THE NAMES OF ECONOMICAL-LY IMPORTANT OR CONSPICU-OUS MAMMALS AND BIRDS IN THE INDIAN LANGUAGES OF THE DISTRICT OF MACKENZIE, N.W.T. AND IN SARCEE

The lists of Indian animal names in this short paper are presented for two reasons. Until very recently most adult natives of the area, having had no formal education, spoke no English. It was therefore judged that the lists, with a simple code of pronounciation, could aid the work of game wardens, Indian agents, and others working with the natives. The more important reason is, however, that the native languages dealt with are almost certainly on the way to extinction, mainly because the schooling for the local Indians now provided by the Canadian Federal Government is in English only.

Publications listing animal names in the languages here dealt with are few. There seem to be none on Dog-rib apart from a few bird names, without guide to pronounciation in Wheeler's ornithological paper<sup>1</sup>. The names given by him, which are not listed in Table 3 below, are: robin: goshi, Bohemian waxwing: krobine, and rusty blackbird: keottsi. For Loucheux, Hare Indian and Chipewyan, there is an extensive dictionary by Petitot2, but many native names have undergone changes since he worked in this area and some of his French animal names cannot be assigned with certainty to specific animals. Irving<sup>3</sup> has published a complete list of the names of birds in the variant of Loucheux spoken at Old Crow, Y.T., as written down by one native informant. The last named is said to have used the system of Loucheux orthography derived and described by the late Archdeacon McDonald4. This system is complex and to my mind not without ambiguity. McDonald's Loucheux Dictionary4 contains very few animal names. Making allowance for the use of McDonald's system of sound representation by Irving's informant, about two-thirds of the Loucheux bird names listed by Irving and in my Table 3 correspond. Those that differ probably

represent differences in local dialects or the use of different synonyms for a particular bird.

I believe my list has names from all Indian languages still spoken in the Mackenzie district. Yellowknife seems to have disappeared as a separate language through merging of the survivors of the tribe with Chipewyans. Cree is also not represented, for though it may now be used by some people in the Mackenzie district, they are relatively recent immigrants and their language is a well-known one. I have no information on the Nahani language possibly still in use in the mid-western part of the district.

Sarcee has been included because this language is classified as belonging to the same group, Athabaskan or Déné, as the Mackenzie Indian languages, and the Sarcee are believed to have migrated to their present home from an area adjacent to the southern Mackenzie district<sup>5</sup>. I was interested to see to what extent the kinship of Sarcee with the more northern languages was evident in animal names. Examination of Tables 2 and 3 does in fact show some correspondence between the Sarcee name and the name in one or more of the northern languages, i.e., in the names for wolf, dog, otter, lynx, and porcupine among the mammals and, in spite of the very few Sarcee bird names known to my informant, for eagle, ruffed grouse, great horned owl, crow, and raven. Also the Sarcee for white and big, which occurs as part of some animal names, is clearly related to the corresponding word in the other languages. Further evidence for the relationship between Sarcee and the Mackenzie Indian languages is to be found in the names of the first four numerals (see Table 1).

The settlements in which my names were secured are indicated in Table 1, row 2. The bulk of the material was collected in 1949, when I worked during the summer as temporary medical officer for the Canadian Indian Health Service. During a preliminary stay at Fort Resolution I learned that virtually none of my future patients at Fort Rae

(where I was to spend the rest of the summer) knew English and I therefore took daily lessons in Dog-rib from a tri-lingual half-breed then at the Fort Resolution hospital. In 2 weeks at Fort Resolution and 2 at Fort Rae I was able to obtain an introduction into the language and a list of the names of animals that I judged important to the people. An unforeseen transfer to Aklavik brought my Dog-rib studies to an end. but I continued to list native animal names from Indians of the Mackenzie Delta and the part of the river valley upstream to Norman Wells, which formed my medical district. The names were secured from bilingual natives or half-breeds, often when we both saw the animal in question, or by showing my helper a book illustration, which I discussed to make sure that we had the same animal in mind. I would record the name given to me and read out my version and amend and reread it until my instructor was satisfied with my pronounciation. This end point was almost always indicated by a sudden grin on his part.

A draft of the list was sent for comment to several Oblate missionaries in the Mackenzie district who were familiar with one or more of the languages involved. None of these were naturalists but the few corrections they suggested are incorporated in the tables. Additional information on the literal meaning of some names, given in parentheses, was also obtained in this way. Help of this nature, which I am glad to acknowledge, was received from Fathers F. J. Dauvet for Chipewyan, V. Phillipe for Hare Indian and Slavey, and J. Colas for Loucheux. I have also gone over some of the lists with several patients at the Charles Camsell Indian Hospital in Edmonton.

The present distribution of the languages in question is still much as on the map for the tribes of this area in the eighteenth century given by Jenness<sup>6</sup>, but Yellowknife has disappeared and the former area of this tribe is now inhabited by natives who speak either Chipewyan or Dog-rib. Speakers of Chipewyan now also live farther west

along the south shore of Great Slave Lake than indicated on this map, as far as Fort Resolution, and I am uncertain whether there are still Indians who speak Nahani in the District of Mackenzie. Loucheux and Chipewyan are still spoken in areas outside the district. The Indian tribal populations confined to the district, and hence roughly the people who use the tribal language, numbered, according to the "Census of Indians in Canada 1957"7, Loucheux 687, Hare Indians 597, Slaveys 1,192, Dog-ribs 703 and Chipewyans 572. A number of halfbreeds not listed in this census generally know the local native language as well.

The scientific terminology used for the English animal names in Tables 2 and 3 follows Anderson's Catalogue of Canadian recent mammals<sup>8</sup> for mammals and the A.O.U. Check List of North American birds<sup>9</sup> for birds.

The Indian names listed should be pronounced exactly as if they were German words, with the proviso that "ch" is always harsh as in "Loch" or "Dach", and with the following exceptions: the letters "th" are to be pronounced as in English "with", the syllables "on", "oin", and "aw", when printed in italics are to be pronounced as follows: on as in French long, oin as in French coin, and aw as in English awe. An apostrophe between two letters emphasizes that they are to be pronounced separately.

A sound recording of all native names listed can be borrowed through the Secretary of the Department of Modern Languages at the University of Alberta. A transcription of the names into the alphabet of the International Phonetic Association<sup>10</sup>, made with the help of Dr. R. G. Motut, is also available from this source.

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<sup>&</sup>lt;sup>1</sup>Wheeler, B. E. 1912. Notes on the spring migration at timber line north of Great Slave Lake. Auk 29:199-204.

<sup>&</sup>lt;sup>2</sup>Petitot, P. E. 1876. Dictionnaire de la

Table 1. Numerals.

	Loucheux	Hare Indian	Slavey	Dog-rib	Chipewyan	Sarcee
	Ft. McPherson and Aklavik	Ft. Good Hope	Ft. Norman	Ft. Rae	Ft. Resolution	Sarcee Reserve Calgary, Alberta
1	ichluk	illek	chlee	ichee	chlärä	k'chluk ä sä
2	nekchee	rakee	nakchee	nakiee	nakee	ekchi'i
3	tchik	trai	trai	trai	trai	trai kchü
4	dang	din	ding	din	dingi	dikchee
5	ichlon chuinli (one hand)	lakee	solai	silla	sonlari	guuta
6	nekui tchik (twice three?)	etsa trai (twice three?)	tsen trai (twice three?)	enkee tra (twice three)	kee tra (twice three)	guustraniee
7	nekchee tchik ichluk (twice three [and] one)	la din	chla dingee	inkcha din	chles di in	tschi s'tschit di
8	nek chee dangcha (twice four)	etse din (twice four?)	tsen dingee (twice four?)	enkchee din (twice four)	kee di in (twice four)	kla s'ti tschee
9	wentcho nekcha cha	locho tron	chlo tro	ethon tron	thlon tron	kchluk u ierra
10	ichlo tschu tschin	horenno	chelag onno	honno	thl <i>on</i> na	gunee s'nonnee
100				ichee kua no	thlon nona	gunee snotee
000				honno na honno	chlärä le mil*	gunee snotee tsch (hundred big)

<sup>\*</sup> One thousand, using the French word for the latter.

Table 2. Mammals.

English name	Loucheux	Hare Indian	Slavey	Dog-rib	Chipewyan	Sarcee
Black bear Euarctos americanus	s'scho	betetsjen <i>or</i> sa denint lee	sach denint lee (bear black)	sa	sas deltseni	ninjiru disch kraschee (black)
Grizzly bear Ursus horribilis	s'chiee	sa tscho ( <i>bear big</i> )	sach tscho (bear big)	sa tscho (bear big)	sas tscho ( <i>bear big</i> )	· · · · · · · · ·
Polar bear Thalarctos maritimus	s'chi dekai (grizzly white)	sa tscho dekai (bear big white) or taza	sa dekai or sach dekalee (bear white)		sas delgai (bear white)	ninjiru di kchallee (white)
Red fox Vulpes fulva	nego	jachwuee dafo (fox yellow)	nokeree detalee (fox red)	nunkiee	naggitse	dikchajee (also used for coyote)
Arctic fox Alopex lagopus		jachwuee dekchalee (fox white)			tssibajee	
Wolf Canis lupus	s'schu	betee or tikai	dikai	diga	nunnjee	norasinee
Dog Canis familiaris	thlai <i>or</i> hl <i>on</i>	tli	kchli	thlin	'lin	thli tsu
Marten Martes americana	tsuk	tso	nochwee	chwa	scha	
Fisher Martes pennanti					scha tscho (marten big)	
Weasel Mustela erminea and rixosa	thiwui	nampa or napa	nampa		t'elk ailee	sökosara
Mink Mustela vison	tschithee	täwua or trewua	teechua	t'etschü	t'etschjutsee	
Wolverine Gulo luscus	netschü	non ra		nora sa	nanpajee	
Otter Lutra canadensis	tschü	rapee or napiee	nabee	nabee	nambiee (swimmer)	na mi'jee
Skunk Mephitis mephitis				deti	muul'tsin	tsusklä
Badger Taxidea taxus						nikcha ti hi
Lynx Lynx canadensis	nitschi	n <i>on</i> ta	nota	do $n$ da	tschitsee	nit <i>aw</i>
Snowshoe hare Lepus americanus	ghee or kee	ga	gach	ha	gatscho	nikchu di rä

White-tailed jack rabbit Lepus townsendi	• • • • • • • •					nikchu di rä tschu ( <i>rabbit</i> big)
Beaver Castor canadensis	tsee	sa	tsa	tsa	tsa	mitschu di kchadee (flat tail)
Muskrat <i>Ondatra zibethica</i>	tsunn	tsen	tekchai	ts'chen	tsenn	tusk ajee
Hoary marmot Marmota caligata						tsutra
Richardson's ground squirrel Citellus richardsoni			· · · · · · · · · · · · · · · ·			tsusklä
Porcupine Erethizon dorsatum	ts'it	tschunn	tschoa		tsi	tschi hoa
Elk Cervus canadensis						dinidschi
Mule deer Odocoileus hemionus				• • • • • • •	tsentsil	gijanee
Moose Alces americana	tenschik	intsee	ntsee	deintee	deni'i	tsussi
				•		
Barren Ground caribou Rangifer arcticus	wetsoin	etiee	ek <i>oin</i>	ek <i>on</i>	edschenn	
	wetsoin betsi	etiee 	ek <i>oin</i>	ek <i>on</i>	edschenn	
Rangifer arcticus Woodland caribou		etiee	ek <i>oin</i>	ek <i>on</i>	tantsiee	
Rangifer arcticus Woodland caribou Rangifer caribou Reindeer	betsi wets <i>oin</i> de kai	etiee	ek <i>oin</i>			isklee
Rangifer arcticus Woodland caribou Rangifer caribou Reindeer Rangifer tarandus	betsi  wetsoin de kai (caribou white*) thlai tro	etiee	ek <i>oin</i>			isklee chonnee tchi (buffalo real)
Rangifer arcticus Woodland caribou Rangifer caribou Reindeer Rangifer tarandus Horse	betsi  wetsoin de kai (caribou white*) thlai tro (dog big)	etiee	ek <i>oin</i>			chonnee tchi
Rangifer arcticus Woodland caribou Rangifer caribou Reindeer Rangifer tarandus Horse Bison Bison bison	wetsoin de kai (caribou white*) thlai tro (dog big) aki tiwui				tantsiee	chonnee tchi (buffalo real)

<sup>\*</sup> Perhaps because albinos are more common than in caribou.

**Table 3.** Birds

(o) after a name indicates that it is onomatopoeically derived from a call of the bird in question.

English name	Loucheux	Hare Indian	Slavey	$Dog ext{-}rib$	Chipewyan	Sarcee
Common loon Gavia immer	da tsain	tutsiee	tutsi	ti tso	t'da tsennee (bill black) or tu tsiee	
Yellow-billed loon Gavia adamsii					t'thalkoi (bill white)	
Artic loon Gavia arctica	tselwit	thimpee (white head)	k'chwuipee	kuimbee	thilbee	
Red-throated loon Gavia stellata	tretschee	iannoa		• • • • • • • • • • • • • • • • • • • •	thiantsi	
Red-necked grebe Podiceps grisegena	trekchai	trakcheetee	nota	nota tscho (grebe large)	opa tchai <i>or</i> tree t'chai	
Horned grebe Podiceps auritus	chluk or tlök	trakchee tsellee (small)		notcha tso (grebe small)	notcha	
American bittern Botaurus lentiginosus				tü k <i>ong</i> (0)	o'ai (o)	• • • • • • • •
Whistling swan Olor columbianus	darei	dekai (white)	dekao	ga go	ga goss	tsis de kchallee (duck white)
Canada goose Branta canadensis	cah (che for the small races)	cha (o)	ha (o)	cha (o)	'ah (o)	gao tschi*
Black brant Branta nigricans	nekchee che <i>or</i> nischoree				dettani tsennen (flier black)	• • • • • • •
Snow goose Chen hyperborea	gukee or kukee (o)	goga or koka (o)	goga dekchalee (o) (white)	go ga (o)	oga or haka (o)	• • • • • • •
Ross's goose Chen rossii	gukeetsel (snowgoose small)				oga lurasee (snow- goose scab on bill)	• • • • • • •
White-fronted goose  Anser albifrons	detscho	gogatiee	datee	datee	dateth	

Mallard Anas platyrhynchos	netai	betsero de tellee (both [sides of chest] red)	tschu	t'chi tscho	tschel tscho	
Pintail Anas acuta	nagotsche dakai (nape white)	nago dakai (neck white)		tschen dee	atchel chethee	
Green-winged teal Anas carolinensis	darree gacha	eschunnee		tschitsoa	eltsoathee	
Shoveller Spatula clypeata	de dschee	türi	•.•••••	daka (o)?	daskaree ( <i>flat bill</i> )	• • • • • • •
Canvasback Aythya valisneria					t'the iowee	
Greater scaup Aythya marila	de dschik	jawilon			takasee	
Lesser scaup Aythya affinis		jawilon tsellee (scaup small)			daskaree asee	
Common goldeneye Bucephala clangula	tschi dakai (duck white)	fiktschunn			bedschi jel asee (big head)	
Barrow's goldeneye Bucephala islandica	netsidin		, <b></b>		bedschi netcha asee (fair-sized head)	B
Bufflehead Bucephala albeola			tee wuli		dschi iel asee <i>or</i> tha gel kiasee	
Oldsquaw Clangula hyemalis	a onluk (o)	jacha <i>or</i> a aonlik (o)	a anlik (o)	a aonwä <i>or</i> a aonlik (o)	honk allee	
Harlequin duck Histrionicus histrionicus				de tschannade (waterfall bird)	t'thee iaree tschel (of rocks duck)	•
White-winged scoter Melanitta deglandi	n'tscha	jawulee tee	tschuk edsee	uetsa go	tulsi etsching koi (scoter wing white)	• • • • • • • • • • •
Surf scoter Melanitta perspicilata	de dsche a	jawulee sellee (small)	tschuk edsee	ias <i>oin</i> ( <i>dark</i> )	tulsi	
Red-breasted merganser Mergus serrator	tscha tchrain (duck fish)	folee		kwoo	kwoo, thoth <i>or</i> tsothee	
Goshawk Accipiter gentilis	achrai tschruntsik (long skinny foot)				tschissee tscho (grey jay big)	
Golden eagle Aquila chrysaëtos	eschinn			det on tscho (flier big)	det one tscho (flier big)	dittonee (flier)

English name	Loucheux	Hare Indian	Slavey	Dog-rib	Chipewyan	Sarcee
Bald eagle Haliaeetus leucocephalus	thuk or thök	tchuta	det on tscho	det on tscho	det one tscho	mitsi dekchallee (head white)
Marsh hawk Circus cyaneus	tsee			uekui ilea**	ts'thloatai	estsassee (hawk in general)
Osprey Pandion haliaetus					tst'thiee	
Peregrine falcon Falco peregrinus	tchinit'thren			ta se tsa		
Pigeon hawk Falco columbarius	tschitchro					
Spruce grouse Canachites canadensis	taich or tain	di (o)?	di (o)?	di (o)?	t'di (o)?	
Ruffed grouse Bonasa umbellus				di rekuo (grouse buff)	et'thri†	idschitra di s'did䆆
Willow ptarmigan Lagopus lagopus	tako or dako	kappa	kappa	gamba	gaspa	
Sharp-tailed grouse Pediocetes phasianellus	atchel or at'thral (long tail)	etralee	etalee	etscho	etchai	nitärru or nitora
Whooping crane Grus americana					t'del delkoi (crane white)	
Sandhill crane Grus canadensis	dscha or dschia	dilee	delleė	dee	t'del	tschut ärrä na sinnee (sun looks at)
American coot Fulica americana					tsonth annee	
Killdeer Charadrius vociferus	schinnee dschatai (neck white)					sa di reiee (having a necklace)
Semipalmated plover Charadrius semipalmatus	tschitra guluk (among the stones)					
Common snipe Capella galinago	sche scha	ia ewiree		iawitscho	iarat'theree	same as for killdeer
Lesser yellow legs Totanus flavipes	trekchee tsel	chwuiri (o) song?		detlastsaiee (o) song?		

Northern phalarope Lopibes lobatus	trekee dischon	tra ra tsellee (on top [of water] lit	tle)			
Gull (generic)	tedekee (o)	beka (o)		beko or mekwo	beskaiee	
Bonaparte's gull Larus philadelphia	etscho					
Great horned owl Bubo virginianus	wui itsee	bedsi (eared)	bedsee	motsa	b'in'ldsapee	missee
Snowy owl Nyctea scandiaca	wui saiwee	betsee ka (white)	betsee dekchallee (white)	gokwiaikwi tscho (white owl big)	iahlaba	missee dikchalee (white)
Woodpecker (generic)	detchran tscha				detschen tschihin	idschi iguttee
Cliff swallow Petrochelidon pyrrhonota	schietso neta				tsanlsi	
Common crow Corvus brachythynchos		tratsonka		tratsonka	datson tsellee (raven small)	tsausee
Common raven Corvus corax	detsch <i>un</i>	tratson		tratson	datson	tsausee tschu (crow big)
Grey jay Perisoreus canadensis	estigutan	<i>on</i> kai		inka	tschissee	
Blue jay Cyanocitta cristata						sutscha
Black-billed magpie <i>Pica pica</i>	• • • • • • •					iglis'schi ( <i>pied</i> )
Yellow warbler Dendroica petechia	tsil tschro	etonta follee (leaf yellow)			etsale	itsadetsu
Robin Turdus migratorius	schü or schu				tlotsanen	mimitagutikrase (chest red)
Rusty blackbird Euphagus carolinus	tsiltschro					
Snowbunting Plectrophenax nivalis	gukee schü (snow goose small)			geka (rock white)	delatsusee	soskaitsärä (white bird)

<sup>\*</sup> A generic term, i.e., goose. Sarcees, among themselves, also call Blackfoot Indians geese.
\*\* Apparently also used for buteos.

<sup>†</sup> Name said to refer to the drumming. †† In woods di calls.

langue Déné-Dindjié. Paris: Maisonneuve. <sup>3</sup>Irving, L. 1958. Naming of birds as part of the intellectual culture of Indians at Old Crow, Yukon Territory. Arctic 11:117-22.

<sup>4</sup>McDonald, Archdeacon. 1911. A grammar and dictionary of the Tukudh language. London: Society for Promoting Christian Knowledge.

<sup>5</sup>Jenness, D. 1955. The Indians of Canada. Natl. Mus. Can., Bull. 65, 3rd ed.: 378. <sup>6</sup>Jenness, D. 1938. The Sarcee Indians of Alberta. Natl. Mus. Can., Bull 90. <sup>7</sup>Census of Indians in Canada, 1954. Ottawa 1955: Queen's Printer.

<sup>8</sup>Anderson, R. M. 1946. Catalogue of Canadian recent mammals. Natl. Mus. Can., Bull. 102.

<sup>9</sup>A.O.U. Check List of North American birds. 1957. 5th ed. American Ornithologists' Union.

<sup>10</sup>International Phonetic Association. 1949. The principles of the International Phonetic Association. London: Secretary I.P.A., University College.

## TEMPERATURE NORMALS, AVERAGES, AND EXTREMES IN THE YUKON TERRITORY AND THE NORTHWEST TERRITORIES

The following tables contain monthly and annual normals and averages of mean daily temperatures and extreme maximum and minimum temperatures for those stations in the Yukon Territory and the Northwest Territories that were in operation during the complete 1951 to 60 decade. The values of mean daily temperature have been obtained by averaging the mean daily maximum and mean daily minimum temperatures.

In keeping with international recommendations that 30 years of continuous records are necessary to give a reliable mean value for temperature, the averages are classed as normals at stations where the uninterrupted record of observation extends over the full 30-year period 1931 to 60. Although records date back to the turn of the century at scattered localities in the Subarctic, the history of climatological observations in the Arctic is not as long, and throughout this vast area only a handful of stations have continuous records from 1931.

The temperature values are classed as averages at those stations where the period of record is more than 10 but less than 30 years. Included in this class are the many stations that were established in the Subarctic in support of military air routes to Europe and Asia during World War II, and the stations on the islands of the Canadian Arctic Archipelago that were established jointly by the governments of Canada and the United States in the late 1940's. Although no adjustments have been made to these data at this time they will be standardized to the 1931-60 normal period in future publications of the Meteorological Branch of the Canada Department of Transport.

To facilitate climatic comparisons over a homogeneous period, the decadal values of average maximum, minimum, and mean temperatures for all stations in the Northwest Territories and the Yukon Territory having complete records during the 1951 to 60 decade are now available in the Climatic Data Sheets of the Meteorological Branch. These Data Sheets also list average values of temperature for sections of the North not previously covered, and include short-term records from the Distant Early Warning line of radar stations.

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