

# Ts'ude niline Tu'eyeta



Ecological Assessment of the  
Ts'ude niline Tu'eyeta Candidate Protected Area

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# **Ecological Assessment of the Ts'ude niline Tu'eyeta Candidate Protected Area**

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## Executive Summary

The K'asho Gotine Koe Dene Band, the federal and territorial governments and non-governmental organizations are partners in the Ts'ude niline Tu'eyeta candidate protected area initiative through the NWT Protected Areas Strategy (PAS). The Canadian Wildlife Service (CWS), working in cooperation with the Ts'ude niline Tu'eyeta Working Group is overseeing the ecological assessment of the Ts'ude niline Tu'eyeta candidate protected area as described in Step 5 of the PAS. This ecological assessment requires a detailed inventory of key ecological components of the Ts'ude niline Tu'eyeta candidate protected area. This information is required to determine species diversity and distribution to ensure that the candidate area captures the full range of successional stages, wildlife habitat, and sensitive/rare species. In this way, the candidate area's contribution to the conservation of these components and processes at a regional scale can be assessed. Such an understanding would also form a cornerstone of future management planning for the area.

The Ts'ude niline Tu'eyeta candidate protected area is drained by the Ramparts, Hume and Ontaratue Rivers. It features the Ramparts wetlands (approx. 4600 km<sup>2</sup>), a low-lying, glacial lakebed consisting of floating bogs, and sedge wetlands interspersed with open black spruce forest and ericaceous shrublands. Part of the eastern boundary of the candidate area consists of 'the Ramparts', sheer limestone cliffs rising 100 m above the Mackenzie River. Much of the candidate area contains open boreal forest and a mosaic of large forest fires which occurred 10-30 years ago. The southern portion of the candidate area consists of the foothills and front range of the Mackenzie Mountains with peaks rising to 2000 m above sea level (asl) (Aylsworth *et al.*, 2000).

The Ts'ude niline Tu'eyeta ecological assessment was conducted 9-21 June 2005 and the 6-18 June 2006. Seventy-seven sites were sampled during this study. At each site the vegetation was described and forest bird point counts and wildlife transects were conducted. We also recorded all incidental wildlife and wildlife sign observed while moving about each sample site and during flights to and from the sampling sites.

A survey of the literature indicated one species of amphibian, 24 species of fish, 174 species of bird, and 43 species of mammal occurring within the Ts'ude niline Tu'eyeta candidate protected area. In this study, one species of amphibian, 67 species of bird and 13 species of mammal were recorded. For birds, a wide range of waterfowl, waterbirds and raptors were observed as well as forest birds. Two avian 'species at risk' - Peregrine Falcon and Short-eared Owls were also observed. The forest bird community was characterized based on habitat using quantitative data

from point counts. Two mammalian 'species at risk' - boreal woodland caribou and wolverine tracks - were observed. In March 2006, late winter distribution of boreal woodland caribou and moose was documented through aerial surveys conducted by the Department of Environment and Natural Resources.

The ecological significance of the Ts'ude niline Tu'eyeta candidate protected area includes a number of factors:

1. It supports several 'species at risk', as listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC, 2006). These species are both resident in the area on a year-round basis or occur there as migrants. Boreal woodland caribou (COSEWIC listed 'threatened') occur in Ts'ude niline Tu'eyeta at all times of the year and evidence of calving was observed. Wolverine ('special concern') are also year-round residents. The Peregrine Falcon ('threatened') and the Short-eared Owl ('special concern') nest within Ts'ude niline Tu'eyeta.
2. Ramparts River Wetlands is a wetland the Canadian Wildlife Service considers as a "key migratory bird terrestrial habitat site" in the NWT. The 4660 km<sup>2</sup> key site is an important nesting area for scaup and scoter as well as a key migration staging area for birds migrating further north. Ramparts River Wetlands (Tuyetah) supports over 1% of the national populations of a number of migratory bird populations including scaup, scoter, and Pacific loons.
3. The Ts'ude niline Tu'eyeta candidate area provides the water sources for three important drainages in the Sahtu region – the Hume, Ramparts and Ontaratue Rivers, and very small portion of the Arctic Red River and the Mountain Rivers.
4. The Ts'ude niline Tu'eyeta candidate area falls within the Taiga Plains and Taiga Cordillera ecozones. The Taiga Plains portion of Ts'ude niline Tu'eyeta contains the Fort MacPherson Plain (19.7%), Peel River Plateau (16.8%), and the Mackenzie River Plain (8.2%) ecoregions. The Taiga Cordillera ecozone is represented in the southern portion of the candidate area by the Mackenzie Mountains ecoregion (3.2%).
5. Core representative area analysis indicated that Ts'ude niline Tu'eyeta contains several highly representative or unique areas which likely cannot be found elsewhere in any of the ecoregions within it. Ts'ude niline Tu'eyeta is also effective in capturing the range of biodiversity within 100 km around it.

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