

## **NABCI IN CANADA**

# **All Bird Conservation: First Steps**

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

Birds don't recognize our boundaries. Tens of millions of waterfowl, shorebirds, waterbirds and landbirds nest and rear their young in Canada every year, then migrate south to warmer climes. Where they choose to winter or to pause en route is determined by the presence of suitable habitat and nutrient-rich food to fuel their journey. National identity has nothing to do with it. Indeed, among the more than 450 species of birds that breed in Canada, not one is exclusive to this country alone.

Birds are a continental and, in some cases, a hemispheric or even global resource. This fact has been officially acknowledged in North America for nearly a century. As early as 1916, Canada and the United States established the Migratory Birds Convention. By the mid-1930s, wildlife management agencies and voluntary conservation groups in both countries were actively cooperating to monitor migratory waterfowl on a continental basis. Fifty years later, in 1986, Canadians and Americans initiated the North American Waterfowl Management Plan (NAWMP). In 1994, Mexico joined this comprehensive partnership for trans-boundary collaboration to conserve dwindling wetland habitat and restore diminishing populations of ducks and geese.

Increasing environmental awareness has led to the development of international conservation initiatives for other bird groups as well. The Western Hemisphere Shorebird Reserve Network, for example, established criteria for identifying critical shorebird habitat throughout the Americas. More recently, Partners in Flight has developed proactive conservation strategies for landbird populations, while the North American Waterbird Conservation Plan (NAWCP) has undertaken a similar task on behalf of seabirds, waders, other waterbirds.

The convergence of many such international undertakings and interests has resulted in the creation of the North American Bird Conservation Initiative (NABCI). NABCI is an initiative of Canada, the United States and Mexico to develop and implement strategies for the long-term health of all bird species, initially in all habitat regions of North America and, later, beyond. 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, 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 66 Bird Conservation Regions (BCRs). Its units have nothing to do with political boundaries. Rather, they are biologically based units, used for planning and evaluation.

Each comprises a set of related and contiguous ecosystems. Thus, while parts of Canada fall within 12 different BCRs, only three of those regions fall wholly within Canada.

- BCR 3 - Arctic Plains and Mountains (NWT, Nunavut, AK)
- BCR 4 – Northwestern Interior Forest (YK, NWT, BC, AK)
- BCR 5 – Northern Pacific Rainforest (BC, AL, WA, OR, CA)
- BCR 6\* –Boreal Taiga Plains (MB, SK, AB, BC, NWT, YK)
- BCR 7\* – Taiga Shield and Hudson Plains (NWT, Nunavut, ON, QC, NF)
- BCR 8\* – Boreal Softwood Shield (SK, MB, ON, QC, NF)
- BCR 9 – Great Basin (BC, WA, OR, CA, NV, UT, ID)
- BCR 10 – Northern Rockies (BC, AB, WA, OR, ID, MT, WY)
- BCR 11 – Prairie Potholes (AB, SK, MB, MT, ND, SD, MN, NE, IA)
- BCR 12 – Boreal Hardwood Transition (ON, QC, MN, MI, WI)
- BCR 13 - Lower Gt. Lakes/St. Lawrence Plain (ON, QC, OH, PA, NY, VT)
- BCR 14 - Atlantic Northern Forest (QC, NB, NS, PEI, ME, NH, VT, MA, NY)

Irrelevant though geopolitical divisions may be to birds or to ecosystems, they are, nonetheless, central to the organization of human societies. Conservation programs in the 9 BCRs that include both Canadian and U.S. territory reflect not only the similarity of purpose but the differences of approach espoused by two federal and more than two dozen provincial and state governments that are responsible for implementation within their respective jurisdictions. Even the three wholly Canadian BCRs extend across five or six provincial and/or territorial boundaries. It is to be expected, therefore, that a variety of models for action should have been adopted in various parts of the country.

In some parts of Canada, coordinated bird conservation is a well-established, priority activity. Typically, these are regions where Joint Ventures, under NAWMP, have been in operation for many years. Government and non-government partners have developed effective ways of cooperating to secure wetland habitat for waterfowl.

It is a principle of NABCI to use existing structures wherever possible. NABCI is a context or framework for conservation action, not a competing structure. Thus, where there is an extensive network of technical and working committees in place, it has been relatively simple to integrate new elements into regional plans and strategies.

That is not to say that the territories of the Joint Venture partnerships necessarily correspond precisely with NABCI bird conservation regions. For example, the Eastern Habitat Joint Venture (EHJV) encompasses all of the Canadian portions of BCRs 13 and 14, as well as significant parts of BCRs 7 and 8. Yet, with an effectively functioning framework in place, it would be a needless duplication of effort to establish new, parallel structures to oversee NABCI objectives in each of the four BCRs. The EHJV framework is there to address them all.

Thus, when securement of critical shorebird habitat in the upper Bay of Fundy was identified as a priority concern, it was the EHJV partnership, augmented by additional stakeholders such as the Nature Conservancy of Canada, that provided a solid foundation

for strategic planning and action. At the landscape level, too, the EHJV partners have made significant progress in BCR 14, with watershed-based strategies for habitat conservation in Prince Edward Island and valleys of the St. John and Annapolis rivers. Not only waterfowl but also seabirds and shorebirds have been important subjects of study in Atlantic Canada, most notably by the Canadian Wildlife Service (CWS) of Environment Canada. Committees under CWS leadership have produced strategic plans for these three bird groups and development of a landbird conservation plan is well advanced. In addition, the Atlantic Cooperative Wildlife Ecology Research Network (ACWERN), with links to three universities in the region provides assurance that NABCI-related work in the Canadian portion of BCR 14 will benefit from sound scientific review.

A comparable level of strategic planning and tactical cooperation exists in the Canadian portion of BCR 11, where the NABCI objective of all bird conservation rests securely on the foundation established in western Canada by the Prairie Habitat Joint Venture (PHJV). The extensive waterfowl knowledge base accumulated by the PHJV has facilitated broader responses to the needs of other bird groups, which often depend on the intervention of the same organizations and the preservation of the same range of habitat types. A Prairie Canada Shorebird Conservation Plan is in hand and working committees have made important progress towards developing regional applications of national and international landbird and waterbird strategies.

In coastal British Columbia, too, an existing NAWMP joint venture has been central to all bird conservation. The Canadian partners of the international Pacific Coast Joint Venture (PCJV) have launched a series of species- and habitat-related projects. Here, too, the existence of a multi-stakeholder framework has cleared the way for a variety of projects that could have been extremely difficult to initiate from scratch. Critical habitat assessment projects on the Gulf Islands, progressive conservation partnerships with farmers in the Fraser Delta, and the securement of estuarine islands and coastal marshes as nature reserves are among the many steps by which PCJV partners are advancing NABCI objectives.

It is important to note that in the foregoing BCRs (14, 11, and 5), conservation planning, based on existing Joint Venture partnerships has progressed independently in the Canadian and US portions of each region. Currently, conservation agencies in both countries do meet with their activities with their transborder counterparts to share information. Eventually, however they will presumably wish to compare their plans more closely or even integrate them to ensure that no critical elements are overlooked.

If the integration of NABCI goals within the operational framework of pre-existing NAWMP joint ventures has been a natural transition in a number of BCRs in Canada, it is not the only strategic model that has been used. A second approach is evident in BCR 13, the Lower Great Lakes/St. Lawrence region. BCR 13 is notable for its biodiversity and for the presence of a high proportion of Canada's ecosystems and species at risk. It is densely populated and one of the busiest industrial corridors on the continent.

It has been shown repeatedly that whether an environmental event occurs on the Canadian or the United States portion of this BCR, the impact will inevitably be felt on both sides. Thus, when the EHJV Board officially espoused the objectives of NABCI, members of the Ontario and Quebec committees of the joint venture were very conscious of sharing a common cause with their American counterparts in the Atlantic Coast and Upper Mississippi Joint Ventures. From this awareness has grown a determination to coordinate biological planning, information exchange and joint action priorities. The result has been a common conservation planning process for all of BCR 13. The purpose is not to create a new joint venture, but to reshape the working relationship between existing ones and enhance their collective effectiveness in achieving NABCI goals. Through a series of joint workshops and mapping exercises, members of the cooperating joint ventures and other stakeholders have rapidly developed common approaches to the ranking of priority species, habitats, and focus areas for conservation action.

A third model for coordinating NABCI-related activities in Canada is emerging in the interior of British Columbia where, hitherto, there was no NAWMP Joint Venture. The northern extension of the Great Basin ecoregion (BCR 9) into southern British Columbia's Okanagan Valley is a critically important migratory corridor. It is also an immensely attractive location for human settlement and economic development. Many vulnerable, threatened and endangered species and ecosystems in this region face intense competition for space from intensive agriculture, forestry, and residential and industrial growth. To the east of this critically important region, the northern extension of the Northern Rockies ecoregion (BCR 10) contains vitally important montane habitat on both sides of the border. Canada's Mountain National Parks lie within this region and it is an essential component in key conservation programs such as the "Yellowstone to Yukon" initiative.

When NABCI was established in 1999, the conservation concerns of the Okanagan Valley, particularly for endangered species and habitats, were already familiar to an impressive array of partners. Waterfowl and wetland protection programs had advanced on a local basis. Selected key areas of critical habitat for other bird species were already protected under federal, provincial or private action. From 1990 to 1995, the South Okanagan Conservation Strategy (SOCS) had conducted a detailed inventory of ecosystems, land use and species at risk. Despite the involvement of provincial, national and voluntary conservation agencies, however, there was no broader, coordinating framework to link and integrate their efforts and their considerable body of knowledge about the BCR.

A first step in this direction came with the establishment of SOSCP, the South Okanagan-Similkameen Conservation Program, as a successor to SOCS. Initially it was formed by six 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. The partnership has since grown to include more than 25 stakeholders.

SOSCP has prepared a Prospectus that identifies critical goals for conserving the biodiversity of the region's varied ecosystems. In addition, the British Columbia/Yukon arm of Partners in Flight has produced a comprehensive Great Basin Bird Conservation Plan for the southern interior of British Columbia.

Thus, over the course of a decade, important locally based conservation initiatives have given rise to new opportunities for partnership that will further the pursuit of NABCI goals. Conservation planners now anticipate the next step to be the establishment of a new Canadian Intermountain Joint Venture (CIJV) that would facilitate integration of NABCI-related action plans not only in BCR 9, but in the adjacent BCR 10 as well. An important lesson to be drawn from the South Okanagan experience is that new and existing interests in biodiversity conservation can be effectively integrated within the new CIJV structure. The role of NABCI is enabling rather than competitive.

In summary, then, three partnership models for implementing NABCI goals within Canada have been outlined thus far. The first and most commonly applied is based on the presence of active existing partnerships, extensive knowledge, and a functioning framework — i.e., the structure of an established NAWMP Joint Venture. As demonstrated in BCRs 5, 11 and 14, this approach makes it relatively simple to integrate new program elements in ongoing regional plans and strategies.

The second model, developed in BCR 13, is a variant of the first. In this case, the purview of an existing Joint Venture is extended to facilitate integrated planning and to permit ongoing collaboration with neighbouring Joint Ventures. This is a rather elegant way of integrating knowledge and resources to achieve a common purpose in a BCR for which the partners hold a closely shared responsibility.

The third model has proven to be useful in a situation where there existed a good knowledge base and a working coalition of partners, but no overarching framework to link diverse local conservation activities to a continental vision. Both the progress towards NABCI goals in BCR 9 and the prospect that much of the benefit will carry over to BCR 10 argue strongly in favour of the conclusion that informed commitment to a common cause is a sufficient foundation from which to launch an effective program. Under these circumstances, the administrative and contextual framework of a formal Joint Venture can be devised later.

There is, however, a fourth model, currently operating with considerable success in BCR 6 (the Boreal Taiga Plain) and portions of adjacent BCRs. Relative to more densely populated areas of Canada, the starting point for this vast ecoregion of boreal lakes, forests and wetlands was characterized at the outset by an extremely limited knowledge base and virtually no partnerships. Indeed, there was little in the way of guiding framework, beyond two pieces of knowledge. First, the area is highly productive of a wide range of bird life. Second, economic development — especially forestry, gas and oil exploration, and hydroelectric power generation — is transforming tens of thousands of hectares of this boreal wilderness into an industrial landscape every year.

Faced with this challenge, it was a private sector, non-profit organization, Ducks Unlimited Canada, that championed the NABCI cause by seeking to build a new coalition of partners, many of them from the corporate and institutional sectors. The active participation of companies such as Alberta Pacific, Weyerhaeuser and Syncrude Canada, as well as academic partners such as the University of Alberta, the University of Western Ontario, and NSERC, points to a significant widening of the circle of awareness on which effective all bird conservation must depend. Federal and provincial government agencies are also present at the table and, together, the members of the Western Boreal Forest Initiative are using a new model of partnership to generate new knowledge about a hitherto little-known ecoregion. By getting the science right before moving to action, the partners have high hopes of devising a conservation strategy that ensures the healthy sustainability of bird populations while accommodating an ecologically balanced program of economic growth.

The key lesson behind these four models for implementing the principles of NABCI is that each is appropriate to the particular situation from which it has evolved. Nature exemplifies the complementary virtues of diversity and efficiency. It is highly appropriate that NABCI Canada should echo that example as it moves forward to establish a sound biological basis for the conservation of all birds that sojourn in the northern half of North America.

The projects cited here are important first steps towards the NABCI goal. They respond to aspects of the challenge for which a solidly established scientific foundation for conservation exists. That is not to say that the whole picture is in focus yet. Appropriately enough, much of the emphasis to date has fallen on those areas where human population and activity are the most concentrated. Experience gained in those regions will be shared, and the knowledge applied to important areas for birds in other landscapes.

In some instances, new approaches will be required. One immediately pressing example is that of birds in our marine environments. At present, BCR mapping stops at the coastlines; yet, we know that literally millions of pelagic seabirds — murre, puffins, razorbills, auklets, phalaropes, storm petrels, gannets, guillemots, dovekies, and many others — spend most of their lives in, on, and above the restless oceans off Canada's seacoasts. The risks they encounter from offshore oil and gas developments, oil slicks from shipping, and the clinging nets of the fishing industry, are vastly different from those confronting birds on land. Neither more nor less dangerous. Just different. They will doubtless require different partnerships and different strategies to ensure their safety. Other important bird populations occur on the outer margins of Canadian awareness as well. Many birds that breed in Canada migrate far south of Mexico for the winter. A comprehensive conservation strategy has yet to be devised for them. NABCI recognizes this need and is committed to expanding partnerships throughout the Hemisphere. Conversely, a number of bird species, especially seabirds such as shearwaters and skuas, nest in the southern hemisphere and migrate north to spend their "winter" cruising over our summer seas. And what of the numerous pan-Arctic bird species? The Red Knots that nest in northern Canada but winter in northern Europe? The phalaropes that fly by way of

the Azores to their wintering station off the west coast of Africa? The Snow Geese that come to the Fraser Delta from Wrangel Island, off the north coast of Siberia? How to protect these far-flying wanderers in a world fraught with danger poses an additional challenge to NABCI.

The encouraging news is that these questions are being asked. Many of the people who ask them are among those whose insistence on looking at bird populations from a global perspective led to the establishment of NABCI in the first place. NABCI has accomplished a great deal already, during its first three years; enough to sustain the expectation that it will accomplish far more before it's through.

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