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EFFECTS OF THE TRANS-ALASKA PIPELINE CORRIDOR ON
THE DISTRIBUTION AND MOVEMENTS OF CARIBOU

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Volume VIII

Progress Report
Federal Aid in Wildlife Restoration
Project W-22-2, Job 3.18R

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PROGRESS REPORT (RESEARCH)

State: Alaska

Cooperator: None

Project No.: W-22-2 Project Title: Big Game Investigations

Job No.: 3.18R Job Title: Effects of the Trans-Alaska Pipeline Corridor on the Distribution and Movements of Caribou

Period Covered: 1 July 1982 through 30 June 1983
(additional data included for January-June 1982)

SUMMARY

A final report on the distribution and movements of caribou (Rangifer tarandus granti) along the Trans-Alaska Pipeline (TAP) corridor is in progress. This report will deal with observations made between summer 1975 and spring 1982, to include the following: (1) an in-depth analysis of seasonal and annual changes in local caribou distribution and group composition in relation to corresponding regional estimates for the Central Arctic Herd (CAH); (2) a comparison of sex/age composition of caribou among drainages between the Colville and Canning Rivers; (3) a comparison of the habitat distribution along the Dalton Highway (DH) with that of the overall study area; (4) a 7-year summary of the locations of caribou crossings (and attempted crossings) of the DH and/or TAP, the group sex/age structure of the caribou involved and, where possible, the pipeline configuration/elevation at the approach or crossing site; and (5) a seasonal/annual assessment of trends in construction activity, traffic, and other sources of TAP-related disturbance.

Although considerable progress has been made on data compilation, our efforts have been frustrated by difficulties with computer formatting, data retrieval and, all too frequently, access to the University of Alaska computer system. Nevertheless, all DH survey records have now been corrected and verified (penultimate summary, Appendix A). Major tasks remaining include hand-tabulating and verifying aerial survey records, refining our analysis of habitat distribution, strengthening the assessment of disturbance trends, and conducting a number of statistical analyses.

We anticipate publishing these results in Wildlife Monographs, Biological Papers of the University of Alaska, or the Department's Wildlife Technical Bulletin series. A preliminary draft should be available early in 1984.

Key words: caribou, distribution, movements, Rangifer tarandus granti, Trans-Alaska Pipeline Corridor.

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Appendix A. Summary of caribou survey observations from the Dalton Highway, summer 1975-spring 1982.

Year	Season	No. of surveys ^a	Incl. dates	Total caribou observed		Total caribou classified ^b		
				No. of groups	No. of caribou	No. of groups	No. of caribou	% calves ^c
1975	Summer	12	6/11-8/24	294	1,709	282	1,661	7
	Fall	7	9/3-11/22	73	842	55	414	9
1976	Spring	9	3/3-5/28	133	1,188	93	765	4
	Summer	12	6/8-8/26	212	913	203	878	4
	Fall	3	9/22-10/28	7	33	7	33	12
1977	Winter	1	1/29-1/30	7	69	6	58	7
	Spring	3	3/15-5/25	46	509	38	417	7
	Summer	11	6/8-8/28	218	933	210	925	2
	Fall	7	9/9-11/26	89	391	87	355	8
1978	Winter	1	1/30-1/31	6	61	6	61	0
	Spring	2	5/26-5/27	42	301	40	287	5
	Summer	12	6/10-8/26	256	1,435	256	1,435	3
	Fall	3	9/13-10/13	10	37	10	37	8
1979	Spring	4	5/11-5/30	54	220	54	220	5
	Summer	12	6/13-8/27	361	3,443	356	2,330	1
	Fall	7	9/11-11/27	86	523	81	436	14
1980	Spring	6	4/10-5/29	78	597	78	597	4
	Summer	10	6/10-8/25	216	992	215	985	2
	Fall	11	9/9-11/25	98	720	95	673	11
1981	Winter	2	2/28-3/1	51	579	47	383	7
	Spring	12	3/10-5/28	396	3,807	347	2,553	6
	Summer	12	6/9-8/29	231	1,616	230	1,578	5
	Fall	12	9/13-11/24	223	2,924	187	1,437	14
1982	Winter	5	12/11-2/27	192	1,939	142	1,008	12
	Spring	12	3/8-5/27	494	3,605	418	2,748	9

^a Complete 1-way surveys between the ARCO West Dock and Pump Station No. 4 (263 km).

^b Excluding groups with 1 or more "unknown" caribou (i.e., those not classified as to sex or age).

^c Aggregate (weighted) mean for each season.