

## **NABCI IN CANADA**

# **Bird Conservation Region 9: Conservation Science in the South Okanagan Valley**

**By J. Alexander (Sandy) Burnett**

The wild rose thicket in the narrow clearing beneath the tall cottonwood trees is a dense tangle of woody stalks armed with sharp spines and clad in pale green leaves. It looks virtually impenetrable. Yet, from within the shelter of its criss-crossing branches there emerges a chorus of chirps and trills and whistles loud enough to compete with the noisy gurgling of nearby Inkaneep Creek as it flows through the lands of the Osoyoos First Nation in the South Okanagan Valley.

A passerby might think an entire avian choral society had taken up residence amid the thorns. The young woman standing motionless in the clearing and listening attentively knows better. She recognizes the territorial song of a Yellow-breasted Chat, one of the rarest birds in British Columbia.

Cautiously she parts the outer layer of branches and peers into the sun-dappled green shade of the thicket. Overhead, a small gray-backed bird with a black and white facemask and buttery yellow throat and breast retreats suddenly on fluttering wings. Just at eye level, the young woman spies a neat cup of dried grass and bark strips securely woven into a crotch in one of the rosebushes. In the nest are four creamy-white eggs spattered with chestnut-red and gray spots and speckles. Quietly, she replaces the screening branches and records the location and nest data in a notebook before moving on.

The bird is one of only 34 singing male Yellow-breasted Chats observed in the Okanagan Valley in 2001 and the nest is one of only 9 that were found. Chat numbers have declined

radically in this biologically rich corner of the southern interior of British Columbia in recent years. The species nests in dense thickets along stream banks. As the demands of agriculture, commerce, and residential development have encroached on these riparian havens, the amount of suitable nesting habitat has dropped to a mere 15% of the original shoreline vegetation. It is scarcely surprising, then, that habitat restoration has become a major focus of the Canadian Great Basin Bird Conservation Plan for landbird conservation efforts under the North American Bird Conservation Initiative (NABCI) in the Canadian portion of the Great Basin, also known as Bird Conservation Region 9.

NABCI is a tri-national initiative of Canada, the United States and Mexico to develop and implement plans for the long-term health of all bird species in all habitat regions of North America. Its rationale is simple. Birds are numerous, highly visible, economically significant and ecologically essential components of the biodiversity of all three countries. If all the continent's bird populations are in good health, abundant, and distributed throughout their known ranges, relative to historical norms, it can be inferred that the environmental health of North America is good. If not, then like the celebrated canary in the coalmine, those species in trouble will serve as indicators of an urgent need to take remedial action.

To facilitate the initiative, the natural habitats of the continent have been mapped into 67 Bird Conservation Regions (BCRs). The resulting spatial framework has been in use by NABCI since late in 1999. Its units have nothing to do with political boundaries. Rather, each comprises a set of related and contiguous ecosystems.

The Great Basin, for example, is a large and complex ecological region that stretches from southern Nevada to the central interior of British Columbia. The Canadian portion, which includes the Okanagan and Similkameen valleys and extends north to the Kamloops area, constitutes only about ten per cent of the total but it is of critical importance from an ecological standpoint. The spreading grasslands of the northern portion, threaded by meandering rivers and extensive wetlands, provide vitally important

habitat for breeding and migrating waterfowl. Working partnerships involving the Canadian Wildlife Service, the Province of British Columbia, and Ducks Unlimited Canada have preserved wetland habitat in this area through the Interior Wetlands Program (1992 to 1998) and the Intermountain Wetland Conservation Program (1999 to 2004). Stewardship programs promoting low-impact grazing schedules and exclusion of cattle from riparian (waterside) zones have been important features of this work.

To the south, the narrow valleys of the Okanagan and Similkameen Rivers present a different ecological profile and different conservation challenges. The arid climate of the South Okanagan Valley, in particular, sustains ecosystems that are unique in Canada. Some two dozen species of plants and animals that are currently listed as nationally endangered, threatened, or vulnerable live here. Birds such as the Flammulated Owl, White-headed Woodpecker, and Canyon Wren occur nowhere else in Canada. Furthermore, their continued presence in the area, along with that of the Yellow-breasted Chat and at least a dozen other rare and vulnerable bird species, is threatened or endangered by the ongoing conversion of their native habitat to other purposes, such as agriculture and residential development.

In recent years, the South Okanagan Valley has become a magnet for development. Its hot, dry summers, mild winters, and spectacular landscapes have attracted intensive human settlement. Irrigation has made the desert bloom, as farmers established orchards and vineyards on the fertile soil of the flood plain and adjacent grasslands. Riparian woods and wetlands have been cleared and claimed for agriculture and long stretches of the meandering river system have been straightened and channelized. In some places the valley, an essential corridor for the north-south movement of wildlife, is less than a kilometre wide and most of the available space is occupied by roads, buildings, and cultivated land. On higher ground, cattle ranches occupy much of the native grassland and shrub-steppe on both sides of the valley. Further up the mountainsides, dry ponderosa pine, Douglas-fir and spruce forests face increasing pressure, both from logging and from subdivision into residential and recreational acreages.

The competition between economic and wildlife values and the fragmentation of natural habitats in the South Okanagan portion of Bird Conservation Region 9 (BCR 9) has been a matter of concern to conservation organizations for a good many years. As early as 1990, federal, provincial and non-government groups established the South Okanagan Conservation Strategy (SOCS) as a five-year program to prioritize habitat conservation activities. A successor program, the South Okanagan-Similkameen Conservation Program (SOSCP) has built on this foundation, energized by six key partners: Environment Canada; the British Columbia Ministry of Environment, Lands and Parks; the Habitat Conservation Trust Fund; the Nature Trust of British Columbia; The Nature Conservancy of Canada; and The Land Conservancy. To date, twenty-five other organizations have committed their support. The SOSCP Prospectus outlines a plan promoting conservation, acquisition and stewardship of significant proportions of the four key habitat types: wetlands and riparian zones; shrub-steppe; rugged terrain; and coniferous forests.

Given the breadth of interests represented, the range of conservation activities is broad. Ducks Unlimited Canada and the Habitat Conservation Fund have collaborated on a joint venture to restore wetland habitat on the valley floor by reflooding old oxbows along the Okanagan River, to the benefit of waterfowl, waterbirds such as bitterns and herons, and a number of riparian landbird species. The Okanagan Similkameen Conservation Alliance has undertaken habitat restoration projects, such as seeding antelope-brush grasslands with native plant species, many of which are critical to birds such as Brewer's Sparrow, Grasshopper Sparrow, Lark Sparrow and Prairie Falcon. The Osoyoos Desert Society operates a habitat interpretation centre to educate local residents and visitors alike about the unique features of Canada's only fragment of southern desert.

Partners in Flight (PIF), the landbird component of NABCI, has taken an active role in the process. In the fall of 2001, PIF circulated a draft Bird Conservation Plan proposing habitat and landscape management options for a suite of focal bird species that are native

to the area. The plan was authored by a team led by Krista De Groot, who was at the time PIF Coordinator for British Columbia and Yukon. It outlined explicit population trend targets for the chosen species within given habitats and called for a detailed assessment of what conservation and restoration measures would be needed to achieve those targets. It stressed the fundamental importance of sound, science-based information as the basis of this work.

At the same time, Dr. Christine Bishop of the Canadian Wildlife Service was setting the scientific standard for more detailed field studies with a ground-breaking assessment of the distribution and breeding status of the Yellow-breasted Chat in riparian zones of the South Okanagan Valley. Her work to develop a recovery plan for this population, which the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) designated as Endangered in 2000, points to the immense importance of habitat restoration if the endangered British Columbia population of this species is to be saved.

In order to develop scientifically valid baseline data for all the focal species of birds in the region, the BCR 9 Bird Conservation Plan calls for a broader, all-species Landbird Inventory Project. Over 100 point count stations, each defined as a circle with a 100-metre radius centred on the observation point, have been established in riparian, wetland, and grassland/shrub-steppe habitats. During the 2001 season, a careful count was made of singing male birds, nests, and other indications of breeding bird activity within each circle. In 2002 the number of points will be expanded on both protected and unprotected lands.

NABCI-related analyses of bird conservation needs and opportunities in the South Okanagan Valley point to one extremely important fact concerning habitat conservation. A large proportion of the relatively undisturbed remnant of native habitat is located on lands belonging to the Osoyoos and other First Nations bands. To cite a single example, about 45% of the riparian habitat suitable for Yellow-breasted Chat in the South

Okanagan-Similkameen district is on reserve lands. Just under one-third of the male Chats that were heard singing on territory in 2001 were on the Osoyoos Reserve.

Clearly then, developing a conservation partnership with the Osoyoos and other First Nations bands in the region could be a crucial step in achieving NABCI's goals in BCR 9. Andy Bezener, the recently appointed Partners in Flight Great Basin Project Manager based in Penticton, has played a lead role in developing a Bird Survey Training Program for Landbird Inventory observers, and in recruiting local aboriginal people to participate in the monitoring of focal species. He launched the program with a workshop in June 2001. Most of the 16 people in attendance were from local First Nations communities. Field trips and training sessions continued throughout the summer and fall, enabling the participants to gain practice in bird identification and the keeping of field notes. In addition, they had an opportunity to consider the value of conserving and protecting wildlife habitat as the foundation of a lucrative ecotourism industry on aboriginal lands.

On a broader scale, steps have been taken to establish a Canadian Intermountain Joint Venture as a structure within which an alliance of many, diverse partners will develop cooperative responses to the complex bird conservation challenges facing not only BCR 9 but also BCR 10, the Northern Rockies region. For the time being, some dedicated scientists, some well-focused conservation organizations, and some keen youngsters from the Osoyoos First Nation have got the process off to a good start.

*J. Alexander (Sandy) Burnett, naturalist and environmental writer, wrote this article as one in a series on Canadian Bird Conservation Regions, commissioned by NABCI Canada.*