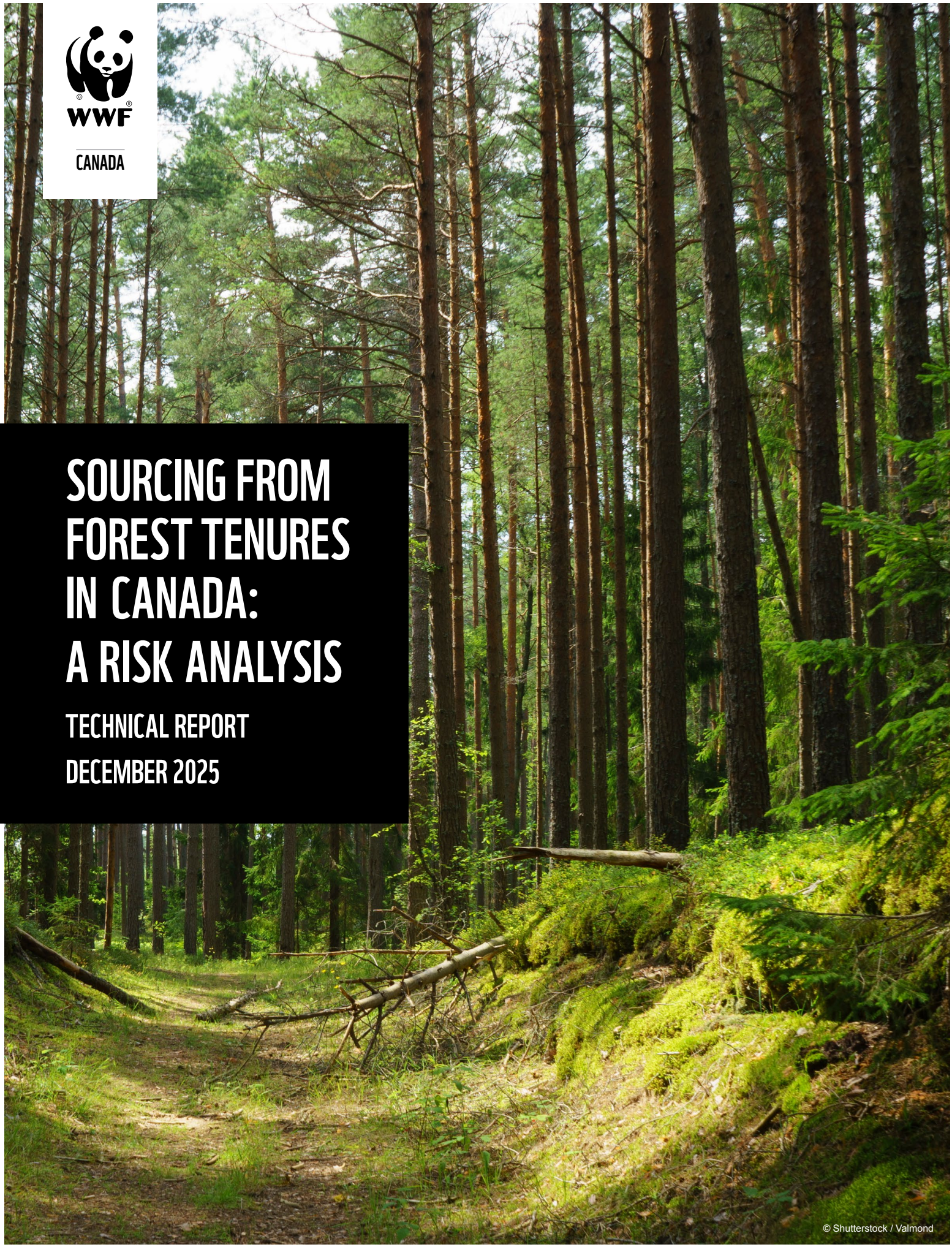
WWF
CANADA

SOURCING FROM FOREST TENURES IN CANADA: A RISK ANALYSIS

TECHNICAL REPORT

DECEMBER 2025



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EXECUTIVE SUMMARY

Canada contains the third-largest forest area in the world and is a leading producer of forest products worldwide. Although deforestation rates are low, forests in Canada are at the centre of a growing global focus on the equally important issue of forest degradation.

Primary forests, including intact forest landscapes — about 25 per cent of which are found in Canada — are increasingly recognized for their exceptional importance in biodiversity conservation, which can be threatened by commercial forest management policies and practices. The climate and nature crises have contributed to an unprecedented level of scrutiny of these policies and practices by public, regulatory and investor audiences in Canada and around the world. This heightens risks for companies sourcing Canadian wood and fibre, including member companies of WWF's Forests Forward program.

In response, WWF-Canada developed the first phase of a forest tenure risk analysis in Canada. This aims to support companies in assessing their sourcing impacts and to increase public understanding of locations where forest management may affect climate- and nature-related values. Using public data, the analysis quantifies and compares forest tenure risk levels associated with priority conservation values — forest cover as measured by forest loss, protected areas, intact forest landscapes, carbon storage, terrestrial species at risk and caribou.

Each province has sourcing risks. The variable distribution of moderate- to high-risk tenures within provinces and across value categories increases the likelihood that most mills are sourcing from at least one tenure associated with a high-risk value. While companies sourcing from Canada may reduce some conservation-related risk factors based on where they choose to source, the results show that holistic responsible sourcing policies and broad supplier engagement practices are needed to mitigate and address the systemic risks across commercial forest tenures in Canada.

Additional details on methodology, data sources, conservation value-specific findings and study limitations can be found in the body of this technical report.

GLOSSARY OF KEY TERMS

TERM	DEFINITION
Aboveground biomass (AGB)	AGB in this analysis includes both aboveground forest (trees) and non-forest (other plants) biomass organic carbon stocks within forest tenures (Sothe et al., 2022).
Aboveground carbon density (AGD)	AGB relative to forest tenure area measured in tonnes per square kilometres.
Belowground biomass (BGB)	BGB in this analysis includes peat and non-peat soil organic carbon stocks within forest tenures (Sothe et al., 2022).
Belowground carbon density (BGD)	BGB relative to forest tenure area measured in tonnes per square kilometres.
Deforestation	The conversion of forest to other land use, whether human-induced or not. In the Canadian context, this definition specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures (FAO, 2025).
Ecodistrict	A subdivision of an ecoregion characterized by distinctive assemblages of relief, landforms, geology, soil, vegetation, water bodies and fauna (Government of Canada, 2013).
Forest	Land spanning more than 0.5 hectares with trees higher than five metres and a canopy cover of more than ten per cent, or trees able to reach these thresholds in situ. In the Canadian context, this includes areas with young trees that have not yet reached, but which are expected to reach, a canopy cover of 10 per cent and tree height of five metres. It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and which are expected to be regenerated within five years. It does not include land that is predominantly under agricultural or urban land use (FAO, 2025). Based on a geospatial analysis of forest loss in Canada, a forest was defined as any 30-metre Landsat pixel containing at least ten per cent tree cover at a five-metre height (Hansen et al., 2013).
Forest certification	A market-based instrument aimed at promoting sustainable forest management that considers environmental, economic and social issues. It involves the independent assessment of forest management according to internationally (or nationally) accepted standards, and the tracking and monitoring of the supply of forest products to the marketplace. If the forest management complies with a set of specified standards and the timber from this forest has been tracked and accounted for through all stages of the production process, then it can be given a label which is recognized in the marketplace. Forest certification schemes used in Canada include Canadian Standards Association (CSA), Forest Stewardship Council (FSC) and Sustainable Forestry Initiative (SFI) (Government of Canada, 2020).
Forest degradation	The long-term reduction of the overall supply of benefits from forests, which includes wood, biodiversity and other products and services (FAO, 2024). Canada does not have a national definition of forest degradation, nor does it monitor or report on areas of degraded forests (Government of Canada, 2020).
Forest disturbance	Disturbances caused by any factor, biotic (living) or abiotic (non-living), that adversely affect the vigor and productivity of the forest, and are not a direct result of human activities. In the Canadian context, forest disturbances primarily include fire, forest insects, pathogens and windthrow — the uprooting or overturning of trees by strong winds (FAO, 2025).
Forest loss	Stand-replacement disturbance or the complete removal of tree canopy cover at the 30-metre pixel scale (Hansen et al., 2013).

TERM	DEFINITION
Forest loss due to fire	Forest loss that could be attributed to natural or human-ignited fires at a sufficient level of modelling probability (Tyukavina et al., 2022).
Forest loss due to other disturbance	Forest loss that could not be attributed to fire at a sufficient level of modelling probability (Tyukavina et al., 2022).
Forest management unit (FMU)	An area of forest land managed as a unit for fibre production and other renewable resources. This unit can be the entire province or territory, a provincial forest management subdivision, an industrial timber limit, etc. (Government of Canada, 2020).
Forest tenure	The terms under which a forest manager or owner possesses the rights, and assumes the responsibilities to use, harvest or manage one or more forest resources in a specified forest area for a specified period of time. Forest tenures on public land in Canada fall into two main categories — area-based and volume-based. Area-based tenures allow licensees to harvest timber over a specific land base, with tenure holders often required to assume forest management responsibilities. Volume-based tenures allow licensees to harvest specific volumes of timber from a broadly defined area. Several licensees can hold such rights within the same area. The provincial regulatory agency is usually responsible for management planning but tenure holders may be obliged to assume forest management responsibilities (Government of Canada, 2020).
Free, prior, and informed consent (FPIC)	A legal condition whereby a person or community can be said to have given consent to an action prior to its commencement based upon a clear appreciation and understanding of the facts, implications and future consequences of that action and the possession of all relevant facts at the time when consent is given. Free, prior, and informed consent includes the right to grant, modify, withhold or withdraw approval (FSC Canada, 2019).
Intact forest landscape	A territory within today's global extent of forest cover which contains forest and non-forest ecosystems minimally influenced by human economic activity, with an area of at least 500 square kilometres (50,000 hectares) and a minimal width of 10 kilometres (measured as the diameter of a circle that is entirely inscribed within the boundaries of the territory) (The IFL Mapping Team, 2021).
Primary forest	Naturally regenerating forest of native tree species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed (FAO, 2025). Note that definitions vary and that WWF-Canada does not endorse any particular definition. Canada does not have a national definition of primary forest. Canada's current reporting on primary forest areas is estimated using information about human activities, human access and protection status as proxy indicators (Government of Canada, 2020).
Protected area	A clearly defined geographical space that is recognized, dedicated and managed through legal or other effective means to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN, 2008).
Species at risk	An extirpated, endangered, threatened species or a species of special concern (Environment and Climate Change Canada, 2014).
STAR/STARr	Species threat abatement and restoration (STAR) metric quantifies the contributions that abating threats and restoring habitats in specific places offer towards reducing extinction risk. For this analysis, a modified STAR metric was developed to only include terrestrial forest species and the restoration component (STARr) (Mair et al., 2021).
Unalieneated Crown land	Public land on which timber rights have not been transferred to an individual or corporation (Avery, 1954). Note that the term Crown land can be viewed as problematic as it suggests ownership and control that may run counter to the views and principles of Indigenous Peoples, particularly in unceded territories.

BACKGROUND AND RATIONALE

The ways in which the world's forests are managed have been identified as both a key driver of and a potential solution to the dual crises of climate change and biodiversity loss. Deforestation and forest degradation increase greenhouse gas emissions and drive declines of global biodiversity. Improved forest management practices and conservation of the world's remaining primary, old-growth and intact forest landscapes are among the most effective near term interventions to mitigate, and hopefully avoid, the worst impacts of climate change. There is also increasing recognition of the fact that many of the remaining high conservation value forests around the world are home to Indigenous Peoples who have effectively stewarded their lands and waters since time immemorial, despite a historical record of disregard for their rights to do so. This confluence of factors has led to an unprecedented level of scrutiny of commercial forest management policies and practices by governments, the private sector and civil society.

Canada has approximately 347 million hectares of forest, covering 38 per cent of the country (Government of Canada, 2020). Globally, Canada accounts for nine per cent of the world's total forest area, behind only Brazil with 12 per cent and Russia with 20 per cent (FAO, 2024). This expansive forest land base has helped make Canada one of the world's largest producers of forest products and the number one exporter of softwood lumber and northern bleached softwood kraft pulp (Natural Resources Canada, 2025).

According to government reports, deforestation rates in Canada are less than one per cent, partly because of strong regulations that public forests — which make up 94 per cent of the country's total forest area — must be regenerated post-harvest (Natural Resources Canada, 2023). While deforestation rates are low, forests in Canada are nevertheless at the centre of a growing global focus on the equally important issue of forest degradation.

Deforestation is a binary measure — whether a forest remains a forest post-harvest — based on a broad definition of "forest" that treats all forest types as equals, except for intensively managed short-rotation tree plantations. Forest degradation is a more comprehensive measure that considers changes in forest structure, function and diversity as a result of commercial forest management practices. It also reflects the extent to which a forest's ability to provide the same level of ecosystem services is diminished post-harvest.

Forests in Canada are estimated to contain nearly a quarter of the remaining intact forests in the world (Wells et al., 2020). Primary forests, including intact forest landscapes, are increasingly recognized for their unique ecological values and exceptional importance in biodiversity conservation, with calls for their protection increasing in Canada and around the world (IUCN, 2020; Regulation on Deforestation-Free Products, 2025). Forests in Canada support a myriad of plant and animal species, including the threatened boreal caribou and declining populations of migratory songbirds, both of which have been significantly impacted by the loss of large, intact forests across Canada (Wells et al., 2020). Boreal forests in Canada are estimated to store 208 billion tonnes of carbon, with primary forests and intact forest landscapes increasingly recognized for their superior carbon storage and sequestration benefits compared to secondary or plantation forests (Carlson et al., 2009; Watson et al., 2018). In addition, forests in Canada are home to Indigenous Peoples who have faced generational challenges in exercising their rights to determine how commercial forest tenures within their traditional territories are managed.

As a result, public scrutiny of Canada's forest management practices has intensified, heightening risks for companies sourcing Canadian wood and fibre. Nature, alongside climate, has risen to the top of investor agendas, with institutional investors beginning to assess and mitigate forest-related risks in their investment portfolios (Nature Action 100, 2025; TNFD, 2025). The European Union Deforestation Regulation (EUDR) is the first in the world to include forest degradation alongside deforestation in its definition of a "deforestation-free" wood product (Regulation on Deforestation-Free Products, 2025). Forest-related corporate shareholder resolutions increasingly highlight boreal forests in Canada as a global conservation priority and call for stronger supply chain due diligence to address forest degradation, species at risk and risks related to the rights of Indigenous Peoples.

In response to these developments, WWF-Canada designed the first phase of assessing corporate sourcing risks across commercial forest tenures in Canada through an assessment of priority conservation values. This tool was developed to help companies assess and reduce the impacts of their sourcing and to enhance public understanding of areas in Canada where forest management practices may most affect climate- and nature-related values.

This analysis uses publicly available data to quantify and compare forest risk levels across most commercial forest tenures in Canada based on several conservation values including forest loss, protected areas, intact forest landscapes, species at risk, caribou and carbon storage. The methodology section outlines how each conservation value was defined and assessed, and which data sources were used.

WWF-Canada led the development of this tool, incorporating feedback from several Canadian ENGOs with expertise in forest management and conservation. Iterative input was also received from WWF's Forests Forward corporate partners in the United States that source significant volumes of wood and fibre from Canada.

This analysis focuses solely on quantitative ecological values and does not address potential risks related to the rights of Indigenous Peoples associated with commercial forest management in First Nations and Métis traditional territories.

METHODOLOGY

OVERVIEW

Key forest conservation values in Canada that can or have been impacted by commercial forest management planning and activities were identified. These values include historical forest loss, protected areas coverage, intact forest landscape (IFL) coverage and loss, forest carbon, forest species at risk and caribou habitat. While forestry can also impact water quality and quantity, as well as aquatic species at risk, these factors are not addressed in this tool. Other resources, such as WWF-Canada's watershed reports, provide relevant indicators focused on watershed health and threats (Paquette et al., 2020).

Each value was quantified using national-level datasets in Google Earth Engine using the Python API. Forest tenure boundaries were overlaid and scores were assigned to each tenure for each value based on a value-specific scoring range. Further details on data, processing and scoring are provided in the following sections.

FOREST TENURE DATA

Shapefiles of all individual forest management units (FMUs) licensed to private industry in British Columbia (B.C.), Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Newfoundland and Labrador were obtained directly from the Forest Products Association of Canada. Additional shapefiles of unalienated Crown land were obtained from the governments of Alberta, Manitoba, Nova Scotia and Newfoundland. Prince Edward Island, Northwest Territories, Yukon and Nunavut were excluded from the analysis due to limited forest management and commercial harvesting. Private forest lands and First Nation reserves were also excluded.

All provincial forest tenure shapefiles were merged into a single national dataset of commercial forest tenures. Two private land tenures in New Brunswick (i.e., AV Group and AT Private Forestlands) and one non-commercial tenure in northern Saskatchewan (i.e., Northern Reconnaissance) were excluded from the final dataset. Manual changes were made to one tenure in Ontario, to divide the Lake Nipigon Forest into two — Lake Nipigon Forest and Wabadowgang Noopming Forest — to reflect the most up-to-date tenure names and boundaries.

UNALIENATED CROWN LAND

Tenure arrangements across Canada are complex and vary by province. In many cases, Crown land becomes alienated through forest tenure arrangements with individuals or corporations (e.g., licenses). The scope of the obligations associated with these arrangements like forest management responsibilities differs by province and tenure type. In the provinces of Alberta, Manitoba, Nova Scotia and Newfoundland and Labrador, commercial forestry also occurs on unalienated Crown land (i.e., in the absence of tenure arrangements). In these cases, the provincial governments retain full responsibility for forest management and related activities, the specifics of which vary across jurisdictions.

B.C. TENURE

The distinct nature of B.C.'s forest tenure system has important implications for users of this risk assessment. Alberta, Saskatchewan, Manitoba, Ontario, Quebec, New Brunswick, Nova Scotia and Newfoundland and Labrador use area-based forest tenure systems that generally assign forest management responsibilities for a single defined area to one company or entity. This makes it clear for users of this tool to identify which party to engage with regarding potential supply chain risks.

On the other hand, B.C. uses a mix of area and volume-based forest tenure systems. Volume-based tenure systems allocate annual allowable harvest volumes to multiple forest management companies operating within the same forest tenure area. The province has over a dozen tenure types, with most timber harvesting occurring under large area-based Tree Farm Licenses (TFLs) and volume-based forest licenses within Timber Supply Areas (TSAs). Other tenure forms include smaller area-based Community Forest Agreements (CFA) and First Nations Woodlot Licenses (FNWL).

The geographic boundaries of these different tenure types can be overlapping. In this assessment, TFLs and TSAs were used as the two major forest tenure systems for analysis. As a result, other tenure types — such as CFAs and FNWLs — that may be part of a user's supply chain are not explicitly represented. Given B.C.'s mixed usage of tenure systems, overlapping geographic boundaries and the multiple actors involved, users will most likely need to conduct additional due diligence to determine which forest management company or companies to engage with to address potential supply chain risks.

FOREST LOSS

The total area of forest loss due to fire and loss from other non-fire disturbance drivers within each forest tenure from 2010 to 2024 was quantified using Landsat-based forest change data at a 30-metre spatial resolution. The computed gross forest loss includes both temporary and permanent losses, but does not account for potential forest regrowth during the same period. This approach has important caveats in the Canadian context, which are discussed in the study limitations section of this report.

These analyses used the Global Forest Change (v1.12) and Global Forest Loss Due to Fire datasets (Hansen et al., 2013; Tyukavina et al., 2022). Forest was defined as any 30-metre Landsat pixel containing at least 10 per cent tree cover at a height of five metres. Forest loss was defined as a stand-replacing disturbance or the complete removal of tree cover canopy at the 30-metre pixel scale (Hansen et al., 2013). Forest loss due to fire was defined as loss attributed to natural or human-ignited fires based on a sufficient level of modelling probability and all other forest loss not attributed to fire with the same level of confidence was classified as loss due to non-fire disturbance (Tyukavina et al., 2022). While this assessment does not specify the exact causes or quantify the relative impacts of non-fire disturbance drivers, in the Canadian context, these are primarily associated with forestry operations (e.g., logging, road construction, etc.), forest insects, pathogen outbreaks, and infrastructure and extractive industry development (e.g., mining, oil and gas).

To identify forest loss scores, the analysis calculated the proportion of total area of forest loss due to fire and other disturbance drivers relative to the total tenure forest area[1] as of 2010. The resulting values

[1] Proportion of total gross forest loss = Total area (km^2) of gross forest loss 2010-2024 / Total forest area (km^2) in tenure 2010; Proportion of total gross forest loss due to fire = Total area (km^2) of gross forest loss due to fire 2010-2024 / Total forest area (km^2) in tenure 2010; Proportion of total gross forest loss due to other disturbances = Total area (km^2) of gross forest loss due to other disturbances 2010-2024 / Total forest area (km^2) in tenure 2010.

for the historical forest loss metrics were divided into five quantiles, generating risk scores from zero to four, with higher scores indicating a higher proportion of forest loss within a tenure since 2010. In this risk assessment, higher scores were assigned higher climate- and nature-related risks stemming from anticipated future loss within a tenure and the potential additive effects of past and future forest losses.

PROTECTED AREAS

Terrestrial protected areas from the Canadian Protected and Conserved Areas Database were overlaid with ecodistrict boundaries from the National Ecological Framework (Agriculture and Agri-Food Canada, 2016) to calculate the proportion of each ecodistrict protected by federally recognized conservation mechanisms. Tenures were then overlaid with the ecodistrict boundaries to find the proportion of each tenure covered by each ecodistrict. Each ecodistrict tenure proportion was multiplied by the protected ecodistrict proportion and summed to create an area-weighted metric of terrestrial protection for the tenure[2].

The area-weighted percentages were then separated into five categories — zero to 10 per cent, 10 to 20 per cent, 20 to 25 per cent, 25 to 30 per cent and greater than 30 per cent. The upper threshold of greater than 30 per cent was chosen to align with Canada's commitment to protect 30 per cent of its lands by 2030 in alignment with Target 1 of the Global Biodiversity Framework.

For this risk assessment, tenures with lower percentages of ecodistrict protection were assigned higher risk scores, based on the assumption that less protection results in fewer area-based harvesting restrictions, particularly in high conservation value forests. Tenures with the lowest percentage of ecodistrict protection from zero to 10 per cent were assigned a higher risk score of four, while tenures with highly protected ecodistricts with a percentage greater than 30 per cent were assigned the lowest score of zero.

[2] Area-weighted % of ecodistrict protection = (tenure ecodistrict area 1 % protected * tenure ecodistrict 1 area weight factor) + (tenure ecodistrict area 2 % protected * tenure ecodistrict 2 area weight factor) + ……..

INTACT FOREST LANDSCAPES

The percentage of IFL area within each forest tenure in 2020 and the percentage of IFL area loss within each tenure from 2013 to 2020[3] were quantified.

The analyses used global IFL maps developed by Greenpeace, the University of Maryland and Transparent World in 2013 and maps produced in 2020 by the Global Land Analysis and Discovery team at the University of Maryland and Greenpeace. IFLs were defined per Potapov et al., 2017 as *"a territory that contains forest and non-forest ecosystems minimally influenced by human activity, with (i) an area of at least 500 square kilometres (50,000 hectares), (ii) a minimum width of 10 kilometres (measured as the diameter of a circle that could be entirely inscribed within the boundaries of the territory) and (iii) a minimum corridor or appendage width of two kilometres."* IFL loss was defined as IFL areas in 2013 that no longer met that definition in 2020.

The percentage of IFL area and the percentage of IFL loss were each divided into five categories using a quantile approach and assigned risk scores (Table 1).

Table 1. Quantile ranges and corresponding risk scores for two components of the intact forest landscapes (IFL) risk analysis: % IFL area and % IFL loss.

% IFL AREA	% IFL AREA SCORE	% IFL LOSS	% IFL LOSS SCORE
0% (No IFL area)	0	0% (No IFL area)	0
0.009% - 7.05%	1	0.0006% - 0.80%	1
7.05% - 25.87%	2	0.80 % - 3.08%	2
25.87% - 53.76%	3	3.08% - 11.29%	3
53.76% - 98.85%	4	11.29% - 100%	4

Tenures with no IFL area in 2020 were scored as zero and excluded from further analysis. Tenures with IFL area in 2020 were assigned a total IFL score using a risk matrix (Figure 1) that accounted for the relationship between IFL area and loss in assessing potential IFL protection threats and opportunities.

[3] % IFL area in tenure = IFL area in tenure 2020 / total area of tenure; % IFL area loss in tenure = total IFL area loss 2013-2020 / total IFL area in tenure 2013.

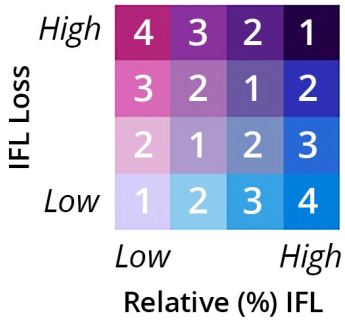

FIGURE 1. Intact forest landscapes (IFL) risk scoring matrix.

A total IFL risk score for each tenure was defined based on the following logic:

- Higher IFL loss and lower IFL area = Higher risk due to potential IFL elimination
- Lower IFL loss and higher IFL area = Higher risk due to significant conservation opportunity

CARBON

The amount of above and belowground carbon stored in each tenure relative to total land area were quantified to measure average carbon density.

The analysis was based on a recent national study that estimated terrestrial carbon stocks across the land in Canada at a 250-metre resolution (Sothe et al., 2022). Tenure carbon stocks in aboveground biomass (AGB) and belowground biomass (BGB) were calculated. AGB included biomass from forest trees and non-forest vegetation, while BGB included peat and non-peat soil carbon, depending on the presence of those soil types within each tenure.

Aboveground carbon density (AGD) and belowground carbon density (BGD) measured in tonnes per square kilometre were calculated for each tenure and divided into five categories using a natural breaks algorithm (Table 2).

TABLE 2. Ranges of aboveground carbon density (AGD) and belowground carbon density (BGD) and corresponding risk scores. Carbon density was divided into five risk categories using a natural breaks algorithm.

AGD (t C/km^2)	AGD Score	BGD (t C/km^2)	BGD Score
123 – 2,000	0	3,292 – 20,000	0
2,000 – 4,000	1	20,000 – 45,000	1
4,000 – 5,500	2	45,000 – 90,000	2
5,500 – 7,500	3	90,000 – 160,000	3
7,500 – 10,145	4	160,000 – 232,132	4

AGD and BGD values were scored on a scale from zero to four, with higher scores representing tenures with higher AGB or BGB carbon stocks per square kilometre. Final AGD and BGD scores were then weighted at 75 per cent and 25 per cent respectively and combined to produce a total weighted average carbon score for each tenure. This score emphasizes the potential impact of harvesting on

aboveground forest biomass carbon stores. A higher carbon score suggests higher risk of carbon emissions if the area is harvested.

TERRESTRIAL SPECIES AT RISK

A modified Species Threat Abatement and Restoration (STAR) metric, which is a biodiversity metric based on the IUCN Red List (Mair et al., 2021), was calculated for each tenure. Modified to include only terrestrial forest species and the restoration component (STARr), this metric measures the extent of preferred habitat available for species at risk. High STARr values in a tenure indicate a larger number of species, a greater proportion of preferred habitat that is available and a higher number of threatened or endangered species.

Geographic range extent maps for species at risk in Canada were obtained from Environment and Climate Change Canada (Environment and Climate Change Canada, 2023b). These maps were filtered to include only areas with land cover types that matched preferred habitat types for each species at risk as identified in the IUCN Red List. Land cover types were assigned at a 30-metre resolution using a 2020 land cover type map from the North American Land Use Change Monitoring System (CEC, 2023). The resulting geographic range extent maps were then further filtered to include only species at risk that preferred forests as one of their habitats, resulting in a final group of 230 species at risk for analysis (Table A1).

A STARr grid was calculated for each of the 230 species. For each 250-metre by 250-metre cell, the area of habitat (AoH) representing the land cover range was divided by the total range of the species in the cell. The proportion was multiplied by a factor (W) based on species risk status as assigned by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC):

- Special concern (W = 1)
- Threatened (W = 2)
- Endangered (W = 3)

*Tenure species-specific STARr = W * (AoH / total range)*

The STARr grids for all species were summed to obtain a national STARr grid for all forest species. STARr values for each tenure were summed and divided by the total forest area within the tenure.

Total tenure STARr = sum of tenure species-specific STARr / total tenure area

Total tenure STARr scores were separated into five quantiles resulting in final tenure STARr risk scores ranging from zero to four, with higher scores indicating that a tenure plays a relatively more important role in providing preferred habitat for forest-dwelling species at risk in Canada.

WOODLAND CARIBOU

Woodland caribou (*Rangifer tarandus caribou*) are species at risk in Canada, with some specific populations listed as endangered. In addition to being included in the species at risk scores, separate scores were calculated for both the boreal and mountain range ecotypes of woodland caribou given the high degree of overlap between their respective ranges and the commercial forest tenures in Canada. Boreal caribou is considered an umbrella species in Canada due to its expansive range, dependence on large swaths of intact forests and sensitivity to habitat changes driven by human activities. Managing landscapes for the conservation of single umbrella species like the boreal caribou has proven effective in the conservation of other non-caribou biodiversity in landscapes disturbed by human activities (Labadie et al., 2024).

Two metrics for caribou were calculated — the percentage of total herd range areas located within the tenure and the percentage of range areas impacted by disturbance within the tenure. Range area in tenure (RAIT) percentage was calculated by dividing the total herd range area located within the tenure by the total range area of those herds. Range area disturbance (RAD) percentage was calculated by dividing the total area of disturbed caribou range within the tenure by the total amount of caribou range within the tenure. To calculate the value of RAD, areas within caribou ranges that were within 500 metres of harvest sites (Hermosilla et al., 2016), seismic lines and roads (Poley et al., 2021) or impacted by fire disturbance (Canadian Forest Service, 2022; Hermosilla et al., 2016) were merged.

For boreal and mountain caribou, RAIT percentages were divided into four quantiles with the zero category assigned to tenures with no caribou range, while RAD percentages were grouped by habitat disturbance levels and assigned risk scores ranging from zero to four (Table 3). Boreal caribou require that 65 per cent of their range be composed of undisturbed habitat in order to have a 60 per cent chance of being self-sustaining. This standard has been applied in land use planning for mountain caribou range areas. For this analysis, caribou habitat disturbance was calculated at the forest tenure level rather than the caribou range level in order to assign conservation value scores to each tenure. Because high caribou habitat disturbance within the forest tenure does not always reflect high disturbance across a herd's range, especially if much of the herd's range lies outside the tenure, disturbance thresholds more lenient than those outlined in the federal boreal caribou recovery strategy were applied (Environment Canada, 2012).

TABLE 3. Per cent of caribou range area in tenure (RAIT), per cent of caribou range area disturbance (RAD) and corresponding risk scores for boreal and mountain ecotypes of woodland caribou.

RAD SCORE	RAD %	RAIT SCORE	RAIT %	
			Boreal	Mountain
0	0 (no ranges)	0	0 (no ranges)	0 (no ranges)
1	0 - 24	1	0.00003 – 0.955	0.1 – 4.4
2	24 - 35	2	0.955 – 3.858	4.4 – 11.9
3	35 - 50	3	3.858 – 11.764	11.9 – 30.6
4	>50	4	11.764 – 60.802	30.6 – 70.1

Tenures with no overlap of boreal or mountain caribou ranges were assigned a score of zero and excluded from further analysis. Tenures with overlaps of caribou ranges were assigned a total boreal or mountain caribou score using a risk matrix that accounted for the relationship between RAIT and RAD in assessing potential threats and opportunities for caribou habitat protection (Figure 2).

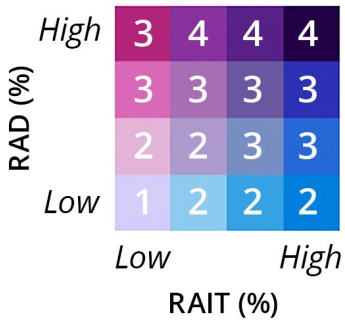

FIGURE 2. Caribou risk scoring matrix, based on scores for range area in tenure (RAIT) and range area disturbance (RAD).

A total caribou risk score for each tenure was defined based on the following logic:

- **High RAD and high RAIT:** Assigned a high score because a high range disturbance indicates a high risk of caribou extirpation and a large overlap of caribou range and tenure indicates a high likelihood that forest management activities could impact the caribou range.
- **High RAD and low RAIT:** Assigned a moderately high score because high range disturbance indicates a high risk of caribou extirpation but a small overlap of caribou range and tenure suggests that caribou habitat may be more easily avoided when planning forest harvest areas.
- **Low RAD and high RAIT:** Assigned a moderately low score because low caribou habitat disturbance indicates a low risk of caribou extirpation but a large overlap of caribou range and tenure indicates that there is still potential for forest management activities to impact the caribou range.
- **Low RAD and low RAIT:** Assigned a low score because of low habitat disturbance and low range overlap with the tenure.

RESULTS AND DISCUSSION

This section presents risk maps of the scores for each value category (Figures 3 - 15), followed by a discussion of the results for each. A total risk map presents the summed scores of all values for each tenure (Figure 16). The scores for all value categories are also broken down by province for each tenure in Appendix II (Tables A2 - A10).

FOREST LOSS

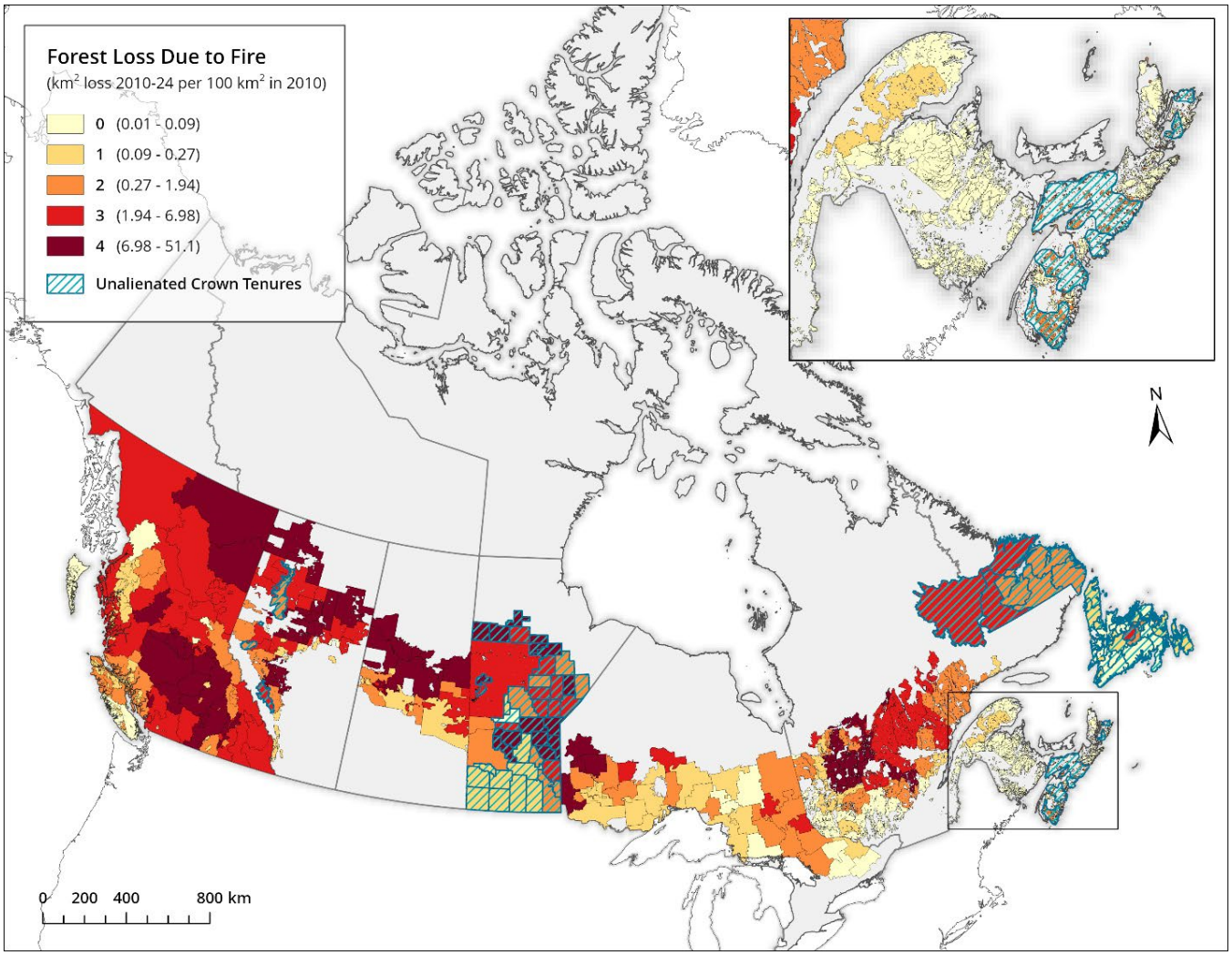

FIGURE 3. Forest loss due to fire risk scores for tenures across Canada.

Forest loss due to fire was the highest and most widespread in B.C., Alberta, Saskatchewan and Manitoba, along with certain tenures in Ontario and Quebec (Figure 3).

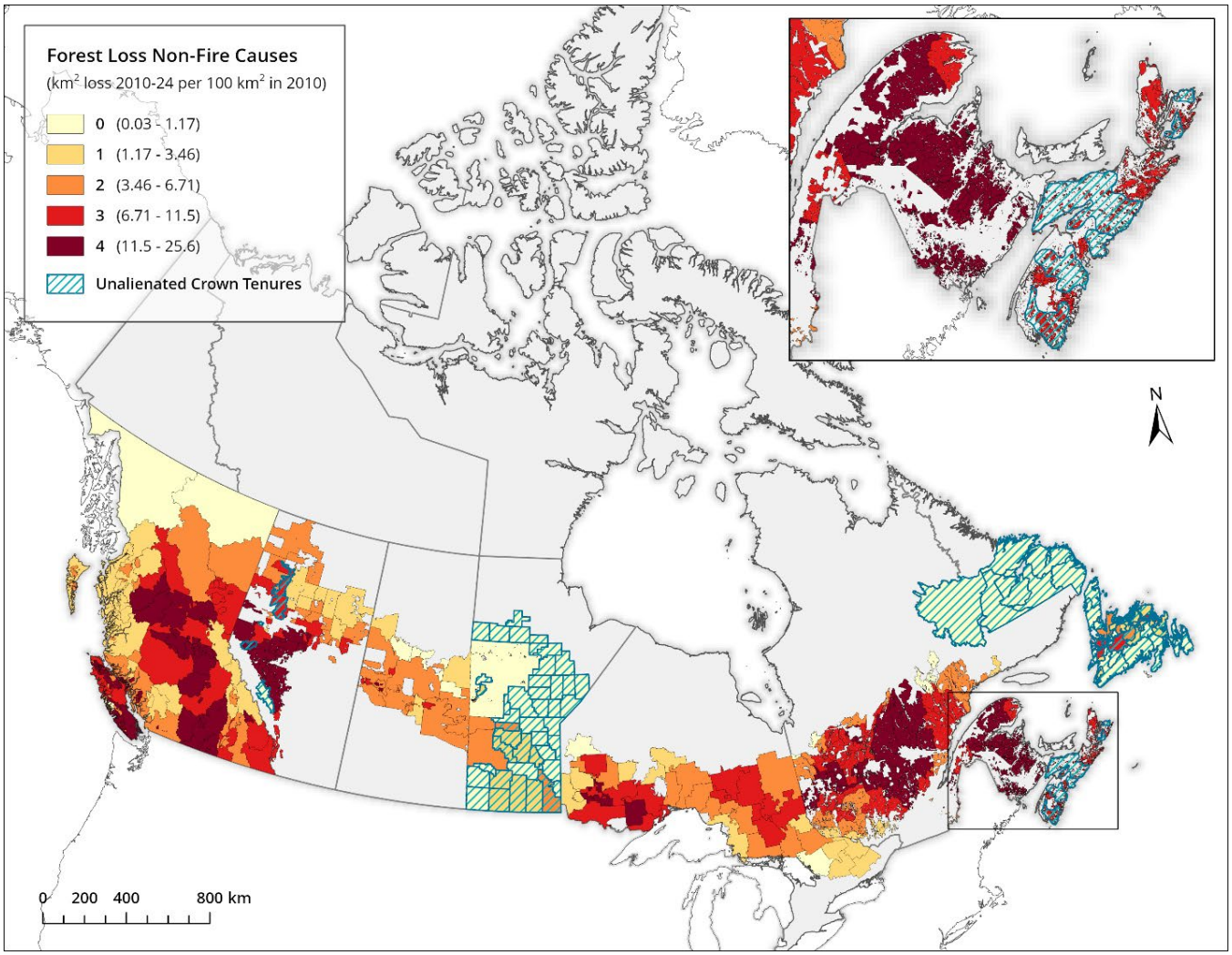

FIGURE 4. Forest loss from non-fire causes risk scores for forest tenures across Canada.

Tenures with the highest risk scores due to forest loss from non-fire disturbances were located in B.C.'s South Coast and Interior, Vancouver Island, west-central Alberta, Quebec, New Brunswick, certain tenures in northwestern Ontario and a number of smaller tenures in west-central Saskatchewan (Figure 4).

Tenures in the B.C. Interior, Alberta, northwestern Ontario and north-central Quebec stand out as potential hotspots for cumulative forest loss or disturbance impacts from the combination of areas lost to fire and those lost to non-fire disturbances like harvesting, other industrial activities, insects, disease and windthrow.

When coupled with annual losses due to non-fire events, increasing forest loss due to fire is putting pressure on the finite forest tenure areas and resources. This increases the likelihood of crossing key conservation thresholds associated with IFLs, caribou habitat and habitat for other species at risk. Companies sourcing from Canada are encouraged to consider fire risk in a broader context and work with suppliers and provincial governments to address these losses through strategies such as investing in fire mitigation or reducing harvest quotas to offset losses from fire.

PROTECTED AREAS

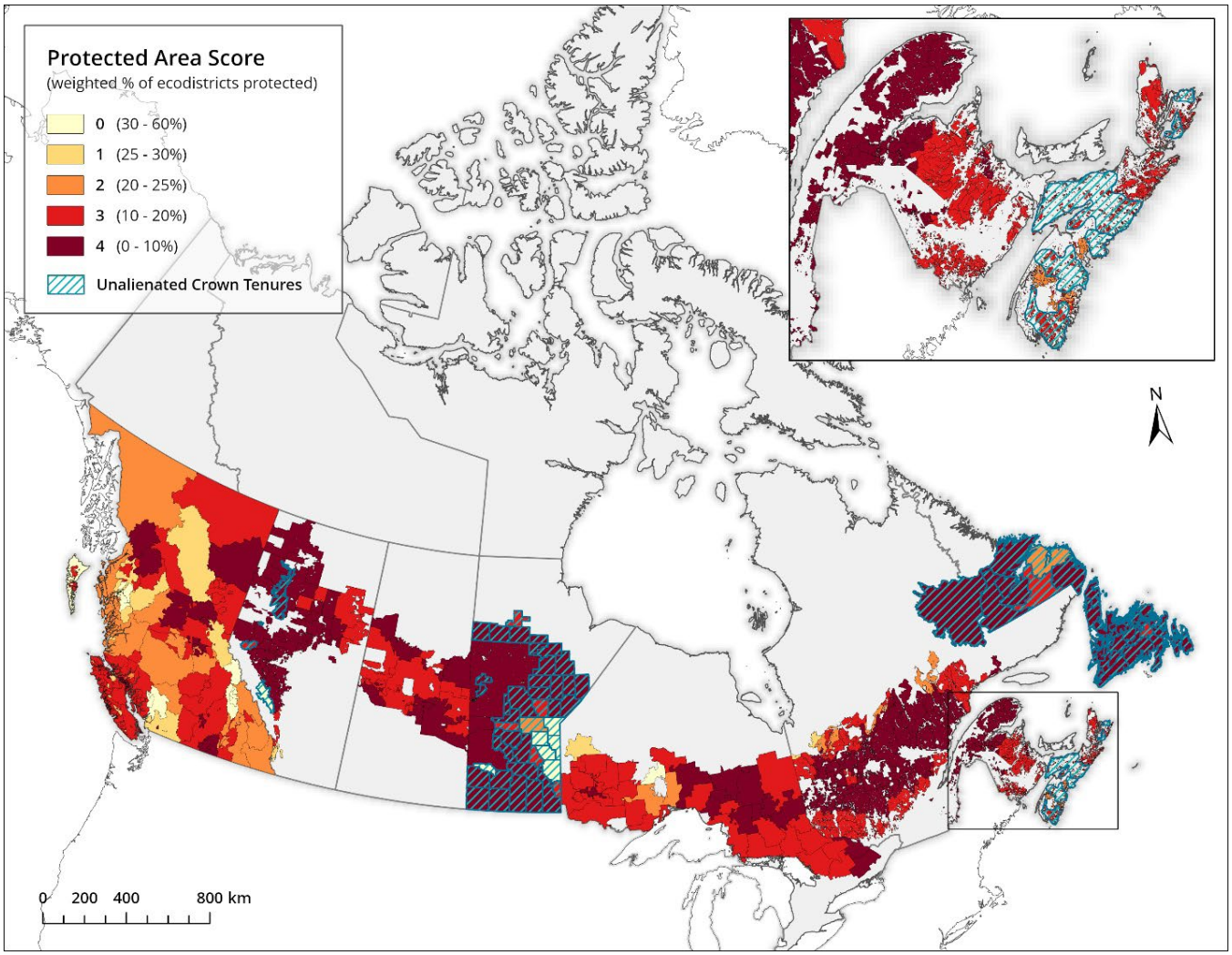

FIGURE 5. Protected area risk scores for forest tenures across Canada.

Terrestrial protected area coverage of ecological habitats overlapping with commercial forest tenures in Canada is low throughout the country, averaging 12 per cent across all forest tenures. These findings are consistent with Canada's national reporting, which shows that 13.7 per cent of terrestrial areas are currently conserved, including 12.8 per cent within protected areas (Environment and Climate Change Canada, 2024).

Correspondingly, tenures that are high risk due to low protected area coverage are distributed across the country (Figure 5). This finding reinforces the importance of responsible forest management and corporate sourcing practices to help protect high conservation value forests located within tenures in the absence of formal protections. As Canada works toward its goal of 30 per cent of land protected by 2030, companies sourcing from forests in Canada have an opportunity to engage their suppliers in advocating for expanded protected area coverage within forest tenures.

INTACT FOREST LANDSCAPES

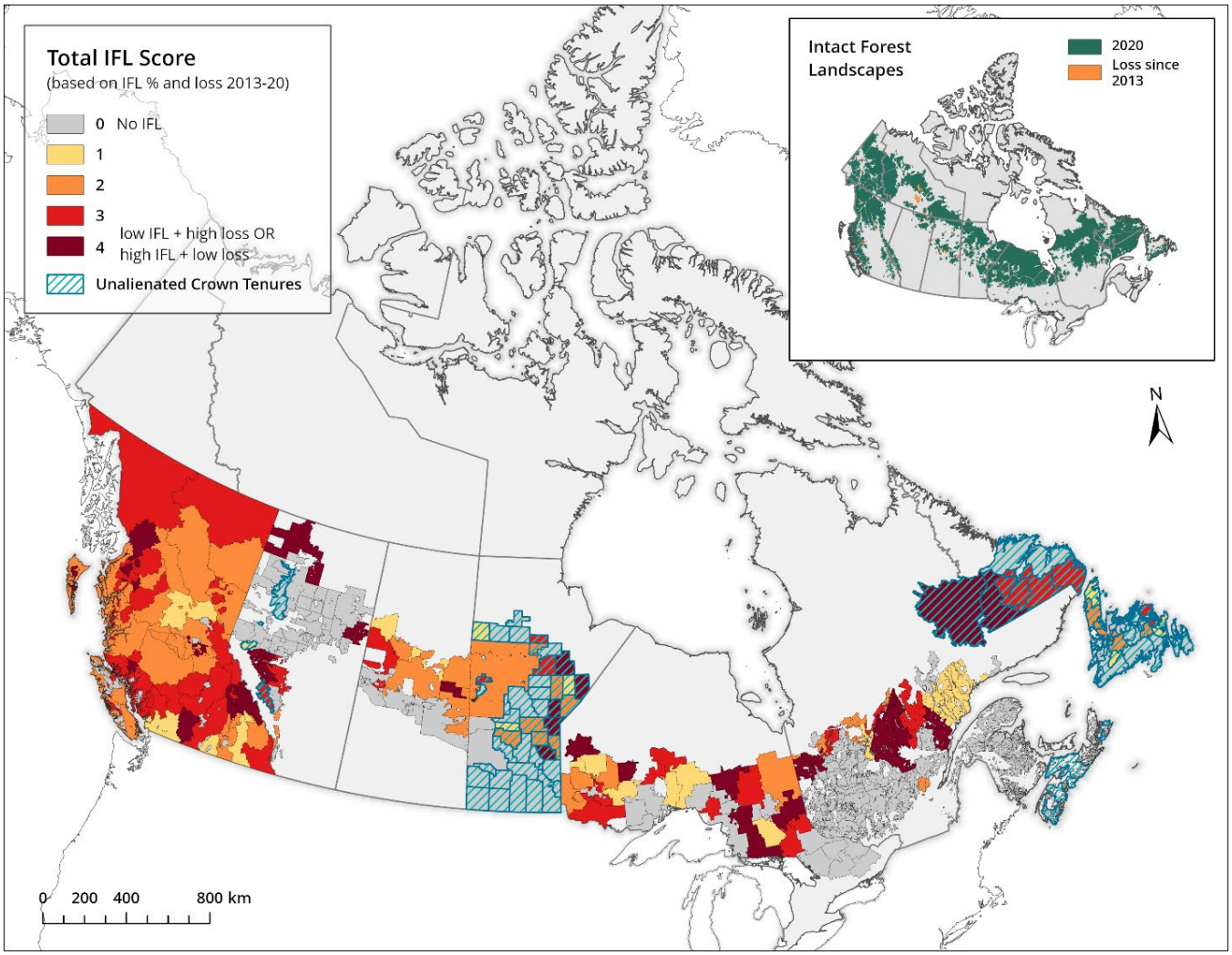

FIGURE 6. Intact forest landscapes (IFL) risk scores for forest tenures across Canada. Risk scores are based on relative IFL coverage and loss between 2013-2020.

Forest tenures with high IFL risk scores of three to four were distributed across the country (Figure 6). As previously discussed, low IFL risk in the Maritimes and southern tenures in Ontario and Quebec is largely due to the absence or shortage of IFLs in these regions as a result of a long history of commercial forestry.

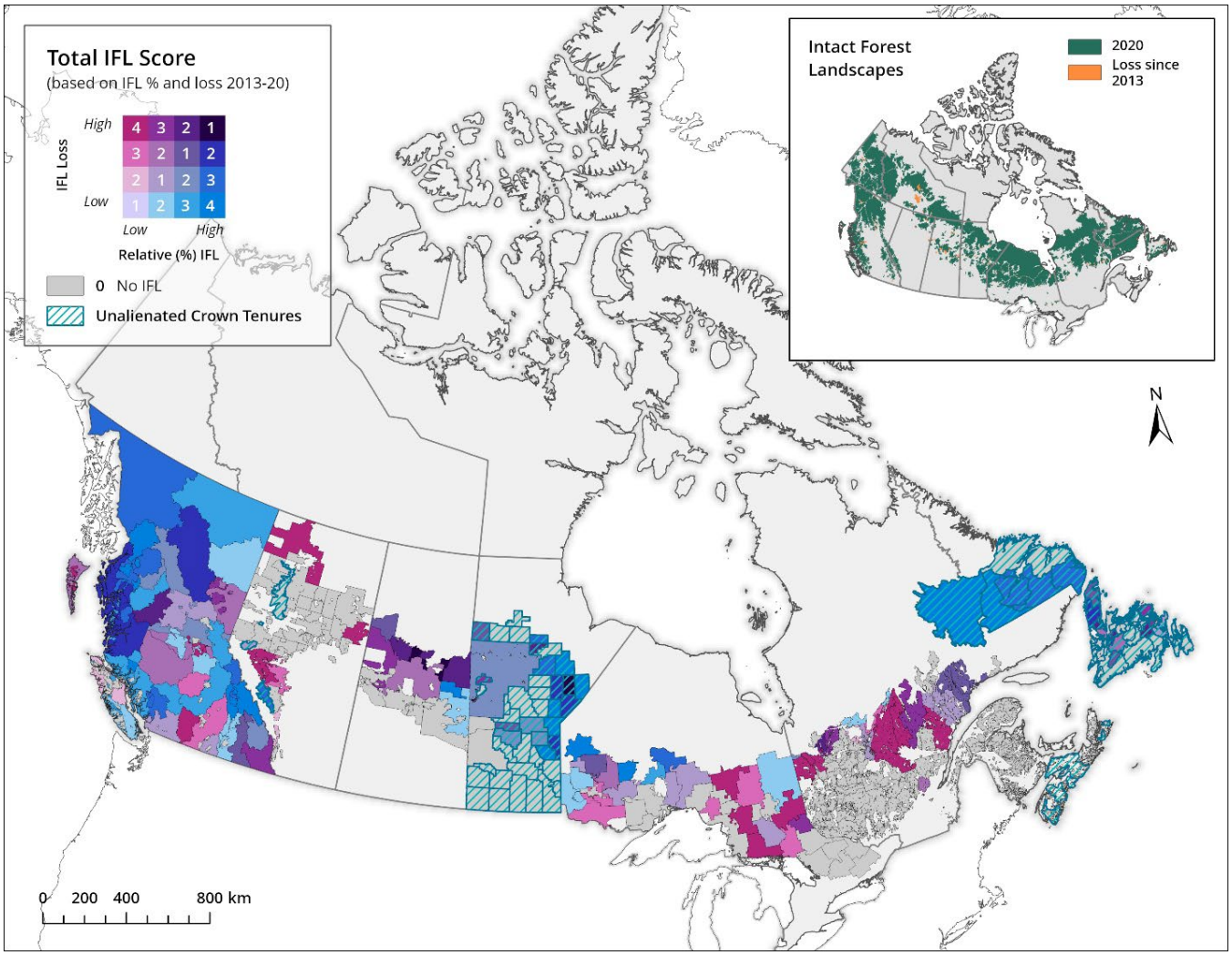

FIGURE 7. Intact forest landscape loss and relative percentage in forest tenures across Canada.

Digging into the two factors used to calculate IFL scores and the associated scoring matrix (Figure 7), high IFL loss was a driving factor for high risk scores in Alberta, northeastern Ontario and Quebec. The high percentage of IFL was a driving factor for the high risk scores in Manitoba, northwestern Ontario, Labrador, and B.C.

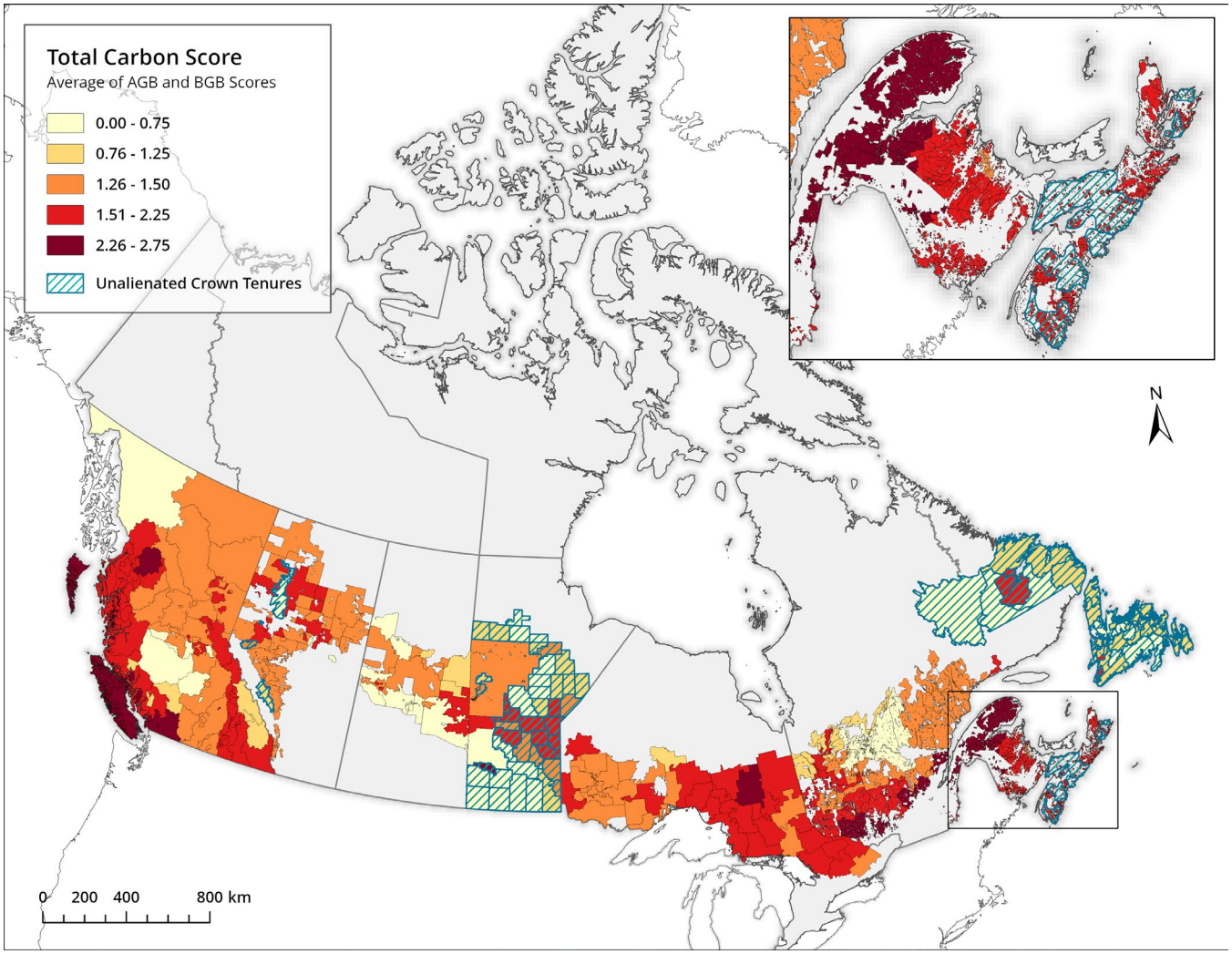

FIGURE 8. Carbon risk scores for forest tenures across Canada. Risk scores are based on aboveground and belowground carbon, weighted 75 per cent and 25 per cent respectively.

The highest risks to carbon stocks are concentrated in the coastal rainforests of B.C. (Figure 8). Due to the quantile approach to defining risk categories, southern Quebec and New Brunswick tenures fall into the highest risk category even though their actual scores are lower than those of the tenures on the coast of B.C. High risk tenures are also found in central Manitoba and eastern Ontario.

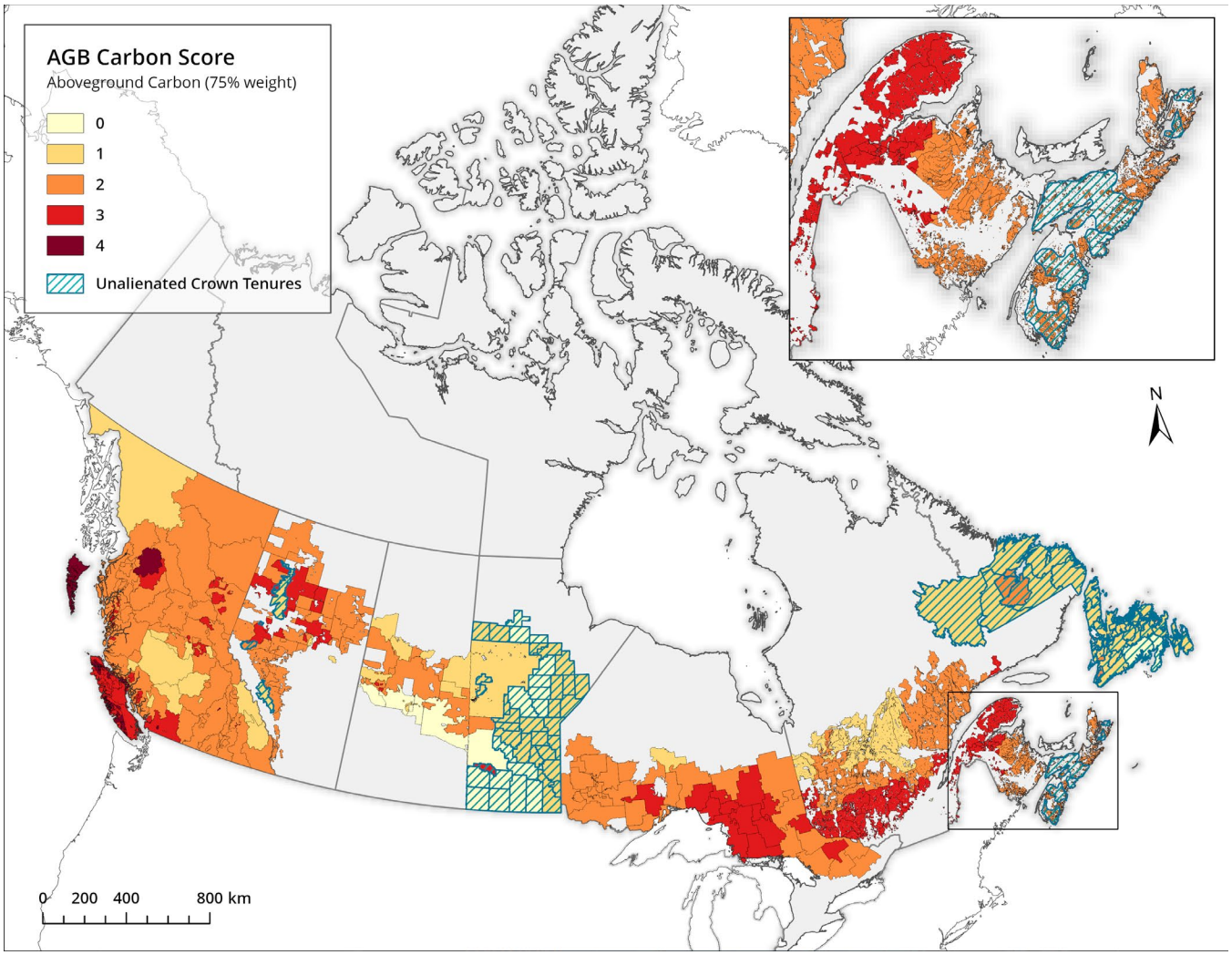

FIGURE 9. Aboveground carbon risk scores for forest tenures across Canada.

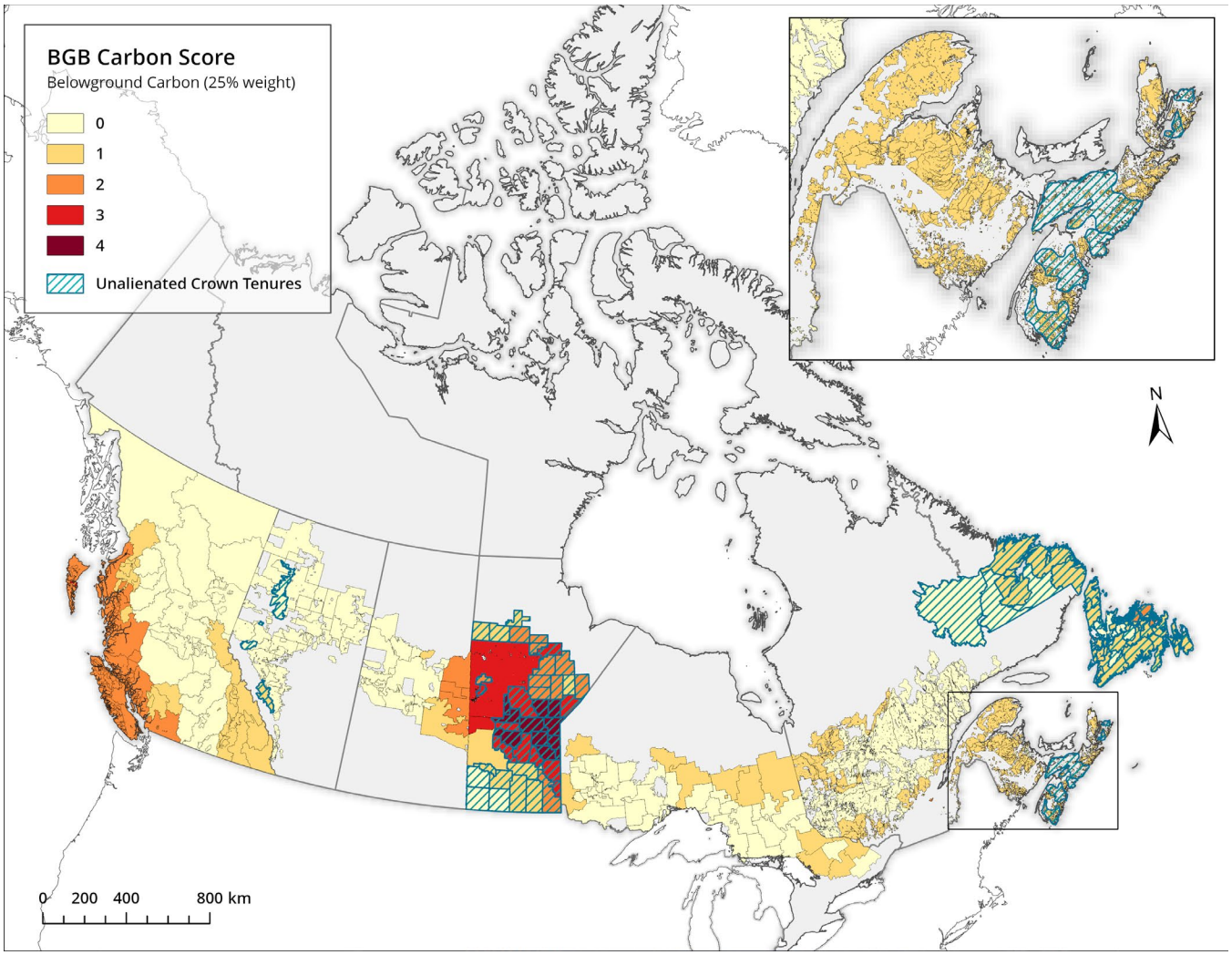

FIGURE 10. Belowground carbon risk scores for forest tenures across Canada.

Looking at aboveground and belowground carbon separately reveals differences in the distribution of their respective risk scores. Aboveground carbon risk scores are highest on the B.C. Coast (Figure 9), whereas belowground carbon scores are highest in central Manitoba (Figure 10). Low total carbon risk scores in Manitoba and Labrador can be attributed to low scores for aboveground carbon, which is weighted higher than belowground carbon in this analysis.

TERRESTRIAL SPECIES AT RISK

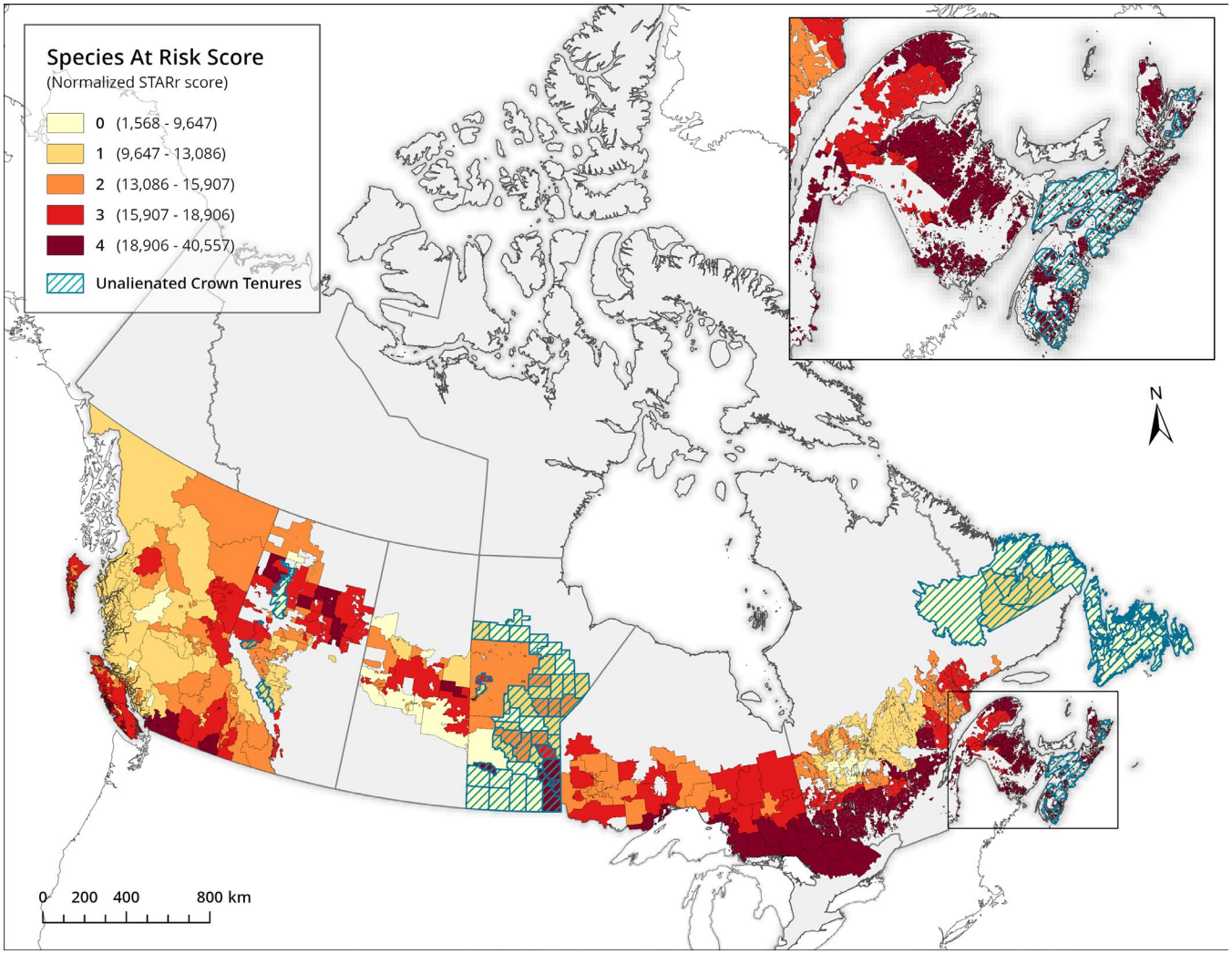

FIGURE 11. Species at risk scores for forest tenures across Canada.

No other species at risk in Canada has received as much attention and focus as the woodland caribou, recognized as an iconic umbrella species. In addition to being included in the broader species at risk category of this analysis, woodland caribou was also examined separately in the following section. The broader results presented in this section serve as a reminder that efforts to mitigate species at risk impacts in Canada's wood and fibre supply chains should extend beyond a single species.

STARr values and resulting species at risk impacts are higher in areas with greater species diversity, where species present have a strong preference for the land cover types found within the tenure or where species present have a higher risk of extinction.

Forest tenures in Newfoundland and Labrador had relatively low scores for forest-dwelling species at risk. Forest tenures with high scores were found across most provinces, with the highest concentrations in southern Ontario, southern Quebec, New Brunswick and Nova Scotia (Figure 11). This geographic pattern is likely driven by the generally higher number of species present in the southern parts of Canada. Notably, most of these tenures do not overlap with caribou habitat and may be considered low

risk by companies that are focused solely on woodland caribou when assessing species at risk impacts in their sourcing.

Certain tenures in B.C., Alberta, Saskatchewan and Manitoba also received high scores, highlighting the limitations of using geographical location as the sole predictor of overall species at risk impacts across forest tenures in Canada. Many of these tenures were rated high for woodland caribou risks with the exception of those in southern Manitoba.

These results suggest that companies sourcing from Canada will need to consider a broader range of species aside from just caribou as they work to address their impacts. At the same time, for companies sourcing from tenures where both overall species at risk and caribou risks are high, focusing on protecting caribou habitat can help offer broader conservation benefits given the caribou's role as an umbrella species (Labadie et al., 2024).

WOODLAND CARIBOU

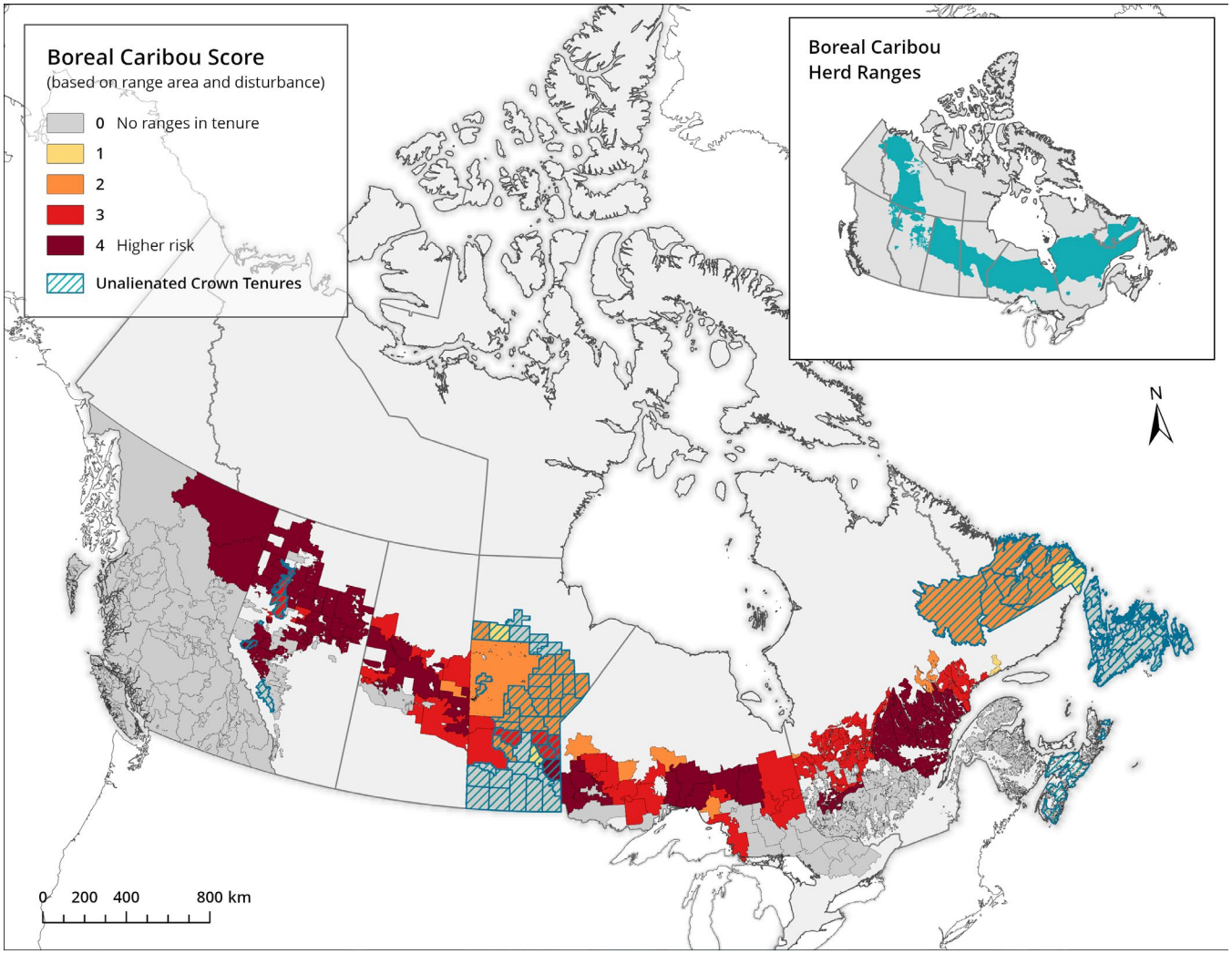

FIGURE 12. Boreal woodland caribou risk scores for forest tenures across Canada. Scores are assigned based on a risk matrix that considers range area in tenure (RAIT) and range area disturbance (RAD).

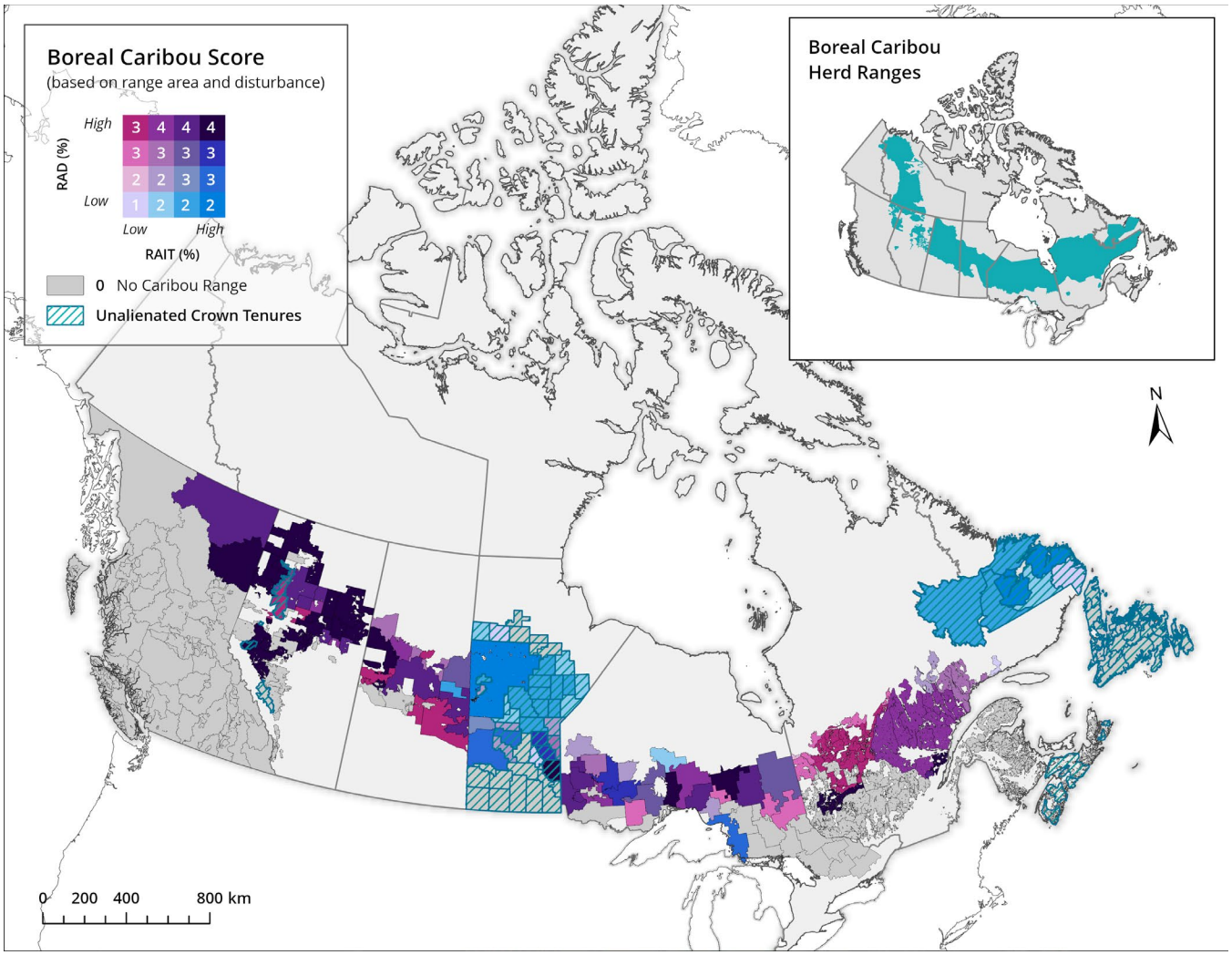

FIGURE 13. Boreal caribou range area disturbance (RAD) and range area in tenure (RAIT) scores for forest tenures across Canada.

Boreal caribou risk was high and widespread across all provinces outside the Maritimes (Figure 12). Among tenures overlapping with boreal caribou herd ranges, 37 per cent received the highest risk rating of four, while 71 per cent were rated three or higher. The tenures with highest boreal caribou risk scores were found in northeast B.C., Alberta, Saskatchewan, Ontario and Quebec. Tenures in Manitoba and Labrador exhibited lower risk scores as a result of lower levels of disturbance in those areas.

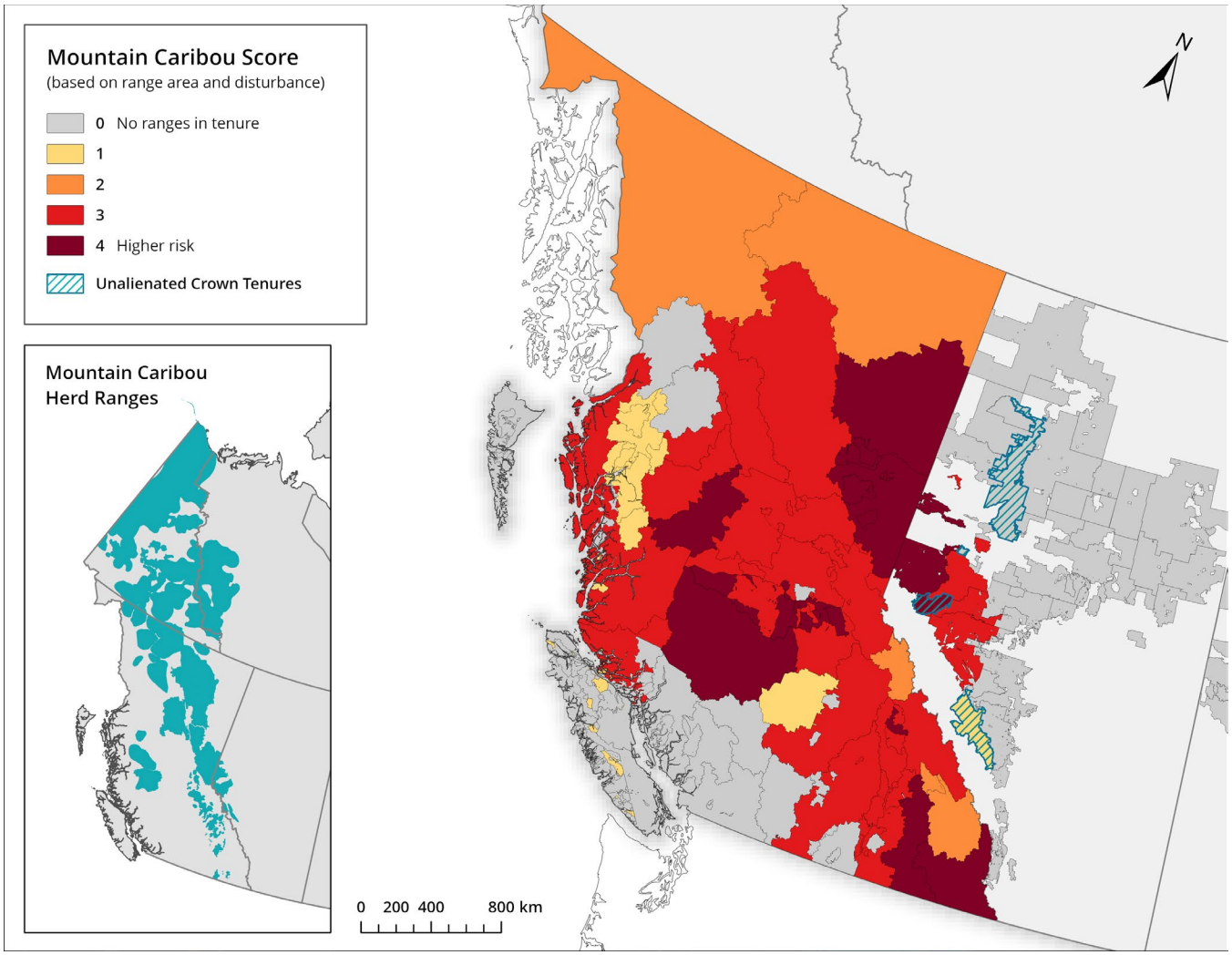

FIGURE 14. Map of mountain caribou risk scores for forest tenures in B.C. and Alberta. Scores are assigned based on a risk matrix that considers range area in tenure (RAIT) and range area disturbance (RAD).

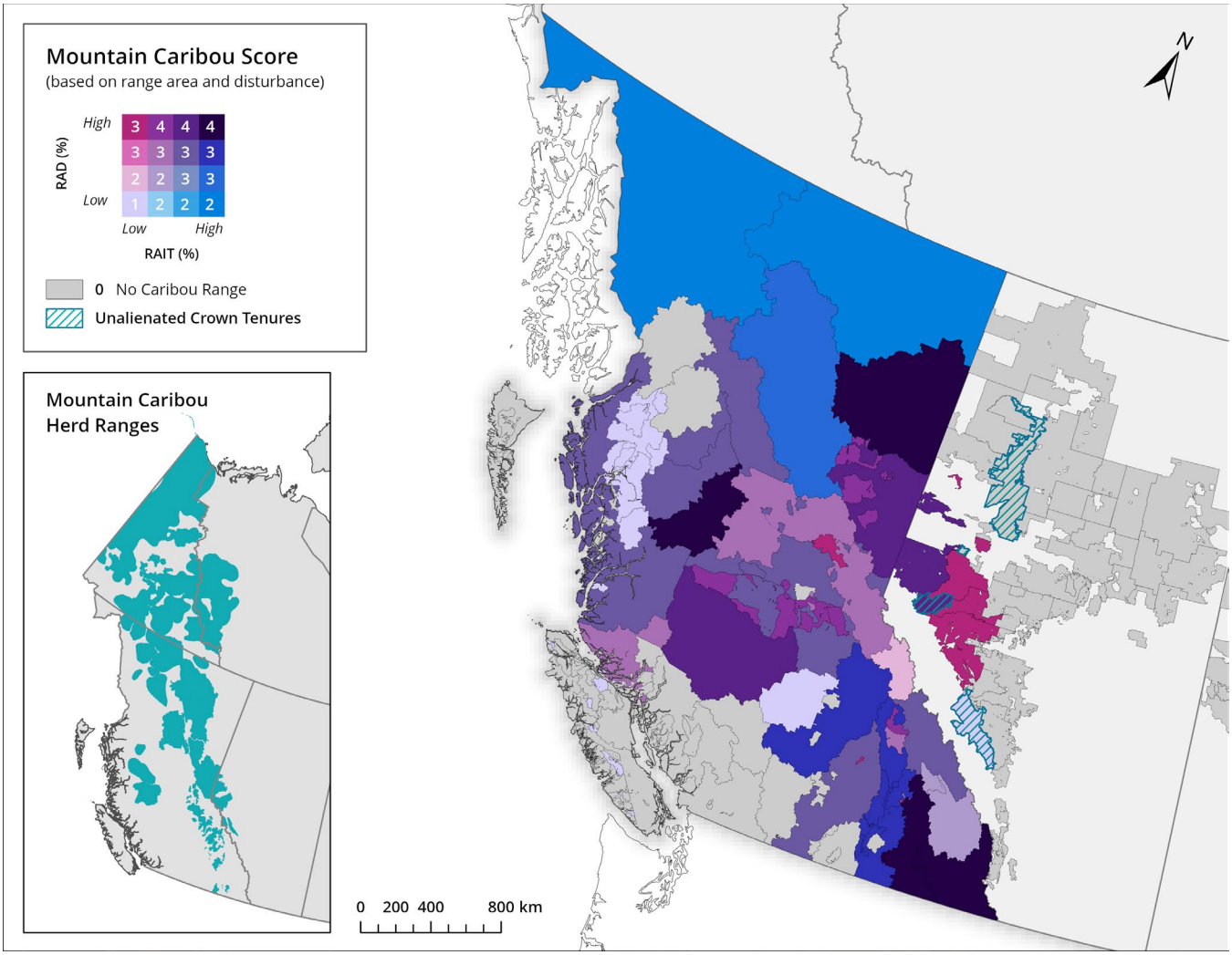

FIGURE 15. Mountain caribou range area disturbed and range area in tenure scores for forest tenures in western Canada.

Mountain caribou risk was limited to the mountainous regions of B.C. and western Alberta (Figures 14, 15). Among tenures that overlap with mountain caribou herd ranges, 29 per cent received the highest risk rating of four and 76 per cent were rated three or higher. Tenures in B.C. accounted for 87 per cent of the total overlap with mountain caribou herd ranges, with high-risk tenures distributed throughout the province. While there are no caribou on Vancouver Island, some sections of the Pacific TSA that overlap with caribou range on the mainland are located on the island and were therefore assigned a risk score.

TOTAL RISK SCORES – BROAD GEOGRAPHIC TRENDS

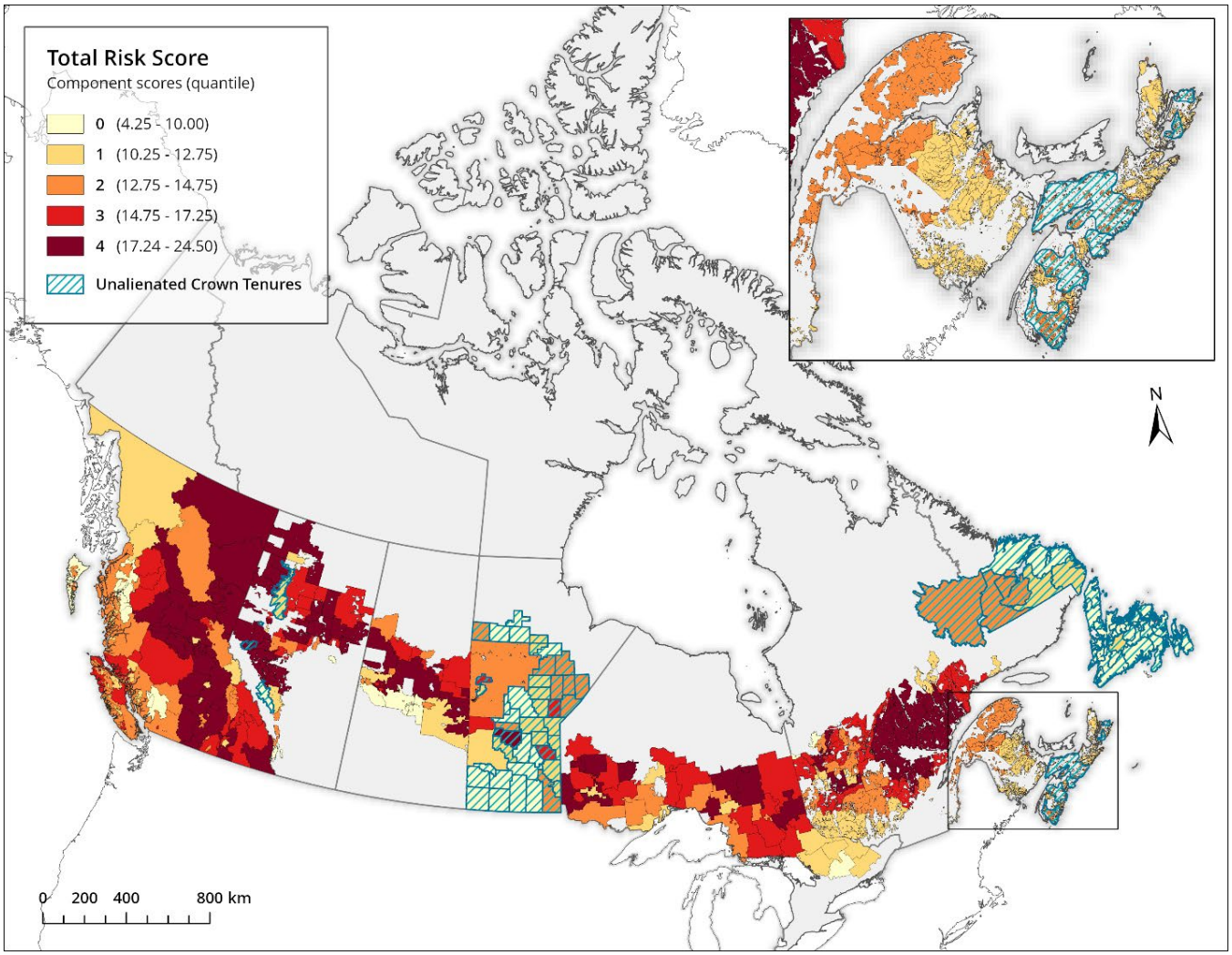

FIGURE 16. Map of total risk scores for forest tenures across Canada. Total risk scores are the sum of risk scores for eight value categories.

Total scores for tenures in New Brunswick, Newfoundland and Labrador and Nova Scotia were lower compared to other provinces (Figure 16). While tenures in the Maritime provinces exhibit high levels of forest loss from non-fire disturbances, low protected area coverage and high habitat importance for forest-dwelling species at risk, these variables were largely offset by low forest losses due to fire and the absence or shortage of IFLs and caribou habitat in the region. Companies that source from these three provinces should continue to watch out for potential harvesting impacts on species at risk and engage suppliers on actions they can take to mitigate these risks amidst the limited protections within tenures.

Total scores for tenures in B.C., Alberta, Saskatchewan, Manitoba, Ontario and Quebec ranged from low to high. High-risk tenures were found throughout each of these provinces with the exception of central Manitoba where only one very high risk tenure was identified. No significant patterns on geographic distribution emerged at the total risk score level. The implication for companies sourcing wood and fibre from Canada is that each province presents risks that need to be mitigated. The variable distribution of high-risk tenures within provinces also increases the likelihood that a single pulp or sawmill may be sourcing from at least one high-risk tenure within its total wood and fibre procurement footprint. While some individual risk factors may be mitigated through geographic sourcing strategies, comprehensive responsible sourcing policies and broad supplier engagement practices are needed to address systemic risk factors across forest tenures in Canada.

STUDY LIMITATIONS

As noted at the beginning of this report, this assessment focuses solely on ecological values and does not address potential risks related to the rights of Indigenous Peoples arising from forest management and commercial harvesting within First Nations and Métis traditional territories. Private sector users of this assessment are encouraged to take parallel steps to understand these risks within their Canadian wood and fibre supply chains. This includes ensuring that free, prior, and informed consent (FPIC) is in place with Indigenous Peoples within a company's sourcing footprint in Canada and beyond.

This study also has several ecological limitations that readers should consider when using WWF-Canada's forest tenure risk assessment tool to assess climate- and nature-related risks in their Canadian wood and fibre supply chains.

TOTAL RISK SCORES

Total risk scores should be interpreted with caution and not taken at face value. Simply summing individual value scores can lead to double-counting or inflated totals since some components are used in multiple risk categories. For example, forest loss data is used in both the forest loss scores and is linked to caribou habitat disturbance data, which is a key component of caribou risk scores. Similarly, boreal and mountain caribou are assessed as individual values but caribou is also included in the species at risk score.

Some risks related to forestry — such as the rights of Indigenous Peoples, water and aquatic species — were not included in this analysis. As such, the total risk scores do not represent a comprehensive assessment of overall risk. Users may find it more useful to identify the values most important to them, examine the individual scores for those values and conduct additional analysis as needed.

FOREST LOSS

The quantification of gross forest loss from 2010 to 2023 includes temporary and permanent losses and does not account for potential forest gains during that same time period. In Canada, it is legally required to replant public forests after harvest and boreal forests often regenerate naturally following fire. As such, the forest loss metrics presented in this analysis should not be interpreted as equivalent to permanent forest loss or deforestation. The term "forest loss" was used to stay consistent with the existing methodologies, definitions and datasets used in this analysis. However, these results are best interpreted as the degree of disturbance a tenure has experienced in recent years and the potential cumulative risks of future harvesting. Future iterations of this analysis could be improved with additional provincial-level data on post-harvest and post-fire renewal for a more accurate account of potential forest gains during the assessment period.

The analysis of forest loss due to non-fire disturbances does not break down specific causes. However, in the Canadian context, these typically include forestry operations (e.g., logging, road construction, etc.), forest insects and pathogen outbreaks, and other infrastructure and extractive industrial development (e.g., mining, oil and gas). Users should note that this category includes drivers that are outside the direct control of forest managers but can still impact forest management and harvest planning.

PROTECTED AREAS

This analysis did not delineate potential risk mitigation benefits afforded by different levels and types of protected areas. All terrestrial protected areas included in the Canadian Protected and Conserved Areas Database (Environment and Climate Change Canada, 2023a), from formal national or provincial protected areas to other effective area-based conservation measures (OECMs), were included in this analysis and treated equally despite the varying level and durability of potential harvesting restrictions. Additionally, some recently declared Indigenous Protected and Conserved Areas (IPCAs) may not have been captured in this analysis.

Tenures with low protected area coverage were assigned higher risk scores based on the assumption that these tenures could contain areas of high conservation value that would meet ecological thresholds for the establishment of protected areas. A suitability analysis to determine if lands within tenures are appropriate candidates for protection was outside the scope of this assessment. Therefore, it is possible that some tenures with low protected area coverage may not be priority candidates for increased protection relative to other areas.

While protected area coverage within the commercial forest tenures in Canada was generally low, forest management companies may be using other mechanisms such as voluntary harvesting deferrals to protect high conservation value forests within the tenures they manage. Private sector users of this tool are encouraged to engage their suppliers to understand the amount, location and durability of any harvesting deferrals in place, may they be regulatory or voluntary in nature. These measures are often described in forest management plans and may help mitigate risks to IFLs, caribou and other species at risk.

INTACT FOREST LANDSCAPES

By excluding tenures with no IFL areas in 2020, this analysis does not capture all IFL losses between 2013 and 2020. As a result, any IFL areas that were lost during that seven-year period are not reflected in this study. While this omission does not impact forward-looking risk scores for remaining IFL areas, it may lead to the underreporting of actual total IFL losses within a tenure. This limitation affects one tenure in this analysis — the Alberta-Pacific Forest Industries Inc. (A16) — which had 22.7 square kilometres of IFL in 2013 but none in 2020.

The current bivariate IFL loss risk matrix assigns the lowest risk scores to both tenures with low IFL area and loss (low/low) and tenures with high IFL area and loss (high/high). The low/low scenario assumes that current low rates of loss will continue in the future, which may not be true, especially given the low level of protected area coverage across forest tenures in Canada. The high/high scenario assumes that a large IFL area can sustain losses without being reduced or fragmented beyond minimum IFL thresholds of 500 square kilometres (50,000 hectares) and a minimal width of 10 kilometres. While this may be a reasonable assumption, assigning low risk based solely on maintaining minimum IFL areas raises important conservation concerns given their ecological significance and increasing global rarity.

CARBON

This analysis provides an initial, high-level assessment of potential harvesting risks on forest carbon stocks, focusing specifically on the removal of aboveground forest biomass (i.e., trees) through harvesting. It does not account for carbon sequestration from forest regrowth post-harvest nor

does it include potential carbon storage in resulting forest products. Since the movement of stored carbon into resulting forest products was not tracked, this analysis may overestimate the carbon impacts of harvesting for long-lived wood products such as softwood lumber while underestimating the carbon impacts of harvesting for short-lived pulp and paper products, which store little to no carbon. Additionally, this current assessment does not include carbon stored in dead plant material or belowground root biomass, both of which can be impacted by commercial forestry.

WOODLAND CARIBOU

This analysis of potential harvesting risks for caribou was conducted at the tenure level, whereas most assessments of caribou range disturbance are conducted at the range level. As a result, caribou range disturbances outside of a tenure are not included in the scoring even though overall range disturbance influences the caribou herd's ability to survive and be self-sustaining.

While the conservation status of different caribou populations was accounted for in the broader species at risk scores, it was not included in the analysis specific to caribou. As a result, tenures that overlap with threatened or endangered populations may have caribou-specific scores that underestimate conservation risks relative to populations of special concern.

In cases where multiple caribou ranges overlap with a single tenure, differences in disturbance levels between those ranges are not captured. For example, if one range is highly disturbed and another has low disturbance, the tenure's overall risk score will not reflect these nuances. Similarly, additional nuances related to disturbances at the range level are not captured. For example, tenures that overlap slightly with a highly disturbed portion of caribou range may receive a high caribou RAD score even though the tenure-holder's responsibility for maintaining caribou habitat within the range is limited. Conversely, tenures that overlap with relatively undisturbed portions of a highly disturbed range may receive a low RAD score.

This tool is intended as a high-level analysis. Users are encouraged to conduct further investigation into the caribou risk scores for each tenure and the broader complexities associated with caribou.

SPECIES AT RISK

The method used to calculate the STARr grid used the proportion of preferred habitat for each relevant species within its range in each cell. Because the method focuses on the proportion of preferred habitat, it does not account for habitat connectivity. As a result, some cells that contain little to no preferred habitat but are vital in connecting important habitat patches may have been overlooked in this analysis.

FOREST CERTIFICATION

Due to methodological limitations in measuring and comparing the relative risk mitigation benefits of forest management certifications such as Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI) and Canadian Standards Authority (CSA), the certification status of individual forest tenures was excluded from this analysis.

WWF-Canada recommends the FSC certification as a risk mitigation tool for sourcing wood and fibre in Canada. The FSC Canada National Forest Management standard provides credible and robust criteria

for several key conservation values examined in this report including woodland caribou, species at risk and intact forest landscapes.

Although forest certification status was not accounted for in this analysis, its absence may have limited impact since it is relatively uncommon for moderate to high risk forest tenures in Canada to be FSC certified. As of July 4, 2025, the majority of FSC certified forests that include private land and Crown land were in Ontario and Quebec. Alberta, Saskatchewan and New Brunswick each have one certificate, B.C. has four certificates and Nova Scotia has three (FSC Canada, 2025).

The unalienated Crown land tenures included in this analysis do not have forest certifications and influencing governments to pursue FSC certification presents unique challenges. However, unalienated Crown land in Newfoundland and Labrador has been certified to the ISO 14001 environmental management system since December 2015. The province's 2014-2024 forest management strategy commits to exploring the feasibility of certification for these lands (Government of Newfoundland and Labrador, 2014).

WATER

This analysis focuses solely on terrestrial conservation values and species. Forest management, commercial harvesting and forest product manufacturing can significantly impact water resources and aquatic species, many of which are at risk. Forest harvesting can also negatively impact mountainous regions by increasing the risk of landslides and floods while impacting water quality. Future versions of this tool will aim to address this gap. Private sector users are encouraged to engage their suppliers in managing potential water-related risks in their supply chain (Paquette et al., 2020).

CONCLUSION

A large share of the remaining intact forests in the world are found in Canada. As such, responsible forest sourcing can play a critical role in addressing the dual crises of climate change and biodiversity loss. The Canada Forest Tenure Risk Analysis is a tool designed to support responsible forest sourcing by identifying and quantifying risks based on eight forest values at the tenure level.

The analysis indicates that most tenures across the country are at high risk for one or more forest values. The distribution of highest risk tenures varies depending on the value being assessed, highlighting the importance of assessing a broad range of risks when making sourcing decisions. For example, a forest sourcing policy that solely focuses on caribou and ignores other species at risk may result in sourcing that puts species at risk of extirpation in southern Ontario, southern Quebec, New Brunswick and Nova Scotia.

Additionally, the results highlight the need for value-specific mitigation measures in forest management. Few forest tenures across the country are low risk for all forest values, underscoring the need to reduce the impact of harvesting in the most vulnerable tenures. In some cases, mitigation measures may already be in place, either through legislative requirements that are most often articulated in forest management plans or through robust third-party sustainability certification standards. In other cases, additional mitigation measures may be required.

This analysis has several limitations. It does not account for values related to the rights of Indigenous Peoples, watershed health and aquatic species. However, this tool is intended to be a starting point to guide further investigation into the values shaping responsible sourcing decisions and to inform discussions on how to mitigate sourcing risks.

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APPENDIX I: SPECIES INCLUDED IN THE TERRESTRIAL SPECIES AT RISK ANALYSIS

TABLE A1. List of all species included in the terrestrial species at risk analysis.

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
19	Acadian Flycatcher	*Empidonax virescens*		0	1	0	1	0	1	0	0	1	Endangered	3
963	Allegheny Mountain Dusky Salamander	*Desmognathus ochrophaeus*	Carolinian population	0	1	0	1	0	0	1	0	1	Endangered	3
1004	Allegheny Mountain Dusky Salamander	*Desmognathus ochrophaeus*	Great Lakes / St. Lawrence population	0	1	0	1	0	0	1	0	1	Threatened	2
621	American Badger jacksoni subspecies	*Taxidea taxus jacksoni*		0	1	1	1	0	1	1	0	0	Endangered	3
1229	American Badger jeffersonii subspecies	*Taxidea taxus jeffersonii*	Western population	0	1	1	1	0	1	1	0	0	Endangered	3
1230	American Badger jeffersonii subspecies	*Taxidea taxus jeffersonii*	Eastern population	0	1	1	0	0	1	1	0	0	Endangered	3
205	American Chestnut	*Castanea dentata*		0	1	0	0	0	0	0	0	0	Endangered	3
240	American Columbo	*Frasera caroliniensis*		0	1	1	0	0	0	1	0	0	Endangered	3
217	American Ginseng	*Panax quinquefolius*		0	1	0	0	0	0	0	0	0	Endangered	3
134	American Marten	*Martes americana atrata*	Newfoundland population	0	1	0	0	0	0	0	0	0	Threatened	2
43	Ancient Murrelet	*Synthliboramphus antiquus*		0	1	0	0	0	0	0	1	1	Special Concern	1
1243	Audouin's Night-stalking Tiger Beetle	*Omus audouini*		0	1	1	0	0	0	1	1	1	Threatened	2
1013	Band tailed Pigeon	*Patagioenas fasciata*		1	1	0	0	1	1	0	0	1	Special Concern	1
44	Barn Owl	*Tyto alba*		1	1	1	1	0	0	1	0	0	Threatened	2
1147	Barn Swallow	*Hirundo rustica*		1	1	1	1	1	0	1	1	1	Threatened	2
644	Barrow's Goldeneye	*Bucephala islandica*	Eastern population	0	1	0	0	0	0	0	0	1	Special Concern	1
250	Bashful Bulrush	*Trichophorum planifolium*		0	1	0	0	0	0	0	0	0	Endangered	3
1005	Beach Pinweed	*Lechea maritima*		0	1	0	0	0	0	1	1	1	Special Concern	1
674	Bear's-foot Sanicle	*Sanicula arctopoides*		0	1	1	1	0	0	1	1	1	Endangered	3
584	Bicknell's Thrush	*Catharus bicknelli*		0	1	0	0	0	1	0	0	1	Threatened	2
276	Blanding's Turtle	*Emydoidea blandingii*	Nova Scotia population	1	1	0	1	0	0	0	0	1	Endangered	3
846	Blanding's Turtle	*Emydoidea blandingii*	Great Lakes / St. Lawrence population	0	1	0	1	0	0	0	0	1	Threatened	2

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
210	Blue Ash	*Fraxinus quadrangulata*		0	1	0	0	0	0	0	0	1	Threatened	2
1123	Blue Felt Lichen	*Degelia plumbea*		0	1	0	1	0	0	1	0	1	Special Concern	1
929	Blue-grey Taildropper	*Prophysaon coeruleum*		0	1	0	0	0	0	0	0	1	Endangered	3
212	Blunt-lobed Woodsia	*Woodsia obtusa*		0	1	0	0	0	0	0	0	0	Threatened	2
702	Boreal Felt Lichen	*Erioderma pedicellatum*	Atlantic population	0	1	0	1	0	0	1	0	1	Endangered	3
703	Boreal Felt Lichen	*Erioderma pedicellatum*	Boreal population	0	1	0	1	0	0	0	0	1	Special Concern	1
1269	Broad-banded Forestsnail	*Allogona profunda*		0	1	0	0	0	0	0	0	0	Endangered	3
793	Butternut	*Juglans cinerea*		0	1	0	0	0	0	0	0	1	Endangered	3
1008	Canada Warbler	*Cardellina canadensis*		0	1	0	1	0	1	0	0	1	Threatened	2
335	Caribou	*Rangifer tarandus*	Newfoundland population	0	1	0	1	0	1	1	1	0	Special Concern	1
1266	Caribou	*Rangifer tarandus*	Central Mountain population	0	1	0	0	0	0	0	0	0	Endangered	3
46	Cerulean Warbler	*Setophaga cerulea*		0	1	0	1	0	0	0	0	1	Endangered	3
896	Cherry Birch	*Betula lenta*		0	1	0	0	0	0	0	0	0	Endangered	3
951	Chimney Swift	*Chaetura pelagica*		0	1	0	0	1	0	0	0	1	Threatened	2
283	Coastal Giant Salamander	*Dicamptodon tenebrosus*		0	1	0	1	0	0	0	0	1	Threatened	2
631	Coastal Tailed Frog	*Ascaphus truei*		0	1	0	0	0	0	1	0	1	Special Concern	1
527	Coastal Wood Fern	*Dryopteris arguta*		0	1	0	0	0	0	0	0	1	Special Concern	1
1031	Cobblestone Tiger Beetle	*Cicindela marginipennis*		0	1	0	0	0	0	0	0	1	Endangered	3
541	Coeur d'Alene Salamander	*Plethodon idahoensis*		0	1	0	0	0	1	0	1	1	Special Concern	1
1169	Collared Pika	*Ochotona collaris*		0	1	1	0	0	0	1	1	0	Special Concern	1
986	Common Nighthawk	*Chordeiles minor*		1	1	1	1	1	0	1	1	1	Threatened	2
571	Crooked-stem Aster	*Symphyotrichum prenanthoides*		0	1	0	0	0	0	0	0	1	Special Concern	1
1088	Crumpled Tarpaper Lichen	*Collema coniophilum*		0	1	0	0	0	0	1	0	0	Threatened	2
125	Cryptic Paw Lichen	*Nephroma occultum*		0	1	0	0	0	0	0	0	1	Special Concern	1
176	Cucumber Tree	*Magnolia acuminata*		0	1	0	1	0	0	0	0	0	Endangered	3
215	Deerberry	*Vaccinium stamineum*		0	1	0	0	0	0	0	0	0	Threatened	2
177	Deltoid Balsamroot	*Balsamorhiza deltoidea*		0	1	0	0	0	0	1	0	1	Endangered	3
681	Desert Nightsnake	*Hypsiglena chlorophaea*		0	1	1	0	0	1	1	1	1	Endangered	3

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
765	Dromedary Jumping-slug	*Hemphillia dromedarius*		0	1	0	0	0	0	0	0	1	Threatened	2
288	Drooping Trillium	*Trillium flexipes*		0	1	0	0	0	0	0	0	1	Endangered	3
648	Dun Skipper vestris subspecies	*Euphyes vestris vestris*		0	1	1	1	0	0	1	0	1	Threatened	2
826	Dwarf Lake Iris	*Iris lacustris*		0	1	0	0	0	0	0	0	1	Special Concern	1
773	Dwarf Woolly-heads	*Psilocarphus brevissimus*	Southern Mountain population	0	1	0	1	0	0	0	0	1	Endangered	3
1170	Eastern Baccharis	*Baccharis halimifolia*		0	1	0	1	0	1	0	0	1	Threatened	2
987	Eastern Flowering Dogwood	*Cornus florida*		0	1	0	0	0	0	0	0	0	Endangered	3
1022	Eastern Foxsnake	*Pantherophis gloydi*	Great Lakes / St. Lawrence population	0	1	1	1	0	1	1	1	1	Endangered	3
301	Eastern Hog-nosed Snake	*Heterodon platirhinos*		0	1	0	1	0	0	0	0	0	Threatened	2
1144	Eastern Meadowlark	*Sturnella magna*		1	1	1	0	0	1	1	0	0	Threatened	2
714	Eastern Milksnake	*Lampropeltis triangulum*		1	1	1	0	1	1	1	0	0	Special Concern	1
153	Eastern Mole	*Scalopus aquaticus*		0	1	0	1	0	0	0	0	0	Special Concern	1
906	Eastern persius Duskywing	*Erynnis persius persius*		0	1	1	0	0	1	1	1	0	Endangered	3
709	Eastern Ribbonsnake	*Thamnophis sauritus*	Great Lakes population	1	1	1	1	0	1	1	1	1	Special Concern	1
728	Eastern Ribbonsnake	*Thamnophis sauritus*	Atlantic population	1	1	1	1	0	0	1	1	1	Threatened	2
1047	Eastern Whip-poor-will	*Antrostomus vociferus*		1	1	1	1	0	1	0	1	0	Threatened	2
608	Eastern Wolf	*Canis sp. cf. lycaon*		0	1	0	0	0	0	0	0	0	Threatened	2
1198	Eastern Wood-pewee	*Contopus virens*		0	1	0	1	0	0	0	0	1	Special Concern	1
280	Eastern Yellow-bellied Racer	*Coluber constrictor flaviventris*		0	1	1	0	0	0	1	1	0	Threatened	2
154	Ermine haidarum subspecies	*Mustela erminea haidarum*		0	1	0	0	0	0	1	0	1	Threatened	2
2	False Hop Sedge	*Carex lupuliformis*		0	1	0	1	0	1	1	0	0	Endangered	3
249	False Rue-anemone	*Enemion biternatum*		0	1	0	1	0	0	0	0	1	Threatened	2
973	Five-lined Skink	*Plestiodon fasciatus*	Great Lakes / St. Lawrence population	0	1	0	0	0	1	0	1	1	Special Concern	1
974	Five-lined Skink	*Plestiodon fasciatus*	Carolinian population	0	1	0	1	0	0	0	1	1	Endangered	3
48	Flammulated Owl	*Otus flammeolus*		0	1	1	0	0	1	1	0	0	Special Concern	1
812	Flooded Jellyskin	*Leptogium rivulare*		0	1	0	1	0	0	0	0	0	Threatened	2
1014	Foothill Sedge	*Carex tumulicola*		0	1	1	0	0	1	1	0	1	Endangered	3
281	Fowler's Toad	*Anaxyrus fowleri*		0	1	0	1	0	1	0	1	1	Endangered	3

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
739	Frosted Glass-whiskers	*Sclerophora peronella*	Nova Scotia population	0	1	1	0	0	1	0	0	1	Special Concern	1
179	Furbish's Lousewort	*Pedicularis furbishiae*		0	1	0	0	0	1	0	0	1	Endangered	3
180	Gattinger's Agalinis	*Agalinis gattingeri*		0	1	1	0	0	0	1	0	0	Endangered	3
1176	Georgia Basin Bog Spider	*Gnaphosa snohomish*		0	1	0	1	0	1	0	0	0	Special Concern	1
221	Goldenseal	*Hydrastis canadensis*		0	1	0	0	0	0	0	0	0	Threatened	2
942	Golden-winged Warbler	*Vermivora chrysoptera*		0	1	1	1	0	1	1	0	0	Threatened	2
157	Gray Fox	*Urocyon cinereoargenteus*		0	1	0	1	0	0	0	0	0	Threatened	2
983	Gray Ratsnake	*Pantherophis spiloides*	Great Lakes / St. Lawrence population	1	1	0	1	0	0	0	1	0	Threatened	2
984	Gray Ratsnake	*Pantherophis spiloides*	Carolinian population	0	1	0	0	0	0	0	0	0	Endangered	3
722	Great Basin Gophersnake	*Pituophis catenifer deserticola*		1	1	1	1	0	1	1	1	1	Threatened	2
539	Great Basin Spadefoot	*Spea intermontana*		0	1	1	1	0	0	1	0	1	Threatened	2
292	Great Blue Heron fannini subspecies	*Ardea herodias fannini*		0	1	1	1	0	0	1	0	1	Special Concern	1
1271	Griscom's Arnica	*Arnica griscomii ssp. griscomii*		0	1	0	0	0	1	0	1	1	Threatened	2
1195	Grizzly Bear	*Ursus arctos*	Western population	0	1	1	0	0	0	1	0	1	Special Concern	1
1232	Gypsy Cuckoo Bumble Bee	*Bombus bohemicus*		1	1	0	0	1	0	0	0	0	Endangered	3
1234	Haida Gwaii Slug	*Staala gwaii*		0	1	1	0	0	1	1	0	0	Special Concern	1
689	Haller's Apple Moss	*Bartramia halleriana*		0	1	0	0	0	0	0	0	1	Threatened	2
22	Harlequin Duck	*Histrionicus histrionicus*	Eastern population	0	1	0	1	0	0	0	1	1	Special Concern	1
647	Hart's-tongue Fern	*Asplenium scolopendrium*		0	1	0	0	0	0	0	1	0	Special Concern	1
181	Heart-leaved Plantain	*Plantago cordata*		0	1	0	0	0	0	0	1	1	Endangered	3
807	Hill's Thistle	*Cirsium hillii*		1	1	1	0	0	1	1	1	1	Threatened	2
1145	Hine's Emerald	*Somatochlora hineana*		0	1	0	1	0	0	0	0	0	Endangered	3
182	Hoary Mountain-mint	*Pycnanthemum incanum*		0	1	1	0	0	0	1	0	0	Endangered	3
1046	Horned Grebe	*Podiceps auritus*	Magdalen Islands population	0	1	1	1	0	0	1	0	1	Endangered	3
778	Howell's Triteleia	*Triteleia howellii*		0	1	0	0	1	1	0	1	0	Endangered	3
1240	Island Tiger Moth	*Grammia complicata*		0	1	1	0	0	0	1	1	1	Threatened	2
642	Jefferson Salamander	*Ambystoma jeffersonianum*		0	1	0	1	0	0	0	0	1	Endangered	3

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
575	Juniper Sedge	*Carex juniperorum*		0	1	0	0	0	0	0	0	0	Endangered	3
25	Kirtland's Warbler	*Setophaga kirtlandii*		0	1	0	0	0	0	0	0	0	Endangered	3
183	Large Whorled Pogonia	*Isotria verticillata*		0	1	0	0	0	0	0	0	0	Endangered	3
589	Lewis's Woodpecker	*Melanerpes lewis*		0	1	1	0	0	1	1	0	1	Threatened	2
1275	Limber Pine	*Pinus flexilis*		0	1	1	0	0	1	1	0	0	Endangered	3
1010	Lindley's False Silverpuffs	*Uropappus lindleyi*		0	1	0	0	0	0	0	0	0	Endangered	3
1265	Loggerhead Shrike Eastern subspecies	*Lanius ludovicianus ssp.*		1	1	1	0	0	1	1	0	0	Endangered	3
26	Loggerhead Shrike migrans subspecies	*Lanius ludovicianus migrans*		1	1	1	0	0	1	1	1	0	Endangered	3
53	Louisiana Waterthrush	*Parkesia motacilla*		0	1	0	1	0	0	0	0	0	Special Concern	1
675	Lyall's Mariposa Lily	*Calochortus lyallii*		0	1	1	0	0	1	1	0	0	Special Concern	1
259	Macoun's Meadowfoam	*Limnanthes macounii*		0	1	0	1	0	0	0	0	0	Threatened	2
1180	Magnum Mantleslug	*Magnipelta mycophaga*		0	1	0	0	0	0	1	0	1	Special Concern	1
39	Marbled Murrelet	*Brachyramphus marmoratus*		0	1	0	0	0	0	0	0	1	Threatened	2
277	Massasauga	*Sistrurus catenatus*		0	1	1	1	0	1	1	0	0	Threatened	2
1220	Massasauga	*Sistrurus catenatus*	Great Lakes population	0	1	1	1	0	1	1	1	0	Threatened	2
1221	Massasauga	*Sistrurus catenatus*	Carolinian population	0	1	1	1	0	1	1	1	0	Endangered	3
752	Mormon Metalmark	*Apodemia mormo*	Southern Mountain population	0	1	1	0	0	1	1	1	0	Endangered	3
753	Mormon Metalmark	*Apodemia mormo*	Prairie population	0	1	1	0	0	1	1	1	0	Special Concern	1
1212	Mottled Duskywing	*Erynnis martialis*	Great Lakes Plains population	0	1	1	0	0	1	1	0	1	Endangered	3
1213	Mottled Duskywing	*Erynnis martialis*	Boreal population	0	1	1	0	0	1	1	0	1	Endangered	3
333	Mountain Beaver	*Aplodontia rufa*		0	1	0	1	0	0	1	0	1	Special Concern	1
260	New Jersey Rush	*Juncus caesariensis*		0	1	0	1	0	0	0	0	0	Special Concern	1
224	Nodding Pogonia	*Triphora trianthophoros*		0	1	0	0	0	0	0	0	0	Endangered	3
1063	Northern Barrens Tiger Beetle	*Cicindela patruela*		0	1	0	0	0	1	0	1	0	Endangered	3
1189	Northern Dusky Salamander	*Desmognathus fuscus*	Carolinian population	0	1	0	1	0	0	0	1	1	Endangered	3
56	Northern Goshawk laingi subspecies	*Accipiter gentilis laingi*		0	1	0	0	0	0	0	0	1	Threatened	2
566	Northern Red-legged Frog	*Rana aurora*		0	1	0	1	0	0	0	0	1	Special Concern	1

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
759	Northern Rubber Boa	*Charina bottae*		0	1	1	1	1	0	1	1	1	Special Concern	1
883	Northern Saw-whet Owl brooksi subspecies	*Aegolius acadicus brooksi*		0	1	0	0	0	0	0	0	1	Threatened	2
126	Oldgrowth Specklebelly Lichen	*Pseudocyphellaria rainierensis*		0	1	0	0	0	0	0	0	1	Special Concern	1
1156	Olive Clubtail	*Stylurus olivaceus*		0	1	0	0	0	0	0	0	1	Endangered	3
999	Olive-sided Flycatcher	*Contopus cooperi*		0	1	0	1	0	1	0	0	0	Threatened	2
745	Oregon Forestsnail	*Allogona townsendiana*		0	1	0	1	0	0	0	0	1	Endangered	3
614	Oregon Spotted Frog	*Rana pretiosa*		0	1	0	1	0	0	0	0	1	Endangered	3
141	Pacific Water Shrew	*Sorex bendirii*		0	1	0	1	0	0	0	0	1	Endangered	3
1061	Pale-bellied Frost Lichen	*Physconia subpallida*		0	1	0	0	0	0	0	0	0	Endangered	3
1149	Peacock Vinyl Lichen	*Leptogium polycarpum*		0	1	0	0	0	0	0	0	0	Special Concern	1
261	Phantom Orchid	*Cephalanthera austiniae*		1	1	0	0	0	0	0	0	0	Endangered	3
819	Pink-footed Shearwater	*Puffinus creatopus*		0	1	0	0	0	0	1	0	1	Threatened	2
690	Poor Pocket Moss	*Fissidens pauperculus*		0	1	0	0	0	0	0	0	1	Endangered	3
31	Prothonotary Warbler	*Protonotaria citrea*		0	1	0	1	0	0	0	0	1	Endangered	3
677	Purple Sanicle	*Sanicula bipinnatifida*		0	1	1	0	0	1	1	0	1	Threatened	2
227	Purple Twayblade	*Liparis liliifolia*		0	1	1	0	0	1	0	0	0	Threatened	2
852	Pygmy Pocket Moss	*Fissidens exilis*		0	1	0	0	0	0	1	1	0	Special Concern	1
1034	Pygmy Snaketail	*Ophiogomphus howei*		0	1	0	0	0	0	0	0	1	Special Concern	1
1006	Rapids Clubtail	*Gomphus quadricolor*		0	1	0	0	0	0	0	0	1	Endangered	3
814	Red Crossbill percna subspecies	*Loxia curvirostra percna*		0	1	0	0	0	0	0	0	0	Endangered	3
228	Red Mulberry	*Morus rubra*		0	1	0	0	0	0	0	0	0	Endangered	3
57	Red-headed Woodpecker	*Melanerpes erythrocephalus*		1	1	1	1	1	0	1	0	0	Threatened	2
290	Rigid Apple Moss	*Bartramia stricta*		0	1	1	0	0	0	1	1	0	Endangered	3
1210	Riverine Clubtail	*Stylurus amnicola*	Great Lakes Plains population	0	1	0	0	1	0	0	0	1	Endangered	3
632	Rocky Mountain Tailed Frog	*Ascaphus montanus*		0	1	0	0	0	0	0	0	1	Threatened	2
1121	Roell's Brotherella Moss	*Brotherella roellii*		0	1	0	1	1	0	0	0	1	Endangered	3
213	Round-leaved Greenbrier	*Smilax rotundifolia*	Great Lakes Plains population	0	1	0	0	0	1	0	0	1	Threatened	2

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
907	Rusty Blackbird	*Euphagus carolinus*		1	1	1	1	0	1	1	0	1	Special Concern	1
809	Rusty Cord-moss	*Entosthodon rubiginosus*		0	1	1	1	0	1	1	0	1	Endangered	3
1081	Rusty-patched Bumble Bee	*Bombus affinis*		1	1	1	1	1	0	1	1	0	Endangered	3
12	Seaside Birds-foot Lotus	*Lotus formosissimus*		0	1	1	1	0	1	1	0	1	Endangered	3
127	Seaside Bone Lichen	*Hypogymnia heterophylla*		0	1	0	0	0	0	0	0	1	Threatened	2
124	Seaside Centipede Lichen	*Heterodermia sitchensis*		0	1	0	0	0	0	0	0	1	Endangered	3
586	Sharp-tailed Snake	*Contia tenuis*		0	1	0	0	0	0	0	1	0	Endangered	3
568	Showy Goldenrod	*Solidago speciosa*		0	1	1	0	0	1	1	0	0	Endangered	3
1113	Showy Goldenrod	*Solidago speciosa*	Great Lake population	0	1	1	0	0	1	1	0	0	Endangered	3
1114	Showy Goldenrod	*Solidago speciosa*	Boreal population	0	1	1	0	0	1	1	0	0	Threatened	2
831	Showy Phlox	*Phlox speciosa ssp. occidentalis*		0	1	1	0	0	1	1	0	0	Threatened	2
190	Skinner's Agalinis	*Agalinis skinneriana*		0	1	1	0	0	0	1	1	0	Endangered	3
194	Small Whorled Pogonia	*Isotria medeoloides*		0	1	0	0	0	0	0	0	0	Endangered	3
779	Small-flowered Tonella	*Tonella tenella*		0	1	0	0	0	0	0	1	0	Endangered	3
284	Small-mouthed Salamander	*Ambystoma texanum*		0	1	0	1	0	0	0	0	0	Endangered	3
867	Spalding's Campion	*Silene spaldingii*		0	1	1	0	0	0	1	0	0	Endangered	3
1238	Spiked Saxifrage	*Micranthes spicata*		0	1	0	1	0	0	1	1	1	Special Concern	1
757	Spoon-leaved Moss	*Bryoandersonia illecebra*		0	1	0	1	0	0	0	1	0	Endangered	3
170	Spotted Bat	*Euderma maculatum*		0	1	1	1	0	0	1	0	1	Special Concern	1
33	Spotted Owl caurina subspecies	*Strix occidentalis caurina*		0	1	0	0	0	0	0	0	0	Endangered	3
285	Spotted Turtle	*Clemmys guttata*		0	1	0	1	0	0	0	0	1	Endangered	3
196	Spotted Wintergreen	*Chimaphila maculata*		0	1	0	0	0	0	0	0	0	Endangered	3
563	Spring Salamander	*Gyrinophilus porphyriticus*		0	1	0	1	0	0	0	1	1	Special Concern	1
232	Sweet Pepperbush	*Clethra alnifolia*		0	1	0	1	0	0	0	0	1	Threatened	2
673	Tall Bugbane	*Actaea elata*		1	1	0	0	0	0	0	0	0	Endangered	3
1089	Threaded Vertigo	*Nearctula sp.*		0	1	0	0	0	0	0	0	0	Special Concern	1
142	Townsend's Mole	*Scapanus townsendii*		1	1	1	0	0	0	1	0	0	Endangered	3
633	Tubercled Spike-rush	*Eleocharis tuberculosa*		0	1	1	1	0	0	1	0	1	Special Concern	1

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
1242	Tweedy's Lewisia	*Lewisiopsis tweedyi*		0	1	0	0	0	0	0	1	0	Endangered	3
820	Twisted Oak Moss	*Syntrichia laevipila*		0	1	0	0	0	0	0	0	0	Special Concern	1
865	Verna's Flower Moth	*Schinia verna*		0	1	1	0	0	0	1	0	0	Threatened	2
218	Virginia Goat's-rue	*Tephrosia virginiana*		0	1	1	0	0	1	1	1	0	Endangered	3
1067	Vole Ears Lichen	*Erioderma mollissimum*		0	1	0	0	0	0	0	0	1	Endangered	3
1260	Wandering Salamander	*Aneides vagrans*		0	1	0	0	0	0	0	0	1	Special Concern	1
766	Warty Jumping-slug	*Hemphillia glandulosa*		0	1	0	0	0	0	0	0	1	Special Concern	1
635	Weidemeyer's Admiral	*Limenitis weidemeyerii*		0	1	0	0	0	1	0	0	1	Special Concern	1
1256	Western Bumble Bee mckayi subspecies	*Bombus occidentalis mckayi*		0	1	1	0	1	0	1	0	1	Special Concern	1
1267	Western Bumble Bee occidentalis subspecies	*Bombus occidentalis occidentalis*		0	1	1	0	0	0	1	0	1	Threatened	2
492	Western Harvest Mouse dychei subspecies	*Reithrodontomys megalotis dychei*		1	1	1	0	0	1	1	0	0	Endangered	3
171	Western Harvest Mouse megalotis subspecies	*Reithrodontomys megalotis megalotis*		1	1	1	0	0	0	1	0	1	Special Concern	1
808	Western Rattlesnake	*Crotalus oreganus*		0	1	1	0	0	1	1	1	0	Threatened	2
719	Western Screech-owl kennicottii subspecies	*Megascops kennicottii kennicottii*		0	1	0	0	1	0	0	0	0	Threatened	2
720	Western Screech-owl macfarlanei subspecies	*Megascops kennicottii macfarlanei*		0	1	0	0	0	0	0	0	0	Threatened	2
713	Western Skink	*Plestiodon skiltonianus*		0	1	1	0	0	0	1	1	1	Special Concern	1
1223	Western Tiger Salamander	*Ambystoma mavortium*	Southern Mountain population	1	1	1	1	0	0	1	0	1	Endangered	3
1224	Western Tiger Salamander	*Ambystoma mavortium*	Prairie / Boreal population	1	1	1	1	0	0	1	0	1	Special Concern	1
748	Western Toad	*Anaxyrus boreas*		1	1	0	1	0	1	1	0	1	Special Concern	1
1214	Western Toad	*Anaxyrus boreas*	Non-calling population	1	1	0	1	0	1	1	0	1	Special Concern	1
1215	Western Toad	*Anaxyrus boreas*	Calling population	1	1	0	1	0	1	1	0	1	Special Concern	1
383	Western Yellow-bellied Racer	*Coluber constrictor mormon*		0	1	1	1	0	1	1	1	1	Special Concern	1
857	White Meconella	*Meconella oregana*		0	1	1	0	0	0	1	0	0	Endangered	3
238	White Wood Aster	*Eurybia divaricata*		0	1	0	0	0	0	0	0	0	Threatened	2
1086	Whitebark Pine	*Pinus albicaulis*		0	1	0	0	0	0	0	0	0	Endangered	3

COSEWIC_ID	Common Name	Scientific Name	Population	Agricultural land	Forest	Grassland	Wetlands	Settlement	Shrubland	Sparse vegetation	Bare areas	Water	Status	Weight
41	White-headed Woodpecker	*Picoides albolarvatus*		0	1	0	0	0	0	0	0	0	Endangered	3
237	White-top Aster	*Sericocarpus rigidus*		0	1	1	0	0	0	1	0	0	Special Concern	1
270	Wild Hyacinth	*Camassia scilloides*		0	1	0	0	0	1	0	0	0	Threatened	2
869	Williamson's Sapsucker	*Sphyrapicus thyroideus*		0	1	0	0	0	0	0	0	0	Endangered	3
618	Wolverine	*Gulo gulo*		0	1	0	0	0	0	1	0	1	Special Concern	1
137	Wolverine	*Gulo gulo*	Eastern population	0	1	0	0	0	0	1	1	1	Endangered	3
143	Wood Bison	*Bison bison athabascae*		0	1	1	1	0	1	1	0	0	Special Concern	1
1197	Wood Thrush	*Hylocichla mustelina*		0	1	0	0	0	0	0	0	0	Threatened	2
286	Wood Turtle	*Glyptemys insculpta*		1	1	0	1	0	1	0	0	1	Threatened	2
144	Woodland Caribou	*Rangifer tarandus*	Atlantic-Gaspesie population	0	1	0	1	0	0	1	0	0	Endangered	3
636	Woodland Caribou	*Rangifer tarandus*	Boreal population	0	1	0	1	0	1	1	1	1	Threatened	2
637	Woodland Caribou	*Rangifer tarandus*	Northern Mountain population	0	1	0	1	0	0	1	0	0	Special Concern	1
638	Woodland Caribou	*Rangifer tarandus*	Southern Mountain population	0	1	0	0	0	0	1	0	0	Endangered	3
526	Woodland Vole	*Microtus pinetorum*		0	1	0	0	0	0	1	1	0	Special Concern	1
202	Wood-poppy	*Stylophorum diphyllum*		0	1	0	0	0	0	0	0	1	Endangered	3
239	Yellow Montane Violet praemorsa subspecies	*Viola praemorsa ssp. praemorsa*		0	1	1	0	0	0	1	0	0	Endangered	3
42	Yellow-breasted Chat auricollis subspecies	*Icteria virens auricollis*	Southern Mountain population	0	1	1	0	0	1	1	1	1	Endangered	3
61	Yellow-breasted Chat virens subspecies	*Icteria virens virens*		0	1	0	1	0	1	0	0	1	Endangered	3

APPENDIX II: COMPLETE TENURE RISK SCORING RESULTS BY PROVINCE

TABLE A2. Complete tenure risk scoring results for the Province of Alberta. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Alberta

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Alberta G14	0	1	4	0	3	2.25	0	0	10.25
Alberta M7	1	2	4	0	1	0.75	0	0	8.75
Alberta-Pacific Forest Industries Inc. A16	4	1	3	0	3	1.5	4	0	16.5
Alberta-Pacific Forest Industries Inc. and West Fraser Mills Ltd. S14	3	1	3	0	4	2.25	4	0	17.25
Alberta-Pacific Forest Industries Inc. and West Fraser Mills Ltd. S18	4	2	4	0	3	1.5	4	0	18.5
Alberta-Pacific Forest Industries Inc. L1	3	3	3	0	3	1.5	4	0	17.5
Alberta-Pacific Forest Industries Inc. L11	3	2	3	4	3	1.5	4	0	20.5
Alberta-Pacific Forest Industries Inc. L2	3	2	4	0	3	2.25	4	0	18.25
Alberta-Pacific Forest Industries Inc. L3	3	1	4	0	4	1.5	4	0	17.5
Alberta-Pacific Forest Industries Inc. L8	0	2	4	0	4	1.5	4	0	15.5
Alberta-Pacific Forest Industries Inc. S11	4	2	4	0	3	2.25	4	0	19.25
Alberta-Pacific Forest Industries Inc. S22	4	1	4	0	4	1.5	4	0	18.5
Alberta-Pacific Forest Industries Inc. S23	1	3	4	0	3	2.25	0	0	13.25
ANC Timber Ltd.	3	4	4	0	2	1.5	4	3	21.5
Blue Ridge Lumber Inc.	3	4	4	0	1	1.5	0	0	13.5
Canadian Forest Products Ltd.	3	3	4	0	3	2.25	4	3	22.25
Crowsnest Forest Products Ltd.	1	3	1	0	3	1.5	0	0	9.5
Manning Forest Products Ltd.	3	2	4	0	4	1.5	4	0	18.5
Mercer Peace River Pulp Ltd. (East)	3	1	4	0	3	2.25	4	0	17.25
Mercer Peace River Pulp Ltd. (West)	3	3	4	0	3	2.25	4	0	19.25
Millar Western Forest Products Ltd.	1	4	4	0	2	1.5	4	0	16.5
Spray Lake Sawmills (1980) Ltd.	1	3	3	2	3	1.5	0	0	13.5
Sundre Forest Products Inc.	2	4	4	0	1	1.5	0	0	12.5
Tolko Industries Ltd. (High Prairie)	4	2	4	0	2	1.5	3	0	16.5
Tolko Industries Ltd., Norbord Inc. and La Crete Sawmills Ltd.	4	2	4	4	2	1.5	4	0	21.5
Tolko Industries Ltd., Vanderwell Contractors (1971) Ltd. and West Fraser Mills Ltd. (Slave Lake)	4	3	4	0	3	2.25	4	0	20.25
Vanderwell Contractors (1971) Ltd.	3	3	4	0	1	0.75	4	0	15.75
West Fraser Mills Limited (Norbord High Level)	4	2	4	0	0	1.5	0	0	11.5
West Fraser Mills Ltd. (Edson)	4	4	4	4	1	1.5	0	0	18.5
West Fraser Mills Ltd. (Hinton)	2	4	4	4	2	1.5	4	3	24.5
West Fraser Mills Ltd. (Slave Lake)	4	4	4	0	2	1.5	4	0	19.5
West Fraser Mills Ltd. and Tolko Industries Ltd.	4	3	4	0	2	2.25	0	0	15.25

Alberta

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
West Fraser Mills Ltd. S10	3	1	3	0	4	1.5	4	0	16.5
West Fraser Mills Ltd. S16	2	3	4	0	3	2.25	0	0	14.25
Weyerhaeuser Company Limited (Grande Prairie)	2	4	4	0	3	1.5	0	4	18.5
Weyerhaeuser Company Limited (Pembina Timberland)	4	4	4	3	1	1.5	0	0	17.5
Unalienated Crown Land									
E8	2	4	3	1	2	1.5	4	4	21.5
G13	1	0	4	0	3	2.25	0	0	10.25
P14	3	2	4	0	3	2.25	4	0	18.25
P22	0	0	4	0	3	2.25	0	0	9.25
PO5	2	3	4	0	0	0.75	3	0	12.75
R11	3	0	0	3	1	1	0	1	9
S26	0	1	4	0	3	2.25	0	0	10.25

TABLE A3. Complete tenure risk scoring results for the Province of B.C.. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

B.C.

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Arrow TSA	3	3	3	2	3	1.75	0	3	18.75
Arrowsmith TSA	0	4	3	2	3	2.75	0	0	14.75
Boundary TSA	2	4	4	1	4	1.5	0	0	16.5
Bulkley TSA	2	3	3	2	2	2.25	0	3	17.25
Cascadia TSA	2	2	3	1	2	2.5	0	4	16.5
Cassiar TSA	3	0	2	3	1	0.75	0	2	11.75
Cranbrook TSA	3	3	2	3	2	1.75	0	4	18.75
Dawson Creek TSA	3	3	3	2	3	1.5	0	4	19.5
Fort Nelson TSA	4	0	3	3	2	1.5	4	2	19.5
Fort St. John TSA	4	2	4	2	2	1.5	4	4	23.5
Fraser TSA	3	2	1	1	4	2.75	0	0	13.75
GBR North TSA	3	1	2	2	1	2	0	3	14
GBR South TSA	2	2	3	3	1	2	0	3	16
Golden TSA	3	1	2	4	1	1	0	3	15
Invermere TSA	3	3	2	2	2	1	0	2	15
Kalum TSA	1	1	1	3	1	1.75	0	1	9.75
Kamloops TSA	4	3	3	3	2	1.5	0	3	19.5
Kispiox TSA	2	1	4	3	3	3	0	0	16
Kootenay Lake TSA	3	2	2	1	2	1.75	0	4	15.75
Lakes TSA	4	4	2	2	0	1.5	0	4	17.5
Lillooet TSA	4	1	2	3	2	1	0	0	13
MacKenzie TSA	3	2	1	2	1	1.5	0	3	13.5
Merritt TSA	3	4	3	4	3	1.5	0	0	18.5

B.C.

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Morice TSA	3	4	1	3	1	1.5	0	3	16.5
Nass TSA	0	1	4	4	1	1.75	0	0	11.75
North Island TSA	2	3	3	2	3	2.75	0	0	15.75
Okanagan TSA	4	4	3	3	3	1.5	0	3	21.5
Pacific TSA	1	2	1	3	1	2.75	0	1	11.75
PAG01	3	4	4	1	1	1.5	0	3	17.5
PAG03	2	1	1	3	3	1.75	0	3	14.75
PAG05	4	4	2	2	1	1.5	0	3	17.5
Prince George TSA	3	3	3	2	2	1.5	0	3	17.5
Queen Charlotte TSA	0	1	0	2	3	3.5	0	0	9.5
Quesnel TSA	4	4	3	2	1	0.75	0	4	18.75
Revelstoke TSA	2	1	0	4	2	1.75	0	3	13.75
Robson Valley TSA	2	1	0	3	1	1.75	0	2	10.75
Soo TSA	3	1	0	3	1	1.75	0	0	9.75
Sunshine Coast TSA	2	2	3	3	1	2	0	0	13
TFL1	1	2	3	4	1	1.75	0	1	13.75
TFL14	3	4	3	1	1	1	0	2	15
TFL18	1	4	3	0	2	1.5	0	0	11.5
TFL19	2	3	3	0	3	2.75	0	0	13.75
TFL23	4	2	2	2	2	1.75	0	3	16.75
TFL25	1	1	2	3	1	2.75	0	0	10.75
TFL26	0	4	4	0	4	3.5	0	0	15.5
TFL3	2	2	2	0	3	1.75	0	0	10.75
TFL30	0	4	4	0	3	2.25	0	3	16.25
TFL33	2	4	3	0	4	3.25	0	3	19.25
TFL35	2	4	3	0	2	0.75	0	0	11.75
TFL37	2	4	3	0	3	2.75	0	0	14.75
TFL38	4	1	0	3	0	1	0	0	9
TFL39	1	4	3	0	2	2.75	0	0	12.75
TFL41	1	1	0	2	1	2	0	1	8
TFL43	1	3	3	0	0	2	0	0	9
TFL44	0	4	3	0	3	3.5	0	0	13.5
TFL45	1	1	3	4	0	1.25	0	0	10.25
TFL46	2	4	3	0	4	3.5	0	0	16.5
TFL47	1	4	4	0	2	3.5	0	0	14.5
TFL48	3	3	3	3	3	2.25	0	4	21.25
TFL49	4	4	4	0	1	1.5	0	0	14.5
TFL52	3	4	4	4	2	2.25	0	4	23.25
TFL53	0	4	4	0	1	1.5	0	0	10.5
TFL54	0	1	3	0	4	3.5	0	0	11.5
TFL55	2	2	0	3	1	1.75	0	4	13.75
TFL56	2	2	0	4	2	1.75	0	3	14.75

B.C.

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
TFL57	0	0	3	3	4	3.5	0	0	13.5
TFL58	0	2	3	0	1	3.75	0	0	9.75
TFL59	4	4	4	0	4	1.5	0	0	17.5
TFL6	1	4	3	0	2	3.5	0	0	13.5
TFL60	0	2	3	4	2	3.5	0	0	14.5
TFL61	0	4	3	0	4	3.5	0	0	14.5
TFL8	1	4	4	0	4	1.5	0	0	14.5
Williams Lake TSA	4	3	2	2	1	0.75	0	4	16.75
100 Mile House TSA	4	4	3	3	2	0.75	0	1	17.75

TABLE A4. Complete tenure risk scoring results for the Province of Manitoba. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Manitoba

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
FML-2	3	0	4	2	2	1.5	2	0	14.5
FML-3	2	2	4	0	0	0.25	3	0	11.25
FMU 12 and 14	2	2	4	0	2	2.25	3	0	15.25
Unalienated Crown Land									
ASPEN PARKLAND 1	1	1	4	0	0	0.25	0	0	6.25
ASPEN PARKLAND 2	1	1	4	0	0	0.25	0	0	6.25
ASPEN PARKLAND 4	1	1	4	0	0	0	0	0	6
ASPEN PARKLAND 5	1	1	4	0	0	0.25	0	0	6.25
ASPEN PARKLAND 6	1	0	4	0	0	0	0	0	5
ASPEN PARKLAND 7	1	0	4	0	0	0	0	0	5
CHURCHILL RIVER 71	4	0	4	1	1	1	2	0	13
CHURCHILL RIVER 72	4	0	4	0	0	1	1	0	10
CHURCHILL RIVER 73	3	0	4	0	0	0.5	0	0	7.5
CHURCHILL RIVER 74	4	0	4	3	0	0.5	0	0	11.5
CHURCHILL RIVER 75	4	0	3	0	0	0.25	0	0	7.25
HAYES RIVER 90	3	0	4	2	2	1.5	2	0	14.5
HAYES RIVER 91	3	0	4	4	2	1.75	2	0	16.75
HAYES RIVER 92	3	0	3	0	2	1	2	0	11
HAYES RIVER 93	3	0	4	0	1	0.5	2	0	10.5
HAYES RIVER 94	2	0	4	0	2	0.5	2	0	10.5
HAYES RIVER 95	3	0	4	2	1	1.25	2	0	13.25
HAYES RIVER 96	4	0	4	1	1	1	2	0	13
HAYES RIVER 97	2	0	4	4	1	1.25	2	0	14.25
HAYES RIVER 98	2	0	4	4	0	1.25	2	0	13.25
HAYES RIVER 99	3	0	4	3	1	0.5	2	0	13.5
HIGHROCK PARK ZONE 60	4	0	4	3	3	1.25	2	0	17.25
INTERLAKE 40	2	1	3	0	1	1.5	1	0	9.5

Manitoba

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Unalienated Crown Land									
INTERLAKE 41	1	1	4	0	2	1.5	0	0	9.5
INTERLAKE 42	1	0	4	0	0	0.25	0	0	5.25
INTERLAKE 43	4	1	4	0	1	0.75	2	0	12.75
INTERLAKE 45	4	1	4	2	2	1.75	3	0	17.75
INTERLAKE 46	3	2	3	1	1	1.5	2	0	13.5
INTERLAKE 47	0	0	4	0	0	1.75	2	0	7.75
LAKE WINNIPEG EAST 30	2	0	3	0	4	1.5	0	0	10.5
LAKE WINNIPEG EAST 31	3	0	0	0	4	1.5	4	0	12.5
LAKE WINNIPEG EAST 35	4	0	0	4	3	1.75	3	0	15.75
LAKE WINNIPEG EAST 36	4	0	0	2	1	1.75	3	0	11.75
LAKE WINNIPEG EAST 37	4	0	0	4	1	1.75	2	0	12.75
LAKE WINNIPEG EAST 38	4	0	0	2	2	1.75	3	0	12.75
LAKE WINNIPEG EAST 39	4	0	2	2	0	1.75	2	0	11.75
MOUNTAIN 15	1	0	0	0	4	2.5	0	0	7.5
NELSON RIVER 82	2	0	4	0	1	0.75	2	0	9.75
NELSON RIVER 86	4	0	4	0	0	1.5	0	0	9.5
NELSON RIVER 88	4	0	4	2	0	1.25	0	0	11.25
PINELAND 24	2	2	4	0	4	1.25	0	0	13.25
SASKATCHEWAN RIVER 51	1	0	4	0	1	1.75	2	0	9.75
SASKATCHEWAN RIVER 57	3	1	4	0	1	1.5	2	0	12.5

TABLE A5. Complete tenure risk scoring results for the Province of New Brunswick. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

New Brunswick

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Kent - 5	0	4	4	0	4	1.5	0	0	13.5
Carleton-Rest.-Tobique - 9	0	4	4	0	3	2.5	0	0	13.5
Nepisiguit-Miramichi - 3	0	4	3	0	4	1.75	0	0	12.75
Queens-Charlotte-Fundy - 7	0	4	3	0	4	1.75	0	0	12.75
Upsalquitch - 1	0	4	4	0	4	2.5	0	0	14.5
York - 8	0	4	3	0	4	1.75	0	0	12.75

TABLE A6. Complete tenure risk scoring results for the Province of Newfoundland and Labrador. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Newfoundland and Labrador

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
CBPPL05	1	3	4	0	0	1	0	0	9
CBPPL050	0	2	4	3	0	0.75	0	0	9.75
CBPPL06	1	2	4	0	0	1	0	0	8

Newfoundland and Labrador

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
CBPPL09	0	2	4	0	0	0.75	0	0	6.75
CBPPL10	0	1	4	0	0	0.75	0	0	5.75
CBPPL14	1	1	4	0	0	1.75	0	0	7.75
CBPPL15	0	3	4	0	0	1	0	0	8
CBPPL16	0	2	4	2	0	0.75	0	0	8.75
Unalienated Crown Land									
NL19a	2	0	4	3	1	1.75	2	0	13.75
NL19b	3	0	4	4	1	0.75	2	0	14.75
NL19c	2	0	3	3	1	0.75	2	0	11.75
NL20	2	0	2	0	0	1	2	0	7
NL21	2	0	4	3	0	1	1	0	11
NL22	3	0	4	4	0	0.75	2	0	13.75
NL23	3	0	4	0	0	1	2	0	10
PC01	1	0	4	0	0	1	0	0	6
PC02	1	1	4	1	0	1	0	0	8
PC03	0	0	4	0	0	0.25	0	0	4.25
PC04	0	0	3	2	0	1	0	0	6
PC05	0	1	4	3	0	1.25	0	0	9.25
PC050	1	1	4	1	0	1	0	0	8
PC06	2	1	4	0	0	1	0	0	8
PC07	0	0	4	0	0	0.25	0	0	4.25
PC08	1	1	4	0	0	1.25	0	0	7.25
PC09	0	1	4	0	0	1	0	0	6
PC10	0	1	4	0	0	1	0	0	6
PC11	3	2	4	0	0	0.75	0	0	9.75
PC12	1	3	4	2	0	1	0	0	11
PC13	0	0	4	1	0	0.75	0	0	5.75
PC14	0	0	4	0	0	1	0	0	5
PC15	0	0	4	0	0	1	0	0	5
PC16	1	0	4	2	0	0.75	0	0	7.75
PC17	1	0	4	2	0	1	0	0	8
PC18	1	0	4	1	0	1	0	0	7

TABLE A7. Complete tenure risk scoring results for the Province of Nova Scotia. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Nova Scotia

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Mersey Woodlands	0	3	2	0	4	1.75	0	0	10.75
Port Hawkesbury	0	3	3	0	4	1.75	0	0	11.75
Unalienated Crown Land									
NS Crown Lands	2	3	3	0	4	1.75	0	0	13.75

TABLE A8. Complete tenure risk scoring results for the Province of Ontario. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Ontario

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Abitibi River Forest	2	2	3	2	3	1.75	3	0	16.75
Algoma Forest	1	1	3	0	4	2.25	3	0	14.25
Algonquin Park Forest	0	1	3	0	4	2.25	0	0	10.25
Bancroft-Minden Forest	0	1	3	0	4	1.75	0	0	9.75
Black Spruce Forest	1	3	2	0	3	2.25	3	0	14.25
Boundary Waters Forest	1	3	3	3	3	1.5	0	0	14.5
Caribou Forest	3	1	3	4	3	1.5	2	0	17.5
Dog River-Matawin Forest	1	4	3	0	2	1.5	3	0	14.5
Dryden Forest	1	3	4	0	2	1.5	0	0	11.5
English River Forest	2	3	3	1	2	1.5	3	0	15.5
French-Severn Forest	2	0	3	0	4	1.75	0	0	10.75
Gordon Cosens Forest	0	3	4	3	3	2.5	4	0	19.5
Hearst Forest	1	3	4	4	3	1.75	4	0	20.75
Kenogami Forest	1	2	4	1	2	1.75	4	0	15.75
Kenora Forest	4	1	3	2	2	1.75	4	0	17.75
Lac Seul Forest	2	2	3	2	2	1.5	3	0	15.5
Lake Nipigon Forest	2	2	2	1	3	1.5	4	0	15.5
Lakehead Forest	1	3	3	0	4	1.5	0	0	12.5
Magpie Forest	0	2	3	0	3	2.25	0	0	10.25
Martel Forest	1	2	4	4	3	2.25	0	0	16.25
Mazinaw-Lanark Forest	0	1	4	0	4	1.5	0	0	10.5
Nagagami Forest	0	3	4	0	2	2.25	3	0	14.25
Nipissing Forest	2	2	3	0	4	1.75	0	0	12.75
Northshore Forest	0	2	3	4	4	2.25	0	0	15.25
Ogoki Forest	3	1	3	3	2	1	2	0	15
Ottawa Valley Forest	1	1	4	0	4	1.75	0	0	11.75
Pic Forest	1	2	3	0	2	2.25	4	0	14.25
Pineland Forest	2	3	4	0	3	2.25	0	0	14.25
Red Lake Forest	4	2	3	1	2	1.5	4	0	17.5
Romeo Malette Forest	3	3	4	0	2	2.25	3	0	17.25
Spanish Forest	2	3	3	1	4	2.25	0	0	15.25
Sudbury Forest	2	2	3	3	4	1.5	0	0	15.5
Temagami	3	1	3	3	4	2.25	0	0	16.25
Timiskaming Forest	2	3	4	4	3	1.5	3	0	20.5
Trout Lake Forest	4	3	3	1	2	1.5	3	0	17.5
Wabadowgang Noopming Forest	1	1	0	3	3	1.5	3	0	12.5
Wabigoon Forest	1	4	3	3	2	1.5	4	0	18.5
Whiskey Jack Forest	2	1	3	2	3	1.5	4	0	16.5
White River Forest	2	2	4	3	3	2.25	2	0	18.25
Whitefeather Forest	4	0	1	4	3	1.75	2	0	15.75

TABLE A9. Complete tenure risk scoring results for the Province of Quebec. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Quebec

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
1171	0	3	4	0	4	2.5	0	0	13.5
1272	1	4	4	0	3	2.5	0	0	14.5
2371	2	4	4	0	4	1.5	4	0	19.5
2471	3	4	4	3	1	1.5	4	0	20.5
2571	3	4	4	4	1	0.75	4	0	20.75
2651	4	4	4	0	0	1.5	3	0	16.5
2661	4	2	3	2	1	1	3	0	16
2662	3	3	2	3	1	1	3	0	16
2663	3	4	3	2	1	0.75	3	0	16.75
2664	4	3	4	1	1	0.75	3	0	16.75
2665	2	3	3	0	2	0.75	3	0	13.75
2666	4	3	4	0	1	0.75	3	0	15.75
2751	3	4	4	4	1	0.75	4	0	20.75
3153	1	3	4	0	4	1.5	4	0	17.5
3171	0	3	3	2	4	2.5	0	0	14.5
3351	1	2	3	0	4	2.5	4	0	16.5
3451	0	1	4	0	4	0.5	0	0	9.5
3571	0	4	4	0	4	2.5	0	0	14.5
4151	2	4	3	0	4	2.5	0	0	15.5
4251	4	4	4	0	4	1.5	0	0	17.5
4351	3	4	4	0	2	1.5	0	0	14.5
4352	2	4	4	0	3	2.25	0	0	15.25
5151	0	2	4	0	4	2.25	0	0	12.25
6151	0	1	3	0	4	2.5	0	0	10.5
6271	0	3	3	0	4	2.25	0	0	12.25
6452	0	1	3	0	4	2.5	0	0	10.5
6471	0	3	4	0	4	2.25	0	0	13.25
7151	0	1	3	0	4	2.5	0	0	10.5
7152	1	2	3	0	4	2.5	0	0	12.5
7251	0	1	3	0	4	2.5	0	0	10.5
7351	0	2	3	0	4	2.5	0	0	11.5
7352	0	3	3	0	4	2.25	0	0	12.25
7451	2	2	4	0	4	2.25	0	0	14.25
8151	0	1	3	0	4	2.25	0	0	10.25
8152	0	2	3	0	4	2.25	0	0	11.25
8251	0	4	4	0	3	2.25	0	0	13.25
8351	1	3	4	0	3	1.5	4	0	16.5
8451	4	4	4	0	1	1.75	3	0	17.75
8462	4	3	3	0	0	1.5	0	0	11.5
8551	2	2	3	4	2	1	3	0	17

Quebec

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
8562	0	0	1	2	3	1	2	0	9
8651	1	4	4	0	2	1.75	0	0	12.75
8652	1	3	4	4	1	1.75	3	0	17.75
8663	3	0	1	0	2	1	3	0	10
8664	1	2	2	2	2	1	3	0	13
8665	2	3	3	3	2	1.75	3	0	17.75
8666	4	3	2	3	1	1	3	0	17
8751	4	4	4	0	0	1.5	0	0	13.5
8762	4	3	4	0	0	0.75	3	0	14.75
8763	4	3	4	0	1	1.5	3	0	16.5
8764	4	3	3	0	1	1	3	0	15
9351	2	3	4	1	2	1.5	4	0	17.5
9352	3	0	2	0	2	1.5	2	0	10.5
9471	2	2	3	1	3	1.5	3	0	15.5
9551	1	1	4	0	2	2.25	1	0	11.25
9751	3	3	4	4	3	1.5	4	0	22.5
11161	1	4	4	0	3	2.5	0	0	14.5
11262	0	3	4	0	4	2.5	0	0	13.5
11263	0	4	4	0	4	2.5	0	0	14.5

Table A10. Complete tenure risk scoring results for the Province of Saskatchewan. FL = forest loss; PA = protected areas; IFL = intact forest landscapes; SAR = species at risk; BC = woodland caribou, boreal ecotype; MC = woodland caribou, mountain ecotype. Total scores represent the sum of risk scores for eight forest values.

Saskatchewan

Tenure Name	FL–fire	FL–other	PA	IFL	SAR	Carbon	BC	MC	Total
Canwood	2	1	4	0	1	0.75	0	0	8.75
Fort a la Corne	3	3	4	0	2	1.5	0	0	13.5
Kelvington Forest Fringe	1	2	4	0	0	0.25	3	0	10.25
Kitsaki Zelensky	4	0	4	1	2	1.5	3	0	15.5
L & M Wood Products	3	4	4	0	2	2.25	0	0	15.25
Meadow Lake Forest Fringe	2	2	3	0	0	0.75	3	0	10.75
Meadow Lake OSB	1	3	3	0	3	1.5	3	0	14.5
Mee-Toos	4	1	4	2	1	1.25	3	0	16.25
Mistik	4	2	3	3	2	1.5	4	0	19.5
Nemeiben	4	0	3	2	0	1	3	0	13
Nisbet, Steep Creek	3	2	3	0	1	0.75	0	0	9.75
North West Communities	4	0	4	2	1	0.75	4	0	15.75
Pasquia Porcupine	3	2	3	2	3	2	4	0	19
Prince Albert FMA	4	2	3	2	3	1.5	4	0	19.5
Prince Albert Forest Fringe	2	1	4	0	0	0	3	0	10
Spiritwood Forest Fringe	1	2	3	0	0	0	0	0	6
Suggi Lowlands	2	0	3	4	4	1.25	2	0	16.25
Torch River, North Torch River	4	1	3	0	3	1.5	0	0	12.5
Turnor West, Turnor East	4	1	4	1	0	0.75	3	0	13.75
Turtleford Forest Fringe	2	2	4	0	0	0	0	0	8

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