### **SPECIES ACCOUNT**

#### **Species Data**

Common Name:	Yellow-Breasted Chat		
Scientific Name:	Icteria virens auricollis		
Species Code:	B-YBCH		
BC Status:	Red-listed		
Identified Wildlife Status:	V2004		
COSEWIC Status:	Endangered		
Project Data			
Project Name:	Vernon Commonage Sensitive Ecosystems Inventory		
Project Type:	Terrestrial Ecosystem Mapping		
Area:	Central Okanagan		
Ecoprovince:	Southern Interior		
Ecoregions:	Thompson-Okanagan Plateau		
Ecosections:	Northern Okanagan Basin (NOB)		
BGC Units:	IDFxh1		
Map Scale:	1:15 000		

# Distribution

### **Provincial Range**

Yellow-breasted Chats are restricted primarily to the valley bottoms of the south Okanagan and lower Similkameen Valleys, but have been reported from the Vernon area, Creston, the Thompson Valley, and the Fraser Valley as far north as the Chilcotin River (Cannings et al. 1987, Fraser et al. 1999, Cannings 2000, Campbell et al. 2001, Bishop et al. 2005).

Breeding has been confirmed only in the south Okanagan and lower Similkameen, and recently in the Pend d'Oreille River valley near Waneta (C. Bishop pers. comm.).

#### **Elevation Range**

Occurs up to 800 m (Campbell et al. 2001), but usually between 300 and 400 m (Bishop et al. 2005).

### Distribution in the Project Area

One non-breeding record exists on the Vernon Commonage (Ministry of Environment 2005).

## **Ecology and Habitat Requirements**

Yellow-breasted Chats generally arrive in BC in mid-May, and departure occurs from mid-July to mid-August (Cannings et al. 1987). Most nests are built in mid-June, and the young are fledged by Mid-July (Cannings et al. 1987). Three to four eggs are generally laid, with brood size usually one or two at fledging (Cannings 1995).

Chats are typically found in lowland riparian habitats with dense thickets of wild rose or snowberry, or in upland thickets of hawthorn (Cannings et al. 1987, Campbell et al. 2001). Foraging and nesting usually occur in the riparian undergrowth.

Minimum territory size is probably 0.5 ha (Cannings 1995). Gibbard and Gibbard (1992) found the minimum size of occupied rose thickets to be 9 m<sup>2</sup>. Territories occur further away from buildings and closer to water than random (C. Bishop, CWS unpublished data).

Chats are primarily insectivorous, with insects being the main food source during the breeding season, but berries become more important in summer (Gebauer 2004, Cannings 1995). Insect prey is gleaned from the foliage and lower branches of shrubs or herbs (Cannings 1995).

Predators of chat eggs and young include snakes, jays, chipmunks and cowbirds (Thompson and Nolan 1973). In a recent study, of 19 nests that survived to the nestling stage, six were parasitized by cowbirds (C. Bishop, CWS unpublished data).

### General Living - Growing Season (Food and Security/Thermal Habitat)

Chats nest in riparian habitats, particularly black cottonwood and water birch stands with dense understory thickets of wild rose, willow and common snowberry (Campbell et al. 2001). Chats prefer dense rose thickets, and chat territories have a higher percent of rose and total shrub cover than random sites in similar habitat (C.Bishop, CWS unpublished data). Snowberry is also a common component of nest territories. One territory was at a site where big sagebrush and rabbitbrush were prevalent (Gibbard and Gibbard 1992).

Thickets with tall overstories appear to be avoided (Gibbard and Gibbard 1992). Nest sites were located in rose thickets with an average height of 1.25 m, in close proximity to large shrubs or medium size trees 3.5 m to 6 m in height (Gibbard and Gibbard 1992). While 5 m radius plots around nest sites had no significant difference from random plots outside of territories, 11.3 m plots had more shrub cover and less grass and forb cover (C.Bishop, CWS unpublished data).

Chats avoid thickets fragmented by cattle trails (Gibbard and Gibbard 1992), and have shown significant population increases within four years after excluding cattle from riparian habitat (Krueper 1992).

Nests are generally located less that 1 m above ground in bushes, with rose and snowberry favoured (Cannings et al. 1987). Nest shrub height ranged from 1 m to 2.5 m, with nests located at an average of 0.7 m, and tended to have more small branches than random shrubs (C.Bishop, CWS unpublished data).

# Ratings

This model employs a 4-class rating scheme because there is insufficient knowledge of habitat requirements to use a 6-class scheme yet there is sufficient knowledge to go beyond a 2-class rating scheme. This complies with the recommended rating scheme in the RIC (1999) standards manual.

#### **Provincial Benchmark**

Ecosection	Southern Okanogan Basin (SOB)	
Biogeoclimatic Zones	BG, PP	
Habitats	Dense, lowland riparian thickets of wild rose, with some small decid. trees.	

### Map Themes

Habitat Use	Life Requisite	Season	Rating Code	Ecosystem Attributes
Living	Security/ Thermal, Food	Growing season	LIG	low elevation riparian thickets

### **Ratings Assumptions**

Living during growing season – Security/Thermal, Food (LIG)				
Site Series	Riparian habitats rated up to High if shrubby understory			
Structural Stage	Stages 3 to 7 rated up to High			
Shrub Density	Dense rated up to High, moderate density up to Low, low density rated Nil			
Range Condition	Rated up to Low if understory heavily fragmented or reduced			
Aspect	No effect on rating			
Slope	No effect on rating			
Soil Texture	No effect on rating			
Soil Depth	No effect on rating			

### **Map Interpretation**

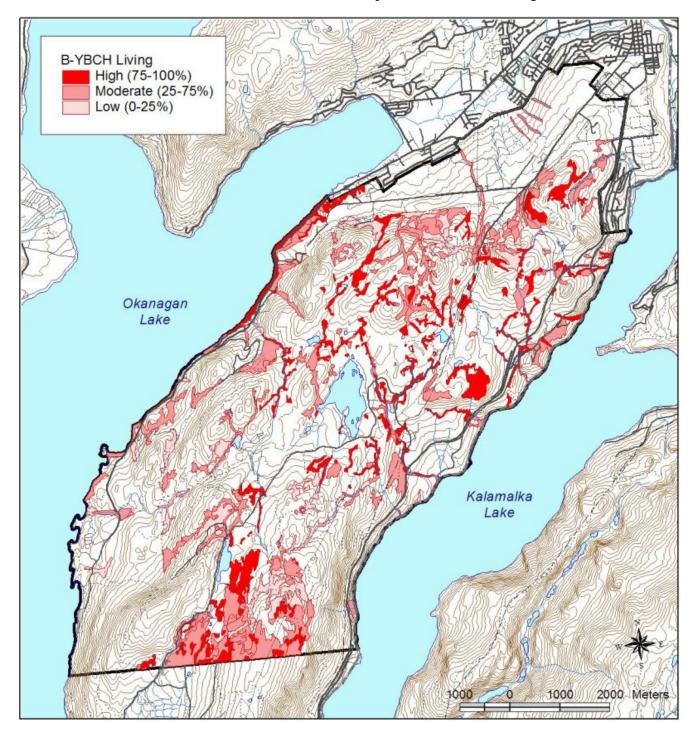
One map theme is portrayed through this model, general living during the growing season (LIG), which includes nesting and foraging. This theme is displayed by the highest suitability rating for units occurring in the polygon (highest-value method). Actual suitability may vary greatly with the composition and integrity of the understory vegetation.

## **Literature Cited**

- Bishop, C.A., A.M. Bezener and R.J. Cannings. 2005. Draft National Recovery Strategy for the British Columbia Population of the Western Yellow-breasted Chat (*Icteria virens auricollis*). National Recovery Plan No. XX. Recovery of Nationally Endangered Wildlife. Ottawa. XX pp.
- Bock, C.E., V.A. Saab, T.D. Rich and D.S. Dobkin. 1992. Effects of livestock grazing on neotropical migratory landbirds in western North America. In Status and Management of Neotropical Migratory Birds. USDA, Forest Service, Rocky Mountain Forest and Range Experiment Station, Colorado. General Technical Report RM-229.
- Cannings, R.A., R.J. Cannings and S.G. Cannings. 1987. Birds of the Okanagan Valley, British Columbia. Royal British Columbia Museum.
- Cannings, R.J. 1995. Status of the Yellow-breasted Chat in British Columbia. Wildlife Branch, Ministry of Environment Lands and Parks. Victoria, BC.
- \_\_\_\_\_. 2000. COSEWIC status report update on Yellow-breasted Chat (*Icteria virens*). Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Ottawa, Ontario. 20 pp.
- Campbell, R.W., N.K. Dawe, I. MacTaggart-Cowan, J.M. Cooper, G.W. Kaiser, A.C. Stewart and M.C.E. McNall. 2001. The Birds of British Columbia, Volume 4: Passerines, Wood-warblers through Old World sparrows. Ministry of Environment, Lands and Parks, Victoria, BC, and Canadian Wildlife Service, Delta, BC.
- Fraser, D.F., W.L. Harper, S.G. Cannings and J.M. Cooper. 1999. Rare birds of British Columbia. Ministry of Environment, Lands and Parks, Wildlife Branch, and Resources Inventory Branch. Victoria, BC.
- Gebauer, M. 2004. Yellow-Breasted Chat, *in* Identified Wildlife management strategy accounts and measures for managing Identified Wildlife, Version 2004. Ministry of Water, Land and Air Protection. Victoria, BC.
- Gibbard, B and M. Gibbard. 1992. Field Survey of the Yellow-breasted Chat in the South Okanagan. Ministry of Environment Lands and Parks. Penticton, BC.
- Hlady, D.A. 1990. South Okanagan Conservation Strategy. Ministry of Environment Lands and Parks. Victoria, BC.
- Krueper, D.J. 1992. Effects of land use practices on western riparian ecosystems. In Status and Management of Neotropical Migratory Birds. USDA, Forest Service, Rocky Mountain Forest and Range Experiment Station, Colorado. General Technical Report RM-229.
- Ministry of Environment. 2005. Okanagan Region wildlife observation database. Penticton, BC.
- RIC (Resources Inventory Committee). 1999. British Columbia wildlife habitat rating standards, Version 2.0. Ministry of Environment, Lands and Parks, Resource Inventory Branch. Victoria, BC.
- Royal British Columbia Museum. 1996. Endangered Species Web Site. Address: http://rbcm1.rbcm.gov.bc.ca/End\_Species/index\_es.html
- Stevens, V. 1995. Database for wildlife diversity in British Columbia: distribution and habitat use of amphibians, reptiles, birds and mammals in biogeoclimatic zones. Resource Branch, Ministry of Forests, and Habitat Protection Branch, BC Environment. Victoria, BC. Working Paper 05/1995.

## **Personal Communications**

Bishop, C. 2005. Canadian Wildlife Service. Delta, BC.



# Yellow-breasted Chat Suitability - Vernon Commonage