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United States Department of the Interior

FISH AND WILDLIFE SERVICE

1011 E. Tudor Rd.

Anchorage, Alaska 99503-6199

IN REPLY REFER TO

MBM

SEP 21 1994

Memorandum

To: See Distribution

From: Assistant Regional Director
Refuges and Wildlife

Subject: 1992 and 1993 Duck Production Survey Results

Attached are estimates of broods and adults derived from the Duck Production Surveys for 1992 and 1993. Production areas surveyed in 1992 included Tanana-Kuskokwim, Yukon Flats, Innoko, Koyukuk/Kanuti, Bristol Bay, Yukon Delta, Kotzebue Sound, and Kodiak Island. Because Kenai-Susitna and Gulkana production areas were not surveyed in 1992, the table of "all production areas" cannot be compared to tables of "all production areas" in previous reports (e.g., Table 5 in the 1991 report). In 1993, only the North Slope, Seward Peninsula and Koyukuk production areas were surveyed. No surveys were conducted in 1994.

A final report analyzing results from four years of Duck Production Surveys is currently being developed by Migratory Bird Management (MBM). The MBM also is cooperating with refuge biologists to analyze data from comparisons of helicopter and ground surveys on the Yukon Delta and Koyukuk production areas.

The data gathered during the four years of the survey have yielded important information about duck brood distribution and abundance in the state, and have furthered our understanding of the variance to be expected in surveys of this type. Although funding constraints make a statewide survey unlikely in the foreseeable future, we are pleased with the development of a helicopter-based brood survey that we feel confident is the most cost-efficient, accurate and precise method available for obtaining population indices of waterfowl broods. The method should be useful in many situations where distribution and abundance of duck broods are required to answer specific management questions, such as

those to be addressed by methodologies incorporated into the Standardized Refuge Inventory Program.

In addition to the information presented in the attached tables, tables of average brood size and age distribution, and original data on disk are available from Karen Laing or Russ Oates, MBM, Anchorage (907) 786-3459. Please contact them if you have questions or would like further information.

Attachments

Distribution:

Alaska Peninsula/Becharof NWRs

Innoko NWR

Izembek NWR

Kanutai NWR

Kodiak NWR

Koyukuk/Nowitna NWRs

Selawik NWR

Tetlin NWR

Togiak NWR

Yukon Delta NWR

Yukon Flats NWR

Migratory Bird Management, Fairbanks

Migratory Bird Management, Juneau

Migratory Bird Management, Anchorage

cc: AE
ASC

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Selected Area: ALL PRODUCTION AREAS Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 431
 Expanded Area: 100360

	Broods Expanded	C.V.	Adults Expanded	C.V.	Young Expanded	C.V.
Mallard	38162	0.12	271090	0.17	170098	0.13
Gadwall	0		5065	0.87	0	
American Wigeon	59020	0.12	497778	0.33	264661	0.13
Green-winged Teal	124960	0.12	302901	0.14	455807	0.14
Blue-Winged Teal	0		0		0	
Northern Shoveler	25764	0.27	169601	0.51	109373	0.28
Northern Pintail	67162	0.13	601215	0.21	248584	0.14
DABBLER SUBTOTAL	315068	0.10	1847650	0.19	1248524	0.10
Redhead	1201	0.96	919	0.73	2583	0.89
Canvasback	2384	0.35	20328	0.43	9958	0.35
Lesser Scaup	9829	0.25	142556	0.57	61922	0.28
Greater Scaup	74421	0.42	675600	0.47	383435	0.43
Ring-necked Duck	0		0		0	
Common Goldeneye	1623	0.39	3312	0.38	9710	0.48
Barrow's Goldeneye	0		0		0	
Bufflehead	2584	0.34	6670	0.33	9674	0.34
DIVER SUBTOTAL	92043	0.36	849385	0.39	477282	0.36
Oldsquaw	5648	0.31	18884	0.52	21690	0.32
Harlequin Duck	661	1.00	2642	0.85	4184	1.00
Steller's Eider	0		0		0	
Spectacled Eider	287	1.00	287	1.00	1148	1.00
Common Eider	220	1.00	220	1.00	1101	1.00
King Eider	0		0		0	
Black Scoter	11796	0.17	53425	0.17	65719	0.20
White-winged Scoter	287	0.70	10227	0.78	2152	0.82
Surf Scoter	1557	0.69	3623	0.43	10952	0.74
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganser	902	0.48	10155	0.31	6105	0.48
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	21357	0.15	99464	0.16	113051	0.16
Unidentified Duck	3556	0.22	9726	0.26	15913	0.23
TOTAL	432025	0.14	2806225	0.18	1854770	0.15

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Selected Area: ALL PRODUCTION AREAS Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 431
 Expanded Area: 100360

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Youn C.V
White-fronted Goose	4001	0.38	18389	0.42	24310	0.52
Canada Goose	2788	0.33	56185	0.33	17644	0.36
Pacific Brant	0		0		0	
Emperor Goose	1148	1.00	15782	0.88	4591	1.00
GOOSE TOTAL	7937	0.36	90357	0.37	46546	0.45
Trumpeter Swan	1405	0.59	5453	0.40	3845	0.62
Tundra Swan	10199	0.18	84979	0.28	32626	0.19
Red-necked Grebe	10925	0.22	62116	0.14	15058	0.21
Horned Grebe	574	0.48	5772	0.27	861	0.51
Pied-billed Grebe	0		0		0	
GREBE TOTAL	11498	0.21	67888	0.13	15919	0.20
Common Loon	1235	0.45	10961	0.21	1988	0.52
Yellow-billed Loon	0		0		0	
Pacific Loon	7844	0.21	71876	0.15	8933	0.22
Red-throated Loon	3770	0.36	10342	0.24	3649	0.37
LOON TOTAL	12849	0.20	93180	0.12	14570	0.19
Sandhill Crane	4519	0.24	45387	0.19	4865	0.24

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Tanana-Kuskokwim Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 56
 Expanded Area: 19308

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	5517	0.31	95506	0.40	23628	0.33
Gadwall	0		0		0	
American Wigeon	5118	0.49	164118	0.85	25452	0.55
Green-winged Teal	4482	0.36	38616	0.38	17188	0.37
Blue-Winged Teal	0		0		0	
Northern Shoveler	1034	0.74	87576	0.93	4827	0.71
Northern Pintail	4137	0.53	43098	0.57	17239	0.41
DABBLER SUBTOTAL	20289	0.31	428913	0.65	88334	0.31
Redhead	0		345	1.00	0	
Canvasback	0		7241	0.95	0	
Lesser Scaup	0		0		0	
Greater Scaup	0		23790	0.52	0	
Ring-necked Duck	0		0		0	
Common Goldeneye	0		0		0	
Barrow's Goldeneye	0		0		0	
Bufflehead	2414	0.36	5861	0.37	8537	0.38
DIVER SUBTOTAL	2414	0.36	37237	0.38	8537	0.38
Oldsquaw	0		0		0	
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	0		0		0	
White-winged Scoter	0		0		0	
Surf Scoter	1034	1.00	1034	1.00	7930	1.00
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	0		0		0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	1034	1.00	1034	1.00	7930	1.00
Unidentified Duck	0		0		0	
TOTAL	23737	0.27	467185	0.60	104801	0.28

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Tanana-Kuskokwim Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 56
 Expanded Area: 19308

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	0		0		0	
Canada Goose	0		6896	1.00	0	
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	0		6896	1.00	0	
Trumpeter Swan	1379	0.60	5172	0.42	3793	0.63
Tundra Swan	0		0		0	
Red-necked Grebe	0		5861	0.35	0	
Horned Grebe	0		0		0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	0		5861	0.35	0	
Common Loon	0		1034	0.74	0	
Yellow-billed Loon	0		0		0	
Pacific Loon	345	1.00	1034	0.74	345	1.00
Red-throated Loon	0		0		0	
LOON TOTAL	345	1.00	2069	0.51	345	1.00
Sandhill Crane	0		690	1.00	0	

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area:	Yukon Flats	Year	1992
Selected Data:	ALL STRATA		
Number of Plots:	39		
Expanded Area:	11188		

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	8176	0.27	52784	0.35	36187	0.29
Gadwall	0		0		0	
American Wigeon	11091	0.31	111737	0.59	49956	0.32
Green-winged Teal	2295	0.31	6024	0.40	8154	0.34
Blue-Winged Teal	0		0		0	
Northern Shoveler	3442	0.52	14057	0.40	13132	0.46
Northern Pintail	4303	0.33	44895	0.51	19840	0.33
DABBLER SUBTOTAL	29308	0.25	229497	0.43	127269	0.26
Redhead	0		0		0	
Canvasback	1147	0.41	5594	0.64	5881	0.46
Lesser Scaup	4877	0.33	113458	0.71	31917	0.34
Greater Scaup	143	1.00	717	0.59	287	1.00
Ring-necked Duck	0		0		0	
Common Goldeneye	0		143	1.00	0	
Barrow's Goldeneye	0		0		0	
Bufflehead	0		0		0	
DIVER SUBTOTAL	6168	0.28	119912	0.67	38085	0.29
Oldsquaw	0		0		0	
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	0		0		0	
White-winged Scoter	287	0.70	430	0.56	2152	0.82
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	0		0		0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	287	0.70	430	0.56	2152	0.82
Unidentified Duck	861	0.45	4590	0.42	3586	0.51
TOTAL	36623	0.23	354430	0.47	171091	0.23

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Yukon Flats
 Selected Data: ALL STRATA
 Number of Plots: 39
 Expanded Area: 11188
 Year 1992

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	0		0		0	
Canada Goose	0		4590	1.00	0	
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	0		4590	1.00	0	
Trumpeter Swan	0		0		0	
Tundra Swan	0		0		0	
Red-necked Grebe	0		4016	0.43	0	
Horned Grebe	574	0.48	5164	0.29	861	0.51
Pied-billed Grebe	0		0		0	
GREBE TOTAL	574	0.48	9180	0.24	861	0.51
Common Loon	0		143	1.00	0	
Yellow-billed Loon	0		0		0	
Pacific Loon	861	0.56	9323	0.30	1004	0.61
Red-throated Loon	0		0		0	
LOON TOTAL	861	0.56	9467	0.30	1004	0.61
Sandhill Crane	287	0.70	2152	0.33	430	0.74

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Innoko Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 30
 Expanded Area: 5999

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	790	0.50	3040	0.65	3317	0.43
Gadwall	0		0		0	
American Wigeon	4165	0.30	25353	0.45	19797	0.29
Green-winged Teal	6910	0.27	14182	0.26	28176	0.32
Blue-Winged Teal	0		0		0	
Northern Shoveler	188	0.68	656	0.62	375	0.77
Northern Pintail	1165	0.42	4540	0.46	4966	0.38
DABBLER SUBTOTAL	13218	0.23	47771	0.36	56632	0.24
Redhead	0		0		0	
Canvasback	0		0		0	
Lesser Scaup	1165	0.56	3576	0.57	6898	0.55
Greater Scaup	0		0		0	
Ring-necked Duck	0		0		0	
Common Goldeneye	94	1.00	844	0.89	469	1.00
Barrow's Goldeneye	0		0		0	
Bufflehead	94	1.00	94	1.00	563	1.00
DIVER SUBTOTAL	1353	0.48	4513	0.47	7929	0.47
Oldsquaw	0		0		0	
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	0		0		0	
White-winged Scoter	0		0		0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganser	0		0		0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	0		0		0	
Unidentified Duck	16	1.00	563	1.00	94	1.00
TOTAL	14586	0.23	52846	0.36	64655	0.24

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	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	188	1.00	5906	1.00	1031	1.00
Canada Goose	0		0		0	
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	188	1.00	5906	1.00	1031	1.00
Trumpeter Swan	0		0		0	
Tundra Swan	0		0		0	
Red-necked Grebe	188	1.00	1634	0.61	281	1.00
Horned Grebe	0		0		0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	188	1.00	1634	0.61	281	1.00
Common Loon	0		321	1.00	0	
Yellow-billed Loon	0		0		0	
Pacific Loon	0		0		0	
Red-throated Loon	0		603	0.63	0	
LOON TOTAL	0		924	0.52	0	
Sandhill Crane	94	1.00	1848	0.73	94	1.00

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Koyukuk/Kanuti Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 61
 Expanded Area: 6373

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	1744	0.40	8074	0.59	8675	0.45
Gadwall	0		0		0	
American Wigeon	6493	0.19	83880	0.52	32061	0.20
Green-winged Teal	3384	0.45	7844	0.31	16635	0.43
Blue-Winged Teal	0		0		0	
Northern Shoveler	64	0.82	1743	0.80	116	0.71
Northern Pintail	1399	0.34	2538	0.30	4505	0.33
DABBLER SUBTOTAL	13083	0.24	104078	0.48	61992	0.26
Redhead	0		0		0	
Canvasback	13	1.00	305	0.92	26	1.00
Lesser Scaup	3787	0.45	25523	0.47	23107	0.55
Greater Scaup	0		0		0	
Ring-necked Duck	0		0		0	
Common Goldeneye	292	0.96	584	0.96	1751	0.96
Barrow's Goldeneye	0		0		0	
Bufflehead	77	0.70	141	0.51	575	0.81
DIVER SUBTOTAL	4169	0.41	26552	0.45	25459	0.50
Oldsquaw	0		0		0	
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	13	1.00	318	0.65	13	1.00
White-winged Scoter	0		0		0	
Surf Scoter	522	0.56	2589	0.46	3022	0.58
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	0		26	1.00	0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	535	0.55	2933	0.41	3035	0.58
Unidentified Duck	591	0.71	117	0.70	3193	0.70
TOTAL	18379	0.28	133680	0.40	93679	0.31

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Koyukuk/Kanuti Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 61
 Expanded Area: 6373

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	55	0.56	1059	0.59	259	0.64
Canada Goose	110	0.63	3056	0.91	552	0.66
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	165	0.50	4115	0.69	811	0.50
Trumpeter Swan	26	0.69	281	0.74	52	0.78
Tundra Swan	0		39	0.73	0	
Red-necked Grebe	964	0.48	6570	0.36	1548	0.52
Horned Grebe	0		608	0.64	0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	964	0.48	7179	0.33	1548	0.52
Common Loon	0		1021	0.56	0	
Yellow-billed Loon	0		0		0	
Pacific Loon	0		91	0.49	0	
Red-throated Loon	0		331	0.85	0	
LOON TOTAL	0		1443	0.44	0	
Sandhill Crane	292	0.96	422	0.69	296	0.94

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Bristol Bay
 Selected Data: ALL STRATA
 Number of Plots: 100
 Expanded Area: 22020
 Year 1992

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	13453	0.24	36773	0.28	63640	0.24
Gadwall	0		5065	0.87	0	
American Wigeon	9638	0.34	27965	0.36	49105	0.33
Green-winged Teal	17872	0.22	39636	0.27	84431	0.22
Blue-Winged Teal	0		0		0	
Northern Shoveler	1541	0.62	1762	0.63	9149	0.61
Northern Pintail	8896	0.31	23782	0.45	42333	0.32
DABBLER SUBTOTAL	51400	0.21	134983	0.20	248659	0.20
Redhead	0		0		0	
Canvasback	0		0		0	
Lesser Scaup	0		0		0	
Greater Scaup	7487	0.21	110100	0.30	44648	0.21
Ring-necked Duck	0		0		0	
Common Goldeneye	220	1.00	881	0.79	1178	1.00
Barrow's Goldeneye	0		0		0	
Bufflehead	0		0		0	
DIVER SUBTOTAL	7707	0.20	110981	0.30	45826	0.21
Oldsquaw	661	0.74	1541	0.47	3554	0.75
Harlequin Duck	661	1.00	2642	0.85	4184	1.00
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	220	1.00	220	1.00	1101	1.00
King Eider	0		0		0	
Black Scoter	2422	0.29	25543	0.24	12950	0.29
White-winged Scoter	0		1762	1.00	0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	881	0.49	9909	0.32	5945	0.50
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	4844	0.25	41618	0.18	27734	0.25
Unidentified Duck	38	1.00	0		220	1.00
TOTAL	63989	0.17	287581	0.17	322439	0.16

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Bristol Bay
 Selected Data: ALL STRATA
 Number of Plots: 100
 Expanded Area: 22020
 Year 1992

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	2420	0.55	7046	0.59	10129	0.56
Canada Goose	440	0.70	1101	0.59	1541	0.71
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	2861	0.53	8147	0.53	11671	0.53
Trumpeter Swan	0		0		0	
Tundra Swan	3523	0.26	21359	0.17	11450	0.29
Red-necked Grebe	220	1.00	5725	0.41	374	1.00
Horned Grebe	0		0		0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	220	1.00	5725	0.41	374	1.00
Common Loon	661	0.57	5285	0.28	1414	0.68
Yellow-billed Loon	0		0		0	
Pacific Loon	220	1.00	2863	0.37	220	1.00
Red-throated Loon	1762	0.46	3083	0.34	2501	0.46
LOON TOTAL	2642	0.34	11230	0.18	4135	0.36
Sandhill Crane	1541	0.42	20038	0.37	1674	0.44

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: YUKON DELTA Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 103
 Expanded Area: 29556

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	7174	0.28	67434	0.21	29269	0.29
Gadwall	0		0		0	
American Wigeon	18652	0.21	64277	0.24	72880	0.23
Green-winged Teal	87233	0.16	185084	0.20	293448	0.20
Blue-Winged Teal	0		0		0	
Northern Shoveler	19191	0.34	62555	0.48	81049	0.36
Northern Pintail	44469	0.18	465722	0.26	149901	0.21
DABBLER SUBTOTAL	176719	0.15	845072	0.21	626547	0.17
Redhead	1201	0.96	574	1.00	2583	0.89
Canvasback	1148	0.61	4304	0.69	3443	0.62
Lesser Scaup	0		0		0	
Greater Scaup	63228	0.49	526556	0.59	320393	0.52
Ring-necked Duck	0		0		0	
Common Goldeneye	1018	0.51	861	0.57	6313	0.66
Barrow's Goldeneye	0		0		0	
Bufflehead	0		574	1.00	0	
DIVER SUBTOTAL	66595	0.49	532869	0.59	332732	0.51
Oldsquaw	4304	0.38	16356	0.60	15782	0.39
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	287	1.00	287	1.00	1148	1.00
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	9133	0.20	27260	0.25	52225	0.24
White-winged Scoter	0		8035	0.96	0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganser	0		0		0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	13724	0.20	51938	0.27	69155	0.21
Unidentified Duck	1497	0.35	4304	0.36	6313	0.32
TOTAL	258535	0.22	1434183	0.26	1034747	0.25

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: YUKON DELTA Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 103
 Expanded Area: 29556

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	1148	0.61	3730	0.71	12052	0.93
Canada Goose	2009	0.42	38451	0.43	14635	0.42
Pacific Brant	0		0		0	
Emperor Goose	1148	1.00	15782	0.88	4591	1.00
GOOSE TOTAL	4304	0.56	57964	0.54	31278	0.64
Trumpeter Swan	0		0		0	
Tundra Swan	6600	0.24	61695	0.38	20947	0.24
Red-necked Grebe	8035	0.27	32426	0.23	10904	0.27
Horned Grebe	0		0		0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	8035	0.27	32426	0.23	10904	0.27
Common Loon	574	0.70	3156	0.43	574	0.70
Yellow-billed Loon	0		0		0	
Pacific Loon	6228	0.24	56816	0.18	7174	0.26
Red-throated Loon	2009	0.55	6313	0.35	1148	0.61
LOON TOTAL	8811	0.26	66286	0.16	8895	0.24
Sandhill Crane	2229	0.34	20087	0.22	2296	0.34

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Kotzebue Sound Year 1992
 Selected Data: ALL STRATA
 Number of Plots: 33
 Expanded Area: 5860

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	1292	0.35	7329	0.26	5283	0.33
Gadwall	0		0		0	
American Wigeon	3837	0.29	20392	0.34	15314	0.33
Green-winged Teal	2735	0.23	11390	0.46	7677	0.24
Blue-Winged Teal	0		0		0	
Northern Shoveler	304	0.59	1253	0.48	725	0.79
Northern Pintail	2778	0.25	16618	0.24	9721	0.27
DABBLER SUBTOTAL	10946	0.21	56982	0.24	38721	0.24
Redhead	0		0		0	
Canvasback	76	1.00	2885	1.00	607	1.00
Lesser Scaup	0		0		0	
Greater Scaup	3555	0.26	14428	0.36	18056	0.29
Ring-necked Duck	0		0		0	
Common Goldeneye	0		0		0	
Barrow's Goldeneye	0		0		0	
Bufflehead	0		0		0	
DIVER SUBTOTAL	3631	0.26	17313	0.43	18663	0.29
Oldsquaw	683	0.59	987	0.48	2353	0.72
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	228	0.73	304	0.59	531	0.70
White-winged Scoter	0		0		0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	0		0		0	
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	911	0.49	1290	0.43	2885	0.60
Unidentified Duck	553	0.35	152	0.69	2508	0.36
TOTAL	16041	0.20	75737	0.23	62776	0.23

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area:	South Coastal	Year	1992
Selected Data:	ALL STRATA		
Number of Plots:	9		
Expanded Area:	56		

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	17	0.79	151	0.28	97	0.83
Gadwall	0		0		0	
American Wigeon	26	0.61	56	0.47	96	0.69
Green-winged Teal	48	0.81	125	0.83	99	0.69
Blue-Winged Teal	0		0		0	
Northern Shoveler	0		0		0	
Northern Pintail	13	1.00	22	0.65	78	1.00
DABBLER SUBTOTAL	105	0.51	353	0.46	370	0.36

Redhead	0		0		0	
Canvasback	0		0		0	
Lesser Scaup	0		0		0	
Greater Scaup	9	0.65	9	0.65	52	0.65
Ring-necked Duck	0		0		0	
Common Goldeneye	0		0		0	
Barrow's Goldeneye	0		0		0	
Bufflehead	0		0		0	
DIVER SUBTOTAL	9	0.65	9	0.65	52	0.65

Oldsquaw	0		0		0	
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	0		0		0	
White-winged Scoter	0		0		0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	22	0.65	220	0.50	160	0.69
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	22	0.65	220	0.50	160	0.69

Unidentified Duck	0		0		0	

TOTAL	135	0.30	582	0.13	582	0.08

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area:	South Coastal	Year	1992
Selected Data:	ALL STRATA		
Number of Plots:	9		
Expanded Area:	56		

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	0		0		0	
Canada Goose	0		0		0	
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	0		0		0	
Trumpeter Swan	0		0		0	
Tundra Swan	0		26	0.69	0	
Red-necked Grebe	0		0		0	
Horned Grebe	0		0		0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	0		0		0	
Common Loon	0		0		0	
Yellow-billed Loon	0		0		0	
Pacific Loon	0		0		0	
Red-throated Loon	0		13	1.00	0	
LOON TOTAL	0		13	1.00	0	
Sandhill Crane	0		0		0	

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: North Slope Year 1993
 Selected Data: ALL STRATA
 Number of Plots: 111
 Expanded Area: 24406

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	0		220	1.00	0	
Gadwall	0		0		0	
American Wigeon	220	1.00	660	0.74	2419	1.00
Green-winged Teal	220	1.00	2419	0.91	220	1.00
Blue-Winged Teal	0		0		0	
Northern Shoveler	0		0		0	
Northern Pintail	1099	0.52	140499	0.30	4116	0.52
DABBLER SUBTOTAL	1539	0.42	143798	0.30	6755	0.47
Redhead	0		0		0	
Canvasback	0		440	1.00	0	
Lesser Scaup	0		0		0	
Greater Scaup	2419	0.41	23307	0.50	10334	0.37
Ring-necked Duck	0		0		0	
Common Goldeneye	0		0		0	
Barrow's Goldeneye	0		0		0	
Bufflehead	0		0		0	
DIVER SUBTOTAL	2419	0.41	23746	0.49	10334	0.37
Oldsquaw	5277	0.27	69040	0.24	27335	0.26
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	660	0.57	879	0.61	1759	0.68
Common Eider	0		0		0	
King Eider	3298	0.28	11433	0.33	15000	0.27
Black Scoter	0		0		0	
White-winged Scoter	0		0		0	
Surf Scoter	0		0		0	
Ruddy Duck	0		0		0	
Common Merganser	0		0		0	
Red-breast Merganse	220	1.00	1099	0.52	1759	1.00
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	9455	0.21	82453	0.22	45852	0.20
Unidentified Duck	0		0		0	
TOTAL	13412	0.19	249997	0.20	62941	0.18

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Koyukuk/Kanuti Year 1993
 Selected Data: ALL STRATA
 Number of Plots: 61
 Expanded Area: 6373

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
Mallard	2098	0.39	3530	0.30	8252	0.37
Gadwall	0		0		0	
American Wigeon	10067	0.33	41464	0.50	48649	0.29
Green-winged Teal	4897	0.27	10898	0.32	23602	0.29
Blue-Winged Teal	0		0		0	
Northern Shoveler	179	0.46	332	0.64	910	0.52
Northern Pintail	3137	0.35	4759	0.30	16247	0.37
DABBLER SUBTOTAL	20377	0.25	60983	0.36	97660	0.25
Redhead	0		0		0	
Canvasback	0		39	0.73	0	
Lesser Scaup	5939	0.39	19021	0.38	37276	0.44
Greater Scaup	0		0		0	
Ring-necked Duck	0		0		0	
Common Goldeneye	0		77	0.70	0	
Barrow's Goldeneye	0		0		0	
Bufflehead	941	0.43	967	0.42	4169	0.40
DIVER SUBTOTAL	6880	0.34	20103	0.36	41445	0.39
Oldsquaw	26	0.69	78	0.61	143	0.72
Harlequin Duck	0		0		0	
Steller's Eider	0		0		0	
Spectacled Eider	0		0		0	
Common Eider	0		0		0	
King Eider	0		0		0	
Black Scoter	13	1.00	740	0.78	65	1.00
White-winged Scoter	0		356	1.00	0	
Surf Scoter	550	0.55	964	0.42	3030	0.59
Ruddy Duck	0		0		0	
Common Merganser	0		13	1.00	0	
Red-breast Merganser	279	1.00	0		1673	1.00
Hooded Merganser	0		0		0	
MISC DUCK SUBTOTAL	867	0.47	2151	0.39	4910	0.49
Unidentified Duck	477	0.60	1550	0.90	2946	0.67
TOTAL	28601	0.23	84787	0.28	146961	0.25

WATERFOWL PRODUCTION SUMMARY - EXPANDED ESTIMATES

Production Area: Koyukuk/Kanuti Year 1993
 Selected Data: ALL STRATA
 Number of Plots: 61
 Expanded Area: 6373

	Broods Expanded	Broods C.V.	Adults Expanded	Adults C.V.	Young Expanded	Young C.V.
White-fronted Goose	446	0.65	1474	0.55	1590	0.57
Canada Goose	292	0.96	13978	0.70	1226	0.96
Pacific Brant	0		0		0	
Emperor Goose	0		0		0	
GOOSE TOTAL	737	0.53	15452	0.63	2815	0.51
Trumpeter Swan	13	1.00	65	0.58	26	1.00
Tundra Swan	0		0		0	
Red-necked Grebe	488	0.25	5588	0.37	407	0.54
Horned Grebe	0		584	0.96	0	
Pied-billed Grebe	0		0		0	
GREBE TOTAL	488	0.25	6172	0.35	407	0.54
Common Loon	39	1.00	973	0.35	50	1.00
Yellow-billed Loon	0		0		0	
Pacific Loon	0		13	1.00	0	
Red-throated Loon	0		26	1.00	0	
LOON TOTAL	39	1.00	1012	0.35	50	1.00
Sandhill Crane	9	1.00	1919	0.43	13	1.00