

B.C. Intermountain – revised by Bruce May 20, 2004
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Brad Arner rolls down the window of his parked truck and points toward a most unlikely-looking waterfowl paradise.

In stark contrast to the grasslands-rich and pothole-pocked landscape of the Prairie parklands, this paradise is smack dab in British Columbia's interior, a drought-plagued region of deep valleys and high ridges studded with thick forests of Douglas fir, pine and aspen interwoven with vast expanses of rangeland, bunchgrass and sage.

Sprawling ranches still operate in the 390,000-square-kilometre intermountain region. But many have been split up into smaller country acreages, all occupied by different landowners with varying and sometimes conflicting approaches to land use and conservation. Wetlands and lakes comprise only four per cent of the total region, flanked by the Coast Mountains to the west, the Rockies to the east and extending from the Montana border north to Prince George.

The region is home to 26 species of ducks, in addition to fish, mammals, amphibians and a wide variety of songbirds. It provides important nesting, staging and wintering areas for waterfowl traveling the Pacific Flyway. Over 60 per cent of the world's population of Barrow's goldeneye nest here.

"It may not look like it, but in terms of production and importance to waterfowl, this area is similar to the potholes of the prairies," says Arner, DU's Kamloops-based manager of Canadian Intermountain conservation programs.

Leaving the truck, Arner walks through a stand of poplars and stands on the shore of a small marsh reflecting giant lodgepole pine on the far shore. The water and surrounding cattails are alive with scaup, Canada geese, mallards, cinnamon teal, eared grebes, gadwalls, ruddy ducks and ring-necked ducks.

Later, driving north along Highway 97 toward 100 Mile House, Arner notes that the region is even drier than last year, when devastating forest fires swept through much of the interior of southern British Columbia.

Although it's only late April, shallow sloughs are already showing signs of drying up, with a whitish alkalinity caking cracked receding shorelines. On average, the south part of the intermountain region averages 12 inches of precipitation annually and this year is shaping up to be even drier than normal.

Arner, however, isn't particularly worried. Drought is part of the natural cycle in the intermountain region, a fact of life to the land and those who make their livelihood from it. And drought is just one piece of the ecological puzzle that DU has strived to incorporate into its varied array of conservation programs in the region since the organization became involved in the region in 1968.

In more recent years, DU has launched the intermountain wetland conservation program, a partnership-based effort to provide incentives to bring together people and agencies to maintain B.C.'s rangelands. In the intermountain region, rangeland features

five million hectares of natural grasslands, open forests and aspen parklands, plus 250,000 hectares of lakes and wetlands.

DU now has 289 projects, involving 862 wetland complexes covering 88,000 hectares of land, within the intermountain region.

It works hand in hand with a number of conservation agencies and organizations, including the Canadian Wildlife Service, British Columbia government, Nature Conservancy of Canada, Nature Trust of B.C. and the B.C. Wildlife Federation.

Fortunately, DU and its partners have solid biological data dating back to the 1930s on which to plan their strategy.

They are indebted to a visionary named J.A. Munro, British Columbia's first chief federal migratory game officer. Between 1920 and his retirement in 1949, Munro wrote more than 175 reports about B.C.'s flora and fauna, with much of his research focused on the Cariboo parklands in the north-central part of the intermountain region.

Munro was the first in B.C. to raise concerns about the impact people caused on waterfowl nesting habitat through paved roads, tourist developments, increased public access caused by a proliferation of logging roads and growing population. His groundbreaking field studies between 1937 and 1943 identified potential effects of economic expansion, population growth, hunting and forestry on migratory birds using 54 wetlands in the Cariboo. Munro revisited the wetlands in 1958, the year before his death, and recorded changes he observed in both habitat and bird numbers.

In a 1945 report, Munro noted "the future of wildlife...is directly involved with human expansion in space." Describing wildlife as "a source of wealth in the fullest sense of the term," he warned "provincial resources will be exploited at an even greater rate" in order to accommodate the needs of a growing population and Canada's importance in a post-war world economy.

In 1958, Munro expressed concern over what he perceived to be excessive hunting on waterfowl nesting grounds and the potential for that to increase. He blamed a reduction in nesting birds on early season hunting "when ducks are relatively unsuspecting."

However, Munro laid much of the blame on the forest industry and its impact on waterfowl.

"The change from an economy in which cattle-raising was the chief dynamic to one dominated by the logging industry – one husbandry, the other exploitation – has had a profound effect in the attitude of the present majority toward wildlife," he wrote in 1958. By comparison, the ranching industry garnered much praise from Munro.

In 2001, the Canadian Wildlife Service launched its own exhaustive study to determine if Munro's findings and concerns were still valid. CWS senior technician Neil Dawe, the project leader, and his team resampled a total of 35 – or 65 per cent - of the wetlands areas Munro had studied and compared their results with his. What they found was both surprising and encouraging.

"The wetlands appeared to be in at least a good shape as they were when compared with Munro's 1958 descriptions and far better shape than his late 1930s-early 1940s descriptions," Dawe said in an interview.

"This was also reflected in the bird numbers we found using the wetlands, which were, in most cases, higher than in either of Munro's study years."

The relatively healthy conditions hadn't happened by accident.

Ducks Unlimited had enhanced almost half of the 35 wetlands studied. In addition, wetland haying by ranchers, sawmill developments and logging on adjacent uplands were less prevalent than what Munro reported in 1958. Despite these encouraging signs, however, several wetlands were damaged by intensive cattle grazing, residential, cottage developments bordering on wetlands had increased and further degradation had resulted from infilling for transportation or light industrial developments.

Dawe and colleagues John M. Cooper, Andrew C. Stewart and James A. Young produced a comprehensive 190-page report entitled *In the Footsteps of J.A. Munro*, comparing the state of waterbirds and wetlands in the Cariboo parklands between 1938, 1958 and 2001.

The report provides a detailed listing of all 23 species of loons, grebes and waterfowl that Munro had identified. In fact, 16 of those species – including the common loon, pied-billed grebe, lesser scaup and ruddy duck – were even more plentiful. Researchers found five species that Munro had not, including the western grebe, wood duck and common goldeneye. Canada geese, scarce during Munro's studies, was one of the most abundant and widespread species found in 2001.

Significantly, the CWS team determined that many of Munro's concerns hadn't materialized, largely because the region had experienced low population and economic growth since he'd sounded the alarm. Waterfowl hunting had decreased dramatically, proving to be a smaller threat to waterfowl populations than Munro had predicted. Even Munro's concern over logging has been mitigated by more stringent operating rules.

The report concluded that the region's wetlands also have benefited from a "higher ecological awareness on the part of those people dependent on the landscape for their livelihood, and the importance of wetlands had not been lost to them."

Dawe, a 29-year veteran of CWS, says the landowners he dealt with had an "excellent" awareness of the need for wetlands preservation.

"Perhaps this is not surprising, for these people work on the landscape every day and derive their livelihoods directly from the ecosystems on their lands," Dawe notes.

The CWS report credited DU for working to secure management control and water rights on many wetlands. That's resulted in high, stable water levels and extensive emergent marshes. DU, says the report, has helped contribute to a better understanding of the need to protect these important systems by bringing attention to wetlands and their significance to both wildlife and people.

One of the biggest success stories is the 130 Mile Ranch, in the San Jose Valley 40 kilometres southeast of Williams Lake.

Cattle ranching in the valley dating back as early as 1820, coupled with recreation, forestry and urban development, has put pressure on wetlands and small streams. Ranch owners Lee Hoium and Wendy Braim have worked with DU since 1996 to develop a land management plan that benefits both ranching and wildlife through the use of rotational grazing, alternative watering systems and a water supply for a new irrigation system.

Eight pastures are grazed on a rotational basis, allowing for short livestock grazing periods and long periods of recovery. In addition, new fencing keeps cattle away from the edge of five wetlands. A small spring supplies water to five pastures, with water collected in a dugout that feeds two troughs.

A new pumping system fills a reservoir with enough river water to keep levels stable until mid-June. After waterfowl breeding is complete, water is drawn from the reservoir to irrigate hay fields adjacent to wetlands. The ranchers have agreed to hold off haying until early July, when waterfowl nesting in the fields is complete.

Darryl Kroeker, DU's senior biologist in Kamloops, says 130 Mile Ranch is a shining example of how landowners have coupled sound ranch management with a desire to help wetlands and wildlife.

He also cites the Handy Meadow Ranch project, 50 kilometres north of Alexis Creek. In 2003, DU acquired about 500 acres of private land and started managing livestock grazing on almost 45,000 acres of adjoining forested Crown range. Much of the land is classified as high priority habitat, important not only for waterfowl but for ungulates such as elk, deer and moose.

DU's efforts also are seen in 100 Mile House (pop. 2,000), a major service and commercial centre along the Highway 97, also known as the Cariboo Highway or Gold Rush Trail.

The town got its name during the Cariboo Gold Rush in the 1860's, when many stops along the highway were named according to their distance from Mile 0 at Lillooet. Originally called Bridge Creek, 100 Mile House was a resting place for travelers on foot, horseback and stagecoach between Kamloops and Fort Alexandria as early as 1861.

The area's importance for waterfowl is immediately evident in a 20-acre wetland, called 100 Mile Marsh, on the west side of the highway in the centre of town. Looped by a one-kilometre-long hiking trail, the marsh was developed in 1983 by DU, the Nature Trust of B.C. and the community of 100 Mile House.

On the town's western edge, fourth generation ranch Bridge Creek Estate is home to grazing cattle and a virtual cornucopia of waterfowl. A pair of sandhill cranes stride along beside Little Bridge Creek, while Canada geese and a variety of ducks and shorebirds paddle around in the nearby lake. The ranch has become a model for how ranchers and conservation groups can work together for the economic benefit of the business while boosting the ecological health of the land.

Since the 1970's, DU has worked with the Cecil family, owners of the 2,000-acre ranch, to improve waterfowl habitat and cattle watering systems by developing a water control structure on the creek, dredging to improve flow and building a network of islands on which waterfowl can safely nest.

In a joint project launched a decade ago, a one kilometre stretch of creek is intentionally flooded each spring, then drained to allow hay to grow after nesting season is complete. About 250 tons of hay are cut annually. The creek and lake have been fenced to keep cattle away, a move that has preserved the banks, kept manure out of the water, reduced siltation and improved overall water quality for fish, wildlife and cattle. Corrals and stockyards have been moved away from the creek. Cattle are grazed on a rotational basis to reduce impact on pastures.

"Before DU started this, you'd be lucky to see 10 geese and hardly any ducks," says ranch manager Don Savjord.

Savjord has spoken with many fellow ranchers to explain that being good land stewards means taking care of both wildlife and cattle. Plus, ranchers benefit financially from conservation programs because cleaner drinking water for their stock means healthier and fatter cattle for market.

“It’s a whole new concept for ranchers to consider managing riparian zones,” says Savjord. “It’s about due diligence and risk management.”

Ranch co-owner Anthony Cecil says his family strives to balance the land’s ecological integrity with the ability to manage the business. Bridge Creek’s relationship with DU seemed not only natural but logical.

“It’s been a win-win situation,” says Cecil, whose family has owned the ranch since 1912.

About 80 kilometres further north, just southeast of 150 Mile House, ranchers Gloria and George Atamanenko have worked with DU to make their 500-acre Tuffy’s Spring Ranch friendlier to the wildlife – from ducks and sandhill cranes to yellow-bellied marmots and foxes – that either lives or visits there.

Since they bought the ranch in 1994, they’ve moved salt blocks away from the 20-acre pond created by a beaver dam on Valley Creek that runs below their house. The couple also installed fencing to stop cattle from trampling the soft soil and destroying vegetation along the water’s edge. DU assisted in construction of three readily accessible stock watering sites with geo-fabric and gravel pads that keep cattle away from emergent vegetation.

It’s resulted in a clear separation between the cattle that provide the Atamanenko’s their livelihood, and the abundant wildlife that enrich their daily lives.

“It’s like our own little wilderness now,” says Gloria.

Clearly, the Atamanenkos subscribe to the theory posited by J.A. Munro almost six decades ago that wildlife “is a source of wealth.”

Even forestry, the industry that incurred Munro’s harshest criticism, has taken steps to minimize its impact on wetlands and other habitat.

DU’s Brad Arner points out that with 80 percent of the land base within the intermountain region available for commercial forestry harvest, it’s important that DU work with local forestry companies, the B.C. government and the CWS to ensure the harvest is environmentally friendly.

In 2003, DU signed a memorandum of understanding with B.C. forestry company Lignum Ltd., which has operated for more than 50 years on 800,000 hectares within the Cariboo-Chilcotin region. The document sets out the structure for a working relationship so the interests of both the company and DU can be met.

“The relationship (with DU) is excellent,” says Bill Bourgeois, the company’s vice-president of government and environmental affairs.

“DU has a very practical philosophy that fits well with our operations.”

He says the company’s forest management vision states the need to sustain “the ecological integrity of the forest ecosystem while maintaining a long-term profitability.”

Lignum was recently purchased by Riverside Forest Products Ltd., which Bourgeois says will honor the memorandum with DU.

Such cooperation is particularly encouraging to Ian Barrett, DU’s director of regional operations for the Pacific region.

In the 24 years he’s worked in the intermountain region, Barrett’s seen the same types of pressures develop that Munro identified back in 1945. However, he notes the landscape hasn’t been unalterably changed. It has the ability to bounce back and recover faster than land on the prairies, producing healthy populations of waterfowl, Barrett adds.

“Pound for pound, these interior intermountain marshes can be as productive as prairie or prairie parkland wetlands,” he says.

As Barrett speaks, he’s standing beside the T’kumlups Marshes, a joint reclamation project between DU and the Kamloops First Nation Band beside the Yellowhead Highway in Kamloops. Recorded along with a myriad of other bird species has been a pair of rare black-necked stilts, which nested here for the first time two years ago and returned this spring.

A light rain is falling as Barrett surveys the productive urban marsh. But he’s not rushing for shelter. Just the day before, the mercury rose to a record-setting 28 degrees Celsius under a blazing hot sun.

“We need all the rain we can get,” Barrett notes, turning his face skyward to feel the welcome wetness.

To DU and the programs it supports, any moisture in the intermountain region is more precious than gold was to fortune-seeking prospectors in the 1800’s.

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