Species Data

| Common Name: | Yellow-Breasted Chat |
|-----------------------------|----------------------|
| Scientific Name: | Icteria virens |
| Species Code: | B-YBCH |
| BC Status: | Red-listed |
| Identified Wildlife Status: | Not yet identified. |
| COSEWIC Status: | Endangered |
| | |

Project Data

| Project Name: | Bella Vista / Goose Range Sensitive Ecosystems Inventory | | |
|---------------|--|--|--|
| Project Type: | Terrestrial Ecosystem Mapping | | |
| Area: | North Okanagan | | |
| Ecoprovince: | Southern Interior | | |
| Ecoregions: | Thompson-Okanagan Plateau | | |
| Ecosections: | Northern Okanagan Basin (NOB) | | |
| BGC Units: | IDFxh1 | | |
| Map Scale: | 1:20 000 | | |

Distribution

Provincial Range

Yellow-breasted Chats are restricted primarily to the valley bottoms of the Okanagan and Similkameen valleys, north through Vernon to Alkali Lake (BC Environment 1997). They have been found in the Chilcotin, lower Kootenay, and at the coast (RBCM 1996).

The majority of the breeding population occurs from Vaseux Lake and Cawston south (RBCM 1996), with scattered pairs occurring in upland areas above the main river valleys, and north through Vernon (Chapman 1995, BC Environment 1997). A small breeding population has recently been established near Mission and Chilliwack (BC Environment 1997).

Elevation Range

Low elevations (Cannings et al. 1987, Chapman 1995).

Distribution in the Project Area

One non-breeding record at the Commonage (Siddle pers.com.)

Ecology and Habitat Requirements

Yellow-breasted Chats 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).

Restricted to lowland riparian habitat, chats prefer dense riparian thickets occurring along hedgerows, streams, lakeshores or damp gullies, within dry, open habitats (BC Environment 1997). Typically found in low elevation riparian areas with extensive thickets of wild rose or snowberry, or in upland thickets of hawthorne (Cannings *et al.* 1987).

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^2 . Territories occur further away from buildings and closer to water than random (Bishop, CWS unpub.data).

Foraging and nesting usually occur in the riparian undergrowth, and in tree and shrub branches below 3 m (BC Environment 1997). Dense cover is important for nest cover and foraging on insects (BC Environment 1997).

Chats are insectivorous, but will eat berries as well (Cannings 1995). Insect prey is gleaned from shrub and tree foliage near the ground or on lower branches (Chapman 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 (Bishop, CWS unpub.data).

General Living during Growing Season

Food and Security/Thermal Habitat

Chats nest in dense riparian thickets in dry, open habitats, including those near streams, lakes, ponds and swamps, or at the edges of woods, particularly cottonwood (Chapman 1995). May also use shrubby old pastures (Bryan and Mulholland 1992). Chats prefer dense wild rose thickets containing or near shrubs and small deciduous trees such as cottonwood, willows, waterbirch, hawthorn, elderberry and saskatoon (BC Environment 1996, RBCM 1996, Gibbard and Gibbard 1992). Chat territories have a higher percent of rose and total shrub cover than random sites in similar habitat (Bishop, CWS unpub.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 (BC Environment 1996). 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 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 (Bishop, CWS unpub.data).

Chats avoid thickets fragmented by cattle trails (Chapman 1995), 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 (Bishop, CWS unpub.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 standards manual (1999).

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 and 4 rated up to High, stages 5 to 7 rated up to Moderate | | | |
| Shrub Density | • Dense rated up to High, moderate density up to Low, low density rated Nil | | | |
| Range Condition | • Rated down 2 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).

Literature Cited

- BC Environment. 1996. Managing Identified Wildlife Guidebook 1.0, Kamloops Forest Region. Ministry of Environment, Lands and Parks and Ministry of Forests. Internal Government Review Draft.
- BC Environment. 1997. Species and Plant Community Accounts for Identified Wildlife. Ministry of Environment, Lands and Parks and Ministry of Forests. Internal Government Review Draft.
- 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. Gen.Tech.Rep. RM-229.
- Bryan, A. and L. Mulholland. 1992. Draft. Species Notes and Management Options for Fifty-four Wildlife Species of Management Concern in the South Okanagan. Ministry of Environment, Lands and Parks, Penticton, B.C.
- Cannings, R.J. 1995. Status of the Yellow-breasted Chat in British Columbia. Wildlife Branch, Ministry of Environment Lands and Parks, Victoria, B.C.
- Cannings, R.A., R.J. Cannings and S.G. Cannings. 1987. Birds of the Okanagan Valley, British Columbia. Royal British Columbia Museum.
- Chapman, K. 1995. Draft. Species Notes (Latest revision). Yellow-breasted Chat (*Icteria virens*). BC Environment, Victoria, B.C.
- Fraser, D.F., W.L. Harper, S.G. Cannings and J.M. Cooper. 1999. Rare birds of British Columbia. Min. of Environment, Lands and Parks, Wildlife Branch and Resources Inventory Branch. 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, B.C.
- Hlady, D.A. 1990. South Okanagan Conservation Strategy. Ministry of Environment Lands and Parks, Victoria, B.C.
- 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. Gen.Tech.Rep. RM-229.
- 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. Res. Br., B.C. Min. For., Hab. Protect. Br., B.C. Environment, Victoria, B.C. Work. Paper 05/1995.



Yellow-breasted Chat Suitability Map