

# Getting to know Bistcho



By Carolyn Campbell, AWA Conservation Specialist

**T**he Bistcho region, in Alberta's northwest corner, is a part of the traditional territory of the Dene Tha' First Nation and home to a threatened woodland caribou population. It is a sensitive and valuable wilderness area that deserves protection. Bistcho is still remote, with few permanent roads, and most Albertans will never travel to its expansive peat wetlands, lakes, and forests. That is a great reason to get to know it better in these pages.

The Bistcho wilderness lies in Alberta's boreal Northern Mixedwood, Lower Boreal Highlands, and Boreal Subarctic Subregions (see the map below). Its low-lying peat wetlands support mosses, grass-like sedges, shrubs and black spruce trees, while some of its uplands support mixed-wood forests. It has discontinuous permafrost soils and its subarctic climate only allows for short growing seasons. Bistcho is a patchwork of forests with vast wetland

complexes. Over the millennia since the last glacial period, these cool conditions have allowed considerable carbon stores to build up in its layers of mossy peat vegetation.

The Bistcho's peat landscape stores and moves water differently from more southerly forests. In the low-lying areas, wetlands known as 'channel fens' transport slow moving water over a peat layer that has slowly built up in former glacial meltways or stream channels. Plateaus of poorly drained sphagnum peat bogs are common on somewhat higher ground. Drainage is relatively limited in the area, giving rise to numerous shallow lakes.

The threatened Bistcho boreal woodland caribou population relies upon this landscape and its connectivity to adjoining caribou ranges – the Yates range to the east, NWT and BC caribou ranges to the north and west. With their large hooves, caribou are perfectly adapted to move through wet

and snowy areas in search of their principal winter diet of lichens. The Bistcho caribou population has been declining in the ten years since its monitoring commenced, although the last three years have indicated relatively stable numbers at lower levels. Other Bistcho boreal wildlife include moose, black bears, beavers, wolves, and weasel family members including marten, mink, and wolverines.

Intact peat wetlands are more highly resistant to drought and fire than are upland forests rooted in mineral soils. As a result, the Bistcho region could be an effective climate refuge for woodland caribou and other boreal fish and wildlife populations in the face of global warming. However, these wetland conditions also make the vegetation very sensitive to any mechanized disturbance, which can compact soils or interrupt the surface water and groundwater connections.



*Bistcho is a patchwork of forests and vast peat wetland complexes that support threatened woodland caribou, store large amounts of carbon, and are very sensitive to mechanized disturbance. CREDIT: AWA, PHOTO: © C. WALLIS*

All of Bistcho's flowing waters find their way to the Arctic Ocean via the Northwest Territories' mighty Mackenzie River. In the western Bistcho region, water moves through channel fen wetlands into the Pettitot River and on to the Liard River. In the eastern side, its rivers contribute to the Hay River Basin which drains into Great Bear Lake.

One of the jewels of the region is Bistcho Lake. At 426 km<sup>2</sup>, Bistcho Lake is Alberta's third largest lake, after Lake Claire and Lesser Slave Lake (Lake Athabasca is largest in total area, but it lies mostly in Saskatchewan). Bistcho Lake is shallow, with an average depth of less than two metres, and it supports northern pike, walleye, and whitefish populations. Large concentrations of nesting bald eagles have been recorded around Bistcho Lake.

In recent years, the Dene Tha' First Nation initiated community-based archaeology surveys at Bistcho Lake and in other parts of their traditional territories. A major goal of the "Science and Culture on the Land" program was to involve children and youth in discovering and documenting their peoples' long connection to these lands. During the summers of 2013 to 2016, Dene Tha' elders shared information about local history and traditional sites. Youth, elders, and several participating archaeologists then explored the perimeter of Bistcho Lake. In four summers they documented over 60 sites, including some large "pre-contact" campsites dating back many centuries, below historic settlements. The elders' stories and the sites indicate a significant history of occupation by the Dene Tha'.

Around the turn of the 20th Century, Hudson's Bay Company trading posts were established throughout the area. The Dene Tha' began to adopt a more semi-permanent lifestyle compared to their earlier nomadic life. They gradually settled in small, family-based groups in seasonally-used log cabins. At the southeast end of Bistcho Lake is the site of a former log cabin village known as Dene Tha' Bistcho Lake Indian Reserve #213. It was once bustling

with families. During the archaeology summer field trips, an elder shared the information that people left that lake-side settlement in the 1930s and early 1940s because of a deadly flu outbreak. All this is to say that this landscape, like so many others in Alberta, has a rich history of use by Indigenous people beyond what many of us are aware of.

Bistcho currently has no protected areas. In order to safeguard this irreplaceable landscape, AWA believes that most of the Bistcho region should be formally protected as a Wildland Provincial Park, based on the collaborative model used to establish Hay-Zama Lakes Wildland Provincial Park in 1999. Hay Zama is an internationally significant lake and wetlands region south of Bistcho. Its Wildland Provincial Park began with a Management Committee partnership with the Dene Tha' First Nation, the Alberta government, industry representatives, and AWA. The Management Committee achieved an initial reduction of the energy industry's footprint, oversaw the accelerated extraction of the oil and gas reserves, and it is now monitoring the reclamation. When AWA attended a 2008 ceremony hosted by the Dene Tha' to celebrate Hay Zama Wildland Provincial Park and its international twinning with a Mongolian wetlands protected area, local people expressed support for the idea of a protected area for the Bistcho Lake region.

Bistcho is currently managed as multiple use public lands. Alberta's Forest Management Unit (FMU) F20 extends for 8,700 km<sup>2</sup> over much of the area; its remoteness and sparse commercial forestry prospects mean that there is no forestry tenure in FMU F20 other than a very small deciduous permit. Historically, leasing of oil and gas tenures produced extensive seismic line disturbance, most of which have not been successfully reclaimed because of the weak standards of the day. More recent restoration techniques offer considerably more potential to restore legacy disturbance in this sensitive landscape. There is almost no active oil and gas development to the north and west of Bistcho Lake, but

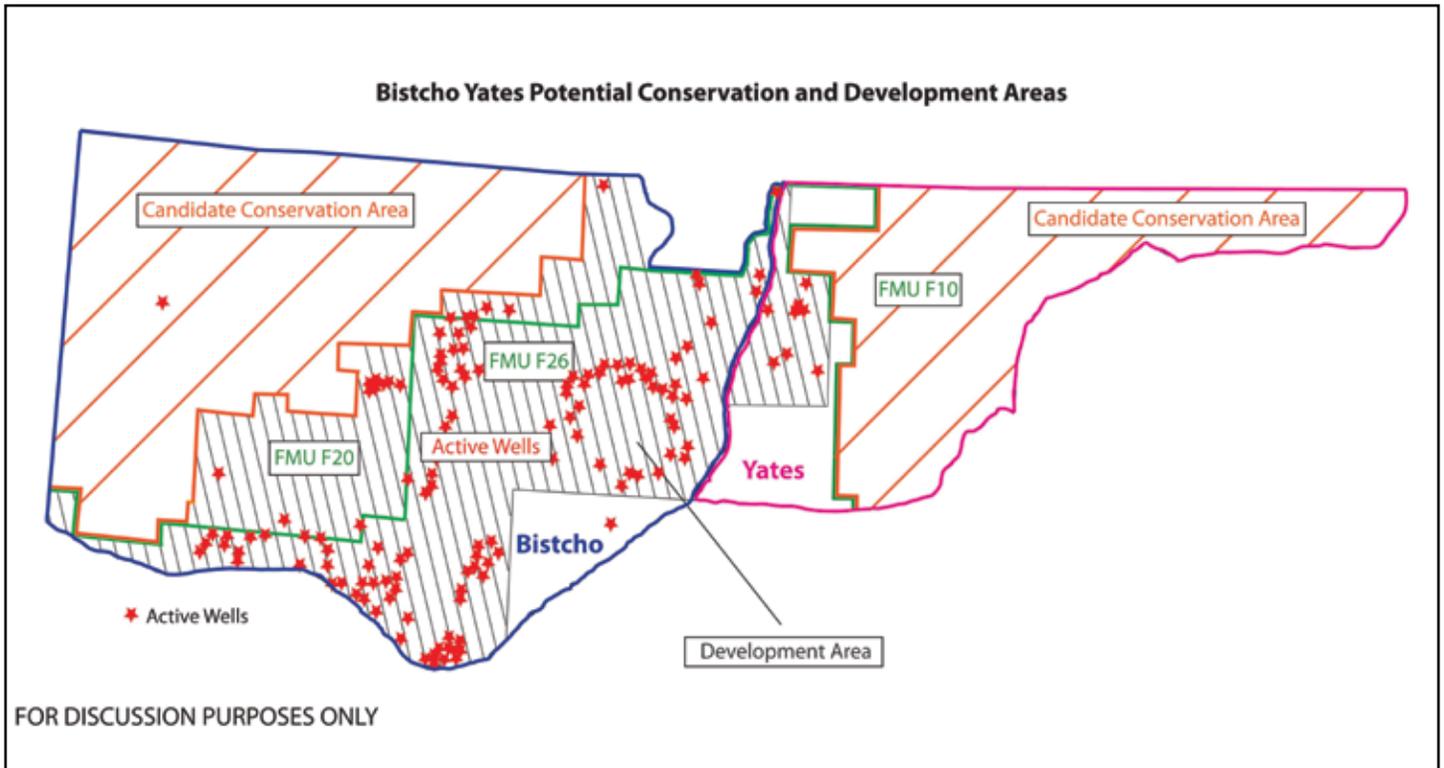
there are some active leases to the east and south of the lake.

In 2012 the Alberta government placed a moratorium on new mineral tenures over much of the Bistcho and Yates caribou ranges. The Bistcho caribou range area extends considerably southwest of the Bistcho Lake area and eastward into the Cameron Hills; the adjacent Yates range extends further east along Alberta's border with NWT to Wood Buffalo National Park. This was a very positive measure for maintaining some connected caribou conservation options for the Lower Peace regional plan.

Even though the Lower Peace plan has not moved forward, some recovery measures for Alberta's threatened woodland caribou have. Habitat fragmentation from excessive surface disturbance by extractive industry is the primary cause of woodland caribou declines. According to the Alberta government's December 2017 report, 32 percent of the Bistcho caribou range is disturbed by wildfire, and 91 percent is disturbed by human industrial activities, mostly from historic seismic lines. The best available scientific evidence, as documented in the 2012 federal boreal woodland caribou recovery strategy, is that woodland caribou require at least 65 percent undisturbed habitat to have even a 60 percent chance of being self-sustaining.

New energy leasing was finally halted in all Alberta caribou ranges in summer 2015. That pause has offered a welcome reprieve to develop action plans to manage habitat for caribou recovery. However, Alberta has not yet finalized any caribou range plans and new surface disturbance from existing energy leases continues in already excessively disturbed areas of Bistcho and other ranges.

In June 2016, Alberta committed to establish one Wildland Provincial Park in Bistcho, in unallocated Forest Management Unit (FMU) F20, and another in Yates' unallocated FMU F10. AWA welcomed this decision to benefit caribou and other valued wildlife. Essentially no forestry tenure would be affected and ex-



Economist Dr. Tom Power concluded that managing lands for caribou recovery – including two new conservation areas, a development area and a habitat restoration program – can grow the economy in the Bistcho-Yates caribou ranges. CREDIT: GOVERNMENT OF ALBERTA MAP, RE-FORMATTED BY POWER CONSULTING INC.

isting energy leases could continue under a careful management regime such as was established in Hay Zama. In August 2017, AWA presented at a caribou open house hosted by the town of High Level and Mackenzie County, which includes both FMUs. We discussed the low cost and high values of F20 and F10 caribou protected areas. We also noted that a program to restore unreclaimed legacy seismic lines could be an economic boon for the region.

In December 2017, Alberta proposed to establish protected areas in about 75 percent of F20 (after removing portions with some potential energy activity) and all of F10 in its draft provincial caribou range plan document. These Bistcho and Yates candidate conservation areas were also included in discussion scenarios presented by the Alberta government at March 2018 stakeholder workshops (see the map above). Unfortunately, soon afterwards the provincial government announced that it had suspended work on these protected areas because local communities perceived there to be high costs to their local economies from protecting F20 and F10

and from recovering caribou habitat.

In the summer of 2018, AWA partnered with David Suzuki Foundation and Harmony Foundation to commission a study of the economic impact of protecting and restoring woodland caribou habitat in the Bistcho and Yates caribou ranges. The report was authored by eminent natural resource economist Dr. Tom Power. Published in October 2018, it concluded that at least 65 percent undisturbed caribou habitat could be reached in the Bistcho-Yates ranges, including the F20 and F10 proposed conservation areas, with virtually no displacement of existing industrial activity. It found that a reasonable Bistcho-Yates seismic line restoration program would generate a solid employment opportunity for this region. It also assessed a 2017 report by northwest municipalities and concluded that flawed assumptions in that work had produced exaggerated cost projections for caribou habitat conservation. The Power report recommended that, for all caribou ranges, we begin with shared goals of caribou recovery and community economic activity

and proceed to build optimized solutions offering the least costs and most benefits. Protecting most of F20, but allowing some parts of it to remain as strictly-managed energy development zones, would be an example of optimizing a range plan for caribou recovery as well as local economic development, which AWA supports. We will continue to raise awareness of the valuable findings of this study.

In late October 2018, AWA was pleased to learn that the Dene Tha' First Nation and Canadian Parks and Wilderness Society are proposing to create an Indigenous Protected Area for the F20 area identified by the Alberta government as a candidate conservation area in December 2017. A key part of the concept is to include Dene Tha co-management. This sounds like an excellent proposal and we look forward to learning more about it. AWA will encourage the protection and restoration of the valuable Bistcho region, to support wildlife habitat and Indigenous uses and cultural practices on these lands. 🌱