

# THE OCCURRENCES OF SOME WESTERN BIRDS IN SASKATCHEWAN

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During the last several decades, bird-watchers and professional ornithologists in Saskatchewan, as in other areas, have observed many species which are usually designated as "accidentals" or "occasional visitants." The true "accidental" as defined by Grinnell (1922) occurs but once in an area; it is geographically and usually ecologically "misplaced" and it is not expected to occur there again. Other species may be recognized also as "accidentals", but more on the basis of their geographical than ecological "misplacement." I intend here to examine several species which fall into the latter category; all of these species show centres of abundance in the mountainous regions of British Columbia, southwestern Alberta, and western United States but illustrate by their occurrences in Saskatchewan the remarkable mobility of birds in their dispersal from the centres of abundance and their enormous potential for locating distant units of suitable habitat.

## Lewis' Woodpecker *Asyndesmus lewis*

The Lewis' Woodpecker has been observed in a variety of habitats throughout the southern half of the province (Figure 1), Mitchell (1924:110) considered it to be an "uncommon visitant from the west." There is a specimen of an adult taken at Herschel on September 23, 1914 and three were taken in the Qu'Appelle Valley by G. Lang of Indian Head; the data from these latter specimens were lost but the birds were examined by Mitchell. Potter (1943:70) first observed this species near Eastend on September 19, 1919 and reported that "there are several other fall records, all in the same month." Houston (1949:231) recorded "one shot by Frank Baines about three miles south and six miles west of Salcoats, about 1920."

Maurice G. Street and E. W. van Blaricom saw a Lewis' Woodpecker at Tisdale on November 21, 1925 (Houston and Street, 1959) and Potter (1943:70) recorded spring observations (May 12, 1938 and May 26, 1939) at Eastend, and added that "there are reports of others about this date." Houston and Street (1959:115) considered this species as a "rare straggler at Nipawin, with a single individual seen flying over the Saskatchewan River on October 7, 1942."

Belcher (1961) designated this species as casual in the Regina area on the basis of three records from that region. Elizabeth Barker observed one prior to 1931 at Tregarva and T. M. Beveridge saw one on May 28, 1940 just south of Regina. Roy Anticknap reported to Fred G. Bard that he had seen a single Lewis' Woodpecker at Regina in the fall of 1946. The most recent record for southern Saskatchewan is an adult female collected by Richard W. Fyfe on June 5, 1959 to the west of the Regina area at Tuxford (Lahrman, 1959).

A Lewis' Woodpecker was seen twice in Kinloch in 1956 by H. Rodenberg (1956). At Keatley, A. P. Pym observed one during the first three weeks of October, 1957; the bird was last seen on October 18 (Pym, 1957).

The Lewis' Woodpecker breeds "from southern British Columbia, southwestern Alberta, Montana, and southwestern South Dakota, south to California, Arizona, and New Mexico" (Godfrey, 1966:242). This species is generally migratory; it winters mainly in southern states "although individuals may winter throughout range" (Salt and Wilk, 1958:255). Although only one nest has been found, Salt and Wilk (*op. cit.*) believe that it breeds regularly in the mountain region of the southwest corner of Alberta. Away from the mountains, individuals have





Photo by R. Fyfe

### Lewis' Woodpecker

been recorded at Brooks, Sullivan Lake, Rosebud, Camrose, Belvedere, and Lesser Slave Lake, most of them during the fall migration period. This species has been reported in Manitoba from Winnipeg (Godfrey, 1966) and Churchill (Lamey, 1967).

### Steller's Jay *Cyanocitta stelleri*

Saskatchewan records of the Steller's Jay are presented in Figure 1. Mitchell (1942) reported a specimen of this species taken near Indian Head on May 24, 1923, by G. Lang. Houston (1949:233) designated it as a "rare straggler" in the Yorkton area and stated that F. Baines "reports that a pair resided on a farm . . . about 8 miles south and 4 miles west of Saltcoats, one summer in the 1920's." A more recent Steller's Jay record was reported also by Houston: Miss Pauline Summers got a close-up view of a single bird near Yorkton in the spring of 1944. Previously, for about two months, officers of the Yorkton Natural History Society were told repeatedly of a "different kind of Blue Jay" notice having been drawn to it in most cases by its strident call.

The most recent observation of a Steller's Jay in the province was made on October 29, 1961 along the North Saskatchewan River near the Borden Bridge (Gollop, 1962).

According to Godfrey (1966:273), the Steller's Jay in Canada is a "permanent resident in western and south-

eastern British Columbia (Stikine River, Poison Mountain about 60 miles north of Hazelton, and Yellow-head Pass southward including Queen Charlotte and Vancouver islands) and southwestern Alberta (Jasper and Waterton parks)." The specimen taken at Indian Head by G. Lang was examined by Mitchell (1924:112) and is "apparently referable to *C. s. annexens*"; the A.O.U. *Check-list* (1957:371) gives the range of this subspecies as "resident in the interior of British Columbia (Stikine River, Cariboo District), southwestern Alberta (Henry House, Banff), eastern Washington (Tunk Mountain, Calispell Peak, Walla Walla) . . . and northwestern Wyoming (Yellowstone Park). Casual in autumn and spring south of the breeding range in Wyoming (Hoback Mountain, Gros Ventre) and in southeastern Saskatchewan (Indian Head)."

Salt and Wilk (1958:299) pointed out that "occasionally in fall and winter individuals wander eastward. There are a few records of the occurrence of Steller's Jay at this season as far east as Glenevis, Whitecourt, the Swan Hills, and Cochrane."

### Clark's Nutcracker

#### *Nucifraga Columbiana*

There are only a few observations of Clark's Nutcrackers in Saskatchewan, all but one of which are from the extreme southwestern corner of the province in the Cypress Hills region (Figure 1). This species was added to the list of Saskatchewan birds when a specimen was collected at Ravenscrag on September 19, 1919 (not September 17, 1919 as reported by Potter (1943)—Fred W. Lahrman (personal correspondence, October 16, 1970) examined this specimen (SMNH no. 1004) and confirmed the correct date), by Spencer Pearse, who noted several on his ranch that year (Mitchell, 1924). One was seen by Pearse in September, 1925 at Ravenscrag (Potter, 1943) and on August 18, 1960 Robert V. Folker observed a single bird also at Ravenscrag in the Cypress Hills (Folker, 1961). On October 8, 1963 F. G. Bard, C. S. Brown, and B. Tether saw a

Clark's Nutcracker in the Cypress Hills (Bard, 1964).

The only record of this species outside the Cypress Hills region in Saskatchewan was obtained by D. S. Green and M. E. Hacking just south of Moose Jaw on March 24, 1968 (Green, 1969).

Clark's Nutcrackers are restricted during the breeding season to the subalpine coniferous forests of the mountains. According to Godfrey (1966:277), it is a "permanent resident, breeding in southern and central British Columbia (east of the coast but west to Alta Lake) and in the mountains of southwestern Alberta." Following the nesting season, it may wander some distance from the moun-

tains, with records for Alberta being reported from Porcupine Hills, Beaverlodge, and Belvedere (Salt and Wilk, 1958).

#### Dipper *Cinclus mexicanus*

The Dipper was not recorded by Mitchell (1924), and Potter (1943:70) stated that a Dipper in Saskatchewan "sounds improbable, but there are on the southern slopes of the Cypress Hills several streams, swift-flowing and with gravelly beds that are well suited to this particular bird. No specimens have been secured, but there have been several reports of the Dipper, nearly always in the coldest winter weather, by persons familiar with the bird in the mountains. There is no

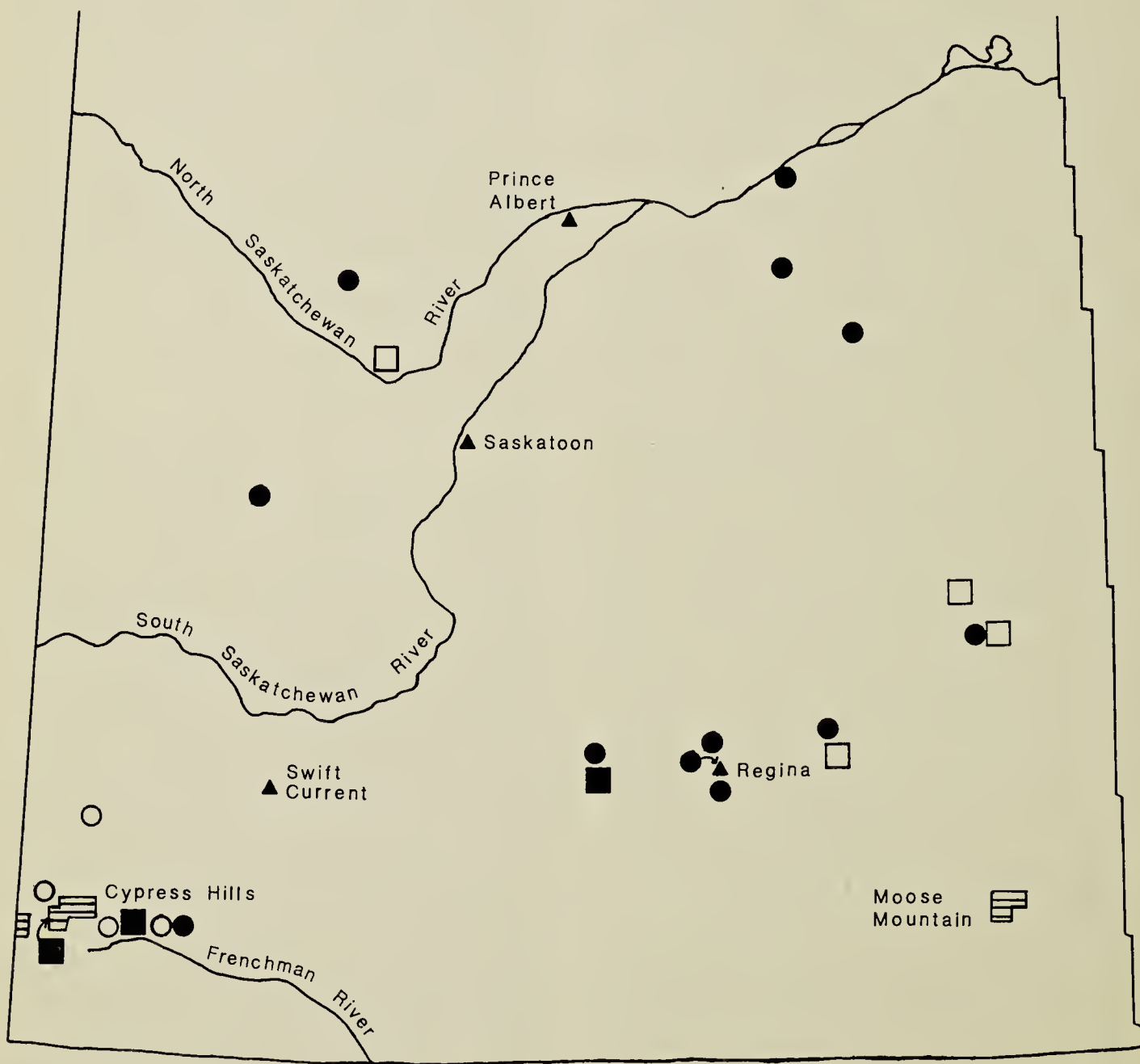


Figure 1. Approximate location of Lewis' Woodpecker (solid circles), Steller's Jay (open squares), Clark's Nutcracker (solid squares), and Dipper (open circles) records in Saskatchewan.



doubt that the Dipper will be taken eventually in this part of Canada."

Although no Dipper specimens have been taken to date in Saskatchewan, additional sight records have been obtained (Figure 1). Houston *et al.* (1958) summarized the details of Potter's Dipper records: two seen by Spencer Pearse on May 22, 1917 at Ravenscrag; one observed on the Pearse ranch at Ravenscrag by Pearse and Neil Pratt (presumably in the 1930's or early 1940's); one seen "popping in and out of the water" at Farewell Creek by Bob Friel (personal correspondence to Potter, February 8, 1941). More recently, R. V. Folker, H. S. Maliepaard, and C. Reid saw a Dipper on the main street of Maple Creek on October 25, 1963 (Folker, 1964) and Elizabeth Cruickshank and Ruth Baker observed one on May 6, 1969 along the Frenchman River, about 10 miles west of Eastend (Cruickshank, 1969). A Dipper was also seen on May 9, 1969 in the Cypress Hills by Sharon Haggerty (Cruickshank, *op. cit.*)

During the breeding season the Dipper occurs commonly throughout the Rocky Mountain regions. Godfrey (1966:286) stated that this species ranges "... throughout British Columbia (including Queen Charlotte and Vancouver islands), and southwestern Alberta (Jasper, Banff, and Waterton parks). Winters within most of the breeding range including Yukon." Salt and Wilk (1958:315) indicated that there is a "definite migration from the province of Alberta but a few individuals usually winter near waters kept open by warm springs at Canmore, Banff, Sundre, and Calgary."

#### **Varied Thrush *Ixoreus naevius***

The Varied Thrush appears as a hypothetical species for Saskatchewan in the fourth edition of the *Field check-list of Saskatchewan birds* (1959). This species is further treated as hypothetical by Belcher (1961) who reported an observation of a single bird in Regina on September 9, 1958 but which she was unable to locate again for others to verify. Additions to the check-list of Saskatchewan birds

(Nero and Houston, 1963) do not include the Varied Thrush. However, the Varied Thrush is listed as a "straggler" in the fifth edition of the *Field check-list of Saskatchewan birds* (1969).

The sight records of this species in Saskatchewan are shown in Figure 2. The first record appears to be one banded at Burnham on September 27, 1949 by Arthur Ward (1949a). Belcher (1964) recorded three more records for Regina: one seen on September 30, 1961 by Mrs. Elsie Cheesman; on May 22, 1962 Herb Tempel saw one in shrubbery in the Legislative grounds; one was seen also in the Legislative grounds on October 24, 1964 by M. Belcher, the late Lucy Murray, Christine MacDonald, and Charlotte Boissonault.

A Varied Thrush was seen again in Regina on October 12, 1965 by Frank Brazier and again on the following day by Robert W. Nero, J. W. Gerrard, and M. Belcher, with a further observation (possibly of a second bird) by Belcher on October 23 and by Brazier on October 24, 1965 (Brazier, 1965). In 1966, a single bird was seen on October 1 by F. G. Bard and F. W. Lahrman in Regina (Editor's note, *Blue Jay*, 26:123, 1968). Further records were made in Regina in the fall of 1968: one seen near the Legislative grounds on October 9 by Mr. and Mrs. J. F. MacKay, who showed it to George F. Ledingham and Belcher the next day; a second observation in a different locality was made on November 9 by Ken Johnson and confirmed by Brazier; on November 14 one appeared on the east side of the city where it was first reported by Mrs. D. Tegart and seen on numerous occasions by Tegart and Belcher up to November 28 (Belcher, 1969). Again on September 27, 1969 a Varied Thrush was seen in Regina by Ken Johnson and Brazier (M. Belcher, personal communication).

The only records of the Varied Thrush in Saskatchewan outside Regina, besides the Burnham record, are from Rosetown and Saskatoon. Renaud (1968) reported seeing a single bird near Rosetown on October 9 and 10,



1967; in 1968, he saw one at Rosetown on May 6 and on September 22 (Renaud, 1969). The Varied Thrush was added to the list of Saskatoon birds when one was seen there on October 8, 10, and 11, 1969 (Gollop, 1970) and on September 4, 1970 by J. D. Hogg and September 12, 1970 by S. J. Aldous (J. B. Gollop, personal communication). personal communication).

Godfrey (1966:296) outlined the breeding range of the Varied Thrush as being from "north-central Alaska, northern Yukon, and northwestern MacKenzie south to northwestern California, northern Idaho, and northwestern Montana." It winters from southern British Columbia to northern Baja California. The A.O.U. Checklist (1957:434) defines the status of this species as "casual" in southern Alberta (Belvedere, Edburg, Sullivan Lake, Rosebud) and central Montana (Missoula, Bozeman, Fort Custer). Salt and Wilk (1958:333) described it as breeding in Alberta in the Rocky Mountains from the international boundary to north of Jasper, appearing on the prairies "only as an accidental straggler well off its usual migration route." A northern extension of the known breeding range of the Varied Thrush in Alberta was documented recently by Salt (1966). The first specimen of this species in Manitoba was recorded also recently (Lane *et al*, 1967).

#### Townsend's Solitaire *Myadestes townsendi*

The earliest record of the Townsend's Solitaire in Saskatchewan appears to be L. B. Potter's at Eastend on April 19, 1908; he reported (1943:71) that "There are a few further records since, including one at this ranch on April 24, 1941." Mitchell (1924:118) designated the Townsend's Solitaire as "Apparently rare or accidental visitant from the west." Mitchell recorded two records from Saskatchewan: one taken on May 10, 1922 at Lake Johnstone (Old Wives Lake) by C. G. Harrold; one seen at Regina on September 30, 1923 by Mitchell. Other early records are summarized by God-

frey (1950): a male collected by C. F. Holmes at Dollard on April 21, 1931; another male taken just south of Dollard on September 10, 1933 by Holmes.

The Townsend's Solitaire has been recorded in many localities in southern Saskatchewan (Figure 2). It is noted as a "rare straggler" in the Yorkton area on the basis of one seen by Mrs. I. M. Priestly on October 24, 1940 (Houston, 1949:235). It was designated also as a "rare straggler" at Nipawin when M. G. Street observed one on October 15, 1955 (Houston and Street, 1959:146). One was banded on August 25, 1949 at Burnham (Ward, 1949b) and sight records of single birds have been obtained at the following localities: on June 25, 1959 near Baldy Lake (Kuyt, 1959); at Dilke on May 25 and 26, 1959 (J. B. Belcher, 1959); on November 10, 1961 at Fort Qu'Appelle (Callin, 1962); and at Last Mountain Lake on September 24, 1969 (Anweiler, 1970). Eight Saskatoon records have been obtained: one noted on April 10 to 13, 1949 (MacPherson, 1949); single individuals seen on March 28 and July 4, 1966 (Gollop, 1967); singles seen on April 22 and on September 22 to 24, 1967 (Gollop, 1968); and one observed on October 13, 1969 (Gollop, 1970).

Belcher (1961:55) designated this species as a "rare irregular transient" in the Regina area. She summarized the following records from that area: one seen in 1931 by Fred Bradshaw; one seen behind the Technical Collegiate by H. Boyd on April 17, 1934; one was observed on April 21, 1954 by the late Lucy Murray, Betty Strutt, and M. Belcher and was identified on April 24 by J. H. Taylor and seen again on May 5; one was seen on April 23, 1955 by G. F. Ledingham, Murray, and Belcher and again on April 28 by Murray; another was seen near the Experimental Farm on March 30, 1957 by Marion Goudie; and another was seen on April 19, 1958 by Ledingham, and two ("apparently a pair") on April 19, 1958 by Ledingham, F. G. Bard, and Belcher. In 1959, there are records for April 27, 28 and 29, and May 5, "with indications that there





Photo by Fred Lahrman

### Townsend's Solitaire

were at least three birds in the area at once."

One and possibly two wintering Townsend's Solitaires were recorded in Regina in 1960 and 1961; one was seen there first on December 3, 1960 and subsequently observed on numerous occasions up to March 28, 1961. An individual was seen also through the first two weeks of April and was believed by Belcher to be the same bird but since it was not marked it is impossible to be sure. These winter observations were summarized in detail by Brazier (1961). Later, on December 24, 1961 a Solitaire was recorded in Regina on the Christmas Census, and this bird was seen again by several observers on January 6, 7 and 20. On May 5 of the same year, Brazier reported an observation of the Townsend's Solitaire near his home in Regina. Two years later, on March 31, 1964 Brazier saw another individual in the same area. On several dates in May, 1965 (May 2, 3, 4 and 6) a Solitaire was again seen by different observers. In 1966, the species was again reported on the Christmas Census, December 26. A fall record for 1967 was noted at the Provincial Correctional Centre several miles east of the city by Al and Betty Binnie—October 17 and 18. Later that year—November

11, 1967 one was seen in the Legislative grounds by Belcher and Christine MacDonald. In late February, 1968 Brazier reported a Solitaire again in the Legislative grounds, and this bird was seen again February 24, March 5 and 17 by other observers. The most recent record at Regina is for November 10, 1969 when Brazier saw a Solitaire in the Legislative grounds (reported to him a week before), and it was probably the same bird that Brazier saw again on two or more occasions up to December 2 when two birds seen in flight were both believed to be of this species (Belcher, personal communication).

According to Godfrey (1966:304), the Townsend's Solitaire breeds in Canada "from southern Yukon (Dawson, Carcross, Lapie River; recorded in summer north to Bern Creek) and southwestern and central-western MacKenzie (mouth of Nahanni River; probably Carcajou River near Canol Road—juvenal specimen August 6, 1958), south through British Columbia (mostly east of the foothills: Jasper, Banff, and Waterton Lakes parks; Gorge Creek)." This species has been recorded during migration on numerous occasions east of the Rocky Mountains in Alberta (Salt and Wilk, 1958) and has been observed and collected in the

fall in Manitoba (Harrold, 1923; Lane and Randall, 1970).

### Green-tailed Towhee *Chlorura chlorura*

The first record of the Green-tailed Towhee from Canada is a male taken at Tregarva, Saskatchewan, on June 6, 1929 by Norman Clarke (B[arnes], 1929; Bradshaw, 1930). This species was seen again also by Clarke at Tregarva on June 28, 1935; the bird seemed quite tame and flitted only a few yards ahead of him on his way to the barn (Rand, 1945). A third record for this province is a female collected at Dollard on May 18, 1944 by Charles

F. Holmes (Rand, *op. cit.*). These records are plotted on a map in Figure 2.

A recent record from North Dakota is also of interest; a male Green-tailed Towhee was found on May 13, 1965 in Bismarck by D. Feimer and brought to B. J. Rose who kept it until May 21 when it was released (Rose, 1965).

The Green-tailed Towhee breeds from southwestern and central Oregon, southeastern Washington, southern Idaho, southwestern Montana and northwestern, central and southeastern Wyoming, south through the interior mountains to southern California, southern Nevada, central Arizona and

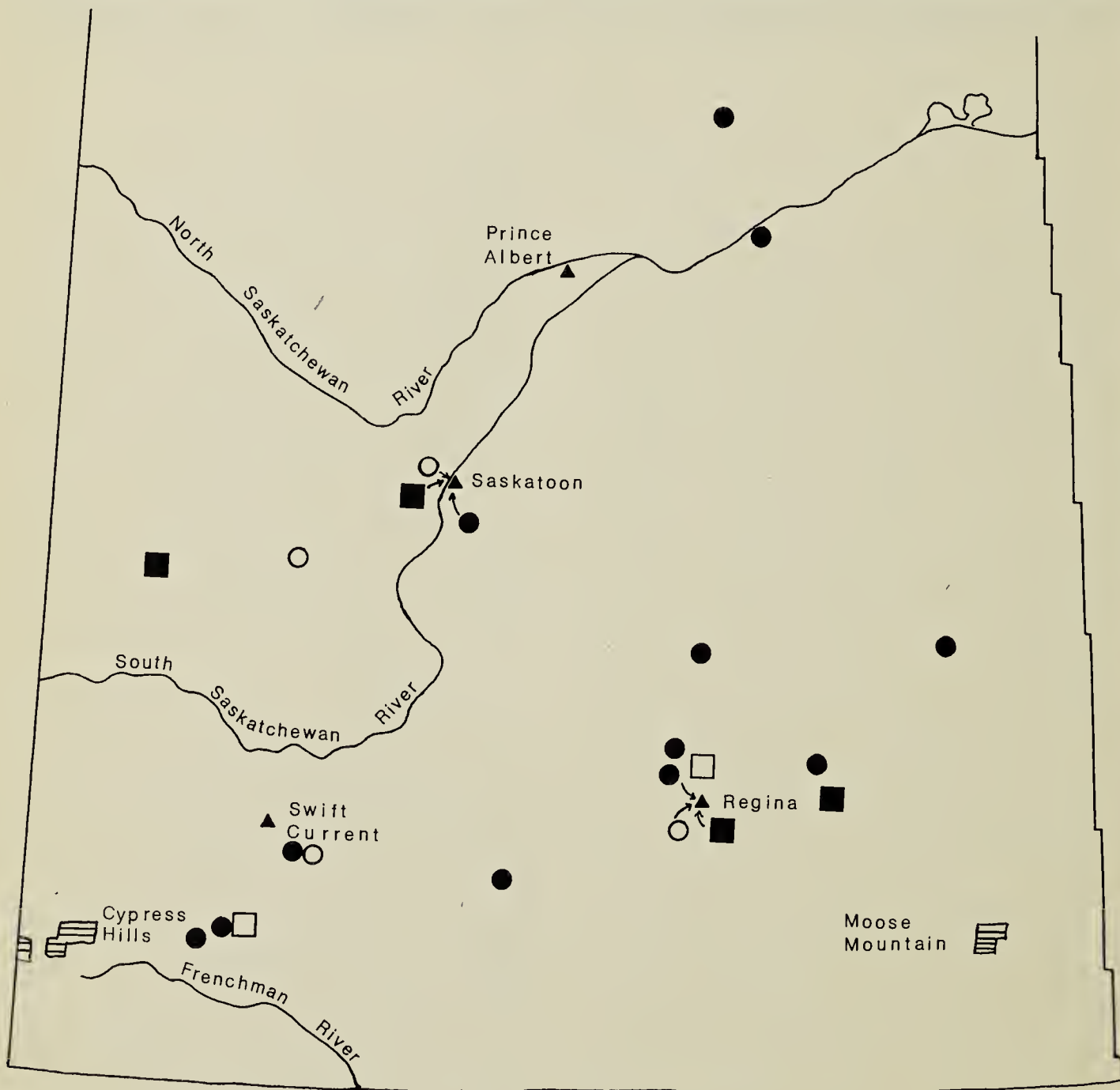


Figure 2. Approximate location of Varied Thrush (open circles), Townsend's Solitaire (solid circles), Green-tailed Towhee (open squares), and Golden-crowned Sparrows (solid squares) records in Saskatchewan.



southern New Mexico. In migration it reaches western Kansas and western Oklahoma. It has been recorded as casual east to Massachusetts, New Jersey, Virginia, South Carolina and Louisiana (A.O.U., 1957).

### Golden-crowned Sparrow

#### *Zonotrichia atricapilla*

Belcher (1961) lists this species as casual in the Regina area. One was seen with five White-crowned Sparrows (*Z. leucophrys*) at "King's Park" along Boggy Creek east of Regina on May 19, 1956 by Elmer L. Fox, F. H. Brazier, and R. W. Nero, and collected on that date (Nero, 1956). This apparently constitutes the second known record of this species in Saskatchewan; Smith (1914) listed a specimen in the Rocky Mountain Parks Museum at Banff, collected at Indian Head, Saskatchewan, and received from the Geological Survey, Ottawa, 1895.

A second Regina record of this species was obtained when G. F. Ledingham and Maureen Rever saw one on May 27, 1961 (Belcher, 1961).

On May 30, 1956 I found a dead Golden-crowned Sparrow on the ground in the MacKenzie High School yard in Kindersley; the bird was directly beneath a telephone wire and probably hit it while migrating during the night. The specimen was carefully examined and compared to the description of this species presented by Pearson (1936, *Order of Perching Birds*, pp. 36-37) and its identification was made. Unfortunately, at the time I was unfamiliar with methods of preserving birds and the specimen was not saved.

The most recent record of the Golden-crowned Sparrow in Saskatchewan comes from Saskatoon where one was observed on May 18, 1963 (Gollop and Gollop, 1964).

The Saskatchewan records of the Golden-crowned Sparrow are shown in Figure 2.

Godfrey (1966:398) defined the breeding range of this species in Canada from "Yukon (Sheldon Lake) southward to southern British Columbia (Coast Ranges and eastward; Alta Lake, Tonquin Pass), and south-

western Alberta (Jasper and Banff National parks east to Mountain Park)." In Alberta, the only known record away from the mountains is of three birds seen at Red Deer in October, 1939 after a heavy snowfall (Salt and Wilk, 1958).

In migration, Golden-crowned Sparrows are seen throughout southern British Columbia including the Queen Charlotte Islands and Vancouver Island; they winter in small numbers in southwestern British Columbia (Victoria, Vancouver, Okanagan Landing) (Godfrey, 1966).

### DISCUSSION

Dispersal is the process whereby an organism is able to spread from its place of origin to another locality. Such dispersal is undertaken by the individual and whatever geographic displacement is achieved will be the result of multiple interactions between the individual and the environment. Udvardy (1969:11) states that "the processes of establishing a new colony of the species are often so unique and specialized that we must think of them as basic biological characteristics of each species — characteristics which have evolved under strong selection pressure and which adapt each species to respond, throughout time and generations, to the variation of the extent and location of suitable, habitable areas."

In examining the dispersal of animals (birds in the present case) it is necessary to look at the environmental factors which hinder, prevent, or facilitate this dispersal. The species under consideration here normally breed at high altitudes in the coniferous forests or in the montane and high plateau regions of the mountainous areas of western Canada and the United States. Their eastward spread to Saskatchewan, even if ecologically suitable habitats were available, is hindered by the presence of an ecological barrier, the grasslands.

It is interesting to note that several of the Saskatchewan records of Lewis' Woodpecker, all but one of the Clark's Nutcracker, all of the Dippers, several



Townsend's Solitaires, and one Green-tailed Towhee are from the Cypress Hills or the immediate vicinity (Figures 1 and 2). The Cypress Hills region of southwestern Saskatchewan and southeastern Alberta has long interested biologists and geologists. Altitudinal variations in the region and the consequent local variations in climate account for a variety of ecological communities, and consequently there is a diverse bird fauna there. Altitudes of at least 4,500 feet above sea-level are reached in the western part of the hills in Saskatchewan and

coniferous forests prevail (Godfrey, 1950).

Birds found in the higher parts of the Cypress Hills are of particular interest. As Godfrey (1950:8) pointed out, the affinities of such species as the Dusky Flycatcher (*Empidonax oberholseri*), Orange-crowned Warbler (*Vermivora celata orestera*), Audubon's Warbler (*Dendroica auduboni auduboni*), Red Crossbill (*Loxia curvirostra*), Oregon Junco (*Junco oregonus mearnsi*), and White-crowned Sparrow (*Z. l. oriantha*) are "with the Rocky Mountains to the west and

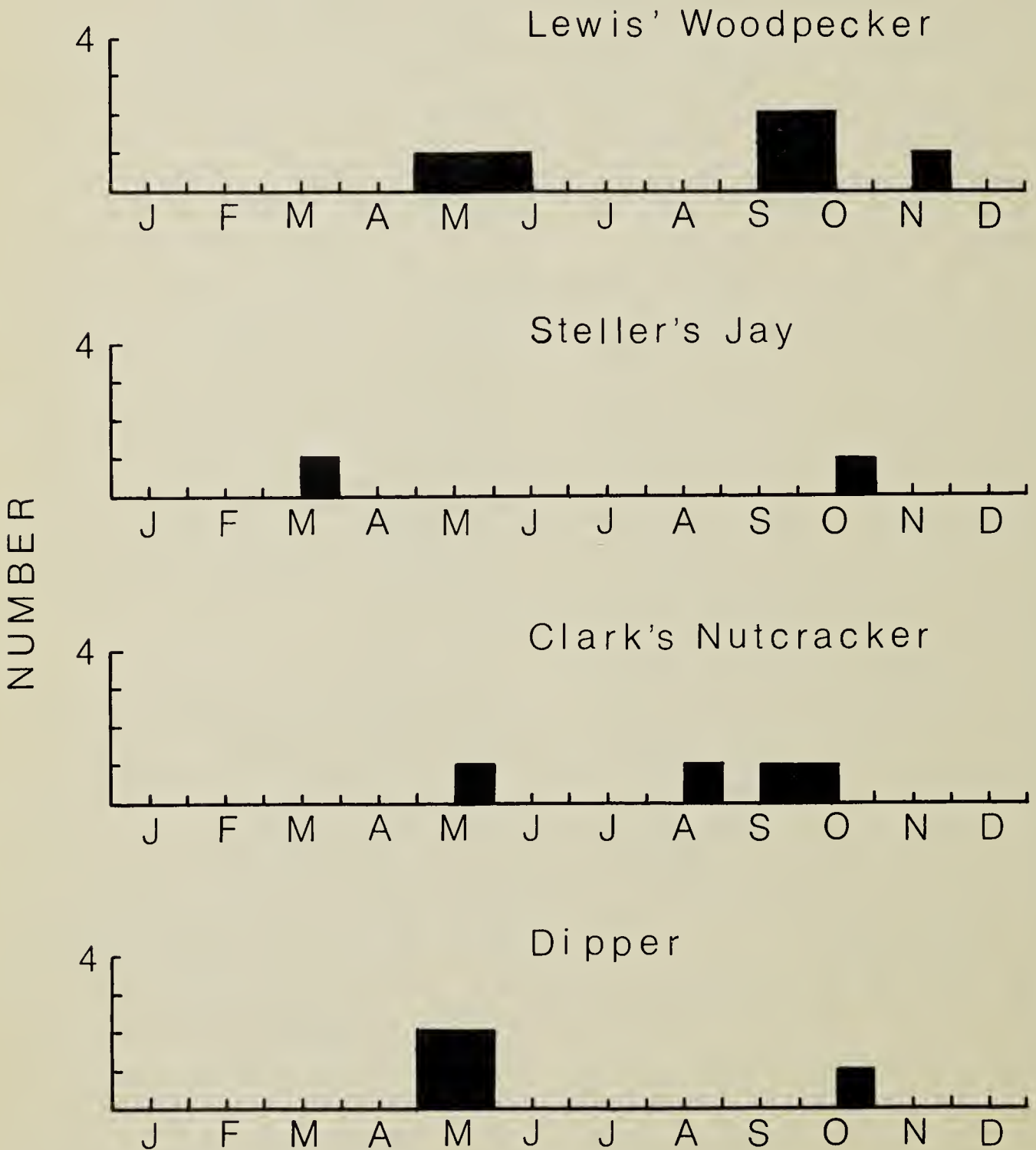


Figure 3. Seasonal patterns of occurrence of Lewis' Woodpecker, Steller's Jay, Clark's Nutcracker, and Dipper in Saskatchewan, in biweekly periods.

their outliers to the south and southwest." The Ruffed Grouse (*Bonasa umbellus*) is not known ever to have occurred there naturally, but was successfully introduced (Potter, 1930). Spruce Grouse (*Canachites canadensis*), Gray Jays (*Perisoreus canadensis*), Boreal Chickadees (*Parus hudsonicus*), and Red Squirrels (*Tamiasciurus hudsonicus*), so common in the coniferous forests of central and northern Saskatchewan and throughout much of the western mountain region, are not known to occur.

Thus, it is not surprising that some of the species under consideration here have been encountered in such potentially suitable habitat as the Cypress Hills. Indeed, only about 400 miles of "uninhabitable" country must be traversed to reach these hills from the mountains of southwestern Alberta. Despite the apparent suitability of the Cypress Hills to certain mountain species, Steller's Jays have not been recorded there. Salt and Wilk (1958) pointed out that this species frequents coniferous forests at altitudes of 4,000 feet or more during the summer. In fact, the only possible but unconfirmed nesting record of the Steller's Jay in Saskatchewan comes from Salteats, where F. Baines observed a pair repeatedly one summer in the 1920's (Houston, 1949).

Although Lewis' Woodpeckers, Clark's Nutcrackers, Dippers, Townsend's Solitaires, and a Green-tailed Towhee have been observed in the Cypress Hills, evidence of breeding there is lacking. Only single individuals have been seen and hence it is possible that successful breeding and subsequent colonization of the Cypress Hills has been prevented by the lack of suitable mates at the proper time of the year. Figures 3 and 4 present the seasonal records of occurrence in Saskatchewan of the eight species under consideration here. As could be expected, the majority of records are during the spring (pre-reproductive period) and fall (post-reproductive period) migratory periods. All of the Green-tailed Towhees and Golden-crowned Sparrows observed to date in

Saskatchewan have been seen during the spring migration period (May and June). Although no breeding records of the towhee have been obtained, one of the two Saskatchewan specimens, collected at Tregarva, was a male in breeding condition (Rand, 1945). The Green-tailed Towhee is typically found on wooded mountain sides and among the mesquites in the lowlands of the Cape district of Lower California in winter (Kenyon, 1947). Although present in much of the transition zone, this brush inhabitant is perhaps most characteristic of the Canadian zone, as was graphically illustrated for the Yosemite region by Grinnell and Storer (1924). The range also extends well up into the Hudsonian zone in areas such as the San Francisco Mountains where Jenks (1934:176) found that "these birds inhabit the mountain willow and wild gooseberry thickets on the borders of alpine meadows, from altitudes of 8,300 up to 10,500 feet."

The Golden-crowned Sparrow is also a bird of the Hudsonian zone (Brooks and Swarth, 1925). Rand (1948:6) did not find it in southern Alberta but he indicated its probable occurrence in the mountainous areas: "The alpine grassland above timber-line harbours at least white-tailed ptarmigan and the leucosticte probably belongs here. Other species such as the golden-crowned sparrow and the timber-line sparrow will probably be found here." Such alpine habitat is non-existent in Saskatchewan, even at the highest altitudes in the Cypress Hills; hence, it is unlikely that we will encounter this species nesting in Saskatchewan.

Possibly accounting for the sporadic occurrences of Golden-crowned Sparrows in Saskatchewan during the spring migration period only, is the fact that on the wintering grounds "the golden-crowned sparrows are usually found in mixed flocks with white-crowned sparrows" (Kelly, 1968:1360). Thus, individual Golden-crowns may stray northward from their wintering grounds in flocks of White-crowned Sparrows, which are common migrants in Saskatchewan; indeed, the specimen collected by Nero (1956) was



a lone individual in a flock of White-crowns.

Many authors (Skinner, 1922; Packard, 1945; others) have reported the altitudinal distribution of the Dipper as extending from the Upper Sonoran or Transition Life Zones up to or near the timber-line. However, they have

been found even in the Lower Sonoran Life Zone in Arizona (Hargrave, 1939). During the summer in western Montana, they are most commonly found in the Upper Transition and Canadian Life Zones, where they breed (Saunders, 1921).

The presence of the Dipper in the

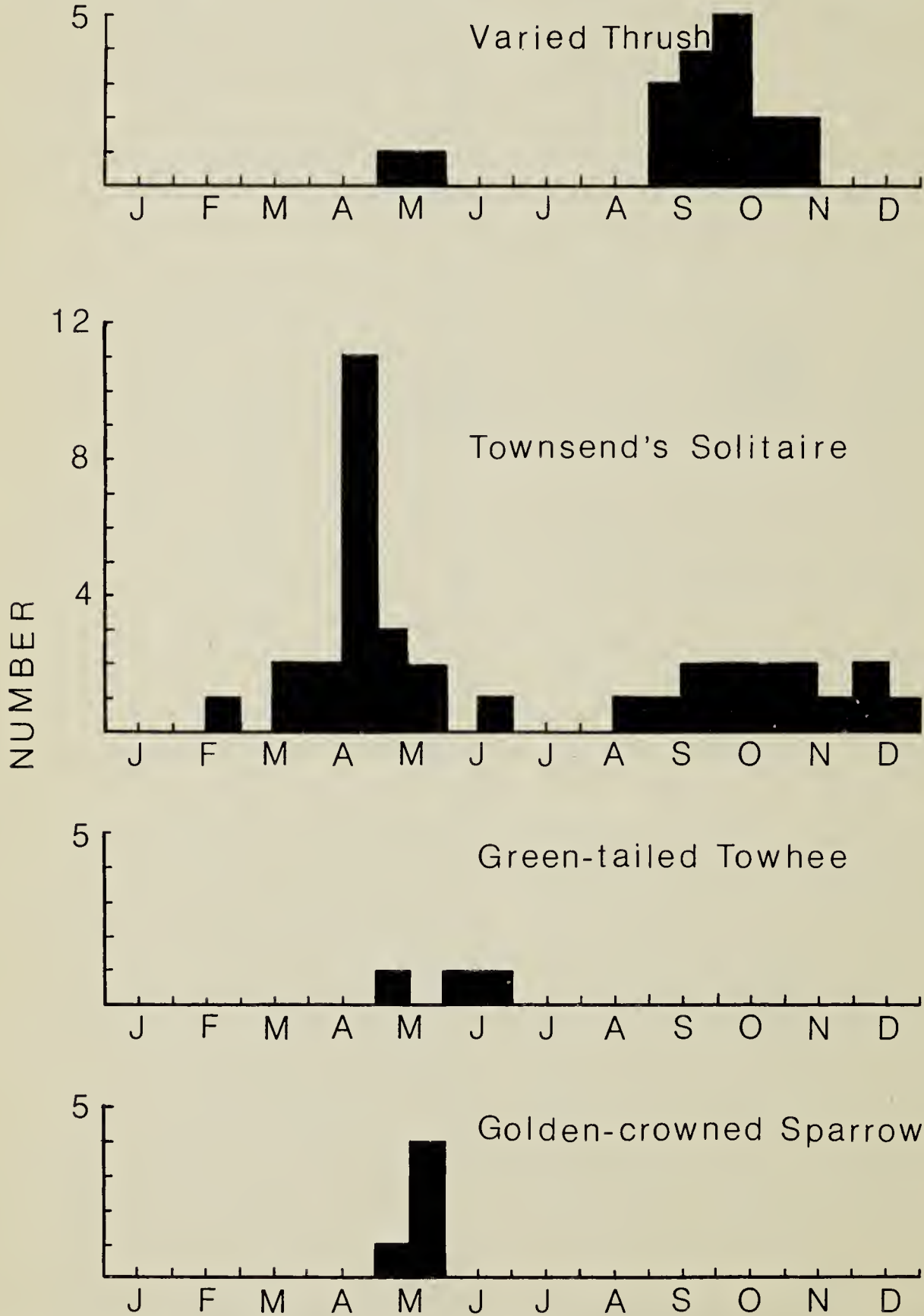


Figure 4. Seasonal patterns of occurrence of Varied Thrush, Townsend's Solitaire, Green-tailed Towhee, and Golden-crowned Sparrow in Saskatchewan, in bi-weekly periods. Where the same bird is suspected of being seen over an extended period, only the date when it was first seen is recorded.

Cypress Hills region of Saskatchewan is somewhat of an enigma. Dippers are rarely seen over land; Bakus (1959) considered flights over a 10-foot and 30-foot stretch of land to be noteworthy in this respect. Skinner (1922) saw one Dipper flying across a quarter-mile stretch between two streams. Thus, disregarding the unlikely possibility of a relict population of Dippers in these hills, it appears that Dippers have flown over long stretches of land to reach them. Streams originating in the Cypress Hills form the Frenchman River which flows southeast into the Milk River in northeastern Montana; since the Milk River originates in the Rocky Mountains in northwestern Montana, it would be possible for a Dipper to follow these waterways to the Cypress Hills. However, no records have been obtained along the Milk River or more than a few miles from the source of the Frenchman River. More probably Dippers have dispersed to the Cypress Hills by means of high wind; in fact, Folker (1964:5) speculated that this species' presence in Maple Creek on October 25, 1963 was due to "Gale force winds which were prevalent in the area during the better part of the week, including the day of our observation, [which he said] could account for the unusual appearance of a Dipper on a town street."

From Figure 4, it is seen that 16 out of 18 or about 88 percent of the observations of Varied Thrushes in Saskatchewan were made in the fall. Bent (1949:96) provided some late fall departure dates that compare interestingly with many of the Saskatchewan records: Alberta—Edberg, October 10; Montana—Fortine, October 24; Idaho—Priest River, November 8. More recently, this species has been recorded from Brandon, Manitoba, from November 28 to December 28, 1965 (Lane *et al.*, 1967); Cushing, Minnesota, on November 22, 1965 (Isaken, 1966); and Morris, Minnesota, from December 5 to 7, 1965 (Strubbe, 1966). All seven casual records of Varied Thrushes from several eastern localities presented by

Bent (1949), were obtained also in the fall.

Bent (1949:96) referred to migrant Varied Thrushes found east of their normal range being "usually in company with robins"; the Varied Thrush in Regina on October 24, 1964 was also apparently in company with a flock of Robins (Belcher, 1964). It is thus possible that Varied Thrushes reach Saskatchewan by straying with Robins which are common migrants and residents there.

The majority (about 61 percent) of Townsend's Solitaires in Saskatchewan, on the other hand, have been seen in the spring (Figure 4), although it has been observed there during most months. All of the casual records documented by Bent (1949) from eastern North America were obtained in the fall and winter months. The presence of the Solitaire in Regina in winter (Brazier, 1961), although unusual, is not inconsistent with the habits of this species (Bent, 1949).

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