

Northwest Territories Biodiversity Action Plan

*Report Two:
Gap and Overlap Analysis
and Recommendations
for Future Actions*

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NWT Biodiversity Team

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NWT Biodiversity Team 2004-2005

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See contact information on page 51.

**Participation in the Biodiversity Team always remains open.
The Biodiversity Team would benefit from your participation.**

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Note to Readers

The NWT Biodiversity Team members have performed the gap/overlap analysis of NWT biodiversity actions and have drafted recommendations based on their individual opinions and experiences, independently from the organizations they belong to.

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Message from the Team

In our first report, *Major Initiatives on Biodiversity*, we described activities of all organizations and groups working in the Northwest Territories (NWT) on some aspect of the Canadian Biodiversity Strategy (CBS) and the United Nations Convention on Biological Diversity (UNCBD). Every year more is being done, so we have updated the list of NWT biodiversity actions on the Biodiversity Action Plan web page.

It is with pleasure that we present a second report on biodiversity actions in the NWT, Canada. This second report of the NWT Biodiversity Action Plan presents a gap and overlap analysis of NWT actions carried out to learn whether we are doing a good job of implementing the UNCBD in the NWT. The analysis was done on the core themes of the UNCBD that are the most relevant to the NWT context. This analysis provided us with a set of recommendations for future NWT actions that would fill relevant gaps and increase cooperation.

We invite everybody to review our recommendations and provide input on additional ideas that would lead to more innovative ways to work together for the conservation and sustainable use of biodiversity in the NWT and the Arctic.

**Participation in the Biodiversity Team always remains open.
The Biodiversity Team would benefit from your participation.**

Yours truly,

NWT Biodiversity Team

The updated list can be found in the Matrix on the NWT Biodiversity Action Plan web page at www.nwtwildlife.com

Core Themes

- Species at Risk
- Protected Areas
- Sustainable Forest
- Sustainable Use of Terrestrial and Aquatic Wildlife
- Climate Change
- Invasive Alien Species



Peregrine Falcon © G. Court

Key Recommendations

The report contains many recommendations to improve NWT's actions on biodiversity over the next ten years. Some of the most important recommendations for each core theme are described here.

Species at Risk

Continue to work, primarily through the co-management system, towards management and recovery planning, involving all NWT groups interested in species at risk in the NWT.

Protected Areas

Improve coordination among conservation, land use planning and development agencies to increase efficient use of resources and reduce the burden on community capacity.

Sustainable Forests

Continue to update forest legislation and harmonize with all applicable legislation, including land claim legislation, to develop better tools for the sustainable use of forests in the NWT.

Sustainable Use of Terrestrial and Aquatic Species

Increase our monitoring of harvest rates to include all types of harvesters and fishers in all regions of the NWT.

Climate Change

Increase studies on impacts and adaptations to climate change.

Invasive Alien Species

Evaluate the potential threats of invasive alien species to NWT ecosystems. Include surveys and questionnaires to industry or groups that have the greatest capacity to contribute to potential solutions.

Message de l'équipe

Dans le premier rapport intitulé « *Initiatives importantes en matière de biodiversité* », nous avons décrit les activités de tous les organismes et les groupes qui travaillent aux Territoires du Nord-Ouest (TNO) sur certains aspects de la Stratégie canadienne de la biodiversité (SCB) et de la Convention des Nations-Unies sur la diversité biologique (CNUDB). Année après année, plus de travail est effectué. Par conséquent, nous avons mis à jour la liste des mesures prises en matière de biodiversité aux TNO.

C'est avec plaisir que nous vous présentons le deuxième rapport sur les mesures prises pour protéger la biodiversité aux TNO (Canada). Ce deuxième rapport du plan d'action pour la biodiversité aux TNO présente une analyse des écarts et des chevauchements dans les mesures prises dans le but de nous indiquer si nous mettons en œuvre de façon adéquate la CNUDB aux TNO. L'analyse a été établie en fonction des principaux thèmes de la CNUDB qui sont les plus pertinents dans le contexte des TNO. Elle nous présente une série de recommandations relatives aux actions à prendre pour les TNO qui resserreraient les écarts en question et augmenteraient la coopération.

Nous vous invitons à examiner nos recommandations et à nous fournir vos commentaires qui nous permettront de trouver des façons innovatrices additionnelles pour travailler ensemble à la conservation et à l'utilisation durable de la biodiversité aux TNO et dans l'Arctique.

**Il y a encore de la place au sein de l'Équipe Biodiversité des TNO.
L'Équipe bénéficierait de votre participation.**

Veuillez agréer, Mesdames, Messieurs, l'expression de nos sentiments les meilleurs.

Équipe Biodiversité TNO

Pour consulter la liste à jour du plan d'action en matière de biodiversité aux TNO, visitez le www.nwtwildlife.com (matrice).

Principaux thèmes

- Espèces en péril
- Zones protégées
- Développement forestier durable
- Utilisation durable de la faune terrestre et aquatique
- Changement climatique
- Espèces exotiques envahissantes



Monitoring butterflies © G. Guthrie/SRRB

Recommandations clés

Le rapport contient plusieurs recommandations afin d'améliorer les mesures prises en matière de biodiversité aux TNO au cours des 10 prochaines années. Voici certaines des plus importantes recommandations pour chaque thème:

Espèces en péril

Continuer à travailler à la planification d'initiatives de gestion et de rétablissement avec, principalement grâce au système de cogestion, tous les groupes intéressés aux espèces en péril aux TNO.

Zones protégées

Améliorer la coordination entre les agences qui font la promotion de la conservation, les agences d'aménagement du territoire et les agences de développement pour accroître l'utilisation efficace des ressources et réduire le fardeau des capacités communautaires.

Développement forestier durable

Continuer de mettre à jour les lois sur les forêts et les harmoniser avec toutes les lois qui s'y appliquent, y compris les lois liées aux revendications territoriales, pour développer de meilleurs outils pour l'utilisation durable des forêts aux TNO.

Utilisation durable des espèces terrestres et aquatiques

Augmenter la surveillance des taux de récolte, ceux de tous les exploitants de ressources naturelles et des pêcheurs dans toutes les régions des TNO.

Changement climatique

Augmenter le nombre d'études liées aux répercussions et aux adaptations concernant le changement climatique.

Espèces exotiques envahissantes

Évaluer les menaces potentielles d'espèces exotiques envahissantes sur les écosystèmes des TNO. Présenter des sondages et des questionnaires aux industries ou aux groupes qui ont le plus de chance de contribuer à des solutions potentielles.

Dõne dıı nıhtł'è k'e eghàlagıda gıyatı

Akwetò nıhtł'è hoòlı hò "Tıch'adı eyıts'ò tł'oh wek'ara Wegondı", dõne azhò edzanèk'e amıı dıı haanı lah k'e eghàlagıde weghò nıhtł'è gehtsı eyıts'ò Behchonèk'e gots'ò, Canada gots'ò edàanı tıch'adı eyıts'ò tł'oh k'ara k'e eghàlagıde weghò nıhtł'è hoòlı. Xo tãat'e dıı haanı naawo k'e asıı łogòò gık'e eghàlagıde adaàdè: eyıt'á edzanèk'e gha tıch'adı eyıts'ò tł'oh kara xogıhđı naawo senàgeh?ı.

NWT, Canada gha dıı nàke xo gots'ò dıı nıhtł'è wek'è eghàlas'ıda t'á naxıgha wegondı ts'ehtsı gha mahsı ts'ıwò. Dıı nàke ts'ò nıhtł'è ts'ehtsı sıı edàanı edzanèk'e tıch'adı eyıts'ò tł'oh kara xè eghàlagıde ha weghò nıhtł'è hoòlı sıı wegħaà eghàlagıde, eyıt'á ahsı dıı lah k'e eghàlagıde lah nàke ts'ò wek'e eghàlagıde sòqonı, ahsı UNCBD edzanèk'e gha nezı eghàlats'ıde hòqonı. Edzanèk'e dedı edàanı UNCBD àt'è sıı wegħaà eghàlagıde. Dıı nıhtł'è wegħaà edàanı wek'e eghàlahòda nındè nezıa gedı t'á nıhtł'è hoòlı, dıı naawo wet'á ıda achı dıı haanı naawo k'e eghàlats'ıde nındè NWT ayıı gıgha degħaà seèdla-le sıı wek'èjò ha eyıts'ò wet'á deè?ò gıts'ats'edı ade ha.

Dõne azhò gonıhtł'è gıghaıda gets'èdı ha ts'ıwò eyıts'ò gondı deè?ò weta negıra ha wet'á nezı ełexè eghàlatsıde ha wet'á edzanèk'e tıch'adı eyıts'ò tł'oh azhò kara gohłı nezı wexòedı ha gondı negıra ha gıwò nındè gehts'ıhwhò.

**Dõne t'ala goxè eghàlada ha nıwò dè, gıgha hoò?ò.
Nahxı gots'aadı nındè, wet'áhoòts'ehra ha.**

Dıı Dõne Nıhtł'è yııtł'è,

NWT k'e tıch'adı eyıts'ò tł'oh kara k'e eghàlagıdedò

NWT Tıch'adı eyıts'ò tł'oh kara wegondı wek'èashò ha dahwhò dè jò ts'ò ahde
www.nwtwildlife.com

Naawo

- Tıch'adı whıle adèch'á wexòedı
- Ndè wexòedı
- Ts'ı
- Dıı nèk'e tıch'adı eyıts'ò fıwe ıchı
- Goxè dıı nèk'e ładı edàde
- ıda nèk'e gots'ò tıch'adı dıhdè nèk'e ts'ò adàde



Pacific Loon © C. Machtans/CWS

Dii haani naawo hohłè

70 lah wek'e eghàlahòda gedi t'à naawo hoòl, wet'à NWT k'e ɔda hònoqò xo ts'ò deèrò nezɔ lah k'e eghàlagide ha gɔwq. Naawo moqdaà sii wetqat'e sii dek'èt'è.

Tich'adi while adèch'à wexòedi

Edàani tich'adi wek'èhòdi eyits'q edàani netɔ àde ha azhq eɔexè eghàlagide ha, dɔne dii haani lah k'e eghàlagide sii tich'adi azhq edzanèk'e gohɔ wegho nànegide nindè goxè aget'ɔ ha dìle.

Ndè wexòedi

Dɔne azhq tich'adi esàwòdech'à xè eghàlagide, ndè nezɔ wet'àhot'ɔ xè eghàlagide eyits'q dii haani lah k'e eghàlagide gha wet'à eghàlagide gha asii azhq gigha ts'atà whela xè kòta yagòla asii gigha deghaà whela-le dè gik'e eghàlada haadi.

Ts'ɔ

Wet'à nezɔ eghàlats'èda ha ts'ɔ wexòedi naawo sii ɔadɔ adlà nindè nezɔa, eyizq-le hò dɔne dexè segogɔla sii naawo azhq eɔexè whela t'à deèrò NWT k'e ts'ɔ nezɔ wexòedi ade ha.

Dii nèk'e tich'adi eyits'q ɔwe iichì

NWT k'e azhq dɔne edàtɔ tich'adi gihchì sii wexòedi xè tich'adi edàwhit'ɔ gihchì wexòedi nindè nezɔa.

Goxè dii nèk'e ɔadɔ edàde

Goxè dii nèk'e edì adàde neèt'à edàani asii goxiedi eyits'q edàani asii goxè ɔadɔ agoòt'ɔ sii deèrò wexòedi nindè nezɔa.

ɔda nèk'e gots'q tich'adi dihdɔ ts'ò adàde

ɔda nèk'e gots'q tich'adi dihdɔ ts'ò ade sii wexòedi nindè nezɔa. Wedànaqeta xè wegho dàreèke dè wet'à deèrò nezɔ wek'e eghàlada xè seèdle ha dìle.

Dēne Ba Yatı Nít'a

T'ahtthe zerehtł'is háłı kú, "Major Initiatives on Biodiversity" húlye sí, jadízı nēn zedēri Canadian Biodiversity Strategy húlye chu United Nations ts'ı Convention on Biodiversity húlye sí, t'at'u bek'e zeghálada sí ghá dēne xél hailnı. ʔłágh ghay hant'u, deʔánıłt'e bek'e zeghálada: hat'e t'á jadízı nēn k'e t'at'u bek'a zeghálada sí, tth'ı begħá narıłt'ıs.

Nuwenı, jadízı nēn k'e t'at'u bek'a zeghálada sí, tth'ı begħá zerehtł'is híłts'ı natł'ı. ʔedēri zerehtł'is sí, NWT Biodiversity Strategy (CBS) húlye, ʔeyı beyé t'at'ú súghá-u, t'at'u súgháıl-u, United Nations ts'ı Convention on Biodiversity (UNCBD) bek'e zeghálada –u, begħár t'a hurıldēn sí ghá rıłt'ıs. ʔedēri net'ı sí, UNCBD t'at'u yatı hełʔá sí, jadízı nēn t'a bets'ēn halı sí, ʔeyı t'a net'ı. ʔedēri net'ı sí, yuneth haʔa begħár jadízı nēn k'e t'at'u bek'e zeghálada lí xa yatı nılyá.

ʔedēri yatı nılyá sí, t'álası yenełʔı-u, begħáłtthēn jadízı nēn –u hak'ēth nēn ní badı xa t'at'u súghá-u bek'a zeghálada –u, tth'ı ta t'u súghá-u ʔełá zeghálada lí hanuwéts'edı xa rıłʔı.

T'álası zedēri Biodiversity Team húlye xél zeghálana relʔı dé, hane xadúwıle.

Bets'ını dé, nehet'órełthır xa.

NWT Biodiversity K'e zeghálada ts'ı ʔat'e

ʔedēri t'a bek'ērehtł'is sí, NWT Biodiversity Action Plan húlye computer k'e, ʔeyēr bek'ērehtł'is.

🌐 www.nwtwildlife.com

T'a té bet'óreʔa yıhıdhén sı

- Ch'adı dóle Ch'á Badı
- Nı Badı Nánıs
- Nı-u Tu-u
- K'ék'ēr Bet'át'ı Xa
- Bit'as ʔedı Háʔa
- Yuráne Ts'ı T'ası Jadízı Nēn K'e Nıdel Sí



Muskat © R. Kennedy

T'a Yatı Nílya Sí

ʔedëri ʔerehtł'ís yé, láisdıona yatı nílya, t'at'u jadízı nén k'e yuneth lóna ghay xa súghá ts'én bek'e ʔeghálada xa. T'a té bet'óreʔa yıhıdhén sí, ıá bek'órehtł'ís ʔat'e.

Ch'adı dóle Ch'á Badı

Jadízı nén k'e, yunéth haʔa, t'a ch'adí dóle ʔane sí, dóle ʔane ch'á ʔeła badı-u, tth'ı ʔel ananelye xa ts'én ʔeghálada xa,

Nı Badı

T'á ní chu ch'adí chu harałı k'e ʔeghádálan sí, nezú ʔeła ʔeghádáııhena-u, ní t'a'tu bet'át'ı-u, tth'ı t'á ní t'árát'ı sí, nezú yek'e ʔeghádáııhena-u, tth'ı t'a bet'át'ı sí, súghá-u bet'át'ı-u, háyqrıla náts'edé sí demı ʔuıı bet's'én haıı ch'á ʔeła ʔeghálada xa.

Nánıs

Nánıs t'at'ú hála sí, bemı yatı dólı sí, sureldhén-u, ʔelts'edaredı-u, tth'ı ní senádátı sı-u, ʔeyı yuneth haʔa dé, súghá xa ts'én bek'e ʔeghálada xélʔı.

Nı-u, Tu-u, K'ék'ër Bet'át'ı Xa

Nı ts'ı-u, tu ts'ı t'ası náłtsı sí deʔaëníłt'e badı xa, jadízı nén harelyı ʔanár ts'ı.

Bıt'as ʔedy Háʔa

Bıt'as ʔedy ʔane sí, bet'á t'ası ʔedy ʔat'ı sí ʔeyı bek'auneta xa,

Yuʔáne Ts'ı T'ası Jadízı Nén K'e Nídél Sí

Yuʔáne ts'ı t'ası jadízı nén k'e nídél sí, bet'á jadízı nén k'e t'ası nádé sı, bet'á beba hunıla to xa net'ı xa. T'á ʔedëri hat'ı k'e ʔeghálana xa súghá lí, hát'ı dëne relkër xa.

Dí Łajt'ę déhtth'ı goyatıe ęt'e

“Ahsı́ yáenda góh gonezı́ agót'é honı́dhe ęha” edıhtł'é hólı. Dı edıhtł'é k'eh adıdı NWT zhıe adágoat'ı́ı meęhę edıhtł'é. Canada chu United Nations ká goodęę ts'atáa azhı́ edáęeele ęha, naxı́ NWT zhıe gots'adı́ láondı́ı k'ęę meęhę edıhtł'é thıtsı. Łajt'ę déhtth'ı́ keh dı há gozı́ kaozhe “Canada ts'atáa nı́ogı́řa la ahsı́ gonezı́ yáondá honı́dhe ęha aęet'ı́” (CBS) gots'ę “United Nations azhęę ahsı́ yáenda hoedı ęhę ełek'ęę yatı getsı́” (UNCBD). Xaye tanét'ée azhı́ k'ónı ęhálaeda hésı́ı ęha meęhę edıhtł'é hıtsı.

Edágoat'ı́ı hésı́ı ęhę nahı́ę t'áh nahe ęha edıhtł'é thıtsı. Dı gok'é edıhtł'é athı́dlá ęhágoadá t'áh ká gonezı́ eęhálaeda móodat'ı́ la dı NWT zhıe UNCBD edáodacho nı́ogénı́ę gogha há athı́dlá. Dı UNCBD azhı́ hesenı́yaegenı́ı nahe ęha nezı́ náthetth'e t'áh mendáet'ı́ı k'enı́ta ęha. Yundaá gogha, dı azhı́ı mendáet'ı́ı k'enı́ta hésı́ı met'áodı́řa k'ęę mek'éodet'á ęha adıdı.

Dı NWT zhıe héh Artic zhıe, dı meęhánda gots'ę t'ęę kanahédandi, meęhę edáenadé hésı́ı manda gots'ę kaondı́ı hénı́dé ahsı́ gonezı́ yáondá ęha adıdı nahe ts'ándı hédé.

**Łajt'ę déhtth'ı́ keh, góts'edı dúle góh t'ats'óızé ts'eda.
Góh ts'eda la met'áh godı́chaa gots'áts'endi ęt'e.**

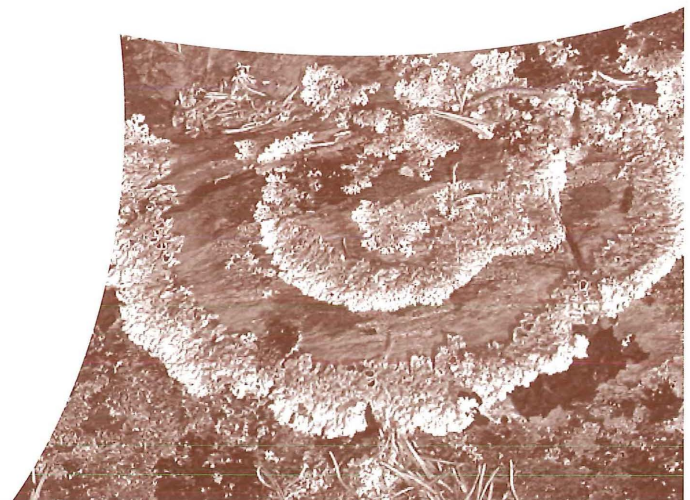
Máhsı,

NWT azhęę ahsı́ gonezı́ yáenda ęha kehoedı k'e déhtth'ı́ yıólı

Dı meęots'ı́řa ęha hénı́dé NWT Biodiversity Action Plan gozı́ zhıe dúle computer k'eh mekáts'eneta
~ www.nwtwildlife.com

Ahsı́ı nechá tı'ęę agot'ı́

- Tıch'adı́ ęha ęoneıı
- Kehoedı k'éh
- Ahsı́ı naedenezhe k'éh
- Ndéh héh tu k'éh ahsı́ı naedenezhe chu
- Yayıt'á chu gúlı́ agodande
- Gots'ę Det'onı́ı héh tıch'adı́ı chu gúlı́ nahe tah adande



Rock lichen © ENR

Yati nít'ò hésíı k'èè agót'é gha

Yundaá honéno xaye k'éozhíe gogha yati ı̀q nı̀zha hésıı edáondıı NWT zhı edagondı holı ghò há ats'edi. T'áh duh godıcháa ghò kanahédıdı gha.

Tıch'adı gha goneji

Łajt'è déhtth'ı keh dı NWT zhıe t'áh tıch'adı gha goneji ka kehoedi gháıáıdee gogha met'áodéıa hénıde dúle gots'ágendi.

Kehoedi k'éh

T'aa ndéh t'áh ayıát'ı gha yıóıı gots'è t'aa ndéh hoendi yıóıı chu ełek'agá gonezı eghálaenda gha.

Dechı tah

Dechı tah go-ıııa kèè gonozıı, go-ıııa héh ndéh gúchú-ıııa chu ełéh egháıáıdee t'áh ahsıı dechı tah naedenezhe gha ats'edi.

Ndéh héh tu k'éh ahsıı naedenezhe chu

Ehdzoo ahıı héh łue kaenıdee, amıı tıch'adı ka nazé yıóıı sée xqò gohoedi gha deıóò ahsıı łagıhde ch'á.

Yayıt'á chu gúıı agodande

Edáondıı t'áh yayıt'á gúıı mets'ııó agodande kegóthııa gha.

Det'onıı héh tıch'adı chu gúıı nahe tah adande

Edáondıı t'áh dı ahsıı yáenda ch'adı ahót'ıı mets'ııó gúıı edédıdı. Eghálaeda k'éozhıe chu t'áh łajt'è ahsıı keh déhtth'ı yıóıı dagoedıke gha edáondıı nahe ts'ádagedendi t'áh meghò kegóthııa gha kagódıdı.

Tuhaarakâaq Hivuniuqtinin

Hivuliq quliaqtaq atiqaqtuq “*Havaakâaqpak Iñuuhiatigun Nirfütit Iñuuniarvingitlu Niqikâangita Nauvingitlu Nunaptingni*”. Nunalu ikaaqaqhaklugu quliarivut havautingit iñuit katilaavluting Northwest Territories (NWT) nunami ilangit Canadami nirfütit iñuuniarvingit ihumalungnaqhifut Canadian Biodiversity Strategy (CBS)lu nunami atlanilu katimafgaliqhut tamakuat ihumaalugiliklugit United Nations Convention on Biological Diversity (UNCBD). Ukiulimaaq havaraqtuq qimilruuklugit NWTmi nirfütit naufiatlu qanuqitmagata.

Uvva pakma iluatut tuglia quliaq NWT, Canadami. Nirfütit niqingit nakuufut qimilruuktavut taitnaguug havakapta iluatmun aullaŕugut NWT nunami avatmun ikayuqtigiitluta UNCBD ilitchuriluting avaligiikluting hivunirilugu NWT nunanga hivunikpatlu nakuuniarlugu NWTmi iluriikluta aglialakayaqtuq iluatmun havakapta.

Kihutliqaa aiyuugaarivut hivuniuqapta ilauhuktuat hunik atlanik ilahukuffigit hivuniurutivut ihumaffinigu tutqikhiniaqaptigu itfuhia nirfütit iñuuniarvialtu nirriniarvialtu iluriikluta NWT nunami tariumilu nakuunayaqtuq.

Ilaufuat qimilruuktuni angmahuufuq. Iñuit atlat ikayuqpata ikayutauniaqtut nunaqatigiiktuani nunami naufiat nauŕuat nirfütit niqingit qaunagilugit.

Uumanga,

NWT Qaunakâit Nunakun

Ilitchurifakfat paqinaqtut Matrixmi
NWT Nirfütitlu Naufiatlu
Havautingit web pagemi
🌐 www.nwtwildlife.com.

Hivuniurun

- Nirfütit Ihumalungnalhaat
- Piqpangnaqtuat
Anguniarnailarviit Nunat
- Iningit Natimani
- Nunaffini Atuakfat Nirfütit
- Nuna Atlanguqman Hilalu
- Atlat Qainiaqtuat Nirfütit



Mountain Aves on Banks Island © A. Korpach/DUC

Hivuliq Aularnihaarutaat Havaqatigiit

Quliaqtangit hivuniuqtukfat qulini ukiuni ihumaalutit uvva ilangit ihumaalungnavialuktut Hivuniurutingit havaakfat.

Nirfutit Ihumalungnalhaat

Havaktuarluhi hivuniurluhi huiqungitkuffigit nirfutit NWT nunangani ilagiittuat ihumalutiaktuat nirfutitigun NWTmi.

Piqpangnaqtuat Anguniarnailarviit Nunat

Atautchikun ilagiiktuahi hivuniurluhi nakuuniufarlugit ihumiuqtahi atuqpalaqtaililugit atuakfat inilaani naamapkalaniufarlugit inilaani atuakfat.

Natirnat

Ihuatun qaunarilugit nunanaktahi humik havangniaruffi qaunagilugu natirnaq NWT nunangani.

Nunaffini Atuakfat Nirfutit

Huniglikaa anguniarniakpata qaunakfiqarlugit anguniaruktuat iqalungniaruktuatluuni nunaffini NWTmi.

Nuna Atlanguqman Hilalu

Nunaqhi qaunagilugu itfuhia atuqiginiarlugu hilaq nunavlu.

Atlat Qainiaqtuat Nirfutit

Atlakayariit nirfutit atlanin nunanin qaiŋgalimniaqtut apikfugaihiaqtut qanuq tamakua Havautiginiacmagata ihumiurutikfat inugiaktuat tutqiaqfat ikayuqtigiikluhi.

Khehłòk Natr'ıgwıjılzhu Kat Gogwandàk

Tr'oochit gogwandàk gwızhıt zrı, "Nın Nıhłnehch'ı' kat Jıdı Isrıts'at Gàtr'oo'ahı" gat'oozrı, zhık Northwest Territories gwızhıt khehłòk gòonlu geenjit nàtr'ıgıjıı gehkhee ts'at jı geenjit tthak gat'agwaandak ts'at an khehłòk nıchı United Nations Convention on Biological Diversity kat chan gò Nihtat Gıjıh Gadaagho Gwızhıt Nın Nihtat Gòonlu Geenjit zhàn nıh. Khan gwıtak gwınyàanch'uu zrı gwıyendoo hàh goo'ahı: an geenjit jùk dagòonch'uu geenjit khehłàk nàtr'ınınlık.

An geenjit shòh hàh jı gwandak chan nakhwantf'ah dhàachuh zhık NWT ts'at Canada gwızhıt tthak geenjit. Jı t'at nıts'oots'at gwıtr'ıt t'agwàa'ıı geenjit gòonlu ts'at tthak gwak'òo geenjit tr'ıgıjıı gò'ahı. Jıdı ısrıts'at nakhwàh gòonlu gwakak akò t'agweedı'm' ts'at nakhwanankak gwızhıt gehkhee ts'at vık'ıghe' duulèh gwıjzrı akò t'ıdı'm gähgwıheedandah. Zhık zrı UNCBD gogàhnuu kat chan ısrıts'at gòonlu gäh tr'oo'ahı jıdı dıyeenjit gwık'ıt gòonlıh geenjit. Jı tthak hàh yeendoo tthak duulèh akò t'ahıdı'yaa geenjit gah'ıdàndah.

Tthak ts'at jıdı hàh gwıtr'ıt t'atr'agwah'm' gwızhıt gootano'h'ıı jı' gadıjıdıjıı akò ts'at uundò jı' nıts'oots'at ejùk gwatàatsaa gò dıdavee gwıheezaa geenjit nakhwàh goondak gwııındhan zhık NWT ts'at dııagoo'ee nankak tthak geenjit.

Jı Khehłòk guyàh akò t'òkhwe'ıı yınohthan jı' geenjit gòhthan ohlıh. Akò t'òkhwe'ıh jı' h' hàh shòh vıdıl'.

Lqò hàh,

NWT Nın Nıhłnehch'ı' Gàtr'oo'ahı Kat Goots'at

Juudın kat govoozrı' gwakak gwıdnùht'oo zrı zhık gwızhıt gwahnò'yaa ts'at geetàk hee ejùk natr'agwahtsıı, www.nwtwildlife.com

Isrıts'at Gat'ıgıjıkhı

- Nın eenjit ıızuu gòodlıt
- Nan K'àndehnahtıı
- Dachantat
Gwıt'agwıjıhch'uu
- Nın nıhłnehch'ı'
gwıt'ámjı'tr'adahch'uu
- Zheetıı ejùk gòonlıı
- Ts'at nın ejùk gòonlı dıtat gòodlıt



Northern Mountain Woodland Caribou, yearlings © Parks Canada

Jidù Isrits'at Gwinundhan

Nagwidàdhat ihlok gwijùutim gwàndòo gwíjìk zrit jidù isrits'at nakhweenjit gò'aih jù edinehtl'eh gwizhìt gwídmìthàt'oo gòonlih. Sru t'agwinyàanch'uu zhik gwizhìt gwídmùutl'oo ts'at natanoh'yaa.

Jidù Nin Geenjit Gwìzúu Goovàh Gòonlih

Tth'aih hee nin geenjit gwìzúu goovàh gòonli geh'àn guk'agwatahthat ts'at guk'atr'ahnahtyaa khehòk nih'e'ejùk t'agidich'uu zhik NWT gwizhìt tthak geenjit.

Nan K'atr'inahtu

Juudìn nan k'atr'inahtu ts'at nin hàh tthak nits'oots'at goots'at tr'itr'innju geenjit gehkhee ts'at yee'ok jidù tthak geenjit gwízzru guk'atr'ahnahtyaa geenjit gòonli. Lì' hàh guk'agwataadhat geenjit dinnjitr'idiju.

Dachan Tat

Dachan tat geenjit dàgwìdì'e' gogwahtsu gwíjìk goots'at tr'itr'innju nihtat gwiteezaa geenjit akoo ts'at nan, nin ts'at jidù gwit'agwìjìghch'uu yee'ok nan kak gwizhìt ts'at gwakak NWT gwà'àn geenjit gòonlih.

Chuu zhìt Luk akòo dìnch'u Gwit'agwìjìghch'uu Geenjit

T'agwìghch'uu nin tr'oonju NWT gwizhìt danh jidù nin daazhaa geenjit gwiteezaa guk'andehtr'ahnahtyaa geenjit.

Yeedàk Zheetù Zhìt Ejùk Nagwìthìt

Yeedàk zheetù zhìt ejùk nagwìthìt geenjit nits'oots'at guk'andehtr'inahtu geenjit ts'at nits'òo gah khatr'aandaih.

Izhu Nin Daazhaa Dutat Gogwandau

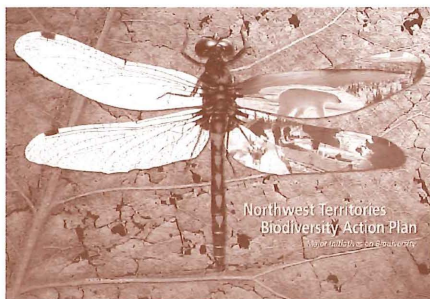
Nin izhu nankak dutat gòonli geenjit nits'oots'at nakhwanin tthak gah gò'aih geenjit ts'at guk'andehtr'inahtu. Duulèh khehòk nagwìjìlzhù yee'òk gwà'àn tthak geenjit gatr'oodahkat ts'at gagootadhahch'yaa.

Introduction

The NWT Biodiversity Action Plan project was initiated in 2001 with the help of many collaborators who formed a NWT Biodiversity Team. The objectives of the Team were to prepare a list of NWT biodiversity actions currently underway by all groups in the NWT, to analyze gaps and overlaps between commitments and actions, and to make recommendations for future actions.

First Step

The first report of the NWT Biodiversity Action Plan, *Major Initiatives on Biodiversity*, was provided to the public in April 2004.



It is an attempt to list all actions related to biodiversity currently under way in the NWT. This report is available in paper form as well as on www.nwtwildlife.com. Most of the 500 NWT biodiversity actions listed in the report involved the close collaboration of more than one NWT organization, agency or group. All actions in the report are also listed in the *NWT Biodiversity Action Plan – Matrix* (www.nwtwildlife.com)

which is updated frequently as more initiatives are undertaken.

Second Step

In December 2004, the Team met to start work on the second report of the NWT Biodiversity Action Plan.

This second report of the NWT Biodiversity Action Plan looks for overlaps in biodiversity actions, suggests ways to streamline current actions and increase collaboration, and recommends new initiatives. The second report also looks for gaps between our commitments under the *Canadian Biodiversity Strategy* and our actions. The NWT Biodiversity Team used the matrix to compare what we have already accomplished to what is expected at international and national levels.

The Team drafted strategic recommendations to resolve priority biodiversity issues. Prioritizing required a review of each goal of the Canadian Biodiversity Strategy from the context of NWT.

The Team used a set of guiding principles to draft each recommendation to ensure that recommendations would reflect best practices and effective approaches used in the NWT and elsewhere around the world.

According to the UNCBD

Biodiversity means “the variability among living organisms from all sources, including *inter alia*, terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

www.biodiv.org

Inter alia?

Latin for “among other things”.



The Team developed a Biodiversity Vision to guide us during the analysis and to remind us that biodiversity planning is done for both present and future generations.

Vision

The people of the Northwest Territories always respect and value the diversity of life, and are developing in a way that leaves to future generations a nurturing and dynamic world, rich in its northern biodiversity.

NWT Biodiversity Team

The Northwest Territories Context

Challenges related to ecologically sustainable development and the conservation of biodiversity exist in the Northwest Territories.

- **The NWT has a dual economy.**

Modern development involving wage employment and often large-scale enterprises co-exists with a traditional economy based on subsistence wildlife harvesting. The value of biological resources may be greatly underestimated if the importance of traditional use is measured only in terms of monetary value.

- **There is increasing pressure on northern ecosystems.**

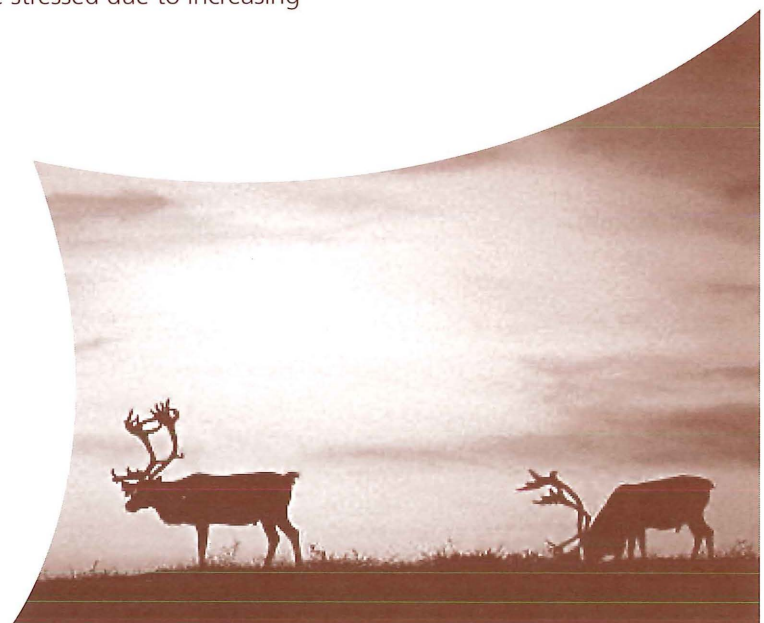
The NWT is experiencing increased non-renewable resource development and unprecedented land and water use. Our ecosystem is affected by industrial activities both within and outside our borders, but we have limited capacity to investigate the combined impacts of these activities.

- **There are areas where land claims are outstanding.**

Land claim settlement agreements reached in many areas of the NWT clarified rules and responsibilities for resource development and gave more control to the people. However, land claims in much of the NWT are still unsettled and it is difficult to identify opportunities and establish partnerships when responsibilities and ownership are unclear.

- **Changes in the economy are out-pacing the capacity of northern communities to adapt to change.**

The capacity of NWT communities to make decisions related to their own environment, their social health, and their use of biological resources has increased significantly during the past decades. This capacity now may be stressed due to increasing expectations and high personnel turnover rates.



Caribou © J. Nagy/ENR

On the other hand, major **opportunities** related to ecologically sustainable development and the protection of biological resources exist in the Northwest Territories. Similar opportunities do not exist in most areas of Canada and around the world.

- **The NWT is vast and relatively pristine.**

The development of roads, cutlines and other infrastructure carves up a landscape and reduces its ability to support wildlife populations. Habitat fragmentation is one of the most important contributors to the loss of biological diversity in temperate regions. In the NWT, wildlife species and ecosystems are relatively pristine and undisturbed, so we have the opportunity to gather basic information and reduce the effects of fragmentation at a wide range of spatial scales.

- **The NWT is home to people with complementary forms of knowledge.**

Our understanding of our ecosystems and of how best to preserve their integrity will be stronger if we incorporate all forms of knowledge, including scientific and traditional ecological knowledge.

- **The NWT has a vibrant economy.**

Today, the economy of the NWT is growing and diversifying. We have the opportunity to follow an ecologically sustainable path if we invest in northern-based, innovative technologies related to the environment and energy, invest in remediation of past industrial impacts, and invest in an effective process for assessing and mitigating future cumulative impacts.

Vast and pristine © T. Macintosh



Guiding Principles for Biodiversity Actions in the NWT

The following principles guided the NWT Biodiversity Team during the analysis and development of recommendations. The principles are organized into five approaches representing best practices for biodiversity actions in the NWT. These were closely based on the Canadian Biodiversity Strategy, but revised for the NWT context.

Ecosystem-based Approach

- All life forms, including humans, are **ultimately connected** to all other life forms.
- An **ecological approach** to resource management is central to conserving biological diversity and using our biological resources in a sustainable manner.
- **Healthy, evolving ecosystems** and the maintenance of natural processes are prerequisites for the conservation of biodiversity and the sustainable use of biological resources.

Social Involvement and Cultural Best Practices

- Biodiversity has ecological, economic, social, cultural and intrinsic **values**; hence, development decisions must reflect ecological, economic, social, cultural and intrinsic values.
- All NWT residents depend on biodiversity and have a **responsibility** to contribute to biodiversity conservation and to use biological resources in a sustainable manner.
- All NWT residents should be encouraged to understand and appreciate the value of biological diversity and to **participate** in decisions involving the use of our air, water, land and other resources.

Cooperation and Collaborative Approach

- The conservation of biological diversity and the sustainable use of biological resources require local, regional, provincial, territorial, national and global **cooperation** and a sharing of knowledge, costs and benefits.

Best Information Approach

- The conservation of biological diversity and the sustainable use of biological resources should be carried out using the **best knowledge available** and approaches should be refined as new knowledge is gained.
- The knowledge, innovations and practices of **Indigenous** and **local communities** should be respected, and their use and maintenance carried out with the support and involvement of these communities.

Fair Legislation and Incentives Approach

- **Legislative measures and economic incentives** should be effective tools to support the conservation of biodiversity and to ensure the ecologically sustainable development of northern resources.

The Analysis

UN Convention on Biological Diversity

The Convention promotes three main objectives:

- The conservation of biodiversity;
- The sustainable use of biological resources; and
- The fair and equitable sharing of benefits arising from the use of genetic resources.

The Convention and its three objectives represent an increasing awareness worldwide of both the value of biodiversity and the increasingly severe threats that it faces.

Find more: www.biodiv.org

Canadian Biodiversity Strategy

The Canadian Biodiversity Strategy (CBS) is Canada's primary response to the Convention: a national framework that puts the Convention into a Canadian context.

- **Goal 1** – Conservation and Sustainable Use
- **Goal 2** – Ecological Management
- **Goal 3** – Education and Awareness
- **Goal 4** – Legislation and Incentives
- **Goal 5** – International Cooperation

Find more: www.eman-rese.ca/eman/reports/publications/rt_biostrat/intro.html

Developing Analytic Tools

Tools to track how well the NWT is implementing the United Nation Convention of Biological Diversity (UNCBD) and the Canadian Biodiversity Strategy (CBS) were developed in a way that provided a visual representation of our efforts and was systematic and easy to apply. The NWT Biodiversity Team looked at tools developed by other jurisdictions and other countries and chose then modified tools to satisfy our requirements.

Goal 1 – Conservation and Sustainable Use describes ways to implement the “core” components of the UN CBS in a Canadian context. The Team has developed a tool for each theme in Goal 1 described in the first report of the NWT Biodiversity Action Plan, with the addition of Invasive Alien Species.¹ An analysis of how the NWT is meeting its commitments on the themes of Goal 1 reveals how we are implementing the essential core components of the UN CBS in a NWT context.

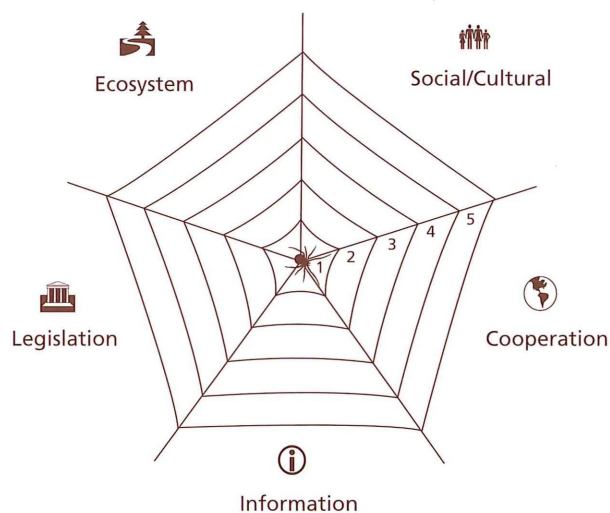
Although the Team used Goal 1 of the CBS as the core of the analysis, we also incorporated the themes covered in the remaining goals of the CBS in each analytic tool. The remaining goals of the CBS are *Goal 2 – Ecological Management*, *Goal 3 – Education and Awareness*, *Goal 4 – Legislation and Incentives*, *Goal 5 – International Cooperation*. These goals describe, in more detail, useful strategies to implement all “core” Goal 1 components using Canadian approaches and practices related to management, education, legislation and cooperation.

Using the Tools

In February 2005, a workshop was held in Yellowknife to use the tools to conduct a formal gap/overlap analysis of biodiversity actions in the NWT. The results of this workshop and subsequent work using the NWT Biodiversity Action Plan web page form the basis of the present report.

¹ Invasive Alien Species was not included in the First Report on Contributions – NWT Biodiversity Action Plan because no major NWT-wide actions had been undertaken by 2003. The Report, however, provided a facts box on the subject.

The Team chose to represent the results of each analysis using a “web of life” image. This symbol reflects the interdependency of all components of biodiversity in the NWT. The web’s five anchor points represent the five approaches of our guiding principles for Biodiversity Actions in the NWT.



The web is a subjective tool that provides a visual representation of how well the NWT is doing in terms of biodiversity actions. A full, symmetrical web represents full implementation of best and innovative practices under each approach, leading to the conservation and sustainable use of biodiversity in the NWT. A web that is asymmetrical, or very small, reflects the need for more innovation, coordination or actions.

Web Core – Proposed Objectives Linking to the UN Convention on Biological Diversity

The UNCBD provides us with some essential components that should be part of our efforts towards the conservation and sustainable use of biodiversity. The Team referred to the UNCBD to propose one main objective for each theme that would provide the core for each set of recommendations.

Question Strands – Linking Our Approaches to the Canadian Biodiversity Strategy

The analysis tool contains questions grouped into the five approaches based on the Guiding Principles for Biodiversity Actions in the NWT. The Team drafted these questions from relevant strategies in the CBS. Each set of questions is arranged so that when we compare our commitments to our actions, we can easily find gaps and overlaps.

Ranking Our Efforts – Analysis

During the analysis, the Team ranked how well the NWT’s biodiversity actions compared to the best practices and innovative approaches described in each question strand. The ranking score goes from « 0 » Not Applicable to « 5 » Leading and Innovative Practices Applied. After ranking our average performance, the Team provided comments and more information on the rationale behind a particular rank. These ranks and comments we used to find relevant gaps and overlaps in our actions.

Biodiversity in Other Words

The web of life

- **dè** = the Land in Dogrib
- **Dè** = Earth
- **Nungorutailinahuanik** = conservation in Inuvialuktun
- **Ecosystem** = all things infused with life, including rocks (Dene meaning)

Ranking Our Efforts

- 0:** Not applicable
- 1:** Practice not applied
- 2:** Practice applied partially but not progressing
- 3:** Practice applied partially and is progressing
- 4:** Best practices applied across the board
- 5:** Leading and innovative practices applied

Improving Our Actions – Recommendations

There is always room for improvement. The Web of Life tool is designed to help anyone develop strategic suggestions to better our practices regarding biodiversity.

The Team provided three types of recommendations:

- **“New” Recommendations:** strategies to help NWT organizations review or develop new actions that would significantly help to fill gaps or increase efficiencies over the next ten years.
- **“Enhance” Recommendations:** strategies already proposed or implemented that, if enhanced, would help significantly in filling gaps or in increasing efficiencies in biodiversity actions over the next ten years.
- **“Continue” Recommendations:** existing key strategies that are already significant in fulfilling some biodiversity commitments in the NWT and should continue to be implemented.

Each recommendation leads to actions that fulfill both national and international commitments using best practices and innovative approaches.

The Team provided **Measures of Success** that can work as milestones or measurable outcomes to help ensure that each recommendation is achievable and to help track the success of their implementation.

Anyone can use the analysis tools at any time to independently provide input on how we can work together on future biodiversity actions in the NWT. These tools are available at www.nwtwildlife.com.

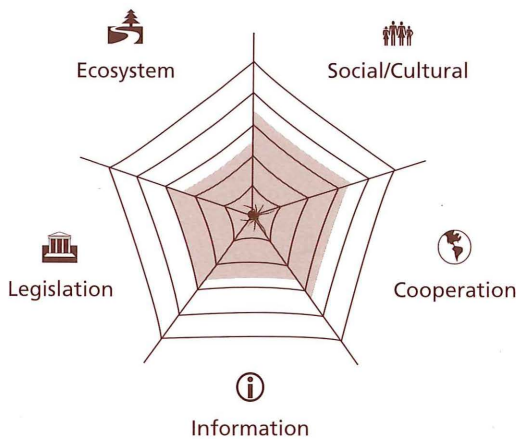
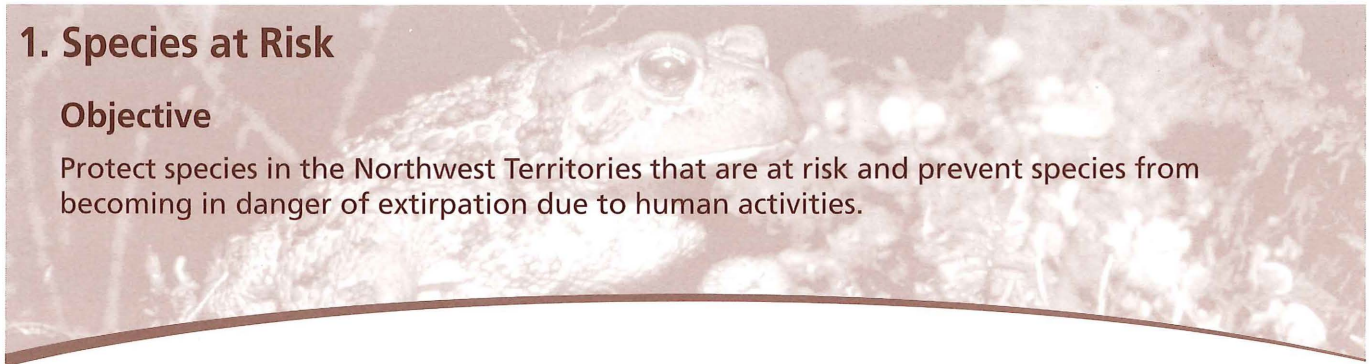


***Team's Findings
and Recommendations***

1. Species at Risk

Objective

Protect species in the Northwest Territories that are at risk and prevent species from becoming in danger of extirpation due to human activities.



Team's Overview

Very few species are at risk of extirpation or extinction in the NWT. Because of our large tracts of relatively pristine habitat, low human population densities and complementary knowledge systems, the NWT has unique opportunities to be at the forefront of recovery efforts for species that are at risk in North America and the Arctic.

Current NWT approaches to species at risk initiatives include strong cooperative efforts, but our ability to gather information on species before they become at risk appears to require more effort.

Species at Risk

Ecosystem-based Approach

- Do we develop and implement recovery plans for all species at risk (SAR)?
- Do we use landscape/waterscape-level approaches to plan the recovery of SAR?
- Do we determine, through monitoring or research, the ecological requirements of all SAR, including habitat requirements?
- Can any species, in any taxonomic group, be assessed in a detailed fashion?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.5: <i>Practice applied partially but progressing slowly.</i></p> <p>Management and recovery plans do exist, but some SAR still require recovery planning. Not all species or habitats are covered by the current SAR process.</p> <p>Best practices for including SAR in impact assessments are needed.</p>	<p>1.1 "Enhance" Enhance the detailed assessment process of species at risk to cover all species and habitats.</p> <p>1.2 "Enhance" Continue to develop ecosystem-based recovery and management plans for all SAR in the NWT; coordinate with all applicable legislation, including the federal <i>Species at Risk Act</i>.</p> <p>1.3 "New" Develop mitigation measures and best practices for impact assessment for all SAR in the NWT; coordinate with all applicable legislation.</p>	<ul style="list-style-type: none"> • Creation of a committee to assess, in a detailed fashion, SAR in the NWT. • Increase in number of SAR for which there are recovery/management planning efforts. • Developed best practices for including SAR in the impact assessment process, including mitigation measures.

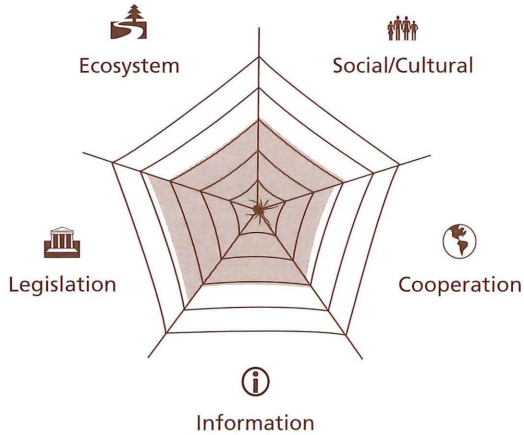
A rare species in the NWT, Philadelphia Vireo © C. Machtans



2. Protected Areas

Objective

Complete and maintain a system of protected areas that is representative of the Northwest Territories' terrestrial, marine and aquatic ecosystems, that protects areas of special natural and cultural value, and that protects biodiversity and ensures appropriate management of these protected areas and surrounding areas.



Team's Overview

The NWT has successfully developed a Protected Areas Strategy (PAS). This Strategy is regarded as one of the most significant efforts on coordination and social involvement in the planning for future protected areas in North America. In addition, new National Parks have been created in the North, with extensive input from communities.

In contrast to many jurisdictions in Canada and the Arctic, setting up a co-management regime for existing protected areas and their surroundings is the norm in the NWT.

Completing new protected areas in the NWT may be slow and onerous, but it is performed with a vision shared by everyone. The Team's findings on protected areas efforts reflect this.

Elders' gathering © PAS/ENR

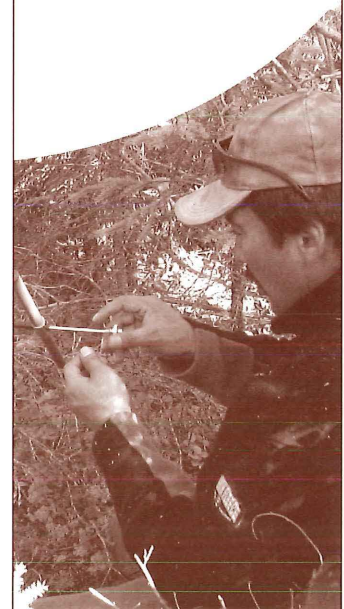


Protected Areas

Ecosystem-based Approach

- Do we use a landscape/waterscape-level approach that helps integrate economic and social objectives with conservation objectives when we identify and establish protected areas?
- Do we ensure the ecological integrity of protected areas is maintained?
- Are we improving ecological planning to assist in the conservation of biodiversity in or near sensitive areas, in areas that support populations of endemic, threatened or endangered species, and in areas that are undergoing significant changes resulting from human activity and development?
- Do we re-connect fragmented areas and maintain connectivity in ecosystems by providing corridors and protecting habitats for isolated species or populations?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.1: <i>Practice applied partially and progressing.</i></p> <p>Protecting ecological integrity is the first priority for Parks Canada and a major goal of the NWT-PAS. However, there are serious data gaps regarding specific species and biodiversity in the NWT.</p> <p>Goal 2 of the NWT-PAS addresses ecological values. We still have work to do to achieve this goal. The NWT-PAS Mackenzie Valley Five-Year Action Plan will help improve ecological planning in the Mackenzie Valley area.</p> <p>More marine and watershed protected areas are needed. Protection in the North has been more focused on the terrestrial component. However, communities have brought the protection of water through a watershed approach forward.</p> <p>New park establishments should consider watersheds, species ranges, etc.</p> <p>Fragmentation is not yet a major problem in the NWT. Prevention of fragmentation and maintaining connectivity are aspects of the NWT-PAS Action Plan. As well, protecting habitats is a major function of National Parks; connections have a role in park establishment/expansion. Progress is being made.</p>	<p>2.1 “New” Consider marine or aquatic representation when planning protected areas.</p> <p>2.2 “Continue” Continue to develop and implement monitoring programs, management plans and agreements to ensure that the ecological integrity of protected areas is maintained.</p> <p>2.3 “Enhance” Work towards the completion of mapping methodology that incorporates information at the landscape and waterscape-level in the selection of new protected areas.</p> <p>2.4 “Continue” Continue active participation in land use planning initiatives to ensure that ecosystem level planning occurs and continue to identify areas for National Parks according to the System Plan for National Parks in Canada.</p>	<ul style="list-style-type: none"> • Completed investigation into the creation of a marine or aquatic protected area in the NWT. • Completed monitoring and management plans for all NWT protected areas. • Completed non-renewable resource potential mapping and completed ecological representation mapping as described in the NWT-PAS Five-Year Mackenzie Valley Action Plan, Task 1A. • Completion of Dehcho, Sahtu and potentially Tlicho land use plans that are based on the principles of ecological integrity and initiation of land use planning in other areas as required.

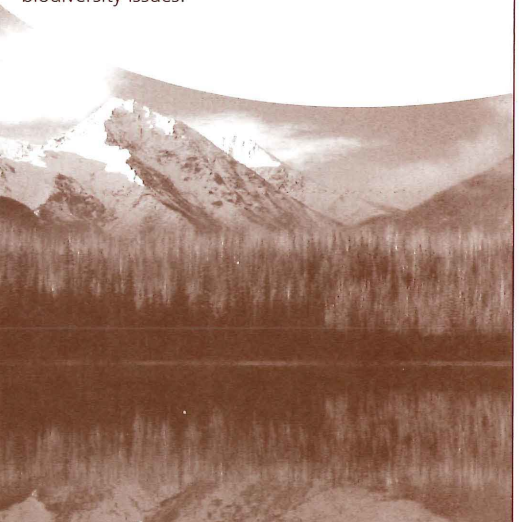


Studying PAS candidate, Ts'ude'hililne-Tuyetah © D. Mulders/CWS

Protected Areas (cont.)

Social Involvement Approach and Cultural Best Practices

- Do we use open and meaningful public and stakeholder participation processes to ensure that social, cultural and ecological factors are considered in the establishment of protected areas?
- Do we manage human activities in and around protected areas in consultation with communities and interested stakeholders?
- Do we deliver effective education programs on biodiversity conservation by integrating themes and messages, including on protected areas, into the formal educational curriculum?
- Do we have effective interpretive programs in or about each protected area?
- Do we promote public awareness of biodiversity issues through periodic reports, fact sheets, electronic information systems and other methods?
- Do we coordinate biodiversity education and awareness programs among organizations responsible for protected areas and other organizations?

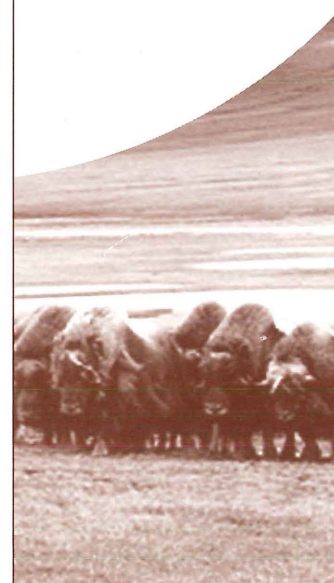
Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.2: <i>Practice applied partially and is progressing mostly in an innovative fashion.</i></p> <p>The NWT-PAS is a community initiated and driven process. Meaningful participation in a broad multi-stakeholder process will be an evolving process. As well, new park establishment with Parks Canada is an open participatory process.</p> <p>Until this point, identification of sites has been primarily, although not exclusively, based on cultural/special significance from the community's perspective.</p> <p>Under the NWT-PAS, management guidelines are developed in consultation with communities and stakeholders.</p> <p>Legislation directs human activities in all NWT protected areas. Land use planning is one of the main tools that address human activities outside of protected areas.</p> <p>Limited education materials and programs on biodiversity conservation have been developed.</p> <p>NWT National Parks have a wide variety of interpretive media and approaches, including innovative on-site interpretation of biodiversity and culture by Aboriginal people.</p> <p>Limited reports, fact sheets and electronic information have been developed to promote public awareness of biodiversity issues.</p> 	<p>2.5 "Continue" Continue to improve communication and engagement with all participants in the NWT-PAS. Communicate information in a clear and understandable manner. Investigate the use of simultaneous translation services, when possible, to improve communications with communities.</p> <p>2.6 "Continue" Continue to include economic factors as a consideration in establishing protected areas.</p> <p>2.7 "Enhance" Where opportunities arise and with the input of communities, participate in and contribute to education programs, in particular programs that are more hands-on, culturally specific and demonstrated to be effective; continue to develop, implement and evaluate effective interpretative programs within protected areas.</p> <p>2.8 "Continue" Continue to work with communities on development of cumulative effects thresholds for land uses and integrate these into land use plans, as appropriate.</p> <p>2.9 "Enhance" Increase profile/level of awareness of NWT protected areas and biodiversity conservation, using the internet and other methods, such as biodiversity reports, fact sheets and electronic information, as appropriate.</p>	<ul style="list-style-type: none"> • Release of NWT-PAS materials in plain language and translated in appropriate official languages to improve communication. • Economic factors are formally part of the process of establishing a new protected area and socio-economic impact/benefit analyses are completed for all proposed protected areas in NWT. • Completion of curriculum/education or interpretative projects that are relevant to each protected area in the NWT and coordinated to form a comprehensive education and awareness program. • Completion of frameworks to help integrate different types of human activities in and around protected areas, and frameworks used to develop quantitative cumulative effects thresholds. • Improved public awareness on protected areas and biodiversity issues in the NWT and the North.

Protected Areas *(cont.)*

Cooperation and Collaborative Approach

- Do we coordinate our efforts to conserve ecosystems, especially to protect unique or special areas, species and ecosystems at risk, endemic species and critical habitats to support populations of wild plants and animals, including trans-boundary species?
- Do we promote the development of agreements between governments and local and Indigenous communities for the voluntary allocation of land for conservation purposes?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.75: <i>Practice applied partially and is mostly progressing.</i></p> <p>Because there are three inter-connected processes for selecting and establishing protected areas in the NWT, increased coordination is essential to ensure that limited resources are used effectively.</p> <p>NWT protected area processes include the NWT-PAS, the Parks Canada National Park System Plan other federal processes to establish Migratory Bird Sanctuaries and National Wildlife Areas, and land use planning and withdrawal under Land Settlement Agreements.</p> <p>NWT-PAS promotes the development of agreements for the creation of protected areas. In addition, Parks Canada does contribute to, participate in and support land use planning and the NWT-PAS.</p> <p>NWT-PAS should improve coordination with sponsoring agencies by involving them as early as possible in the planning process.</p>	<p>2.10 “Continue” Continue implementation of the Protected Areas Strategy to protect special natural and cultural areas and, in particular, to protect representative core areas within each NWT ecoregion.</p> <p>2.11 “Enhance” Improve coordination among conservation, land use planning and development agencies to increase efficient use of resources and reduce the burden on community capacity.</p> <p>2.12 “Enhance” Involve potential sponsoring agencies as early as possible in the NWT-PAS process.</p>	<ul style="list-style-type: none"> • Successful completion of the NWT-PAS Five-Year Mackenzie Valley Action Plan, with the creation of at least one protected area that supports Goal 2 of the NWT-PAS. • All agencies and partners are aware of each other’s initiatives and of how they can coordinate their efforts. • Guidelines for early involvement of sponsoring agencies are included as part of the NWT-PAS process.



Muskox at Aulavik National Park © S. Baryluk/Parks Canada

Protected Areas *(cont.)*

Best Information Approach

- Do we prepare, and have the capacity to prepare, policies and inventories to support the establishment of protected areas?
- Do we prepare, and have the capacity to prepare and implement, in consultation with stakeholders and volunteers, plans, guidelines and monitoring programs to support the management of protected areas?
- Do we participate in information systems on protected areas within Canada and with other countries?
- Are we continuing to develop information management systems, such as GIS, that facilitate the rapid analysis and distribution of data and information on present and future protected areas?
- Do we use biodiversity indicators that are meaningful, scientifically defensible, practical and compatible with regional, territorial, national and international programs to monitor changes in protected areas?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.1: <i>Practice applied partially and is progressing.</i></p> <p>More focus on species and ecosystems is needed in selecting protected areas, but capacity is limited. Governments and NGOs already participate in various national and international information systems.</p> <p>Base data are lacking in the North to provide for a comprehensive landscape/ waterscape-level approach. There are serious data gaps regarding rare species and biodiversity in general.</p> <p>The development of species maps should focus on mapping rare and endemic species first as well as species of interest to communities.</p> <p>A standardized approach to inventories should be developed, once objectives have been established, to determine what an inventory will accomplish.</p>	<p>2.13 “New” Develop species maps, with a focus on rare and endemic species, and improve the state of knowledge on biodiversity and ecologically important areas.</p> <p>2.14 “Continue” Continue mapping areas of human use and development interest, including cumulative impacts.</p> <p>2.15 “Continue” Continue to work with all government agencies involved in biodiversity monitoring in the NWT, and develop data sharing agreements and a standardized approach to inventories as required.</p> <p>2.16 “New” Develop biodiversity and ecological integrity indicators relevant for NWT parks, and link to national and international biodiversity indicators and information systems, as appropriate.</p> <p>2.17 “Continue” Continue Parks Canada’s ecological integrity indicators and monitoring program.</p>	<ul style="list-style-type: none"> • Completed official range maps of one group of species, in particular rare species. • Up-to-date maps of human use and development interest available to all organizations involved in establishing protected areas. • Completed Spatial Data Warehouse Initiative where standard monitoring protocols and data sharing agreements are developed and used. • National and internationally relevant biodiversity indicators are developed for all parks in the NWT. • Ecological integrity indicators completed and monitoring program implemented.

Fair Legislation and Incentives Approach

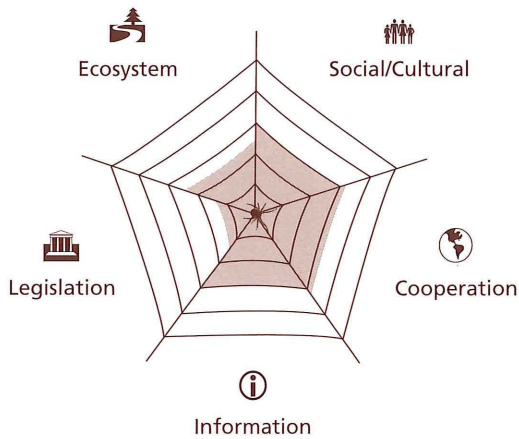
- Do we use interim protection measures so that candidate protected areas are not compromised by development?
- Do we have the appropriate legislation to implement the establishment and management of protected areas?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.75: <i>Practice applied partially and is slowly progressing but in an innovative manner.</i></p> <p>Interim withdrawals occur, but process is slow.</p> <p>Interim protection may not be the only answer. Need to use tools to protect sensitive areas that don’t have interim protection, e.g. land use planning processes, use of best practices for industry.</p> <p>The NWT-PAS has no management role, so outside agencies and their partners are responsible for management under their respective legislation of areas designated.</p>	<p>2.18 “New” Improve NWT-PAS process to ensure efficiency and effective use of program money.</p> <p>2.19 “Enhance” Improve process of getting to Interim Protection, so that it is faster and more efficient; improve integration with land use planning as a way to make protected areas planning more efficient.</p> <p>2.20 “New” Investigate the amendment of the Canadian Mining Regulations to recognize interim withdrawal.</p> <p>2.21 “Enhance” Explore ways that Aboriginal sponsorship can be recognized and used in the NWT-PAS, and increase capacity for sponsoring agencies to support areas advanced through the NWT-PAS.</p>	<ul style="list-style-type: none"> • Completed process review. • Completion of land use plans. • Report on how the Canadian Mining Regulations can be amended to facilitate land withdrawals. • Area advanced under the NWT-PAS that is sponsored by an agency other than the federal government.

3. Sustainable Forests

Objective

Sustainable use of forest resources and maintenance of biodiversity in forested areas in the Northwest Territories.



Team's Overview

Sustainable forest management practices are the basis for forest management programming in the NWT. Tools and processes are being developed to assist with landscape level forest management.

Forest management is the responsibility of the GNWT. Standards, policies and legislation are being updated to reflect current management practices.

Significant advances in information gathering and new initiatives in long-term monitoring are creating a better basis for future forest management and land use decisions.



Studying forest ecosystems © Forest Management/ENR

Sustainable Forests

Ecosystem-based Approach

- Do we implement landscape-level forest management plans and codes of practices that provide for the sustainable use of forests while maintaining the regional forest mosaic, i.e. that allow for or mimic natural disturbance regimes and natural processes?
- Do we have forest management policies, programs and practices that reduce to acceptable levels the adverse impacts of forested land use on watersheds, soils and adjacent ecosystems and species, so that the long-term integrity of ecosystems are supported?
- Do we restore or rehabilitate degraded forest ecosystems (for example, using forest renewal practices) in a manner that will make a significant contribution to conserving biodiversity?
- Do we manage forest pests in an integrated way so that we eliminate or reduce to acceptable levels the adverse impacts on non-target species and ecosystems?
- Have we developed and implemented programs to conserve the genetic diversity of tree species *in situ* conditions?
- Are we participating in forest seed and gene banks to conserve the genetic diversity of tree species?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.5: <i>Practice applied partially but progressing.</i></p> <p>Forest management activities are guided by a sustainable development policy, which emphasizes that economic development is sustainable, promoting environmental conservation and maintenance of ecosystems.</p> <p>Forest management planning and timber supply analyses are carried out in areas where adequate information exists. Analyses determine sustainable use scenarios, accounting for social concerns and ecosystem measures. Wildlife habitat is not yet incorporated. The process is only used where data and need both exist.</p> <p>Standard operating procedures for harvesting are being implemented.</p> <p>Planning is ongoing for development of best practices guidelines.</p> <p>There is a biannual forest health monitoring program. Linkages are maintained with national forest health monitoring groups.</p> <p>Seed collection occurs at the regional level as needed.</p>	<p>3.1 “Continue” Continue collecting baseline information and inventories, including forest vegetation inventories, development of ecological land classification and forest ecosystem classification in the NWT.</p> <p>3.2 “Enhance” Continue to develop programs and processes that will accomplish effective forest management planning.</p> <p>3.3 “Enhance” Develop standard technical information requirements for forest management planning.</p> <p>3.4 “Enhance” Enhance information auditing and enhance update procedures for base information sources to help during landscape-level forest management.</p> <p>3.5 “Enhance” Continue development of standard operating procedures and best practices guidelines for various business areas.</p> <p>3.6 “New” Develop a forest renewal strategy.</p>	<ul style="list-style-type: none"> • Completed Ecological Land Classification for the NWT. • Forest management planning methodologies and practices in place. • Completed information requirements for forest management planning, including timber supply analysis for areas where sufficient inventory information exists. • Operational audit procedures in place to link outcomes of operational activities with predicted volumes and renewal. • Standard operating procedures and forest management plans in place. • Completed forest renewal strategy.



Sustainable Forests (cont.)

Social Involvement Approach and Cultural Best Practices

- Do we assess our current and proposed major government forest policies and programs to ensure that social, ecological, cultural and ecological factors are considered?
- Do we provide quality and efficient training and education opportunities, using both science and traditional ecological knowledge methods, to increase the understanding of forest ecosystems and of conservation and sustainable use of forests?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.0: <i>Practice is partially applied and progressing.</i></p> <p>Public education tools are actively being developed, including web site and extension programming for youth.</p> <p>Training and community capacity building is needed.</p>	<p>3.7 "Continue" Continue to engage First Nations and other public stakeholders in resource analysis to ensure local concerns and knowledge is accounted for.</p> <p>3.8 "Enhance" Continue to develop and enhance web site and public education materials. Continue development of materials and packages for stakeholder and community review and input.</p> <p>3.9 "New" Hold workshops and conferences to provide information about new technologies and business opportunities, and to promote sharing of ideas and knowledge between communities and entrepreneurs.</p> <p>3.10 "New" Develop forest management planning audit process for continuous improvement, in cooperation with First Nations.</p>	<ul style="list-style-type: none"> • Training and information sharing opportunities on forest management are in place in all forested regions of the NWT. • Launch of improved NWT Forest Management web site. • Greater knowledge and understanding of forest processes and opportunities among the public. • Audit process for forest management planning in place.

Cooperation and Collaborative Approach

- Do we work with Aboriginal governments and others to identify and correct policies that discourage the conservation of biodiversity in forested areas and the sustainable use of forest resources?
- Do we support multi-disciplinary research, management and policies that assess and promote new uses of timber and non-timber products from forests to increase the economic return from forest ecosystems, while conserving biodiversity?
- Do we promote the voluntary establishment of codes of environmental management (e.g. Forest Product Certification)?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.2: <i>Practice applied partially and progressing slowly.</i></p> <p>Consultations with Aboriginal government are required under forest management legislation and under interim measures agreements.</p> <p>Cooperation occurs informally and formally through forest management planning and regulatory processes.</p> <p>Continue the development of standard operating procedures and sustainability indices.</p>	<p>3.11 "Enhance" Help develop innovations and grow the entrepreneurship base for sustainable forest economy in the NWT.</p> <p>3.12 "New" Develop sustainability indices for forests in the NWT in collaboration with all groups involved in forest and land management in the NWT, consistent with codes or indices developed across Canada.</p>	<ul style="list-style-type: none"> • Communities or entrepreneurs with new functioning forest industries. • Completion of a State of the Environment report with forest sustainability indices.

Sustainable Forests *(cont.)*

Best Information Approach

- Are we enhancing our ecological site classification system, including the identification of appropriate locations to establish base monitoring sites?
- Are we enhancing our inventory and monitoring of commercial and non-commercial species, soil, soil biota, climate and other physical characteristics in forested areas?
- Are we monitoring the ecological responses of forests to resource management practices and other activities, such as the development of indicators to monitor trends and support forest conservation and sustainable use at local to national scales?
- Are we enhancing our understanding of forest ecological functions by determining the benefits of ecological services provided by forest ecosystems, e.g. carbon sinks investigations?
- Are we ensuring that data and information generated by publicly funded studies are made available to potential users through appropriate sharing arrangements?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3: <i>Practice applied partially and progressing.</i></p> <p>Ecological land classification and forest ecosystem classification is progressing. Over 100 permanent monitoring sites are established in the NWT.</p> <p>Forest Management is continually acquiring new forest inventory information with more complete coverage and more detailed attributes. Management level inventories still only exist for a small portion of the NWT.</p> <p>The NWT participates in National Criteria and Indicators (C&I) processes and has links to National Forest Inventory. Long-term forest monitoring programs are being established. The NWT actively participates and cooperates in investigations, however, information is often lacking.</p> <p>Currently developing processes to disseminate information. Efforts at collaboration with other groups to share information are underway.</p>	<p>3.13 "Continue" Continue to collect baseline information, include use of forest permanent plot monitoring programs.</p> <p>3.14 "Continue" Continue the review and update of a NWT Ecological Land Classification System.</p> <p>3.15 "Continue" Continue to develop information management processes to ensure usability of information.</p> <p>3.16 "New" Develop a suite of sustainability indices to measure functionality of forest ecosystems. These may include cumulative effects indicators, those pertaining to C&I or internal GNWT measures.</p>	<ul style="list-style-type: none"> • NWT-wide baseline vegetation information exists; established forest permanent plot monitoring programs. • Completed Ecological Land Classification for NWT. • Completed Forest Information Management System. • Completion of a State of the Environment report with forest sustainability indices.

Fair Legislation and Incentives Approach

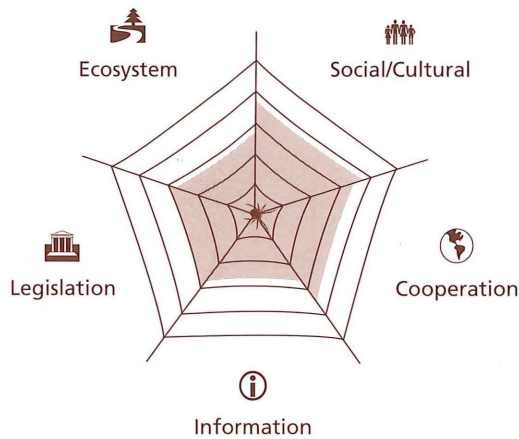
- Are we ensuring that economic, trade, conservation and sustainable forest resource-use laws and policies are mutually supportive?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 1.5: <i>Practice partially applied and not progressing.</i></p> <p>Forest legislation is being reviewed; the concept of "sustainable ecosystem" will be integrated into new legislation.</p> <p>Forest policy will provide a framework for program development.</p>	<p>3.17 "Continue" Continue to update forest legislation and harmonize with all applicable legislation, including land claim legislation, to develop better tools for the sustainable use of forests in the NWT.</p> <p>3.18 "New" Draft forest policies specific to the NWT, supporting the work of both forest managers and other land and resource managers.</p>	<ul style="list-style-type: none"> • Updated forest legislation. • New NWT forest policies.

4. Sustainable Use of Terrestrial and Aquatic Species

Objective

Manage all harvested wild species within sustainable harvest levels, using the best available information and respecting traditional cultural practices in the Northwest Territories.



Team’s Overview

The integration of traditional and cultural practices in the management system is one of the key components of the co-management system. With a co-management system in place in most areas of the NWT, we are gaining valuable experience in integrating best practices to better manage activities leading to the sustainable use of biodiversity.

The NWT is experiencing increased pressures on its wildlife. In the past, sustainability was assured because pressures were relatively low and manageable. Today’s pressures, including climate change and increased industry demands on habitats, are less manageable and will have less predictable effects on the NWT’s biodiversity:


The Team found that more information is needed in view of increasing demands, and that capacity building is essential, in addition to more efficient ways to share information, including traditional ecological knowledge (TEK).

Sustainable Use of Terrestrial and Aquatic Species

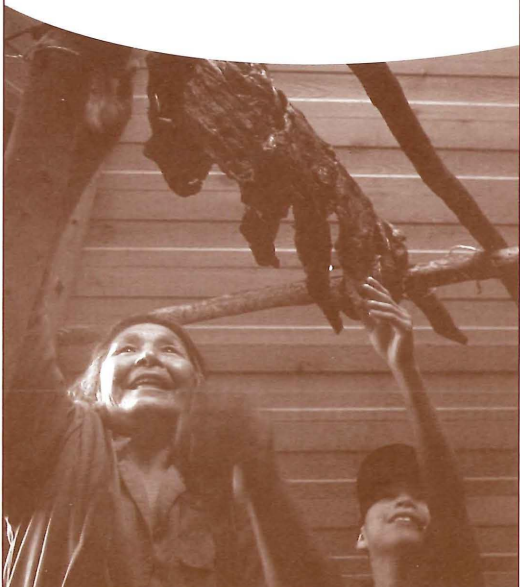
Ecosystem-based Approach

- Do we ensure that harvest of all wild species is sustainable while minimizing adverse impacts of harvesting on non-target species?
- Are we modifying, developing or implementing policies, plans and management programs to ensure that they support the sustainable use of biological resources, with consideration at the landscape/waterscape-level for water, air and other essential resources and the long-term integrity of supporting ecosystems?
- Are we enhancing our monitoring programs on the harvested species, and on the ecosystems supporting them, that are currently under the most stress?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.8: <i>Practice applied partially but progressing at moderate pace.</i></p> <p>Not all harvested species have management plans, but some general monitoring is done – there is a need to increase communication about what is known about these species.</p> <p>Harvest rates are not well known for some species in some regions (also see Best Information Approach).</p> <p>Sustainability indices are not communicated to decision-makers and the public; data and information are dispersed within and amongst wildlife management organizations.</p>	<p>4.1 “Continue” Continue to manage the harvest of species in a sustainable manner, and include considerations for non-target species, natural variations in populations and ecosystem changes in management plans.</p> <p>4.2 “Enhance” Increase our monitoring of harvest rates to include all types of harvesters and fishers in all regions of the NWT.</p> <p>4.3 “New” Produce a State of Environment or biodiversity indicator report; include indices on sustainable use of wild species and link with climate change indices and other indices, as appropriate, and link to national and international efforts, as appropriate.</p>	<ul style="list-style-type: none"> • Production of fact sheets or other tools that demonstrate sustainability of harvest of all species or groups of species harvested in the NWT. • Published harvest rate estimates for all harvester types for all regions. • Production of a State of Environment or biodiversity indicator report that includes sustainability indices for harvested species and their habitats in the NWT.

 **Social Involvement Approach and Cultural Best Practices**

- Are Indigenous communities developing approaches to promote and ensure the sustainable use of biological resources in a way that reflects their values, social networks, traditional economies and cultures?
- Do we provide programs and information to assist users in understanding the impacts and implications of their decisions and to promote the sustainable use of biological resources and ecosystems?
- Are we improving the effectiveness of public participation in developing policies (including programs and plans) for the use of biological resources using a variety of measures, such as integrated decision-making processes and conflict resolution mechanisms?
- Are we improving mechanisms to use TEK with the involvement of the holders of such knowledge, and encouraging the equitable sharing of benefits arising from the use of such knowledge, innovations and practices?
- Are we providing opportunities for participation of Indigenous communities in implementing actions on sustainable use through a variety of mechanisms, such as resource management agreements, management boards and other means?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.8: <i>Practice applied partially and is progressing in an innovative fashion.</i></p> <p>Co-management systems are not established everywhere in the NWT. Where co-management boards exist social involvement is high, but not all boards are at full capacity and there are community capacity issues.</p> <p>There are many boards in the NWT. The NWT Board Forum exists as a formal mechanism to provide better communication amongst many of them, but renewable resource boards are not included.</p> <p>The links between TEK and the implementation of access and equitable sharing of benefits from biological resources are complex and not well understood yet in Canada.</p> <p>There are remaining and sometimes increasing barriers to community involvement and multi-agency cost sharing for monitoring and research on species. These barriers include strict insurance and prohibitive liability issues, lack of training opportunities, cost sharing policies, and low community capacity to participate. The NWT needs more dialogue to eliminate barriers.</p> 	<p>4.4 “Continue” Work towards completing land claim agreements as the most effective way to enhance capacity and to establish integrated decision-making processes throughout the NWT.</p> <p>4.5 “Continue” Continue to participate in and increase the effectiveness of the co-management system for wildlife management in the NWT, and work towards the implementation of such systems in all regions of the NWT.</p> <p>4.6 “Enhance” Find and participate in innovative ways to enhance communication and networking amongst boards to facilitate resolution of complex NWT-wide wildlife management challenges. Investigate whether an annual forum on wildlife would help as a starting point.</p> <p>4.7 “Enhance” Participate in innovative ways to enhance communication and networking amongst boards to facilitate resolution of complex NWT-wide wildlife management challenges; investigate participation in annual NWT Board Forum as appropriate.</p> <p>4.8 “New” Identify barriers to community involvement, volunteer researchers and monitors, and then work towards eliminating barriers. Investigate drafting a northern multi-agency Volunteer and Community Participation Strategy.</p> <p>4.9 “New” Investigate how access and benefit sharing applies to the NWT context, using as a basis for discussion the Draft Scoping Paper and Engagement Strategy being developed by all jurisdictions in Canada.</p>	<ul style="list-style-type: none"> • Settled land claims in all regions of the NWT. • All wildlife co-management boards are at full capacity in terms of personnel and expertise, as they feel appropriate. • Formal multi-board communication process in place; link with NWT Board Forum or a forum on species at risk, as appropriate. • Standard protocols and data-sharing agreements on harvested species in place. • Volunteer and Community Participation Strategy completed. • Report on access and benefit sharing of biological resources and its application to the NWT context.

Sustainable Use of Terrestrial and Aquatic Species *(cont.)*

Cooperation and Collaborative Approach

- Are we implementing mechanisms, including management plans and agreements, to conserve and use in a sustainable manner transboundary native wildlife populations, species, habitats and ecosystems in cooperation with other jurisdictions and organizations?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.5: <i>Practice applied partially and is progressing in an innovative fashion.</i></p> <p>The NWT needs to list all harvested transboundary populations, species, herds or groups of species and provide information on how sustainable harvest is monitored and achieved, for example through agreements or management decisions of a board.</p>	<p>4.10 "Continue" Continue to manage the harvest of transboundary species in a sustainable manner and continue to develop international agreements or management boards, as appropriate.</p> <p>4.11 "Continue" Continue to participate in efforts to monitor harvested wildlife in the circumpolar world, through, for example, continued participation in the Arctic Council and its programs.</p>	<ul style="list-style-type: none"> • All harvested transboundary populations, species, herds or groups of species have a mechanism to conserve and ensure sustainable use that includes other affected jurisdictions and their organizations. • Full participation in Arctic Council monitoring programs and others, as appropriate.

Best Information Approach

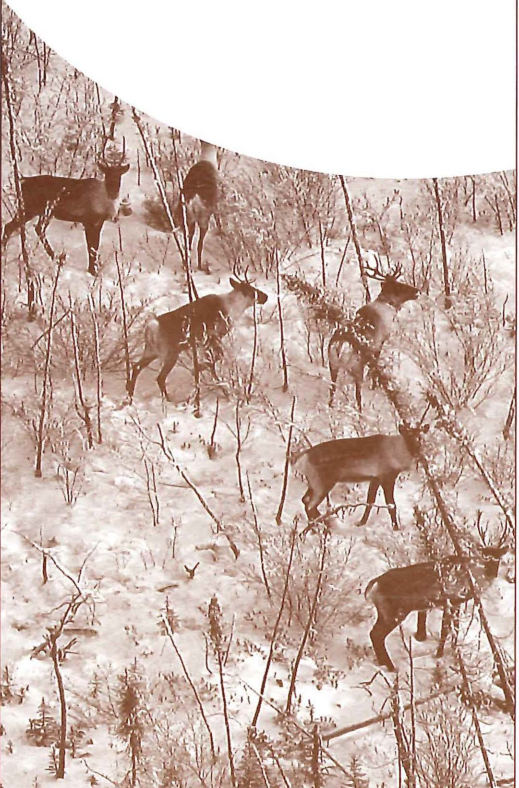
- Are we improving methods and technologies and increasing efforts to inventory, research, monitor and share information that supports the sustainable use of biological resources and eliminates or minimizes adverse impacts on biodiversity resulting from resource use?
- Are we developing and implementing education and training programs for people involved in the management, development and use of biological resources, to ensure that they have access to the best available information, methods and technologies?
- Are we working towards ensuring that data and information on sustainable use of biological resources generated by publicly-funded studies are made available to potential users?
- Are we developing and implementing monitoring programs to evaluate the success or failure of sustainable use policies and programs and better integrate the monitoring of biological and non-biological parameters?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.75: <i>Practice applied partially and is progressing slowly.</i></p> <p>Harvest rates are not well monitored for most species in most regions.</p> <p>Population size and natural mortality information for some harvested species continues to be so imprecise that it prevents us from making reasonable long-term estimates of sustainable harvest.</p> <p>Sustainability could be demonstrated, for example, by using a set of criteria that would include harvest levels, population information, management options, considerations for non-target species, natural variations in populations and ecosystem changes.</p>	<p>4.12 "Enhance" Enhance our efforts to coordinate research and increase our efforts to monitor harvest on all harvested species in the NWT.</p> <p>4.13 "New" Develop and improve mechanisms to communicate sustainability indices on harvested species to the public and decision-makers.</p> <p>4.14 "Continue" Continue to work on multi-agency database initiatives as a way to share data on harvested species and their habitats in the NWT, building on initiatives such as the Wildlife Information Management System and other information management systems under development in the NWT, as appropriate. Link to other databases outside NWT.</p>	<ul style="list-style-type: none"> • List all harvested species or groups of species and, using fact sheets or other methods, demonstrate how sustainability is achieved and maintained. • Have all harvest level information easily accessible by wildlife managers, decision-makers and the public in the NWT. • Have a Wildlife Information Management System in place and have active participation in national database systems on renewable resources.

Sustainable Use of Terrestrial and Aquatic Species *(cont.)*

Fair Legislation and Incentives Approach

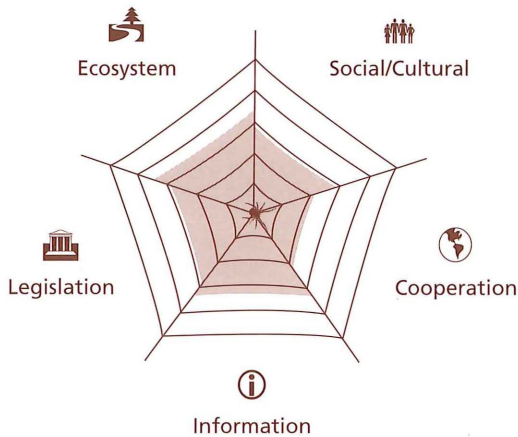
- Are we developing and using appropriate social/economic policies and incentives as a means of promoting the sustainable use of biological resources?
- Are we examining our legislative tools and improving, if necessary, the legislative framework to better support the sustainable use of biological resources?
- Are we modifying or eliminating elements in our policies and programs that create unintentional adverse impacts on wild flora and fauna?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3: <i>Practice applied partially and is progressing.</i></p> <p>Most legislation related to renewable resources in the NWT has been slated for a review to increase effectiveness, to meet new threats and to keep up-to-date on the changing context of wildlife management in the North.</p> 	<p>4.15 "Continue" Review and continue to improve all renewable resource legislation and regulations in the NWT, both federal and territorial.</p> <p>4.16 "New" Develop evaluation criteria for legislation and policy initiatives related to biodiversity, including wildlife.</p>	<ul style="list-style-type: none"> • Renewed <i>Wildlife Act</i>, fisheries regulations and forest legislation and completed new NWT species at risk legislation. • Completed evaluation criteria for legislation and policies related to biodiversity.

5. Climate Change

Objective

Control greenhouse gas emissions, and conduct research and implement monitoring on impacts of climate change on biological resources and ecosystems in the Northwest Territories.



Team's Overview

Climate change has come to the forefront as a concern to northern biodiversity. This occurred more quickly than expected.


There are many disjointed climate change programs in the NWT that need consolidation to move forward. We need to work more cooperatively on a territorial and national climate change agenda, which would include working with the federal government to control greenhouse gas emissions (GHG).

Continuing research and implementation of carbon sequestration programs for forests, wetlands and grasslands is essential, as are examining climate change impact on biological resources and implementing strategies to reduce impacts.

Climate Change

Ecosystem-based Approach

- Are we modifying, to include consideration for climate change, any relevant management plans or programs to ensure that they will support the sustainable use of biological resources and the long-term integrity of supporting ecosystems, taking into consideration the ecosystem level changes in snow, soil, air and other essential resources?
- Are we applying multidisciplinary research to investigate relationships between atmospheric changes and changes in biodiversity?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.5: <i>Practice applied partially but progressing relatively fast.</i></p> <p>Monitoring is occurring and baseline data is being collected.</p> 	<p>5.1 "Enhance" Encourage cooperation and promote linkages between groups; design and promote emission reduction programs in each organization in the NWT.</p> <p>5.2 "Enhance" Increase coordination of ecosystem monitoring and research through a NWT Climate Change Agenda to plan for impacts and adaptations, as appropriate.</p>	<ul style="list-style-type: none"> • Emission reduction programs in all major organizations in the NWT, including established government "house-in-order" goals with respect to greenhouse gas emissions. • Completed NWT Climate Change Agenda.

Aerial view of Yellowknife © ENR

Climate Change (cont.)

Social Involvement Approach and Cultural Best Practices

- Are we using a variety of planning and approval mechanisms that provide for meaningful public and stakeholder participation to prevent or reduce negative impacts on biodiversity (including climate change) that may arise from human settlement activities?
- Do we provide or assist with programs (in schools and in general) and information to assist users, including the public, understand the impacts and implications of their decisions and to promote the sustainable use of biological resources and ecosystems?
- Are we challenging Canadians to contribute towards achieving the goals of reducing greenhouse gas emissions and to take action, allowing volunteers to participate in monitoring programs, where appropriate and practical?
- Are we establishing opportunities for Indigenous communities to share their knowledge on the effects of climate change on northern biodiversity with non-Indigenous communities?
- Are we enhancing opportunities for professional development for those involved in teaching about climate change?
- Within our jurisdiction, have we developed mechanisms to provide opportunities for meaningful participation of regional and urban governments, local and Indigenous communities, interested individuals and groups, business interests and the scientific community in implementing actions related to climate change?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.9: <i>Practice applied partially and is progressing.</i></p> <p>The NWT is promoting the understanding of climate change.</p> <p>Many organizations are providing opportunities to exchange information and participate in actions related to climate change and to promote ways to reduce emissions. Coordination and collaboration is slowly building.</p> <p>In an informal way, there are professional development opportunities for teachers.</p>	<p>5.3 “Enhance” Enhance and assist in coordination of climate change related programs, coordination and promotion of ways to reduce emissions and in professional development programs related to climate change.</p> <p>5.4 “Enhance” Provide translation of concepts into Aboriginal languages to better include Aboriginal communities and provide better dialogue on climate change and reduction of emissions.</p>	<ul style="list-style-type: none"> • Re-established Climate Change Centre, or a similar centre for the promotion of reduction of greenhouse gas emissions. • Increased number of professional educators, including translators, trained on effects of climate change in the North.

Cooperation and Collaborative Approach

- Have we increased coordination among national programs to determine potential impacts on biodiversity from past, present and future atmospheric changes?
- Are we working through appropriate national and international organizations to improve dialogue and communication and to encourage research on the linkages among social issues, consumption and production of resources and ecological carrying capacity in order to formulate policies about climate change?
- Are we strengthening international planning efforts and other processes to eliminate or reduce adverse impacts on biodiversity and the sustainable use of resources, resulting in activities from other countries, with special consideration placed on airborne pollutants including CO₂ and other greenhouse gasses?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.2: <i>Practice applied partially and is progressing very slowly.</i></p> <p>The NWT could be at the forefront of new technologies to reduce emissions and to study adaptations to climate change.</p> <p>The NWT has started community monitoring programs related to climate change.</p> <p>The NWT had no representative on the Pan-Arctic Committee on Climate Change. A concentrated effort by all parties (territorial and federal governments, Aboriginal groups and NGOs) is necessary to establish a NWT climate change agenda.</p>	<p>5.5 “Enhance” Increase studies on impacts and adaptations to climate change, through an organization like CAIRN North, if appropriate. Continue to promote a northern perspective in research funding agencies, including a coordinated NWT climate change agenda as appropriate.</p> <p>5.6 “New” Promote research on and develop new northern technologies related to reducing emissions and adapting to the effects of climate change.</p>	<ul style="list-style-type: none"> • Completed NWT Climate Change Agenda. • Completed pilot project on new northern technologies related to reducing emissions and adapting to the effects of climate change.

Climate Change *(cont.)*

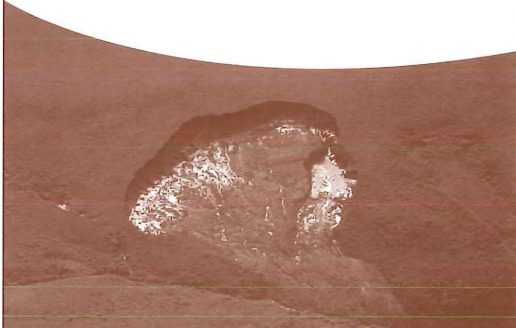
Best Information Approach

- Are we improving methods and technologies and increasing efforts to research, monitor and share information that eliminates or minimizes adverse impacts on climate resulting from resource use?
- Are we maintaining and/or enhancing bioclimatic monitoring to track the effects of atmospheric changes on ecosystems, species and genetic diversity?
- Are we developing early warning indicators and working towards incorporating cumulative environmental effects into relevant national and international agreements?
- Are we developing and implementing monitoring programs and participating in the development and maintenance of appropriate international databases on climate change and its effects on biodiversity?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 3.4: <i>Practice applied partially and is progressing in a somewhat innovative fashion.</i></p> <p>The NWT is definitely starting to develop methodologies and technologies to monitor climate change. These programs are tied into national programs. Studies are paralleling each other; they should be complementing each other.</p>	<p>5.7 "New" Establish a composite early warning indicator system on the effects of changing climates on ecosystems to identify the primary response of ecosystems and their supported biodiversity to climate change; link this system to a State of Environment or biodiversity indicator report and other indices, as appropriate; link to national and international efforts, as appropriate.</p> <p>5.8 "New" Coordinate research and implement strategies to mitigate the impacts on biological resources as part of a NWT Climate Change Agenda, as appropriate.</p>	<ul style="list-style-type: none"> • Development of composite early warning indicators on climate change. • Completed NWT Climate Change Agenda.

Fair Legislation and Incentives Approach

- Are we implementing measures to eliminate or reduce human-caused atmospheric changes that adversely affect biodiversity?
- Have we participated in international efforts to coordinate and enhance activities stemming from international agreements on climate change (i.e. Kyoto Accord)?
- Are we promoting the acceptance of the requirements of the convention within the urban development sector through the voluntary establishment of codes of environmental management (atmospheric standards) and the provision of relevant biodiversity educational material?
- Are we using a variety of measures, such as integrated decision-making and conflict resolution, to improve the effectiveness of community participation, including corporate communities (stakeholders), in developing policies for the use of biological resources?

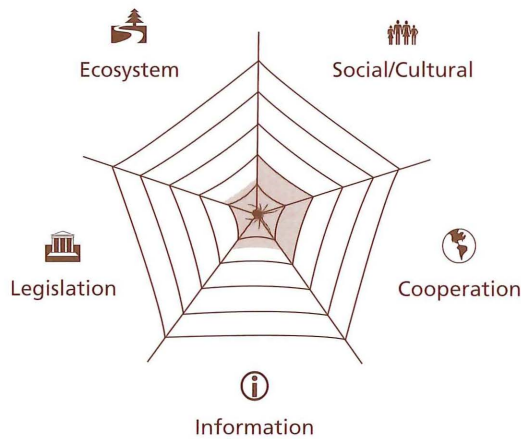
Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2.9: <i>Practice applied partially and is progressing.</i></p> <p>Need continued emphasis to improve our incentives on controlling greenhouse gas emissions.</p> <p>Climate change is not addressed fully yet in the environmental assessment process. We need to improve our environmental controls and standards to adapt to climate change.</p> 	<p>5.9 "New" Consider increasing support and incentives leading to corporate and individual reduction in gas emissions, and leading to development and application of new technologies leading to reduction of emissions.</p> <p>5.10 "Enhance" Within organizations and industry in the NWT, promote and participate in emission reduction challenges.</p> <p>5.11 "Continue" Monitor success of controlling anthropogenic greenhouse gas emissions by comparing with today's levels.</p> <p>5.12 "Enhance" Review and further address the effects of climate change in the environmental impact assessment process.</p>	<ul style="list-style-type: none"> • Updated Greenhouse Gas Strategy, including a comprehensive review of incentives. • Established "house-in-order" goals with respect to greenhouse gas emissions. • Report on NWT's greenhouse gas emissions, with a periodic review. • Best practice guidelines for including climate change in environmental impact assessment process are in place.

Increasing landscape change, slumping © D. Downing

6. Invasive Alien Species

Objective

Investigate how invasive alien species are a threat to native ecosystems and species in the Northwest Territories, and address that threat in a manner appropriate to its severity.



Team's Overview

NWT lags behind other jurisdictions in North America in preventing the introduction of, controlling or eradicating invasive alien species that would threaten native ecosystems, habitats or species.

The Team found that although some industries are taking an active role in controlling the introduction and spread of invasive alien species in the NWT, there is a general lack of knowledge and research on these species in the NWT. We may be complacent in our view of the threats of invasive alien species to our ecosystems; we may take for granted that our northern climate will prevent most species from establishing themselves here. Relevant lessons can be learned from jurisdictions just south of us, and most importantly from other regions in the circumpolar world (e.g. Siberia, Scandinavia).

Awareness is increasing, but incentives to control and prevent introduction are lacking. There are missed opportunities to act early and reduce future needs for large and expensive eradication and control programs.

Invasive Alien Species

Ecosystem-based Approach

- Do we take all necessary steps to prevent the introduction of harmful alien species and to eliminate or reduce their adverse effects to acceptable levels?
- Are we determining priorities for allocating resources for the control of harmful alien species based on their impact on native biodiversity and economic resources, and implementing effective control or, where possible, eradication measures?

Analysis	Recommendations	Measures of Success
<p>Overall Rank =1.3: <i>Practice mostly not applied and mostly not progressing.</i></p> <p>Some industries are working to eliminate the use of alien species (mostly plants) during restoration work, but the practice is rare and progress is very slow. Economic disincentives are regarded as large. The risk of use and propagation of alien species in the NWT is not well understood.</p>	<p>6.1 "New"</p> <p>Perform, as a first step, a risk analysis to evaluate the potential threats of alien species to NWT ecosystems.</p>	<ul style="list-style-type: none"> • Risk analysis performed.

Invasive Alien Species (cont.)

Social Involvement Approach and Cultural Best Practices

- Are we enhancing public education and awareness of the impacts of harmful alien species and the steps that can be taken to prevent their introduction?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2: <i>Practice applied partially and is not progressing.</i></p> <p>There is awareness of this threat in communities, but we do not communicate how it can be alleviated, probably because we do not know if the threat is serious.</p>	<p>6.2 "New"</p> <p>Evaluate the potential threats of invasive alien species to NWT ecosystems. Include surveys and questionnaires to industry or groups that have the greatest capacity to contribute to potential solutions (landscaping industry, transportation, mining, oil/gas, seismic project companies, etc.).</p>	<ul style="list-style-type: none"> • Risk analysis performed, with possible strategies to control threat.

Cooperation and Collaborative Approach

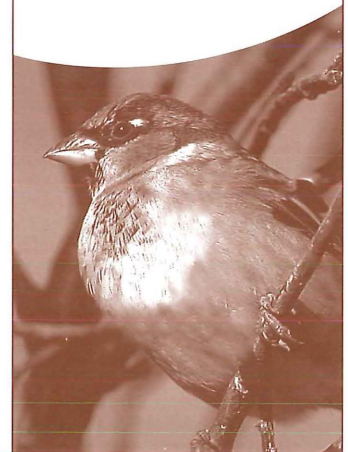
- Are we working to identify and eliminate common sources of unintentional introductions?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 2: <i>Practice applied partially and is not progressing.</i></p> <p>Visiting experts perform monitoring of exotic plants and insects. Communication of their findings to northern decision-makers can be improved and facilitated.</p>	<p>6.3 "New"</p> <p>Work with other jurisdictions to identify and eliminate the common sources of introduction of invasive species.</p>	<ul style="list-style-type: none"> • Risk analysis performed, with possible strategies to cooperate with adjacent jurisdictions to control threat.

Best Information Approach

- Are we developing and implementing effective means to identify and monitor exotic species?
- Are we researching methods and approaches that improve our abilities to assess whether or not exotic organisms will have an adverse impact on biodiversity?

Analysis	Recommendations	Measures of Success
<p>Overall Rank = 1.5: <i>Practice mostly not applied and mostly not progressing.</i></p> <p>Monitoring of this is done haphazardly, mostly due to lack of northern expertise.</p>	<p>6.4 "New"</p> <p>Cooperate and facilitate the collection of information on alien species in partnership with outside agencies with appropriate expertise.</p> <p>6.5 "New"</p> <p>Investigate how appropriate expertise (botanic and entomological) and species identification material could be integrated and shared with northern organizations.</p>	<ul style="list-style-type: none"> • Established database on alien species, with information on site locations and level of invasiveness. • Taxonomic expertise and identification material on exotic species exist in the NWT.



Alien species, House Sparrow © G. Court

The present report of the NWT Biodiversity Action Plan is part of a planning process described in a guide² developed to help small nations implement the United Nations Convention on Biological Diversity.

The next proposed step is to evaluate how the implementation of NWT actions related to biodiversity results in real changes “on-the-land” and leads to conservation of biodiversity and sustainable development in the NWT. The results of this type of evaluation usually takes the form of a “State of the Environment” report or “Status and Trends Indicators” report.

An evaluation would summarize, build on and complement indicator reporting already in place or being developed for some ecosystems in the NWT:

- *Criteria and Indicators of Sustainable Forest Management in Canada* – First report in 2000, with sections relevant to NWT forests. Published by the Canadian Council of Forest Ministers.
- *Mackenzie Basin State of the Aquatic Ecosystem Report* – First report in 2003, with reviews every five years. Published by the Mackenzie River Basin Board.
- “State of the Environment” reporting by the Government of the Northwest Territories. Summaries will be published for the first time in 2007, with annual updates.³
- A framework for reporting on the Ecological Integrity of Canada’s National Parks using indicators is being developed by Parks Canada and will provide information on ecosystems in National Parks, including National Parks in the NWT.

The results of these evaluations will guide organizations in the implementation of biodiversity actions and will inform future teamwork on biodiversity planning.

² Modified from Prescott et al. 2000. Guide to developing a biodiversity strategy from a sustainable development perspective. UNDP, UNEP.

³ Environment and Natural Resources. 2005. Framework for Action 2005-2008. Government of the Northwest Territories, Yellowknife, NT.



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The NWT Biodiversity Team members performed the gap/overlap analysis. Observing organizations and individuals were provided opportunities to review drafts and provided general comments on process and content.

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The NWT Biodiversity Team is continuing to work on biodiversity actions across the NWT.

We welcome your input.

🌐 www.nwtwildlife.com/biodiversity/biodiversity_action_plan.html

