.05-0.18
				00	254	0.06	0.03-0.09
417	Conclusion Island	12,561	99%	1987	207	2.66	2.32-3.01
				89	200	0.95	0.72-1.18
				91	200	0.71	0.53-0.88
				96	191	1.45	1.19-1.70
427	Big John Bay	32,711	29%	1994	300	0.38	0.29-0.48
428	Rocky Pass	49,403	35%	1989	298	0.40	0.27-0.53
431	Point Barrie	22,187	27%	1988	357	0.23	0.17-0.29
				93	375	0.77	0.64-0.90
434a	Big Level Island	727	61%	1981	399	1.54	1.45-1.63
				83	336	1.56	
				86	382	1.66	1.41-1.90
				89	227	1.07	
				91	456	2.16	1.90-2.41
				99	427	2.00	1.74-2.26

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Piots	Mean	95% CI
434b	Little Level Island	263	92%	1981	114	2.48	2.02-2.94
				83	136	2.34	
				86	122	1.39	1.07-1.70
				89	137	1.52	
				91	132	3.59	3.07-4.11
				99	123	2.84	2.28-3.40
435	Castle River	32,724	36%	1984	312	0.19	0.12-0.26
				87	305	0.51	0.37-0.65
				89	312	0.40	0.25-0.56
				94	310	0.32	0.24-0.40
				98	281	0.36	0.28-0.44
437	E. Duncan	23,744	55%	1990	227	1.12	0.92-1.32
				92	213	0.78	0.63-0.94
				98	153	1.04	0.77-1.30
442	Portage Bay	11,269	49%	1993	282	0.43	0.31-0.56
	,			95	277	0.43	0.33-0.53
				98	285	0.39	0.29-0.49
448	Woewodski	20,931	53%	1984	295	0.88	0.69-1.08
		,		85	209	1.00	0.82-1.19
				87	195	1.65	1.85-2.61
				88	433	1.33	1.16-1.51
				89	417	1.35	1.24-1.73
				90	355	1.46	1.28-1.64
				91	316	1.80	1.52-2.07
				92	248	0.79	0.62-0.97
				93	230	1.06	0.85-1.27
				94	152	1.14	0.82-1.46
				95	157	1.38	1.08-1.67
				96	243	2.25	1.95-2.55
				97	282	1.56	1.27-1.84
				98	282	1.10	0.91-1.29
	•			99	196	1.36	1.11-1.60
				00	226	1.27	1.05-1.50
448a	Woewodski Island	20,931	53%	1991	461	1.86	1.66-2.05
				94	510	1.30	1.15-1.46

Table 1. Continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
449	Frederick	6,835	70%	1981 90 92	945 180 227	0.08 0.55 0.54	0.06-0.11 0.36-0.74 0.42-0.65
452	Blind Slough	30,655	55%	1990 92 93 97	324 114 265 245	1.35 1.04 1.28 1.61	1.15-1.56 0.77-1.30 1.04-1.51 1.34-1.88
454	Dry	11,033	74%	1981 93 97	91 210 188	0.92 1.44 1.26	0.56-1.28 1.17-1.72 0.88-1.39
455	Vank	8,437	99%				
	a) Sokolof			1981 99	900 360	1.73 0.92	1.61-1.85 0.76-1.08
	b) Rynda			1981 99	281 280	0.25 0.27	0.18-0.32 0.18-0.36
	c) Greys			1981	284	0.25	0.18-0.32
458	Snow Passage	31,572	46%	1994 97	345 315	0.58 0.98	0.45-0.70 0.80-1.16
461	Woronkofski (All Transects)	14,500	63%	1985	646	1.63	1.45-1.81
461	Woronkofski (Trans. 10,11,12)			1985 87 89 91 93 94	218 201 223 203 225 224 216	2.01 2.23 2.52 1.59 0.22 0.26 0.11	1.62-2.39 1.85-2.61 2.18-2.85 1.32-1.85 0.13-0.31 0.18-0.34 0.06-0.17
467	Mosman	25,573	54%	1993	304	0.07	0.03-0.11

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
470	Oneless	00.047		1004			0.00.0.40
473	Onslow	28,947	55%	1984	321	0.37	0.28-0.46
				85	334	0.59	0.48-0.70
				86	347	0.72 0.42	0.59-0.84 0.31-0.55
				87 88	336		0.31-0.55
				91	329 322	0.44 0.66	0.51-0.80
				93	341	0.68	0.55-0.82
				94	340	0.88	0.74-1.02
				97	346	0.73	0.59-0.86
474	Fisherman's Cove (Canoe)	na	na	2001	228	0.11	0.06-0.17
480	Fool's Inlet	30,906	44%	1994	194	0.54	0.38-0.70
460	FOOI'S IIIIet	30,900	44%				
				2001	201	0.61	0.45-0.77
489	Muddy River	40,275	37%	1996	348	1.53	1.26-1.80
490	Horn	9,815	55%	1998	250	0.60	0.47-0.74
504	Madan	na	60%	2001	244	0.23	0.14-0.31
511	Harding	na	20%	2001	207	0.02	0.00-0.05
524	Frosty Bay	17,959	41%	1991	266	0.70	0.55-0.86
527	Protection	6,257	100%	1997	332	1.15	0.99-1.30
		-,		98	281	0.59	0.47-0.71
				00	325	0.56	0.46-0.66
					020	0.00	0.10 0.00
528	Mt. Calder	9,232	83%	1988	252	2.14	1.78-2.49
		,		97	272	1.17	0.96-1.39
				99	165	0.48	0.31-0.62
532	Red Bay	15,145	66%	1987	177	0.32	0.18-0.47
	-			94	256	0.94	0.74-1.14
				96	281	1.19	0.97-1.41
				97	248	1.07	0.89-1.25
				98	283	0.73	0.59-0.88
				2001	337	0.76	0.61-0.90
				2001	551	0.70	J.U1~U.3U

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
539	Exchange Cove	10,406	74%	1988	266	1.39	1.15-1.64
				92	125	1.10	0.83-1.38
				97	303	1.25	1.04-1.46
549	Sarheen	11,875	52%	1989	310	1.73	1.44-2.01
				96	334	1.00	0.83-1.16
				97	330	1.00	0.85-1.14
				98	355	0.42	0.33-0.51
				99	284	0.64	0.51-0.78
				00	293	0.98	0.78-1.17
				2001	319	0.45	0.36-0.55
554	Sarkar	32,183	60%	1988	298	1.28	1.06-1.50
		,		92	125	1.10	0.83-1.38
				94	292	0.92	0.77-1.07
				97	263	0.61	0.48-0.74
				98	312	0.29	0.21-0.37
				99	281	0.74	0.60-0.88
				2001	330	0.45	0.35-0.55
561	Warm Chuck	12,348	85%	1984	326	1.02	1.02-1.38
				85	295	1.60	1.36-1.84
				89	302	2.21	1.91-2.50
				91	291	2.05	1.73-2.37
				96	276	1.39	1.17-1.61
				97	247	1.21	1.01-1.41
				98	246	1.29	1.08-1.51
				00	288	0.99	0.81-1.16
564	Coronation	19,107	69%	1983	696	1.20	1.04-1.36
				85	228	2.34	
				88	408	1.41	1.17-1.66
				89	293	1.63	1.28-1.98
				97	289	0.44	0.34-0.55
				2001	336	0.85	0.67-1.03
569	Baker	31,802	68%	1991	256	0.08	0.04-0.12
				97	250	0.14	0.08-0.20

Table 1. Continued.

		Land	%			الم	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
575	Thorne Lake	17,970	68%	1992	334	1.20	1.03-1.37
		,		94	293	0.76	0.62-0.91
				95	299	1.27	1.09-1.45
				97	303	0.84	0.66-0.96
				98	316	0.87	0.71-1.03
				99	231	1.02	0.83-1.21
				00	311	1.28	1.06-1.51
				2001	327	0.53	0.42-0.63
578	Snakey Lakes	6,431	84%	1986	279	0.62	0.51-0.73
				88	300	1.05	0.84-1.26
				89	200	1.56	1.26-1.86
				93	356	0.77	0.61-0.93
				97	310	1.39	1.17-1.60
				98	225	0.71	0.55-0.87
				99	250	0.86	0.67-1.05
				00	263	1.55	1.24-1.86
				2001	358	0.89	0.74-1.03
581	Luck Lake	19,818	67%	1986	178	1.74	1.41-2.07
				88	300	2.11	1.80-2.41
				93	175	1.10	0.87-1.32
				2001	320	0.60	0.47-0.72
584	Little Ratz	12,392	65%	1992	272	0.94	0.76-1.13
				97	255	1.93	1.64-2.21
				98	282	0.78	0.64-0.91
				00	304	1.38	1.18-1.59
				2001	287	1.20	1.00-1.39
587	Tuxekan	12,129	77%	1988	300	1.06	0.84-1.28
				97	314	1.04	0.87-1.22
				98	353	0.48	0.37-0.58
				99	328	1.26	1.03-1.49

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
621	12 Mile	23,344	59%	1985	196	0.31	0.19-0.43
				86	300	0.64	0.48-0.81
				87	370	0.65	0.49-0.81
				88	302	0.62	0.46-0.77
				89	235	0.78	0.59-0.98
				90	176	1.18	0.84-1.52
				91	231	1.84	1.48-2.21
				92	250	0.43	0.32-0.55
				93	258	0.84	0.63-1.05
				94	324	0.93	0.76-1.09
				97	202	1.45	1.10-1.79
				98	280	0.83	0.63-1.02
625	Trocadero	16,624	75%	1995	235	1.74	1.41-2.06
				97	235	1.18	0.97-1.38
				98	267	0.97	0.78-1.16
628	Pt. Amagura	10,477	26%	1997	255	1.04	0.83-1.24
				98	325	0.93	0.78-1.08
635	Port Refugio	9,118	50%	1985	317	2.69	2.27-3.12
				86	324	2.52	2.09-2.96
				87	369	1.76	1.46-2.07
				88	270	1.15	0.90-1.40
				89	507	0.80	0.68-0.93
				90	232	1.25	1.03-1.48
				91	367	1.13	0.95-1.32
				92	254	0.76	0.57-0.95
				93	213	1.35	0.98-1.71
				94	280	1.85	1.51-2.19
				97	276	0.82	0.65-1.00
				98	315	0.78	0.61-0.96
				00	272	0.94	0.75-1.13
679	Kitkun Bay	15,359	75%	1988	240	0.31	0.20-0.42
				89	273	0.89	0.71-1.07
				95	264	0.40	0.28-0.52
				97	261	0.31	0.19-0.44

Table 1. Continued.

VCU Name Acres CFL Year Plots Mean 95% Co. 685 Nutkwa 17,079 73% 1988 234 0.09 0.02-0. 716 Helm Bay 16,127 57% 1981 704 0.16 0.12-0. 84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461								
685 Nutkwa 17,079 73% 1988 234 0.09 0.02-0. 716 Helm Bay 16,127 57% 1981 704 0.16 0.12-0. 84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.			Land	%				•
716 Helm Bay 16,127 57% 1981 704 0.16 0.12-0. 84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	OU N	Name	Acres	CFL	Year	Plots	Mean	95% CI
716 Helm Bay 16,127 57% 1981 704 84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	O.F. N	N. Alana	47 070	700/	1000	004	0.00	0.00.0.10
84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	85 1	Nutkwa	17,079	73%	1988	234	0.09	0.02-0.16
84 302 0.54 0.44-0. 85 181 0.85 0.65-1. 88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 289 1.29 1.08-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	16 H	Helm Bay	16,127	57%	1981	704	0.16	0.12-0.19
88 247 1.66 1.38-1. 91 240 1.63 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 251 0.41 0.30-0		•			84	302	0.54	0.44-0.65
719 Port Stewart 21,482 55% 193 289 1.35-1. 92 169 1.25 0.96-1. 93 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					85	181	0.85	0.65-1.05
719 Port Stewart 21,482 55% 193 286 1.37 1.16-1. 95 284 1.31 1.09-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					88	247	1.66	1.38-1.95
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					91	240	1.63	1.35-1.92
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 289 1.29 1.29 1.08-1. 97 289 1.29 1.29 1.08-1. 99 182 0.77 2001 289 1.20 1.31-0. 1.35-1. 97 289 1.20 1.31-0. 1.35-1. 97 289 1.21 0.13-0. 1.35-1. 97 289 1.22 1.03-1. 97 289 1.23 1.08-1. 98 1.24 1.31 1.09-1.					92	169	1.25	0.96-1.53
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 97 265 0.79 0.65-0. 98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					93	286	1.37	1.16-1.59
98 232 0.44 0.34-0. 99 182 0.70 0.53-0. 2001 251 0.41 0.30-0. 719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					95	284	1.31	1.09-1.52
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					97	265	0.79	0.65-0.99
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					98	232	0.44	0.34-0.55
719 Port Stewart 21,482 55% 1993 289 1.22 1.03-1. 95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					99	182	0.70	0.53-0.87
95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					2001	251	0.41	0.30-0.51
95 278 1.61 1.35-1. 97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.								
97 289 1.29 1.08-1. 99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	19 F	Port Stewart	21,482	55%	1993	289	1.22	1.03-1.42
99 182 0.77 0.57-0. 2001 289 0.21 0.13-0. 722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					95	278	1.61	1.35-1.87
722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					97	289	1.29	1.08-1.50
722 Spacious Bay 31,461 44% 1993 300 0.54 0.43-0. 95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					99	182	0.77	0.57-0.97
95 283 0.45 0.35-0. 97 276 0.43 0.33-0. 99 161 0.09 0.04-0.					2001	289	0.21	0.13-0.29
97 276 0.43 0.33-0. 99 161 0.09 0.04-0.	22 8	Spacious Bay	31,461	44%	1993	300	0.54	0.43-0.64
99 161 0.09 0.04-0.					95	283	0.45	0.35-0.54
					97	276	0.43	0.33-0.53
					99	161	0.09	0.04-0.13
2001 285 0.06 0.02-0.					2001	285	0.06	0.02-0.09
738 Margaret 19,286 67% 1985 515 0.57 0.47-0.	38 N	Margaret	19,286	67%	1985	515	0.57	0.47-0.66
			,		86			0.69-1.00
88 110 1.31 0.96-1.					88	110	1.31	0.96-1.67
89 129 0.62 0.44-0.					89	129	0.62	0.44-0.80
90 274 0.56 0.44-0.					90	274	0.56	0.44-0.68
								0.58-0.94
					93			0.23-0.39
95 304 0.70 0.56-0.					95	304	0.70	0.56-0.84
97 297 0.56 0.43-0.					97	297	0.56	0.43-0.68
99 264 0.47 0.98-1.					99	264	0.47	0.98-1.45
2001 279 0.44 0.44-0.					2001	279	0.44	0.44-0.54

Table 1. Continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
748	George Inlet	19,448	28%	1981 84 85 89 90 91 92 94 96 98	110 344 313 169 240 168 195 309 305 314 270	0.21 0.27 0.52 1.41 1.03 1.49 0.65 0.95 0.98 0.52 0.51	0.09-0.33 0.19-0.35 0.39-0.65 1.08-1.75 0.82-1.25 1.15-1.84 0.49-0.81 0.79-1.11 0.76-1.19 0.40-0.65 0.38-0.64
752	Whitman Lake	6,015	38%	1981 87 90 92 97 98	45 187 193 189 181 209	0.18 0.16 0.46 0.20 0.81 0.47	0.02-0.33 0.09-0.23 0.32-0.59 0.12-0.28 0.63-0.98 0.33-0.61
758	Carroll Pt.	11,629	34%	1985 86 88 92 94 98	118 118 85 87 125 125	0.66 0.75 1.15 0.28 0.70 0.51	0.46-0.86 0.56-0.95 0.81-1.48 0.14-0.41 0.49-0.90 0.38-0.64
759	Moth Bay	7,652	23%	1985 86 88 92 94 98	140 156 78 136 136 176	0.59 0.98 0.71 0.48 0.94 0.68	0.42-0.74 0.79-1.17 0.46-0.97 0.30-0.66 0.71-1.17 0.53-0.82
760	Lucky Cove	12,377	43%	1985 86 88 90 91	335 258 65 263 271	1.16 1.16 1.01 1.10 1.39	1.00-1.33 0.95-1.32 0.68-1.34 0.92-1.27 1.07-1.70
764	Blank Inlet	3,640	19%	1981	108	1.24	0.89-1.59

Table 1. Continued.

		Land	%			Pelle	et-Group
VCU	Name	Acres	CFL	Year	Plots	Mean	95% CI
				,,,,,			
765	Dall Head	4,803	63%	1981	69	0.52	0.31-0.74
				96	295	1.07	0.90-1.24
				98	287	0.84	0.67-1.01
				00	285	0.96	0.77-1.14
767	Duke Island	39,171	17%	1996	294	0.05	0.02-0.09
				00	282	0.13	0.08-0.18
769	Alava Bay	13,563	60%	1985	311	0.52	0.39-0.65
	•	,		86	326	0.85	0.68-1.01
				91	143	1.64	1.22-2.05
				94	326	0.79	0.64-0.94
				96	324	0.93	0.77-1.09
				98	335	0.66	0.52-0.79
				00	329	0.75	0.56-0.93
772	Wasp Cove	4,882	90%	1985	271	0.41	0.31-0.51
	1140p 0010	4,00∠	30 /0	86	300	0.50	0.38-0.62
				89	145	0.58	0.39-0.77
				91	207	0.13	0.07-0.18
				اق	201	0.15	0.07-0.10
821	Winstanley Island	14,104	45%	1991	49	0.27	0.11-0.42

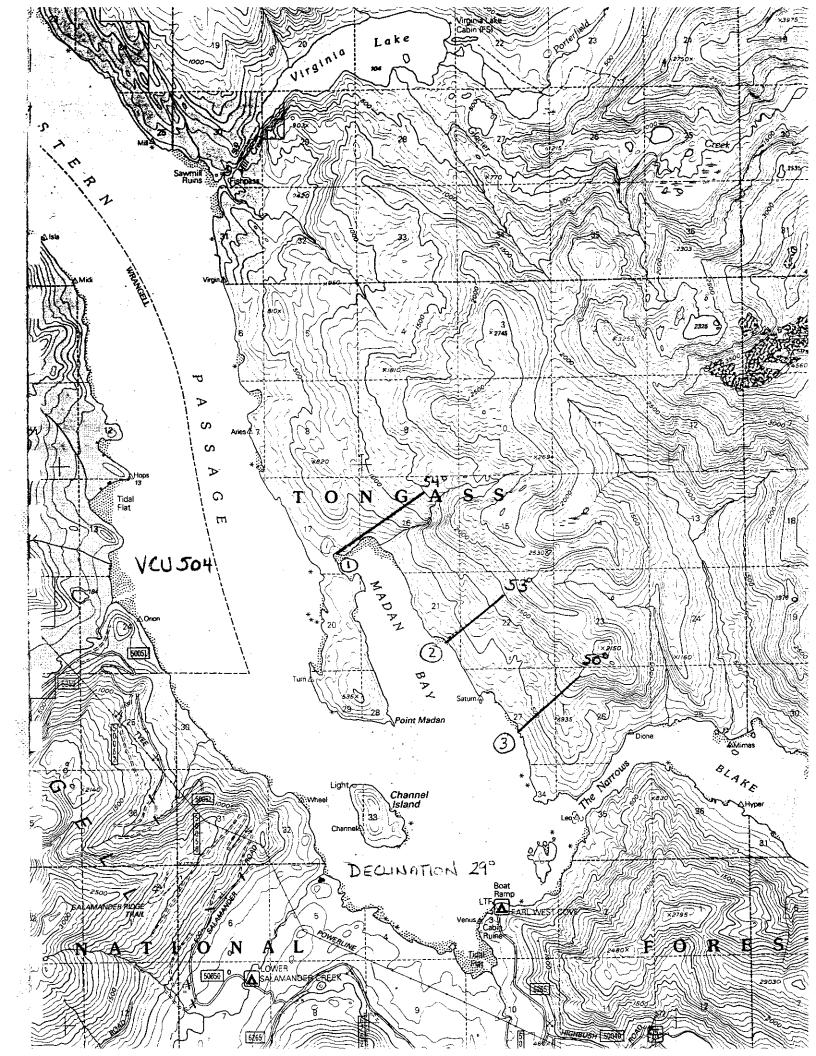
Table 1. Continued.

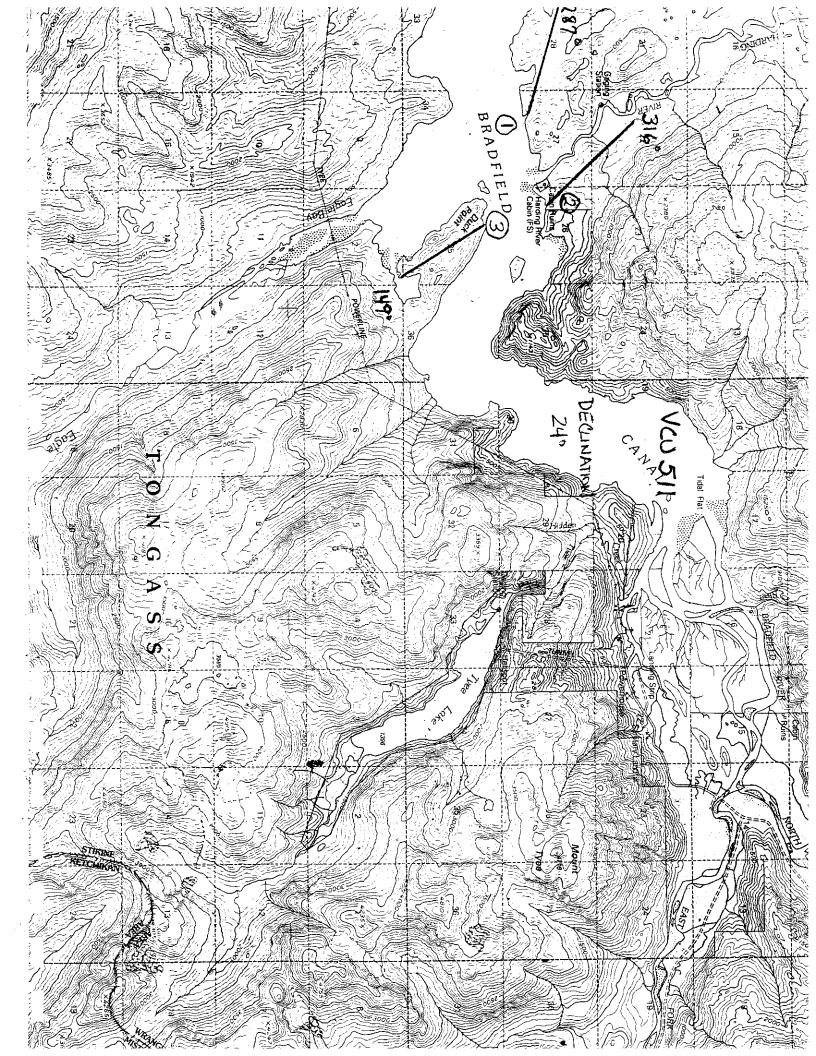
VCU	Name	Land Acres	% CFL	Year	Plots	Pelle Mean	et-Group 95% CI
999	Gravina (All Transects)	na	na	1981 84 85 86	226 1,087 1,172 1,267	1.06 0.86 1.23 1.40	0.89-1.22 0.78-0.94 1.13-1.32 1.30-1.50
999	Gravina (Trans. 1,2,3)			1984 85 86 87 88 89 90 91 92 94 96 97 98	376 224 346 334 278 182 279 154 302 331 338 274 307 267	0.88 1.44 1.62 1.63 2.06 1.13 1.40 1.12 1.22 1.58 1.47 1.71 1.34 1.24	0.73-1.03 1.20-1.67 1.43-1.81 1.41-1.84 1.78-2.35 0.86-1.41 1.12-1.68 0.80-1.43 1.05-1.38 1.37-1.79 1.28-1.67 1.47-1.95 1.12-1.56 1.06-1.42

APPENDIX I

New VCU's Sampled in 2001^a

 $^{^{\}rm a}$ Transect location forms for these and all other VCU's are located in the ADF&G Southeast Regional Office, Douglas.





APPENDIX II

Winter Weather Conditions

2001

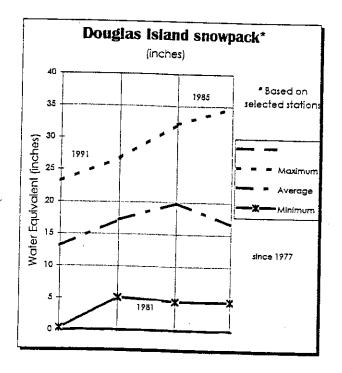
Winter Weather Conditions

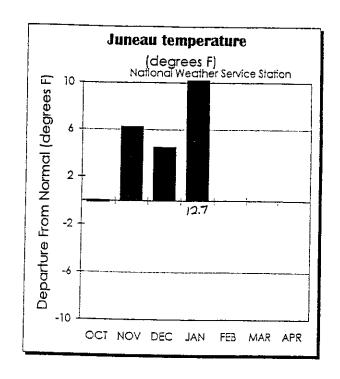
January - April 2001

Data from: <u>Alaska Snow Surveys</u>, USDA Soil Conservation Service, Anchorage, AK. Monthly reports on file, ADF&G, Douglas.

Southeast

February 1, 2001



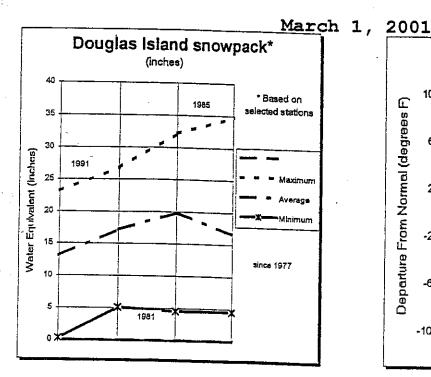


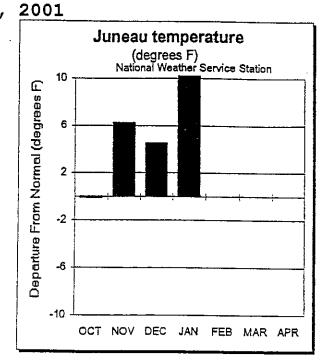
SNOWCOVER:

The Petersburg snow courses are 38 percent of normal. The Petersburg Ridge snow course has the second lowest amount of snow on record with the lowest year being 1996, this site has a 22 year length. The Long Lake Snotel water content is 53 percent of last year, it had 45 inches of snow depth with 13.6 inches of water content at the end of January.

For more information contact your Natural Resource Conservation Service office in Anchorage: (907) 271-2424.

Southeast





SNOWCOVER:

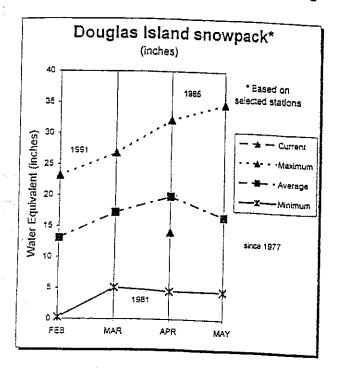
The Speel River snow course is 57 percent of normal with 42 inches of snow and 15.3 inches of snow water content. The Petersburg Ridge snow course is 60 percent of normal.

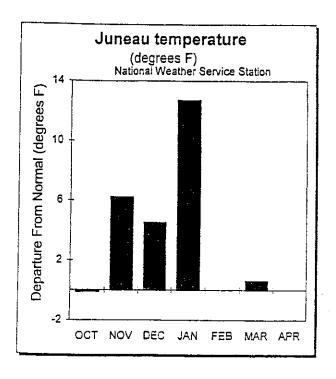
In contrast to the north at the Moore Creek Bridge snow course, north of Skagway, the 23.5 inches of snow water content is 122 percent of normal with a 12 year average.

For more information contact your Natural Resource Conservation Service office in Anchorage: (907)271-2424.

Southeast

April 1, 2001





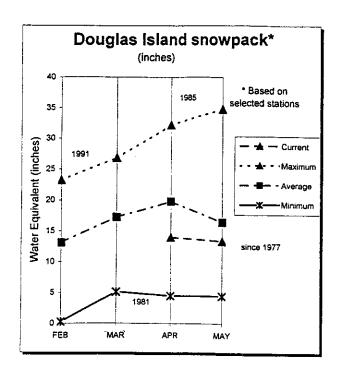
SNOWCOVER:

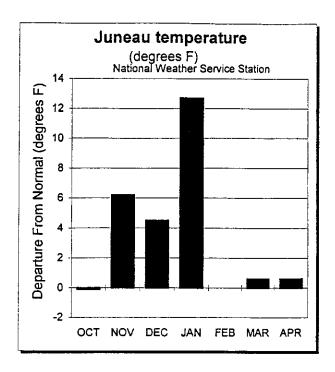
The Petersburg Ridge snow course has 24.9 inches of water content, 87 percent of normal. The low elevation snow course, Petersburg Reservoir had a trace of snow.

The Douglas Island snow courses were measured; Cropley Lake is 79 percent of normal, Eagle Crest is 69 percent of normal while Fish Creek had no snow.

For more information contact the Anchorage Natural Resources Conservation Service office in Anchorage: (907) 271-2424.

Southeast May 1, 2001





SNOWCOVER:

The Swan Lake snow courses, at the head of Carroll Inlet from Ketchikan were measured. The 3 snow course water contents measured combined are 63 percent of last year. The precipitation gauge at the hydroelectric power plant has received 105.5 inches of precipitation since October 1st, 107 percent of normal.

The Petersburg snow courses are 81 percent of normal while the Douglas Island snow course water contents are 70 percent of normal.

The Long Lake snow course, southeast of Juneau, has a water content of 49 percent of last year. This would be 47 percent of the 6 year average developed from the 1968-1974 measurements.

For more information contact the Anchorage Natural Resources Conservation Service office in Anchorage: (907)271-2424.

APPENDIX III

Pellet-Group Densities Reported by Transect and Elevation

Table 2. Mean pellet-group counts per 20-m plot, by transect, Spring 2001.

			Pellet-group	5.
VCU	F	 1	count	Plots
35 North Douglas	Transect	1	0.77	75
		2	0.46	63
		3	1.26	125
		4	1.31	72
124 Sheiter Island	Transect	4	2.48	50
		5	1.82	50
		6	2.92	50
		7	0.87	31
		8	1.82	50
189 Port Althrop	Transect	1	2.21	61
,		2	0.48	44
		3	2.09	120
190 Idaho Inlet	Transect	1	0.36	125
		2	1.38	80
		3	1.32	103
249 Lisianski	Transect	1	1.58	38
- 10 - 10 (4)		2	1.59	29
		3	1.63	80
		4	1.75	57
	:	5	2.09	35
254 Soapstone	Transect	1	2.18	101
254 55465615		2	2.00	80
		3	1.54	65
271 Chichagof	Transect	1	1.22	87
27 Chionago		2	1.29	91
		3	1.20	113
275 Cobol	Transect	1	1.43	67
270 0000.	114.10001	2	1.75	60
		3	2.81	53
300 Nakwasina	Transect	2	0.92	50
500 Nakwasiila	Tanscot	3	3.48	73
		8	2.13	63
305 Sealion Cove	Transect	1	1.51	77
JOJ GERIIOIT GOVE	Tansect	2	1.48	99
		3	1.11	55
474 Coppe (Figherman's Court)	Troncost	1	0.12	102
474 Canoe (Fisherman's Cove)	Transect			53
		2	0.19	t
100 F - I- I-I-A	T	3	0.05	73
480 Fools Inlet	Transect	1	0.24	59
		2	0.73	67
		3	0.79	75

Table 2 (continued). Mean pellet-group counts per 20-m plot, by transect, Spring 2001.

vcu			Pellet-group count	Plots
504 Madan	Transect	1	0.04	80
		2	0.22	82
		3	0.43	82
511 Harding	Transect	1	0.00	75
		2	0.00	51
		3	0.06	81
532 Red Bay	Transect	3	0.51	120
		4	0.87	119
		6	0.93	98
549 Sarheen	Transect	1	0.44	117
		2	0.38	125
		3	0.60	77
554 Sarkar	Transect	1	0.54	125
		2	0.29	106
		4	0.49	99
564 Coronation	Transect	1	0.15	87
		2	0.84	75
		3	0.39	69
		4	1.74	105
575 Thorne Lake	Lake Transect	1	0.56	91
		2	0.70	105
		3	0.30	89
		4	0.50	42
578 Snakey Lakes	Transect	1	0.70	105
·		2	0.98	125
		3	0.92	74
		4	1.00	54
581 Luck Lake	Transect	1	0.40	100
	ļ	2	0.41	91
		3	1.00	60
		4	0.82	69
584 Little Ratz	Transect	1	0.95	103
		2	0.67	63
	T T T T T T T T T T T T T T T T T T T	3	1.40	72
		4	2.10	49
716 Helm Bay	Transect	1	0.56	118
•		2	0.31	49
		3	0.25	84

Table 2 (continued). Mean pellet-group counts per 20-m plot, by transect, Spring 2001.

VCU	· ·		Pellet-group count	Plots
719 Port Stewart	Transect	1	0.30	94
		2	0.20	97
		3	0.15	98
722 Spacious Bay	Transect	1	0.06	68
		2	0.09	109
		3	0.02	108
738 Margaret	Transect	10	0.46	84
34.4.		11	0.71	103
		25	0.10	92

Table 3: Mean pellet-groups counts per 20-m plot, by elevation (ft.), spring 2001.

		Pellet-group	
VCU	Elevation	Count	Plots
35 North Douglas	0-500 feet	0.81	159
	501-1000 feet	0.75	96
	>1000 feet	1.73	80
124 Shelter Island	0-500 feet	2.14	199
	501-1000 feet	0.73	22
	>1000 feet	3.70	10
189 Port Althrop	0-500 feet	1.78	134
	501-1000 feet	1.98	85
	>1000 feet	0.17	6
190 Idaho Inlet	0-500 feet	1.01	223
	501-1000 feet	0.76	85
249 Lisianski	0-500 feet	1.66	144
	501-1000 feet	1.82	93
	>1000 feet	0.50	2
54 Soapstone	0-500 feet	1.98	199
•	501-1000 feet	1.87	46
	>1000 feet	0.00	1
271 Chichagof	0-500 feet	1.36	215
	501-1000 feet	0.91	46
	>1000 feet	0.79	30
275 Cobol	0-500 feet	2.27	59
	501-1000 feet	2.28	74
	>1000 feet	1.00	47
300 Nakwasina	0-500 feet	3.00	99
	501-1000 feet	1.52	48
	>1000 feet	1.64	39
305 Sealion Cove	0-500 feet	1.50	108
, ,	501-1000 feet	1.58	73
	>1000 feet	0.94	50
474 Fisherman's Cove	0-500 feet	0.11	193
474 Tionemiane core	501-1000 feet	0.14	35
480 Fools inlet	0-500 feet	0.38	88
400 1 0013 THE	501-1000 feet	0.55	56
	>1000 feet	1.02	57
504 Madan	0-500 feet	0.03	117
304 Madaii	501-1000 feet	0.35	86
	>1000 feet	0.54	41
511 Harding	0-500 feet		205
o i i maruing		0.02	
500 Ded Dev	501-1000 feet	0.00	2
532 Red Bay	0-500 feet	0.74	290
	501-1000 feet	0.85	47
549 Sarheen	0-500 feet	0.48	249
	501-1000 feet	0.36	70
554 Sarkar	0-500 feet	0.45	330
564 Coronation	0-500 feet	0:98	272
	501-1000 feet	0.23	48
	>1000 feet	0.50	16

		Pellet-group	
vcu	Elevation	Count	Plots
575 Thorne Lake	0-500 feet	0.35	147
	501-1000 feet	0.64	135
	>1000 feet	0.76	45
578 Snakey Lakes	0-500 feet	0.96	282
	501-1000 feet	0.51	45
	>1000 feet	0.81	31
581 Luck Lake	0-500 feet	0.74	69
	501-1000 feet	0.64	59
	>1000 feet	0.52	192
584 Little Ratz	0-500 feet	1.02	175
	501-1000 feet	1.56	68
	>1000 feet	1.34	44
716 Helm Bay	0-500 feet	0.41	216
	501-1000 feet	0.41	34
	>1000 feet	0.00	1
719 Port Stewart	0-500 feet	0.17	200
	501-1000 feet	0.45	60
	>1000 feet	0.07	29
722 Spacious Bay	0-500 feet	0.03	202
	501-1000 feet	0.12	69
	>1000 feet	0.07	14
738 Margaret	0-500 feet	0.38	233
	501-1000 feet	0.74	23
	>1000 feet	0.70	23