Federal Aid in Wildlife Restoration
Annual Report

1998 Report

Deer Pellet-Group Surveys in Southeast Alaska

by

Mark J. Kirchhoff

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

February 1999

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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 1998. 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 1998, 38 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 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 1998 seven VCUs were surveyed in Subunit 1A. Of these seven VCUs, all showed declines from the previous year surveyed. While in the field, biologists did not observe an increase in deer mortalities or wolf scat. The deer browse observed was healthy and abundant, and most transects ran through mid-volume old growth forest – seemingly good deer winter range. The winter of 1997-98 was extraordinarily mild, with very little snow and some months being as much as ten degrees warmer than normal (see weather data in Appendix II). The deer were more dispersed, both at higher elevations and further inland, and may have been using lower quality habitat than normal. These circumstances probably contributed to deer populations being underestimated in 1998.

Unit 2 - Prince of Wales Island. During 1998 thirteen VCUs were surveyed in Unit 2. Eight were down from the previous year surveyed and five were about the same. Biologists believe the same weather pattern that affected deer pellet counts in Unit 1A extended to Unit 2, and that the lower pellet counts are indicative of a more dispersed deer population rather than an actual decline.

Subunit 1B and Unit 3 – Central Southeast Alaska. Deer pellet-group surveys were concentrated on Kupreanof and Mitkof islands in 1998 with a new VCU surveyed on the mainland at Horn Cliffs. Five VCUs in total were surveyed and pellet group counts remained about the same from previous years surveyed.

Unit 4 - Northern Southeast Alaska. Nine VCUs were surveyed in Unit 4 in 1998. Deer pellet-group density in all nine was either about the same or higher than previous years surveyed. Even though pellet group counts in northern Southeast were high, deer populations were still probably underestimated because deer were more dispersed than normal. This indicates just how strong the deer population is in much of Unit 4 after the string of mild winters we've had.

Subunit 1C - Juneau and Mainland. Douglas Island is the most important area in Unit 1C for Juneau deer hunters and the VCUs on the island are regularly surveyed to track the deer population. Transects surveyed at the north end of the road system showed increased pellet-group densities, but pellet-group densities at Pt. Hilda were unusually low. Local area biologists believe noise and helicopter activity associated with logging this drainage prior to the count may have temporarily displaced some of the resident deer and accounted for the low numbers. Unexperienced crews also could have contributed to the low counts. Biologists will be re-checking this VCU in 1999, but with the winter being so mild, deer numbers are believed to be in good shape on the island.

Local area biologists also sampled Lincoln Island in 1998 – deer pellet-group density was moderate.

Unit 5 - Yakutat. No surveys were conducted in the Yakutat area in 1998.

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 low to moderate volume hemlock stands. Deer pellet-group density in 1998 was moderate at 1.54 pellet groups per plot.

Inner Point (VCU 36) - This drainage, located on the west side of Douglas Island, is popular with Juneau deer hunters. It is a small VCU containing mostly low-volume forest; it also brushy, particularly at lower elevations. Access is sometimes difficult because of high winds and sea conditions in Stephens Passage. Pellet-group densities measured since 1985 have usually been moderate, between one and two pellet groups per plot, but 1998 results were low at 0.84 pellet groups per plot. Selective logging in this drainage prior to the count may have temporarily displaced some of the deer population; unexperienced crews may also have missed some pellets while counting.

Lincoln Island (VCU 124) - Located north of Juneau in 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. Lincoln Island transects were run once before in the early 1980s, and while the records of where those lines started and where they went are intact, the actual pellet counts could not be found in the historical record. Juneau area biologists therefore wanted to visit the island and get an idea of how deer were faring. Deer pellet-group density was moderate at 1.52 pellet groups per plot.

Thayer Lake (VCU 162) - This VCU, in the interior of Admiralty Island, was first sampled in 1987. Six 50-plot transects were laid out around the lake with different exposures. Biologists wanted to see to what extent deer used this forested inland area for winter range. Deer pellet-group density in 1998 was high at 2.13 pellet groups per plot.

Pybus Bay (VCU 182) - Pybus Bay, on the SE coast of Admiralty Island, is important to Juneau, Petersburg, and Kake hunters, and has been surveyed frequently since 1981. All three transects are fairly easy, although snow can sometimes be a problem at higher elevations. 1998 pellet-group counts were moderate at 1.37 pellet groups per plot.

Port Althorp (VCU 189) - This VCU, on the NW corner of Chichagof Island, is an important deer hunting area for Elfin Cove residents. 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 1998 was moderate at 1.48 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 1998 was moderate at 1.11 pellet groups per plot.

Lisianski River (VCU 249) - This VCU on Chichagof Island is an important subsistence area for the residents of nearby Pelican. Six transects were established in 1988; they are mostly short and steep, with limited forest cover above 1000 feet elevation. Deer pellet-group density in 1998 was low at 0.88 pellet groups per plot, about the same level as recorded in 1995 when this VCU was last visited.

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 1998 at 1.34 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. This VCU, along with VCU 271, provides information on relative density and trend along Chichagof's outside coast. Pellet group-density in 1998 was high at 2.19 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. Typically, deer pellet-group densities have been very high at Nakwasina, and 1998 was no exception at 2.99 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 mid-volume timber until breaking out into sub-alpine vegetation at approximately 900 feet elevation. Transect #2 also traverses low to mid-volume timber but does not reach sub-alpine. Deer pellet-group density was moderate at 1.71 pellet groups per plot.

Castle River (VCU 435) - Castle River VCU, located in Duncan Canal on Kupreanof Island, was first sampled in 1984. One transect is located on Big Castle Island, and two are located on Kupreanof Island. The topography traversed is mostly flat and habitat is characterized by muskeg and non-commercial forest - the few good stands of trees are along the beach and stream courses. Deer pellet-group density in 1998 remained low at 0.36 pellet groups per plot.

E. Duncan (VCU 437) – Three transects were established on the east side of Duncan Canal in 1990. Transect #1 is a low elevation transect which runs up to a 500-foot knob opposite the Castle Islands. A portion of this transect was clearcut in 1992. High winds in 1998 prevented the crew from reaching the beach and this transect was not completed. Transect #2 runs up a SW facing slope to 1500 feet elevation. It is brushy with a fair amount of blowdown. Transect #3 also runs up a SW facing slope to 1500 feet elevation. The transect is gradual at first, but then becomes very steep. Timber volume is moderate. Deer pellet-group density in 1998 was 1.04 pellet groups per plot.

Portage Bay (VCU 442) - Three transects were established at Portage Bay on the north end of Kupreanof Island in 1993. Transect #1 starts on the west side of the bay opposite Stop Island and traverses low-volume mixed forest to 640 feet elevation. Transect #2 starts at the head of the bay and traverses mid-volume hemlock as it skirts a young clearcut. A bearing change is made at plot 49 from 45 degrees to 25 degrees. Transect #3 starts on the east side of the bay near the mouth and traverses low to mid-volume hemlock on a steep slope up to 1500 feet. Deer pellet-group density in 1998 was remarkably similar to past years counts at 0.39 pellet groups per plot.

Woewodski (VCU 448) - Three transects were located on southwestern Mitkof Island in 1984. They are all well-marked and easily accessible by skiff from Petersburg. All climb to 1500 feet through mid-volume hemlock-spruce forest. The upper end of transect #1 has been clearcut. Deer pellet-group density in 1998 was moderate at 1.10 pellet groups per plot.

Horn (VCU 490) - Two new transects were established at Horn Cliffs in Frederick Sound in 1998 because a number of Petersburg residents use the area for deer hunting. Originally three lines were laid out, but floating ice prevented one crew from reaching the beach. Transects #2 and #3 traverse muskeg and scrub forest at first, switching into mid- to high volume old growth as elevation is gained. Deer pellet-group density in 1998 was low at 0.60 pellet groups per plot.

Protection (VCU 527) - Three transects were established in this VCU in 1997 in response to concerns by local Port Protection residents about area deer herds. The three transects start on the beach about a half mile west of Merrifield Bay and traverse lower volume timber up to about 500 feet elevation. Pellet-group density in 1998 was low at 0.59 pellet groups per plot.

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 clearcuts and young second growth. Pellet-group density in 1998 was low at 0.73 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 mostly low volume timber and reach approximately 800 feet elevation. Deer pellet-group density in 1998 was low at 0.42 pellet groups per plot.

Sarkar (VCU 554) - Three transects were established at Sarkar Lake on Prince of Wales Island in 1988. All three transects start at Sarkar Rapids bridge. Transects #1 and #3 travel through a combination of old growth and second growth; #2 is old growth all the way. Deer pellet-group density in 1998 was low at 0.29 pellet groups per plot.

Warm Chuck (VCU 561) - Located on Heceta Island off the west coast of Prince of Wales Island, this VCU is a popular hunting destination. Transects were established here in 1984 because of reported high deer populations. Transect #1 travels up a valley bottom that has been partially cutover, #2 traverses a flat poorly-drained area with low volume timber; and #3 climbs a steep hill to 1500 feet elevation. Deer pellet-group density in 1998 was moderate at 1.29 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 mostly low to mid-volume with muskegs scattered throughout. Transect #3 is an easy transect through mostly 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 5 and 6 all the way. Deer pellet-group density in 1998 was low at 0.87 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 1998 was at 0.71 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 several blowdowns have occurred. 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 1998 was low at 0.78 pellet groups per plot.

Tuxekan (VCU 587) - This VCU, located just south of Staney Creek on the west coast of Prince of Wales Island, was first sampled in 1988. Four transects were established which sample a wide variety of habitat types, from clearcuts to high volume old growth. Pellet-group density in 1998 was low at 0.48 pellet groups per plot.

12 Mile (VCU 621) - This VCU, located near Kasaan Bay on Prince of Wales Island, has been sampled by the Forest Service since 1985. Deer pellet-group density in 1998 was low at 0.83 pellet groups per plot.

Trocadero (VCU 625) – Three transects were established in 1995 at the head of Trocadero Bay on the west coast of Prince of Wales Island. This VCU is popular with Craig deer hunters. Transect #1 heads up a south-facing slope to 1500 feet elevation. The forest is mostly low-volume red cedar. Transect #2 also heads up a south-facing slope to about 1000 feet elevation. Timber volume is low throughout the transect and there is a lot of blowdown to overcome. Transect #3 heads up a north-facing slope to about 1000 feet elevation. The start of the transect has a lot of blowdown and the timber volume is low. The understory contains a lot of salal and cedar which makes counting pellets difficult. Deer pellet-group density in 1998 was 0.97 pellet groups per plot.

Pt. Amagura (VCU 628) - Three transects were established in 1997 on the SE corner of San Fernando Island opposite the community of Craig. Transect #1 starts on the beach about a mile north of the Pt. Amagura Forest Service cabin and traverses both non-commercial and low volume forest to about 700 feet elevation. Transect #2 starts in the bay east of Pt. Cuerbo and also traverses non-commercial and low volume forest. Transect #3 starts on the beach just north of Fern Point and traverses similar forest to the other two transects. Deer pellet-group density in 1998 was low at 0.93 pellet groups per plot.

Port Refugio (VCU 635) - This VCU is located on Suemez Island off the west coast of Prince of Wales Island. Pellet groups have been counted here almost every year since 1985. Since then there has been a lot of logging on the island. Pellet-group densities have varied widely over the years; in 1998 it was low at 0.78 pellet groups per plot.

Helm Bay (VCU 716) - Helm Bay is located on the Cleveland Peninsula north of Ketchikan. Three permanent transects were established here in 1984. Transect #1 is long, flat, and traverses extensive muskeg and scrub forest. Transects #2 and #3 reach to1500 feet elevation and traverse mid-volume forest. Deer pellet-group density in 1998 was low at 0.44 pellet groups per plot.

George Inlet (VCU 748) - This VCU on Revilla Island is easily accessible by skiff from Ketchikan. Transect #1 is short and steep to 1400 feet elevation and traverses high volume timber. Transects #2 and #3 are longer and flatter and contain a greater variety of forest types including cedar stands and muskeg. Deer pellet-group density in 1998 was low at 0.52 pellet groups per plot.

Whitman Lake ((VCU 752) - This roadside VCU south of Ketchikan was first sampled in 1981 and has occasionally been sampled since when inclement weather prohibits airplane or skiff use. All three transects reach to 1500 feet elevation on a south facing slope, traversing low to mid-volume forest. Deer pellet-group density continues to be low, less than one pellet group per plot.

Carroll Pt. (VCU 758) - A single transect was established in this VCU on southern Revilla Island in 1988. Taken alone, the number of plots is too low to say anything significant about this VCU, but when combined with plots from adjacent transects in Moth Bay, a reliable judgement can be made on deer population trend on southern Revilla. Deer pellet-group density in 1998 was low at 0.51 pellet groups per plot.

Moth Bay (VCU 759) - Two transects were established in Moth Bay on southern Revilla Island in 1985. Transect #2 has a west-facing aspect and climbs to a 1200 foot high ridge through mid-volume cedar and hemlock-spruce forest. Transect #3 has more ups and downs and travels through similar forest, ending at about 1100 foot elevation on an east facing slope. Combined with the transect at adjacent Carroll Point, Moth Bay is a good indicator of deer populations on southern Revilla. Deer pellet-group density in 1998 was low at 0.68 pellet groups per plot.

Dall Head (VCU 765) – Three transects were established here on the south end of Gravina Island in 1996. Much of Dall Head has been exposed to windthrow and fire and consequently there are large areas that are in second growth, including some well stocked red cedar stands. Most of the understory is brushy conifer mixed with salal. Deer pellet-group density in 1998 was 0.84 pellet groups per plot.

Alava Bay (VCU 769) - This VCU, located on the southeastern tip of Revilla Island, was first sampled in 1985. All three transects have steep sections in them and all are brushy with blueberry thickets to four feet tall. Forest types are diverse ranging from muskeg to high volume old growth. Pellet-group density was low in 1998 at 0.66 pellet groups per plot.

Gravina (VCU 999) - Northeastern Gravina Island was sampled at moderate levels in 1981 and at intensive levels in 1984, 1985, and 1986. In 1987, sampling was reduced to three transects (#'s 1,2, and 3). These transects are readily accessible from the Ketchikan airport and traverse mostly muskeg and low volume forest. Deer pellet-group density was moderate in 1998 at 1.34 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, 1981-98.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	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	300	0.80	0.65-0.96
				93	324	0.74	0.62-0.87
				94	315	0.91	0.74-1.09
				95	306	0.86	0.70-1.02
				96	323	0.97	0.81-1.12
				97	323	1.43	1.24-1.62
				98	**321**	**1.54**	**1.32-1.77**
36	Inner Point	3,965	44%	1985	256	1.30	1.10-1.51
				86	235	1.97	1.68-2.25
				87	262	1.76	1.53-2.00
				88	200	1.21	1.02-1.39
				89	258	1.31	1.08-1.53
				92	204	2.05	1.75-2.36
				95	254	1.41	1.21-1.60
				96	240	1.68	1.45-1.91
				97	252	2.36	2.08-2.64
				98	**280**	**0.84**	**0.69-0.98**
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	250	1.39	1.17-1.62
117	Couverden	9,933	10%	1993	350	0.35	0.27-0.44
124	Shelter Island (All Transects)	6,162	43%	1984	713	1.46	1.33-1.60
				85	774	1.82	1.67-1.97
				86	727	2.20	2.02-2.37

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
124	Shelter Island (Trans. 4-8, 18)			1984	300	1.52	1.34-1.70
				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
124	Lincoln Island			**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
140	Dorn Island	9,485	81%	1984	230	1.27	1.02-1.53
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	313	2.81	2.49-3.12
				89	283	2.04	1.75-2.32
				94	282	2.27	1.98-2.56
				98	**308**	**2.13**	**1.87-2.38**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
171	Hood Bay	44,355	79%	1987	358	2.31	1.99-2.63
				89	366	1.77	1.54-2.00
				90	375	1.85	1.61-2.09
				92	360	1.91	1.64-2.18
				94	371	1.64	1.41-1.88
182	Pybus Bay	41,501	62%	1981	390	1.34	1.16-1.52
				84	300	1.02	0.86-1.18
				85	269	1.86	1.60-2.12
				86	235	2.00	1.70-2.29
				87	242	2.03	1.69-2.37
				89	199	2.00	1.63-2.36
				90	221	1.72	1.44-2.01
				92	236	1.13	0.97-1.30
				95	205	1.48	1.23-1.74
				98	**256**	**1.37**	**1.16-1.59**
185	Pleasant Island	8,738	16%	1991	311	1.38	1.18-1.57
				92	210	1.34	1.09-1.59
				93	305	1.77	1.52-2.02
				94	356	1.22	1.04-1.40
				97	300	1.80	1.54-2.06
189	Port Althorp	8,040	27%	1988	195	1.80	1.47-2.13
				91	223	1.92	1.55-2.29
				92	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**
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**
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

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
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
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
221	Whip Station	4,708	53%	1981	193	0.86	0.64-1.08
222	Sand Station	12,231	50%	1981	253	0.60	0.48-0.73
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

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
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
247	Finger Mountain	15,918	38%	1983	2,145	1.17	1.11-1.24
				84	302	1.83	1.57-2.09
				85	279	3.23	2.79-3.67
				86	277	2.88	2.57-3.19
				87	236	3.11	2.71-3.52
				89	305	2.99	2.57-3.40
				90	225	3.36	2.99-3.74
				91	150	3.93	3.36-4.51
				92	207	2.85	2.48-3.22
				93	179	3.03	2.60-3.47
				94	275	2.29	1.96-2.62
				96	221	2.62	2.20-3.04
				97	227	3.53	3.05-4.02
249	Lisianski	19,677	24%	1988	255	0.97	0.79-1.14
				91	170	1.53	1.22-1.84
				95	317	0.70	0.56-0.85
				98	**321**	**0.88**	**0.75-1.02**
254	Soapstone	17,695	29%	1988	274	1.92	1.67-2.17
				91	270	2.05	1.77-2.33
				93	243	1.88	1.59-2.16
				94	310	1.34	1.16-1.52
				95	283	1.48	1.27-1.69
271	Chichagof	20,680	10%	1991	301	1.39	1.19-1.58
				95	303	0.98	0.83-1.14
				98	**319**	**1.34**	**1.16-1.53**
275	Cobol	14,618	49%	1984	224	1.15	0.92-1.37
				91	185	2.96	2.37-3.54
				95	218	1.45	1.16-1.74
				98	**219**	**2.19**	**1.86-2.51**
279	Rapids Point	7,637	65%	1983	2,734	0.77	0.73-0.81

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
281	Ushk Bay	20,770	38%	1981	94	0.63	0.41-0.85
288	Range Creek	6,929	33%	1983	1,788	0.51	0.46-0.55
				84	303	0.71	0.61-0.92
				85	224	1.32	1.02-1.62
				97	353	1.44	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	213	0.53	0.39-0.68
				90	214	3.09	2.70-3.48
				97	39	1.59	0.86-2.32
298	Middle Arm Kelp Bay	28,424	21%	1990	306	2.68	2.35-3.01
				97	100	2.67	2.04-3.30
300	Nakwasina (All Transects)	19,575	48%	1984	196	2.51	2.14-2.88
				85	1046	3.92	3.67-4.17
				86	715	3.50	3.26-3.76
300	Nakwasina (Trans. 2,3,8)			1984	138	2.51	2.10-2.93
				85	218	3.65	3.13-4.17
				86	205	3.38	2.91-3.84
				87	195	2.31	1.90-2.71
				89	244	2.32	2.00-2.65
				90	255	2.98	2.56-3.40
				91	175	3.98	3.39-4.57
				92	223	1.64	1.37-1.90
				93	188	3.15	2.70-3.60
				94	230	1.46	1.24-1.68
				95	216	1.75	1.48-2.10
				96	210	2.82	2.35-3.29
				97	188	2.79	2.31-3.27
				98	**217**	**2.99**	**2.48-3.49**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group 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**
308	South Kruzof	71,158	25%	1993	345	1.62	1.41-1.83
				94	370	1.71	1.52-1.90
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
348	West Crawfish	57,434	16%	1989	360	1.35	1.36-1.57
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
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
369	Ankau			1991	116	0.03	0.00-0.05

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
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
403	Pillar Bay	28,227	65%	1988	337	0.16	0.10-0.22
408	Malmesbury	18,151	68%	1990	206	0.11	0.05-0.18
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
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
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**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
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**
448a	Woewodski Island	20,931	53%	1991	461	1.86	1.66-2.05
				94	510	1.30	1.15-1.46
449	Frederick	6,835	70%	1981	945	0.08	0.06-0.11
				90	180	0.55	0.36-0.74
				92	227	0.54	0.42-0.65
452	Blind Slough	30,655	55%	1990	324	1.35	1.15-1.56
				92	114	1.04	0.77-1.30
				93	265	1.28	1.04-1.51
				97	245	1.61	1.34-1.88
454	Dry	11,033	74%	1981	91	0.92	0.56-1.28
				93	210	1.44	1.17-1.72
				97	188	1.26	0.88-1.39
455	Vank	8,437	99%	1981			
	a) Sokolof				900	1.73	1.61-1.85
	b) Rynda				281	0.25	0.18-0.32
	c) Greys				284	0.25	0.18-0.32
458	Snow Passage	31,572	46%	1994	345	0.58	0.45-0.70
				97	315	0.98	0.80-1.16

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
461	Woronkofski (All Transects)	14,500	63%	1985	646	1.63	1.45-1.81
461	Woronkofski (Trans. 10,11,12)			1985	218	2.01	1.62-2.39
				87	201	2.23	1.85-2.61
				89	223	2.52	2.18-2.85
				91	203	1.59	1.32-1.85
				93	225	0.22	0.13-0.31
				94	224	0.26	0.18-0.34
467	Mosman	25,573	54%	1993	304	0.07	0.03-0.11
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	0.59-0.84
				87	336	0.42	0.31-0.55
				88	329	0.44	0.32-0.55
				91	322	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
480	Fools Inlet	30,906	44%	1994	194	0.54	0.38-0.70
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**
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**
528	Mt. Calder	9,232	83%	1988	252	2.14	1.78-2.49
				97	272	1.17	0.96-1.39
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**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 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**
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**
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**
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
569	Baker	31,802	68%	1991	256	0.08	0.04-0.12
				97	250	0.14	0.08-0.20
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**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
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**
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
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**
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**
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**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	Pellet-Group 95% CI
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**
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
685	Nutkwa	17,079	73%	1988	234	0.09	0.02-0.16
716	Helm Bay	16,127	57%	1981	704	0.16	0.12-0.19
				84	302	0.54	0.44-0.65
				85	181	0.85	0.65-1.05
				88	247	1.66	1.38-1.95
				91	240	1.63	1.35-1.92
				92	169	1.25	0.96-1.53
				93	286	1.37	1.16-1.59
				95	284	1.31	1.09-1.52
				97	265	0.79	0.65-0.99
				98	**232**	**0.44**	**0.34-0.55**
719	Port Stewart	21,482	55%	1993	289	1.22	1.03-1.42
				95	278	1.61	1.35-1.87
				97	289	1.29	1.08-1.50
722	Spacious Bay	31,461	44%	1993	300	0.54	0.43-0.64
				95	283	0.45	0.35-0.54
				97	276	0.43	0.33-0.53

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
738	Margaret	19,286	67%	1985	515	0.57	0.47-0.66
				86	251	0.84	0.69-1.00
				88	110	1.31	0.96-1.67
				89	129	0.62	0.44-0.80
				90	274	0.56	0.44-0.68
				91	272	0.76	0.58-0.94
				93	281	0.31	0.23-0.39
				95	304	0.70	0.56-0.84
				97	297	0.56	0.43-0.68
748	George Inlet	19,448	28%	1981	110	0.21	0.09-0.33
				84	344	0.27	0.19-0.35
				85	313	0.52	0.39-0.65
				89	169	1.41	1.08-1.75
				90	240	1.03	0.82-1.25
				91	168	1.49	1.15-1.84
				92	195	0.65	0.49-0.81
				94	309	0.95	0.79-1.11
				96	305	0.98	0.76-1.19
				98	**314**	**0.52**	**0.40-0.65**
752	Whitman Lake	6,015	38%	1981	45	0.18	0.02-0.33
				87	187	0.16	0.09-0.23
				90	193	0.46	0.32-0.59
				92	189	0.20	0.12-0.28
				97	181	0.81	0.63-0.98
				98	**209**	**0.47**	**0.33-0.61**
758	Carroll Pt.	11,629	34%	1985	118	0.66	0.46-0.86
				86	118	0.75	0.56-0.95
				88	85	1.15	0.81-1.48
				92	87	0.28	0.14-0.41
				94	125	0.70	0.49-0.90
				98	**125**	**0.51**	**0.38-0.64**
759	Moth Bay	7,652	23%	1985	140	0.59	0.42-0.74
				86	156	0.98	0.79-1.17
				88	78	0.71	0.46-0.97
				92	136	0.48	0.30-0.66
				94	136	0.94	0.71-1.17
				98	**176**	**0.68**	**0.53-0.82**

Table 1. continued.

VCU	Name	Land Acres	% CFL	Year	Plots	Pellet-Group Mean	95% CI
760	Lucky Cove	12,377	43%	1985	335	1.16	1.00-1.33
				86	258	1.16	0.95-1.32
				88	65	1.01	0.68-1.34
				90	263	1.10	0.92-1.27
				91	271	1.39	1.07-1.70
764	Blank Inlet	3,640	19%	1981	108	1.24	0.89-1.59
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**
767	Duke Island	39,171	17%	1996	294	0.05	0.02-0.09
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**
772	Wasp Cove	4,882	90%	1985	271	0.41	0.31-0.51
				86	300	0.50	0.38-0.62
				89	145	0.58	0.39-0.77
				91	207	0.13	0.07-0.18
821	Winstanley Island	14,104	45%	1991	49	0.27	0.11-0.42

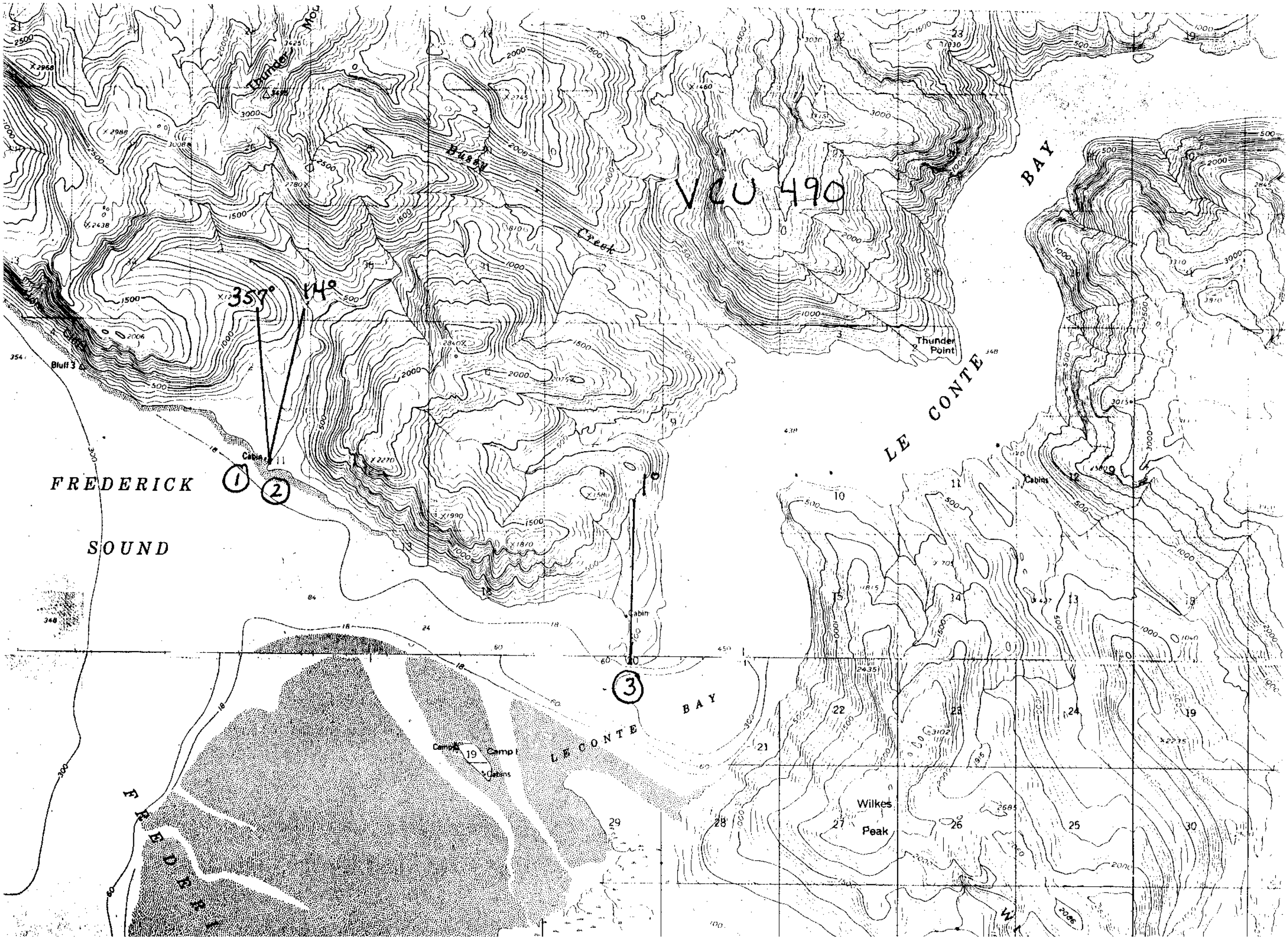
Table 1. continued.

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

APPENDIX I

New VCU's Sampled in 1998[a]

[a] Transect location forms for these and all other VCU's are located in the ADF&G Southeast Regional Office, Douglas.


VCU 490
357°
14°
1
2
3
FREDERICK SOUND
LE CONTE BAY
LE CONTE BAY
Thunder Mou
Thunder Point
Bussy Creek
Wilkes Peak
Bluff 3
Cabin
Cabin
Cabins
Camp
Camp
Cabins

APPENDIX II

Winter Weather Conditions

1998

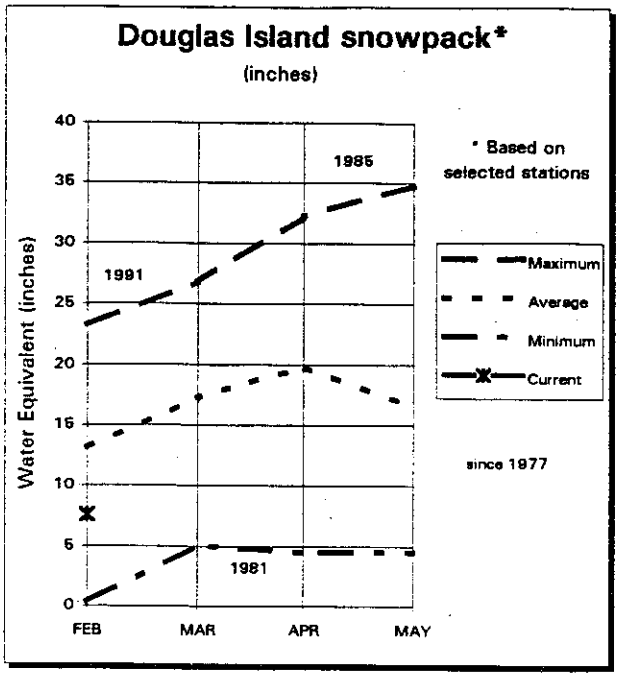
Winter Weather Conditions

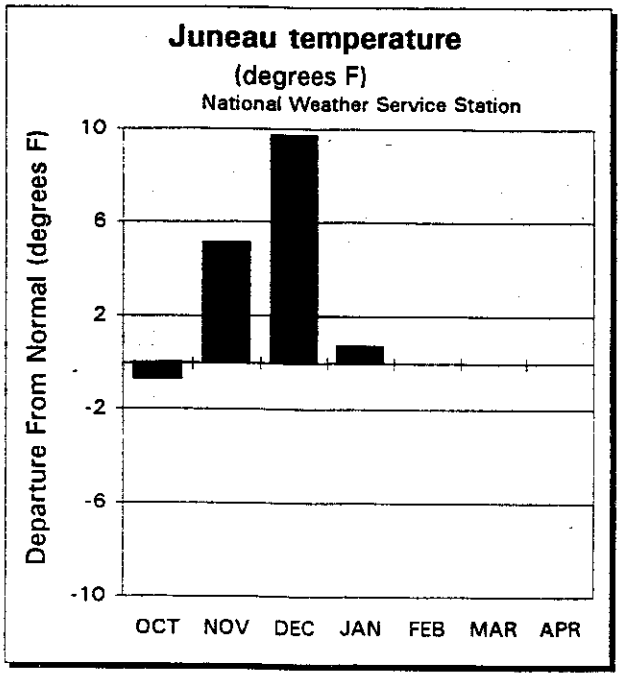
January - April 1998

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

Southeast

February 1, 1998





SNOWCOVER

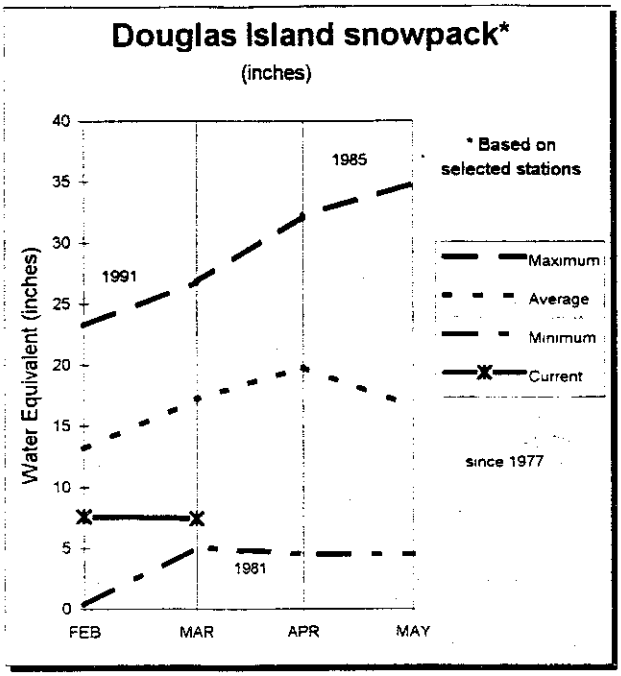
The snow courses on Douglas Island are much below normal with Eagle Crest at 70 percent.

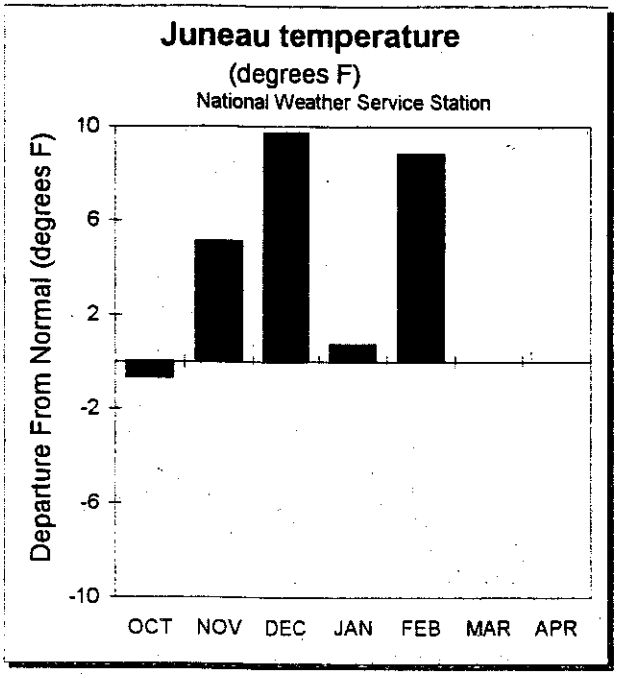
The Petersburg Ridge snow course is 65 percent of normal and less than 50 percent of the normal water content was measured at Petersburg Reservoir.

The Moore Creek Bridge snow course above Skagway is probably near 70 percent of normal snow water equivalent.

Southeast

March 1, 1998





SNOWCOVER:

The snow courses at Petersburg are 41 percent of normal.

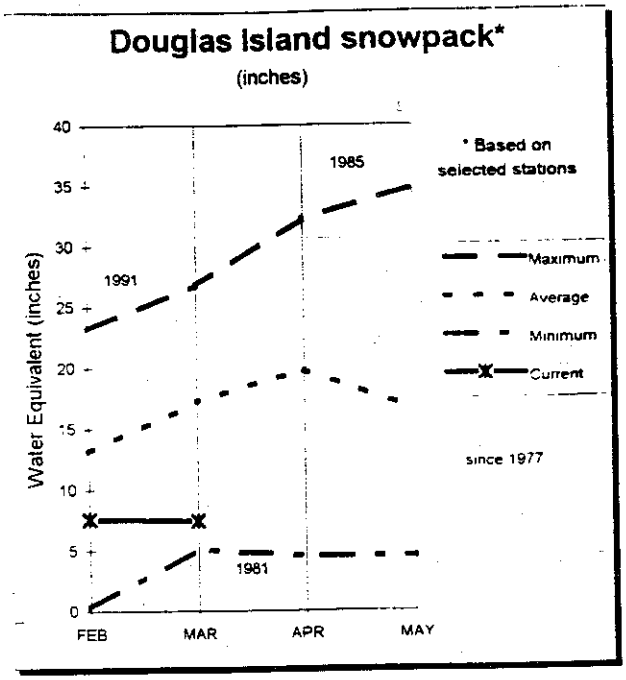
The snow courses on Douglas Island, near Juneau, are 35 percent of normal.

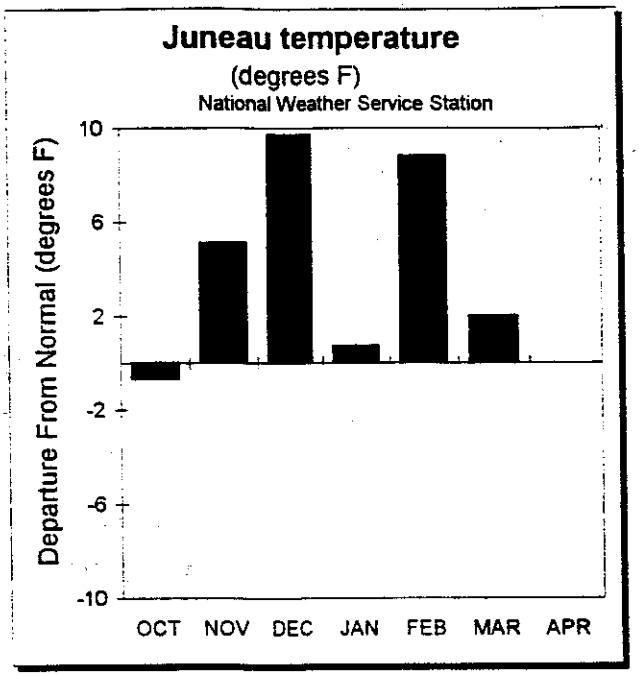
The Moore Creek Bridge snow course, near Skagway, has 11.8 inches of water content, 50 percent of the 8 year average.

For more information, contact the Anchorage Natural Resources Conservation office: 271-2424.

Southeast

April 1, 1998





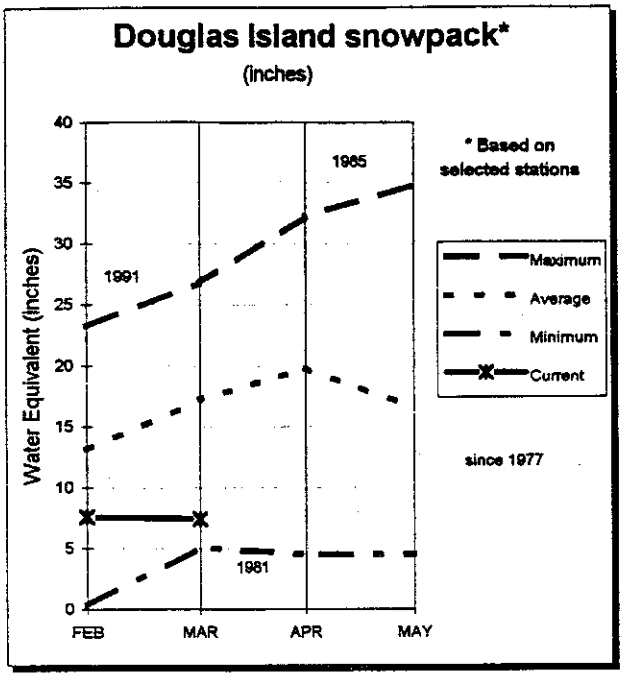
SNOWCOVER:

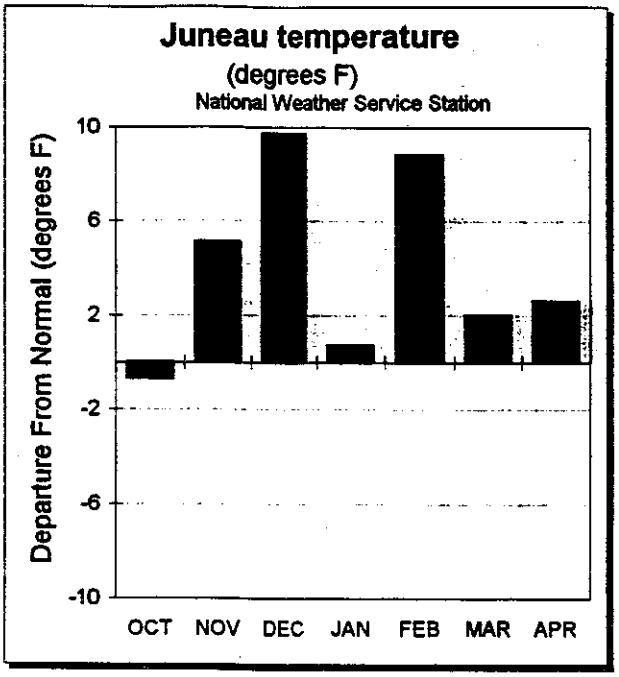
The Petersburg Ridge snow course water content is the second lowest of its 19 year record at 48 percent of normal.
The snow course depths at the Swan Lake Hydro-electric project varied from 176 inches at High Cirque Lake to no snow at Lost Lake. Mint Creek Ridge has 66 inches of snow compared to last years 127 inches.
The Speel River snow course water content at the Snettisham Hydro-electric project, near Juneau is 53 percent of normal. No report from the Douglas Island snow courses.

For more information contact the anchorage Natural Resources Conservation Service office in Anchorage at 271-2424.

Southeast

May 1, 1998





SNOWCOVER:

The Petersburg Ridge snow course is the second lowest measurement of record for the 18 year period, it is 22 percent of normal.
The Speel River snow course near the Snettisham Hydro electric project is also the second lowest measurement of record for the 33 year period, it is 27 percent of normal.

For more information contact the Anchorage Natural Resources Conservation Service office in Anchorage at 271-2424.

APPENDIX III

Pellet-Group Densities
Reported by Transect and Elevation

Table 2. Mean pellet-group densities, by VCU, by transect, Spring 1998.

				Mean	Plots
VCU	35	TRAN	1	1.5	75
			2	1.3	125
			3	1.8	121
	36	TRAN	1	.8	77
			2	.5	125
			3	1.3	78
	124	TRAN	1	2.8	43
			2	1.2	107
			3	1.2	57
	162	TRAN	1	1.6	39
			2	1.6	42
			3	2.6	53
			4	2.6	43
			5	1.6	68
			6	1.8	63
	182	TRAN	1	1.5	77
			2	1.0	86
			3	1.6	93
	189	TRAN	1	1.8	86
			2	.8	70
			3	1.6	125
	190	TRAN	1	.5	71
			2	1.1	100
			3	1.6	102
	249	TRAN	1	.8	57
			2	1.3	43
			3	.7	95
			4	.9	87
			5	1.1	39
	271	TRAN	1	1.4	99
			2	1.1	95
			3	1.5	125
	275	TRAN	1	1.5	73
			2	2.3	85
			3	2.8	61
	300	TRAN	2	1.4	50
			3	2.2	82
			8	4.6	85
	305	TRAN	1	1.3	90
			2	2.0	100
			3	1.8	51
	435	TRAN	1	.4	105
			2	.6	76
			3	.1	100

Table 2. Mean pellet-group densities, by VCU, by transect, Spring 1998.

				Mean	Plots
VCU	437	TRAN	2	1.1	83
			3	1.0	70
	442	TRAN	1	.3	125
			2	.4	87
			3	.5	73
	448	TRAN	1	1.2	125
			2	1.0	77
			3	1.1	80
	490	TRAN	1	.8	125
			2	.4	125
	527	TRAN	1	.6	96
			2	.6	80
			3	.5	105
	532	TRAN	1	.5	90
			2	.4	68
			3	1.0	125
	549	TRAN	1	.3	80
			2	.6	105
			3	.2	125
	554	TRAN	1	.5	125
			2	.2	113
			3	.1	74
	561	TRAN	1	1.4	120
			2	1.0	66
			3	1.5	60
	575	TRAN	1	.8	76
			2	.9	125
			3	.9	82
			4	.8	33
	578	TRAN	1	1.0	45
			2	.8	125
			4	.2	55
	584	TRAN	1	.4	95
			2	1.0	38
			3	.9	73
			4	1.0	76
	587	TRAN	1	.8	63
			2	.5	125
			3	.2	40
			4	.4	125
	621	TRAN	1	1.2	120
			2	.6	90
			3	.4	70
	625	TRAN	1	.6	85
			2	1.7	90

Table 2. Mean pellet-group densities, by VCU, by transect, Spring 1998.

				Mean	Plots
VCU	625	TRAN	3	.6	92
	628	TRAN	1	.8	100
			2	1.0	125
			3	.9	95
	635	TRAN	1	.4	115
			2	.9	100
			3	1.1	100
	716	TRAN	1	.4	97
			2	.6	74
			3	.4	61
	748	TRAN	1	.6	64
			2	.4	125
			3	.6	125
	752	TRAN	1	.6	86
			2	.3	51
			3	.5	72
	758	TRAN	28	.5	125
	759	TRAN	2	.7	51
			3	.6	125
	765	TRAN	1	.7	101
			2	1.3	91
			3	.5	95
	769	TRAN	1	.4	125
			2	.6	110
			3	1.1	100
	999	TRAN	1	1.0	90
			2	1.3	105
			3	1.7	112

Table 3. Mean pellet-group densities, by VCU, by elevation, Spring 1998.

		Elevation Category					
		0-500 ft		501-1000 ft		1001-1500 ft	
		Mean	Plots	Mean	Plots	Mean	Plots
VCU	35	1.1	129	1.2	119	2.9	73
	36	.6	192	1.4	46	1.4	42
	124	1.5	202	2.8	5	.	
	162	1.3	88	2.3	113	2.2	107
	182	1.1	163	2.6	44	1.3	49
	189	1.4	134	1.5	125	1.6	22
	190	.9	172	1.4	85	1.9	16
	249	.9	165	.9	137	.6	19
	271	1.4	221	1.1	65	1.2	33
	275	2.8	65	2.0	81	1.8	73
	300	2.6	105	2.7	52	3.9	60
	305	1.8	110	1.8	70	1.4	61
	435	.4	275	.0	6	.	
	437	.6	71	.9	39	1.8	43
	442	.3	204	.7	51	.9	30
	448	.5	80	.9	70	1.6	132
	490	.5	209	1.0	25	1.1	16
	527	.6	281	.		.	
	532	.5	216	1.4	38	1.4	29
	549	.4	232	.4	78	.	
	554	.3	312	.		.	
	561	1.1	212	2.3	16	2.3	18
	575	.7	182	1.1	119	1.3	15
	578	.7	211	.5	14	.	
	584	.7	171	.9	59	.9	52
	587	.3	206	.6	101	.8	46
	621	.6	110	1.1	82	.8	88
	625	1.1	151	.8	99	.9	17
	628	.8	222	1.1	98	.	
	635	.4	165	1.2	122	1.4	28
	716	.4	190	.8	18	.8	24
	748	.4	220	.4	73	1.7	21
	752	.2	51	.9	74	.3	84
	758	.5	93	.4	32	.	
	759	.6	108	.8	56	.5	12
	765	.9	269	.0	14	.3	4
	769	.4	239	1.2	46	1.4	50
	999	1.1	157	1.6	75	1.6	75