Status and Occurrence of Sprague's Pipit *(Anthus spragueii)* in British Columbia.

By Rick Toochin and Don Cecile. Submitted: April 15, 2018.

Introduction and Distribution

The Sprague's Pipit *(Anthus spragueii)* is a passerine found primarily in native prairie habitat of the Northern Great Plains and is now a classified as a Threatened Species in much of its range due to loss of habitat to agriculture which limits available breeding areas (COSEWIC 2010). Approximately 60% of the global breeding population is found in Canada (COSEWIC 2010). The Sprague's Pipit is a habitat specialist that needs large tracks of intact native grasslands for breeding (COSEWIC 2010). This species is typically associated with grazed native mixed-grass prairie in fair to excellent range condition with few shrubs (Dale 1983, Madden 1996, Davis 2004c, Davis *et al* 1999b, Grant *et al*. 2004b, Lusk and Koper 2013). The general breeding success of Sprague's Pipits likely varies geographically, but it generally avoids over-grazed pastures (Maher 1973, Dale 1983, Prescott and Wagner 1996, Davis *et al*. 1999b). The Sprague's Pipit is found in greatly reduced numbers in native grasslands that are invaded by non-native species (Wilson and Belcher 1989)

In Canada, the Sprague's Pipit is found breeding in south-eastern Alberta west to the Rocky Mountain foothills, and marginally within the Rocky Mountain region, and north to the Peace River, Barrhead and Bonnyville areas (Semenchuk 1992). This species ranges throughout southern Saskatchewan north to Turtleford, Prince Albert, and Shoal Lake, on the fringes of the southern Boreal region (Smith 1996b). The Sprague's Pipit is also found in south-western Manitoba north to the Pas (ABBM 2017).

In the United States, the Sprague's Pipit is found breeding in portions of north and central Montana east of the Rocky Mountains (Skaar 2012), and throughout North Dakota, but is local or absent in the easternmost counties of the state (Stewart 1975b, Davies *et al*. 2017). This species also occurs very locally south to north and central South Dakota, where it has been recorded on a recent Breeding Bird Atlas in Perkins, Corson, Dewey, McPherson, and Pennington counties, but no nests have been found in the state since 1907 (S. Dakota Ornithol. Union 1991, Peterson 2012). The Sprague's Pipit occurs as a very rare and local species east to north-western Minnesota, with recent summer records from Clay, Norman, and Polk counties (MBBA 2017).

The Sprague's Pipit is a short to medium distance migrant between breeding grassland areas and wintering grounds in northern Mexico and the southern United States (COSEWIC 2010, Davis *et al*. 2014). Typically the Sprague's Pipit is a solitary species, but can be found occasionally in loosely associated groups (Davis *et al*. 2014). This species is a diurnal migrant (Davis *et al*. 2014). The Sprague's Pipit primarily migrates through the Great Plains states and the Prairie Provinces (Davis *et al*. 2014). It is rare or uncommon in the spring in Missouri and Nebraska and very rare in Wisconsin and Wyoming (Davis *et al*. 2014).

The bulk of the population migrates in spring through the central Great Plains, primarily in April (Johnsgard 1980b, Robbins and Easterla 1992, Thompson and Ely 1992), arriving on the breeding grounds from the third week of April–mid-May in Saskatchewan (Maher 1973), and North Dakota (Stewart 1975b). Individual birds will occasionally linger on the wintering grounds until early May (Arvin 1982).

In the fall, the Sprague's Pipit occurs in habitat similar to breeding areas plus will use stubble and fallow fields, mostly of alfalfa, soybean, and wheat. It migrates through the central Great Plains from late September through early November (Johnsgard 1980b, Robbins and Easterla 1992, Thompson and Ely 1992), arriving on wintering grounds from late September through November (Phillips *et al*. 1964a, Oberholser 1974c, Wood and Schnell 1984, James and Neal 1986).

The Sprague's Pipit winters from south-central and south-eastern Arizona, southern New Mexico, Texas, southern Oklahoma, southern Arkansas, north-western Mississippi, and southern Louisiana, south into northern Mexico to Michoacán, Puebla, and Veracruz (Sibley 2000, Howell and Webb 2010, Dunn and Alderfer 2011). This species is more common in southern Texas than in West Texas or Oklahoma (Grzybowski 1982). The Sprague's Pipit is a regular, but uncommon winter visitor in Tennessee (Davis *et al*. 2014). It is thought to be regular in winter to Guerrero, Mexico based on a specimen record (Howell and Wilson 1990, Davis *et al*. 2014). This species is uniformly and widely distributed in the Chihuahuan Desert, but tends to be most abundant in the south-eastern portion and least abundant in the north (Pool *et al*. 2012). The Sprague's Pipit is a rare and irregular winter visitor in north-western Florida (McNair 1998d), with rare and irregular early winter records from Alabama, Georgia, and Virginia (Davis *et al*. 2014).

The Sprague's Pipit is considered a grassland specialist and occupies grasslands with high grass cover and low shrub cover (Macias-Duarte *et al*. 2009), although sparsely vegetated grassland (Desmond *et* al. 2005) and cultivated lands (Stevens *et al*. 2013) may also be used in some areas. In Mexico, pipit density was highest in grasslands with 80% grass cover, grass height 28

cm, and forbs 20 cm tall; shrub density negatively impacts density but not shrub height (Pool *et* al. 2012). In Texas, it is typically associated with grassland habitat where woody shrub canopy coverage < 50% (Igl and Ballard 1999). In s. Texas, it is associated with grassland with < 5% shrub and grass heights < 50 cm, although considered heavily grazed (Grzybowski 1982).

The Sprague's Pipit is a casual fall migrant in the eastern part of North America from the east coastal states of Maine, Massachusetts, Delaware, Virginia, North Carolina, South Carolina, and Florida. This species is a casual or rare in fall vagrant in Georgia (Am. Ornithol. Union 1998). This species has also been recorded as a casual vagrant in the Great Lakes region south through the Mississippi Basin with records from western Ontario, Iowa, Michigan, Minnesota, Mississippi, Ohio Illinois, Iowa, and Wisconsin (Am. Ornithol. Union 1998). In the mid-west, out of range the Sprague's Pipit is a casual, rare or uncommon vagrant in both spring and fall in Colorado, Missouri, Nebraska, New Mexico, Wisconsin and Wyoming (Am. Ornithol. Union 1998, Davis *et al*. 2014).

Along the West Coast of North America, the Sprague's Pipit is a rare to accidental vagrant. In California, this species a rare, but regular species with 106 accepted records by the California Bird Records Committee (Hamilton *et al*. 2007, Tietz and McCaskie 2017). The Sprague's Pipit is no longer a review list species in California and was removed from the review list in 2008 (Hamilton *et al*. 2007, Tietz and McCaskie 2017). This species is accidental in Oregon with 2 accepted records by the Oregon Bird Records Committee (OFO 2016). There are no accepted records for Washington State by the Washington Bird Records Committee (Wahl *et al*. 2005, WBRC 2016). In British Columbia, the Sprague's Pipit is an accidental vagrant that has incredibly bred once in the interior of the Province (McConnell *et al*. 1993, Campbell *et al*. 1997, Toochin *et al*. 2014).

Identification and Similar Species

The identification of the Sprague's Pipit is covered in all standard North American field guides. This is a small species measuring 16 cm in length, with a wingspan of 25 cm, and weighing 25 grams (Sibley 2000, Dunn and Alderfer 2011). The Sprague's Pipit is a ground-inhabiting passerine of open grasslands. The sexes look similar to each other. This species is stocky in shape, short-tailed and short-billed (Sibley 2000). The Sprague's Pipit doesn't bob its tail like other pipit species (Sibley 2000).

Adults have buff and blackish streaking on the crown, nape, and upper-parts (Dunn and Alderfer 2011). The face is plain buffy with a pale eye-ring accentuating its large-eyed appearance (Dunn and Alderfer 2011). The chin, throat, and under-parts are whitish with finely streaked blackish on the breast (Sibley 2000). The breast and flanks are often faintly washed

with buff (Sibley 2000). The wings and tail are dark brown with 2 pale indistinct wing-bars and outer two rectrices are mostly white (Pyle 1997c). The bill is relatively slender, short, and straight with the upper mandible blackish, and the lower mandible pale with a blackish tip (Sibley 2000). The tarsus is yellow to pale pinkish-brown, relatively long with an elongated nail of hallux or hind claw (Davis *et al*. 2017). The entire body plumage has a more pronounced buff colouration in fresh Basic plumage during the fall and early winter, but buff feather edges on upper-parts are much reduced from wear during the summer months from June–August (Davis *et al*. 2017).

Juvenile birds hold their plumage from July to November (Sibley 2000). Juvenile birds are similar to adults, but juveniles have thicker breast streaks, particularly towards the sides, and the lesser, median and greater coverts with tawny edging compared to white edging of adults (Sibley 2000).

The Sprague's Pipit is most similar in appearance to the American Pipit (*Anthus rubescens*) (Davis *et al*. 2017). This species is distinguished by buffy brown upper-parts with broad blackish streaking and not uniformly grayish or brownish (Davis *et al*. 2017). The ear coverts are pale buffy to whitish, not brown or gray, and not contrasting distinctly with throat (Sibley 2000). The legs are yellowish to pale pinkish-brown, not dark brown to blackish, with outermost 2 rectrices, not just outermost rectrix R6, extensively white, and central rectrices (R1) tapered with wide edgings similar to upper tail coverts and contrasting with much darker and finely edged R2-R4 (Pyle 1997). The hind claw and toe longer than central toe and claw, and lower mandible pale contrasting with a dark upper mandible and the bill not entirely dark (Pyle 1997).

Bill pattern and colour, rounded head, and large-eyed look reminiscent of Upland Sandpiper (*Bartramia longicauda*), which may create a different appearance to an American Pipit (Davis *et al*. 2017). When flushed, Sprague's typically rises in undulating flight; circling overhead while giving diagnostic song or single-syllable, squeaky *squick* call (Sibley 2000, Dunn and Alderfer 2011). American Pipit found typically in wetter areas and occasionally seen perched on telephone wires, fences, and treetops while Sprague's would rarely be observed in these locales (Davis *et al*. 2017). Sprague's Pipit distinguished from other grassland passerines with white outer rectrices by slender shape, relatively narrow bill, and thin, high-pitched calls and songs (Davis *et al*. 2017).

Occurrence and Documentation

The Sprague's Pipit is an accidental vagrant in British Columbia, but has bred successfully on one occasion with all records coming from the interior of the province (Toochin *et al*. 2014). This species is known to show up in eastern North America in appropriate habitat well out of

range during the breeding season and in migration which could explain why there are breeding records for 1 year at a specific location and none the next (COSEWIC 2010). The first record for British Columbia was a breeding record of 2 nests found at the Kimberley Airport 18 km northeast of Kimberley, in the east Kootenay in the summer of 1959 (Campbell et *al*. 1997). Although Campbell *et al*. (1997) mention that the record was likely valid, they left it as a hypothetical based on the fact that there were details missing. It is included here as it does fit an overall pattern that Sprague's Pipit occurrence follow and it may well be valid. The second record for the province was an immature bird found by Shannon Hall, Ken Hall and John Toochin and seen subsequently by others on a grass patch of the Shore of Saskum Lake, north east of Barriere, in the Thompson Nicola region, on August 25, 1979 (J. Toochin Pers. Comm.). The next records involved breeding birds that were found by Ruth Van den Driesche and were seen and photographed by others at Becher's Prairie 45km southwest Williams Lake (McConnell *et al*. 1993). There were several birds present with one breeding pair and a nest of 6 eggs located from May 17-July 21, 1991 (McConnell *et al*. 1993). The following year likely the same birds were re-found, but no nest was recorded in approximately the same area of Becher's Prairie 45km southwest Williams Lake from May 12- June 26, 1992 (McConnell *et al*. 1993). Subsequent searches over the next few years failed to produce these birds (McConnell *et al*. 1993). The sixth record for British Columbia was a singing male found by Mike and Sharon Toochin and was subsequently re-found by many other observers in good grassy habitat at the Fort Nelson Airport June 26-July 1, 2001 (Toochin *et al*. 2014). No breeding was confirmed on this record. Dunn and Alderfer (2011) show Sprague's Pipit on the breeding range map as occurring in the Peace River of British Columbia. This could be true as this species does occur into nearby northern Alberta and there is a single record for the region. There are almost no observers in the region and it is a huge region. It is possible that there will be future records from this area and observers travelling to the Peace country in the breeding season should pay special attention for this species. The seventh record for British Columbia was of an immature bird found by Dean Nicholson at the irrigation fields in Cranbrook on September 15, 2002 (Toochin *et al*. 2014). The bird was well observed in good habitat for the species (D. Cecile Pers. Comm.). The Sprague's Pipit is possible anywhere in the dry interior where there is good Prairie habitat available. Like other prairie breeding species such as Chestnut-collared Longspur, McCown's Longspur and Lark Bunting, the Sprague's Pipit could occasionally occur in migration anywhere in the Province. Like most of the previous mentioned species the Sprague's Pipit should be looked for from the third week of April–mid-May (Maher 1973), and as a territorial bird from late May through early July (COSEWIC 2010). Fall migrants should be watched for from September through early November (Johnsgard 1980b).

Table 1: Records of Sprague's Pipit for British Columbia:

1.[2 nests] summer 1959: Kimberley Airport, east Kootenay (Campbell *et al*. 1997)

2.(1) immature August 25, 1979: John Toochin, Ken Hall, Mike Toochin, Rick Toochin, mobs: Saskum Lake (Toochin *et al*. 2014)
3.(2) m/f 6 eggs in nest May 17-July 21, 1991: Ruth Van den Driesche, mobs(photo) Becher's Prairie 45km sw Williams Lake, near Riske Creek (McConnell *et al*. 1993)
4.(2) m/f May 12- June 26, 1992: RVdD, mobs (photo) Becher's Prairie 45km sw Williams Lake near Riske Creek (McConnell *et al*. 1993)
5.(1) m singing June 30-July 8, 1992: RVdD, mobs (photo) different bird same area of Becher's Prairie 45km sw Williams Lake (McConnell *et al*. 1993)
6.(1) m singing June 26-July 1, 2001: Mike and Sharon Toochin, mobs: Fort Nelson Airport (Toochin *et al*. 2014)
7.(1) immature September 15, 2012: Dean Nicholson: Irrigation Fields, Cranbrook (Toochin *et al*. 2014)

Acknowledgements

I want to thank Barb McKee for editing the original manuscript. We wish to thank Dean Nicholson for reporting the details of his Sprague's Pipit from Cranbrook. We also would like to thank John Toochin for passing along details of the bird found at Saskum Lake.

References

ABBM (2017). Atlas of the Breeding Birds of Manitoba 2010-2014: Sprague's Pipit. [Online Resource] Retrieved from http://www.birdatlas.mb.ca/mbdata/maps.jsp?lang=en [Accessed: December 24, 2017].

American Ornithologists' Union. 1998a. Check-list of North American birds. 7th edition ed. Washington, D.C.: American Ornithologists' Union.

Arvin, J. C. 1982. South Texas Region. The spring migration. Am. Birds 36: 871-873.

COSEWIC. 2010. COSEWIC assessment and status report on the Sprague's Pipit (*Anthus spragueii*) in Canada. Ottawa: Committee on the Status of Endangered Wildlife in Canada.

Campbell, R. W., N. K. Dawe, I. McTaggart-Cowan, J. M. Cooper, G. W. Kaiser, M. C. E. McNall and G. E. J. Smith. 1997. The birds of British Columbia. Vol. 3. Passerines: Flycatchers through vireos. Vancouver: University of British Columbia Press.

Dale, B. C. 1983. Habitat relationships of seven species of passerine birds at Last Mountain Lake, Saskatchewan. Master's Thesis, Univ. of Regina, Regina, Saskatchewan.

Davis, S. K. 2004c. Area sensitivity in grassland passerines: Effects of patch size, patch shape, and vegetation structure on bird abundance and occurrence in southern Saskatchewan. Auk 121(4): 1130-1145.

Davis, S. K., D. C. Duncan and M. Skeel. 1999b. Distribution and habitat associations of three endemic grassland songbirds in southern Saskatchewan. Wilson Bull. 111:389-396.

Dunn, J. L. and J. Alderfer. 2011. National Geographic Field Guide to the Birds of North America. National Geographic Society, Washington D.C. 574pp.

Godfrey, W. E. 1986. The birds of Canada. Revised Edition. Ottawa: National Museums of Canada.

Grant, T. A., E. Madden and G. B. Berkey. 2004b. Tree and shrub invasion in northern mixed-grass prairie: implications for breeding grassland birds. Wildlife Society Bulletin 32(3): 807-818.

Grzybowski, J. A. 1982. Population structure in grassland bird communities during winter. Condor 84(2): 137-152.

Hamilton, R. A., M. A. Patten, and R. A. Erickson. 2007. Rare Birds of California: A work of the California rare bird record committee. Western Field Ornithologists, Camarillo, California. 605pp.

Howell, S. N. G. and R. G. Wilson. 1990. Chestnut-collared Longspur (*Calcarius ornatus*) and other migrants of note in Guerrero, Mexico. Aves Mexicanas 2: 7-8.

Howell, S. N. G. and S. Webb. 2010. A guide to the birds of Mexico and northern Central America. New York: Oxford University Press.

Igl, L. D. and B. M. Ballard. 1999. Habitat associations of migrating and overwintering grassland birds in southern Texas. Condor 101 (4):771-782.

James, D. A. and J. C. Neal. 1986. Arkansas birds: Their distribution and abundance. Fayetteville: Univ. of Arkansas Press.

Johnsgard, P. A. 1980b. A revised list of the birds of Nebraska and adjacent plains states. Lincoln: Occas. Pap. Nebraska Ornithol. Union. no. 6. Univ. of Nebraska State Mus.

Lusk, J. S. and N. Koper. 2013. Grazing and songbird nest survival in southwestern Saskatchewan. Rangeland Ecology & Management 66(4): 401-409.

Macías-Duarte, A., A. B. Montoya, C. E. Méndez-González, J. R. Rodríguez-Salazar, W. G. Hunt and P. G. Krannitz. 2009. Factors influencing habitat use by migratory grassland birds in the state of Chihuahua, Mexico. Auk 126 (4):896-905.

Madden, E. M. 1996. Passerine communities and bird-habitat relationships on prescribe-burned, mixed grass prairie in North Dakota. Master's Thesis, Montana State Univ., Bozeman.

Maher, W. J. 1973. Birds: I. Population dynamics. Saskatoon, Saskatchewan: Canadian Com. Internl. Biol. Prog., Matador Project Tech. Rep. no. 34.

MBBA (2017). Minnesota Breeding Bird Atlas: Overview: Sprague's Pipit. [Online Resource] Retrieved from http://www.mnbba.org/blockmap/cresults.php?species=Sprague's%20Pipit [Accessed: December 24, 2017].

McNair, D. B. 1998d. Sprague's Pipit overwinters at Apalachicola, Franklin County, and an assessment of its winter status in Florida and nearby states. Florida Field Naturalist 26 (1): 21-23.

McConnell, S. D., R. Vandendriessche, T. D. Hooper, G. L. Roberts and A. Roberts. 1993. First occurrence and breeding of Sprague's Pipit, *Anthus spragueii*, for British Columbia. Can. Field-Nat. 107: 222-223.

Oberholser, H. C. 1974c. The bird life of Texas. Austin: University of Texas Press.

OFO. 2016. Oregon Field Ornithologists - Records Committee. [Online resource] http://www. oregonbirds.org/index.html. [Accessed: December 6, 2017].

Peterson, R. A. 2012. The South Dakota Breeding Bird Atlas. South Dakota Ornithologists' Union, Northern Prairie Wildlife Research Center Online version 2012. [Online Resource] Retrieved from http://www.rmbo.org/SDBBA2/ [Accessed: December 7, 2017].

Phillips, A. C., Jr. Marshall, J. T. and G. B. Monson. 1964a. The birds of Arizona. Tucson: Univ. of Arizona Press.

Pool, D. B., A. Macias-Duarte, A. O. Panjabi, G. Levandoski and E. Youngberg. 2012. Chihuahuan Desert Grassland Bird Conservation Plan, version 1.0. In RMBO Technical Report. Brighton: Rocky Mountain Bird Observatory.

Prescott, D. R. C. and G. M. Wagner. 1996. Avian responses to implementation of a complimentary/rotational grazing system by the North American Waterfowl Management Plan in southern Alberta: the Medicine Wheel project. Edmonton, Alberta: Alberta NAWMP Centre.

Pyle, P. 1997c. Identification guide to North American birds Part I: Columbidae to Ploceidae. Bolinas, CA: Slate Creek Press.

Robbins, M. A. and D. A. Easterla. 1992. Birds of Missouri: Their distribution and abundance. Columbia: Univ. Missouri Press.

Semenchuk, G. P. 1992. The atlas of breeding birds of Alberta. Edmonton: Fed. Alberta Nat.

Sibley, D. A. 2000. The Sibley field guide to birds. Alfred A. Knopf, New York. 545pp.

Skaar, P. D. 2012. Montana bird distribution. 7 ed: Montana Audubon, Montana Natural Heritage Program, Montana Fish, Wildlife & Parks, Montana Birds Records Committee.

Smith, A. R. 1996b. Atlas of Saskatchewan birds. Regina: Sask. Nat. Hist. Soc. Spec. Publ. no. 22.

Stevens, T. K., A. M. Hale, K. B. Karsten and V. J. Bennett. 2013. An analysis of displacement from wind turbines in a wintering grassland bird community. Biodiversity and Conservation 22(8): 1755-1767.

Stewart, R. E. 1975b. Breeding birds of North Dakota. Fargo, ND: Tri-College Center for Environ. Studies.

Thompson, M. C. and C. Ely. 1992. Birds in Kansas, Vol. II. Univ. Kans. Mus. Nat. Hist. Public Ed. Ser. no. 12.

Tietz, J. and G. McCaskie. 2017. Update to Rare Birds of California: 1 January 2004 – 3 January 2017. [Online Resource] Retrieved from http://www.californiabirds.org/cbrc_book/update.pdf [Accessed: December 6, 2017].

Toochin, R., J. Fenneman and P. Levesque. 2014. British Columbia rare bird records: January 1, 2014: 3rd Edition. [Online resource] Retrieved from http://www.geog.ubc.ca/biodiversity/efauna/documents/BCRareBirdListJanuary2014XZBC.pdf [Accessed: December 24, 2016].

Union, South Dakota Ornithologists'. 1991. The birds of South Dakota, 2nd. Aberdeen: S. Dakota Ornithol. Union.

Wahl, T. R, B. Tweit, and S. Mlodinow. 2005. Birds of Washington: Status and Distribution. Oregon State University Press, Corvallis, Oregon. 436pp.

WBRC. 2016. Washington Bird Records Committee – Summary of Decisions. Washington Ornithological Society, Seattle, WA. [Online resource] http://www.wos.org/wbrcacceptteddec2014.pdf [Accessed: December 6, 2017].

Wilson, S. D. and J. W. Belcher. 1989. Plant and bird communities of native prairie and introduced Eurasian vegetation in Manitoba, Canada. Conserv. Biol. 3: 39-44.

Wood, D. S. and G. D. Schnell. 1984. Distributions of Oklahoma birds. Norman: Univ. of Oklahoma Press.