

Appendix 1. List of species we used as shrub/shrubby vegetation or early seral habitat associated species in our analysis and their habitat associations for nesting and preferred habitats for foraging and living during the breeding season and respective references.

Species			Association with shrubs/shrubby vegetation or open/early seral habitats				References
4-Letter code	Common name	Scientific name	Nesting	Living	Foraging	Commonly observed or higher relative abundance in shrubby vegetation in Alberta, Canada	
ALFL	Alder Flycatcher	<i>Empidonax alnorum</i>	*	*	*		ABMI and Schieck and Song (2006)
AMRE	American Redstart	<i>Setophaga ruticilla</i>	*	*	*	*	ABMI and Schieck and Song (2006)
AMRO	American Robin	<i>Turdus migratorius</i>	*				Schieck and Song (2006)
BAWW	Black-and-white Warbler	<i>Mniotilta varia</i>	†	*	*	*	ABMI and Schieck and Song (2006)
BBWA	Bay-breasted Warbler	<i>Setophaga castanea</i>	*				Schieck and Song (2006)
BHCO	Brown-headed Cowbird	<i>Molothrus ater</i>	*				Schieck and Song (2006)
BHVI	Blue-headed Vireo	<i>Vireo solitarius</i>	*				Schieck and Song (2006)
CAJA	Canada (Gray) Jay	<i>Perisoreus canadensis</i>	*				Schieck and Song (2006)

CCSP	Clay-colored Sparrow	<i>Spizella pallida</i>	*	*	*	*	ABMI and Schieck and Song (2006)
CEDW	Cedar Waxwing	<i>Bombycilla cedrorum</i>	*			*	ABMI and Schieck and Song (2006)
CHSP	Chipping Sparrow	<i>Spizella passerina</i>	*			*	ABMI and Schieck and Song (2006)
FOSP	Fox Sparrow	<i>Passerella iliaca</i>	†	*	*	*	ABMI and Schieck and Song (2006)
LCSP	Le Conte's Sparrow	<i>Ammodramus leconteii</i>	†	*	*	*	ABMI and Schieck and Song (2006)
LEFL	Least Flycatcher	<i>Empidonax minimus</i>	*				Schieck and Song (2006)
LISP	Lincoln's Sparrow	<i>Melospiza lincolnii</i>	†	*	*	*	Sánchez et al. 2022 and Schieck and Song (2006)
MAWA	Magnolia Warbler	<i>Setophaga magnolia</i>	*	*	*		Schieck and Song (2006)
MOWA	Mourning Warbler	<i>Oporornis philadelphia</i>	†	*	*		Schieck and Song (2006)
NOWA	Northern Waterthrush	<i>Parkesia noveboracensis</i>	†	*	*	*	ABMI and Schieck and Song (2006)
OCWA	Orange-crowned Warbler	<i>Leiothlypis celata</i>	†	*	*		Morrison (1981) and Schieck and Song (2006)
PAWA	Palm Warbler	<i>Setophaga palmarum</i>	†	*	*		Schieck and Song (2006)
RBGR	Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	*	*	*		Schieck and Song (2006)
REVI	Red-eyed Vireo	<i>Vireo olivaceus</i>	*				Schieck and Song (2006)
SOSP	Song Sparrow	<i>Melospiza melodia</i>	†	*	*		Schieck and Song (2006)

SWSP	Swamp Sparrow	<i>Melospiza georgiana</i>	*	*	*		Schieck and Song (2006)
SWTH	Swainson's Thrush	<i>Catharus ustulatus</i>	*				Schieck and Song (2006)
WEWP	Western Wood-pewee	<i>Contopus sordidulus</i>	*				Schieck and Song (2006)
WIWA	Wilson's Warbler	<i>Cardellina pusilla</i>	*	*	*	*	ABMI, Morrison (1981) and Schieck and Song (2006)
YBFL	Yellow-bellied Flycatcher	<i>Empidonax flaviventris</i>	†	*	*	*	ABMI and Schieck and Song (2006)
YEWA	Yellow Warbler	<i>Setophaga petechia</i>	*	*	*	*	ABMI and Schieck and Song (2006)
YRWA	Yellow-rumped Warbler	<i>Setophaga coronata</i>	*				Schieck and Song (2006)

* = Positive relationship

† = Nesting on ground

Living = Habitat where the species commonly live during the breeding season