

*A look at Canada's General Status Ranking Program*

# Mainstreaming data flow from Canada's Northern Biodiversity

October 2018 KNO14 Arctic Biodiversity Congress, Finland

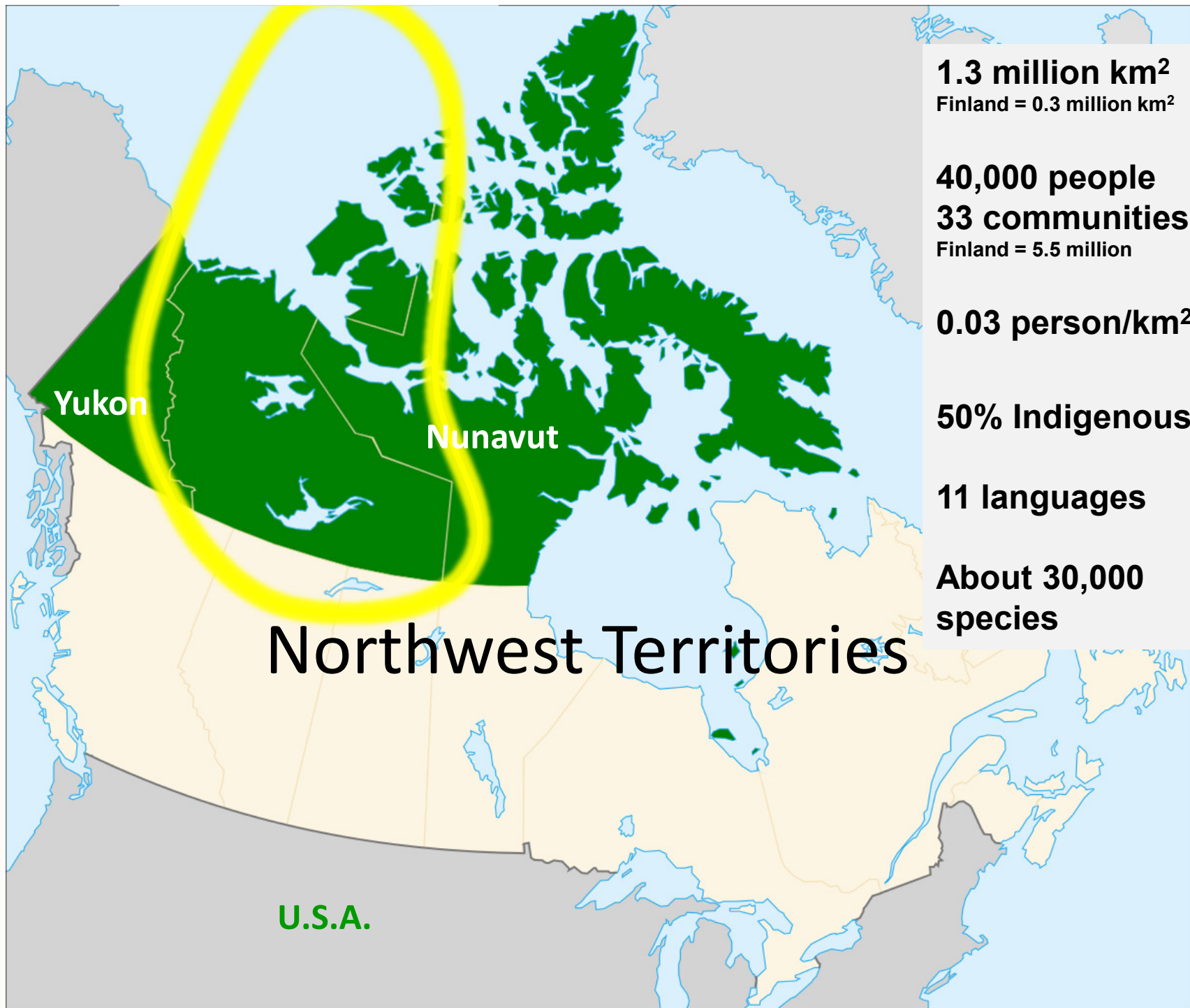
**Robert J. Gau, Rémi Hébert, Patrick Henry, and Suzanne Carrière**











## ECOZONE LEVEL II

- Northern Arctic
- Southern Arctic:  
Tundra Plains
- Southern Arctic:  
Tundra Shield
- Tundra Cordillera
- Taiga Plains
- Taiga Shield
- Taiga Cordillera
- Boreal Cordillera

# Northwest Territories

2 biomes  
(tundra and boreal)

8 ecozones

All pictures ©GNWT





## ECOZONE LEVEL II

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WND – Pelly Island auto station

100m  
2006

96m  
2007

70m  
2008

60m  
2009



**One of fastest  
warming regions  
in the world**

All pictures ©GNWT

# Northern adapted



Peary Caribou ©GNWT/J Nagy



Polar Bear ©Frank Pokiak





# Edge for many species



Red-sided Garter Snake ©JF Biennentreu

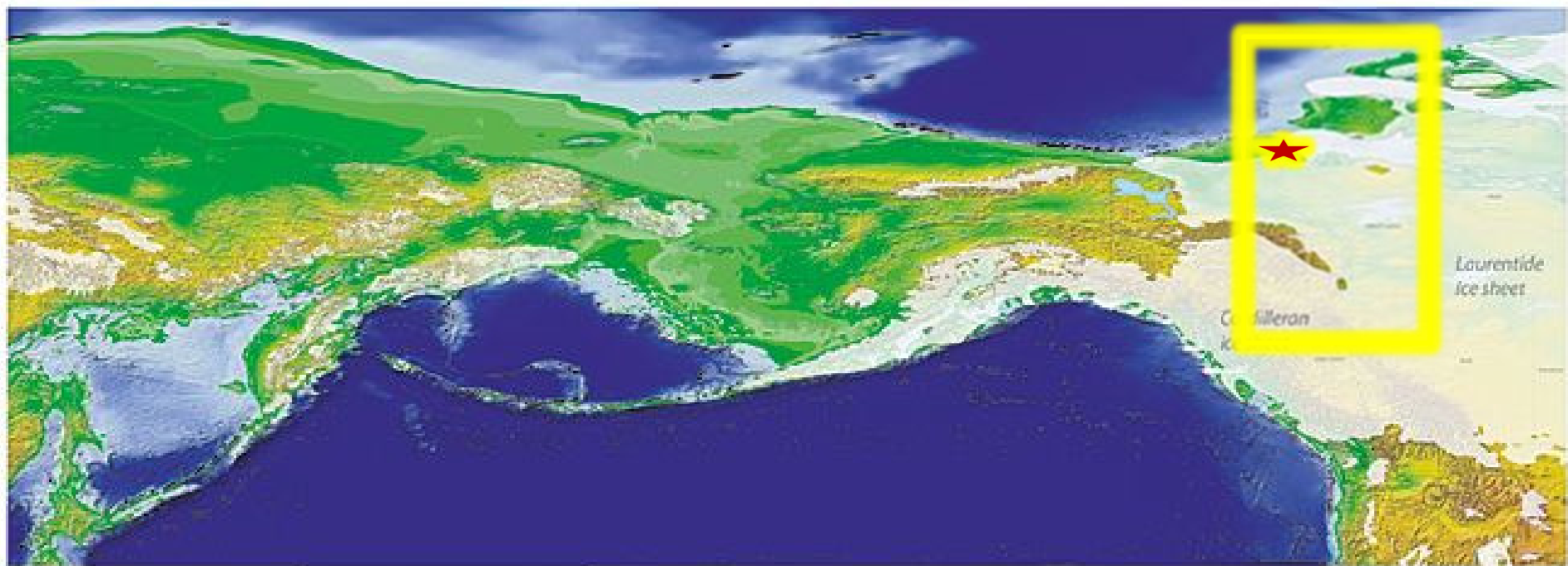


Barren-ground Grizzly Bear  
©GNWT/R Gau





# Eastern edge of Beringia – ice free in the last glaciation



*Beringia 18,000 years ago with exposed land bridge. - Map courtesy Yukon Geological Survey*



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All pictures ©Jim Harris

A helicopter is flying in the sky above a vast, open landscape. A large blue speech bubble is positioned to the right of the helicopter, containing the text "We collect a lot of data!". The landscape consists of rolling hills and a flat, grassy field in the foreground. The sky is blue with some light clouds.

We collect a  
lot of data!

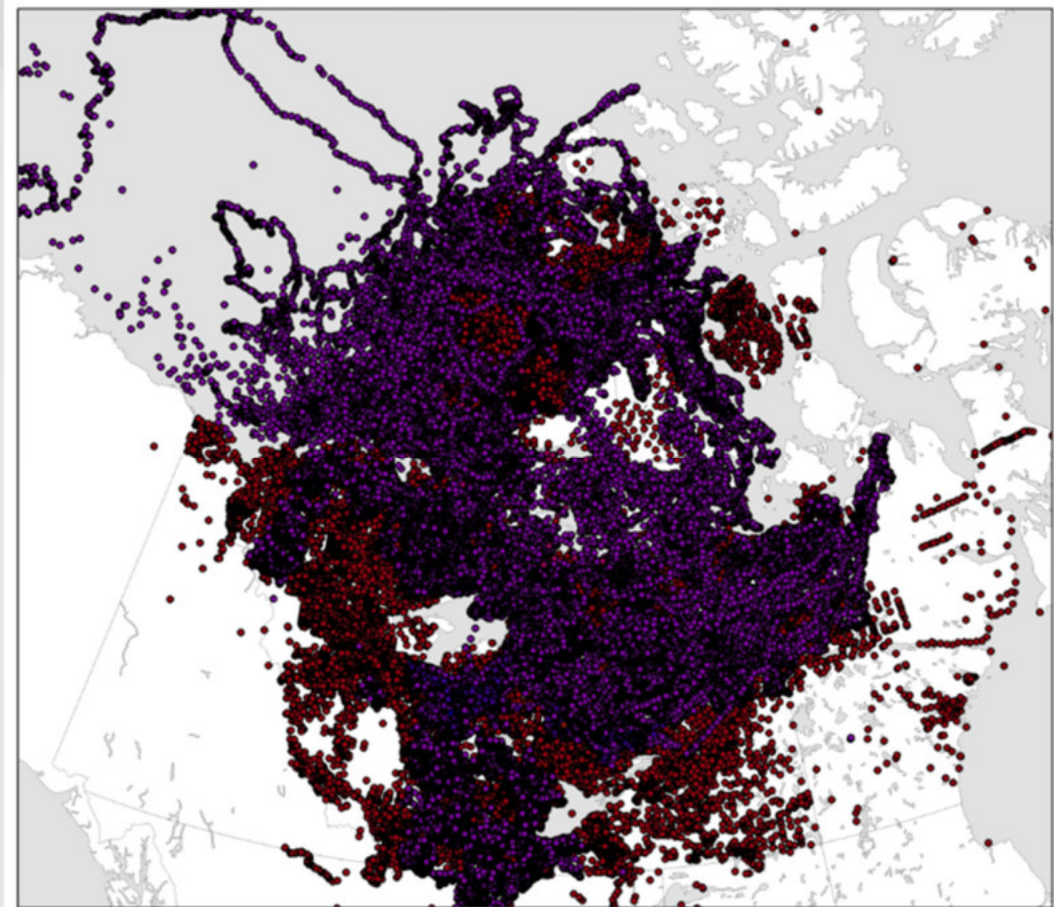
**But almost nobody else sees it.**



# Introducing our data to the world

## Our Data Help

- Species and ecosystem conservation
- Knowledge about climate change effects
- Climate change adaptation efforts



# Steps to Mainstream Our Biodiversity Data



- General Status Ranking of Species in Canada
- NatureServe Canada Methodology







## Step 1: High Level Mandate

# Mandate

- *Accord for the Protection of Species at Risk (1996) in Canada*
  - “Monitor, assess and report regularly on the status of all wild species”.
- *Species at Risk Act (Canada)*
  - Example (2003): “five years after this section comes into force and at the end of each subsequent period of five years, the Minister must prepare a general report on the status of wildlife species”.





# Mandate ...

- One of the main goals of the General Status Ranking program is to flag species that may be at risk.
- Can help to prioritize species for detailed assessments.



## Step 2: Assembled a Team



### National General Status Working Group

- Government representatives across Canada, including the North.
- Conservation Data Centre (CDC) specialists.
- Ex officio members.

14 people in 1999, now up to 200 +



Caribou © GNWT/J Nagy

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# Step 3: Supervised the Team



# Supervising ...

- Report to the Canadian Wildlife Directors Committee.
- Then report to the Canadian Endangered Species Conservation Council (CESCC) – all wildlife ministers.

## PRODUCT ORIENTED

- Main products are series of reports published every five years titled “*Wild Species: The General Status of Species in Canada*”.



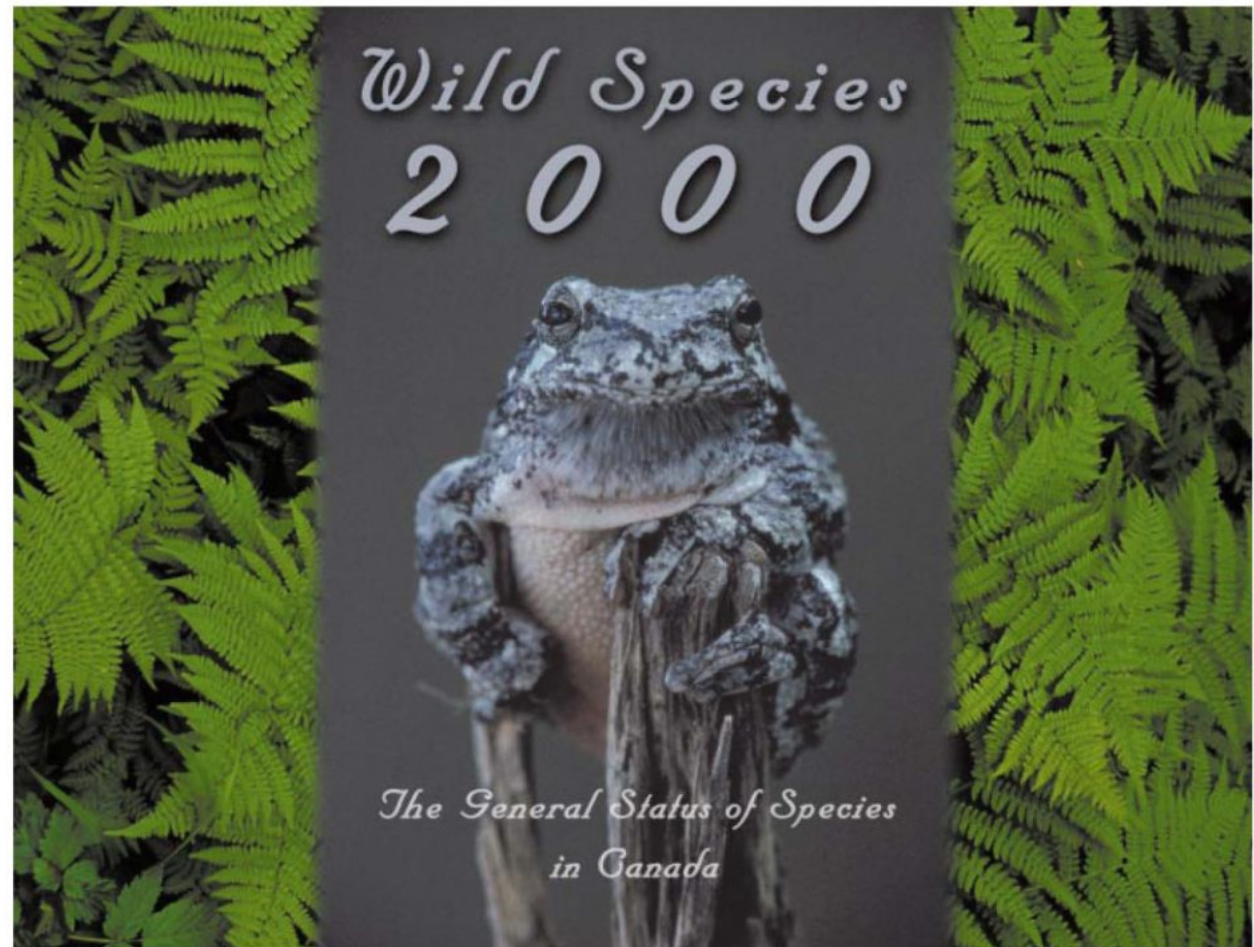
## Step 4: Created a Start line

Go slowly...  
but go somewhere



# First reports were small

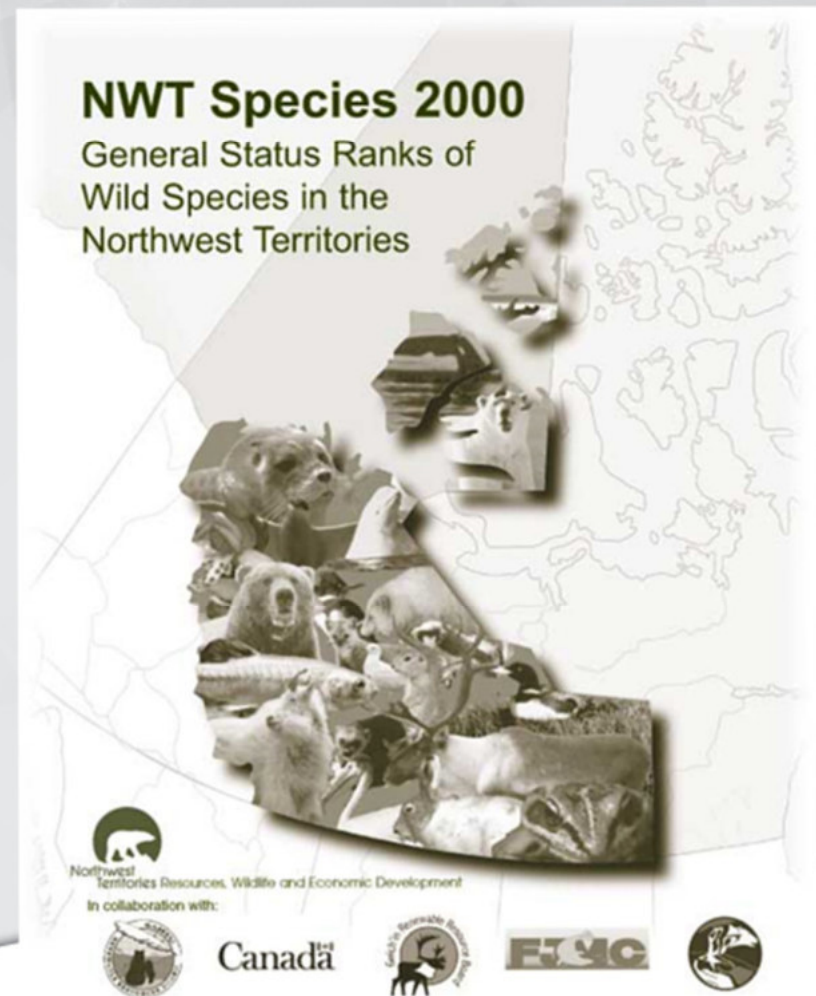
- **Canada-wide**
- **Wild Species 2000**
- 1670 species assessed in 8 groups:
  - Ferns
  - Orchids
  - Butterflies
  - Freshwater fishes
  - Amphibians
  - Reptiles
  - Birds
  - Mammals



Canadian Endangered Species Conservation Council

# NWT report

- **NWT Species 2000**
- 407 species assessed in 8 groups:
  - Ferns
  - Orchids
  - Butterflies
  - Freshwater fishes
  - Amphibians
  - Reptiles
  - Birds
  - Mammals





## Step 5: Agreed on some rules





# Methodology ...

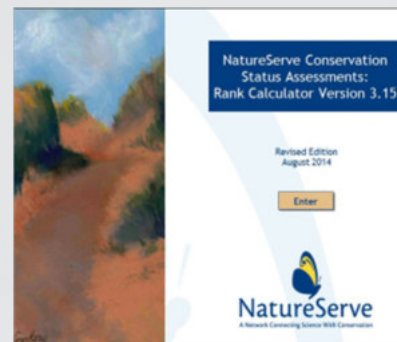
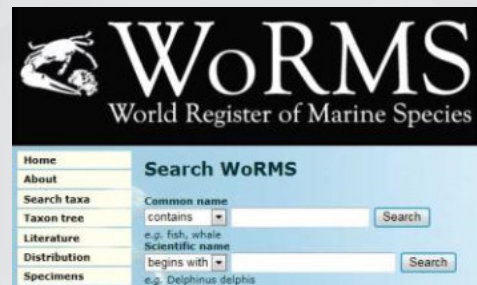
Select taxonomic groups

Share resources and expert input

Use world-class taxonomic references

Adopt a quick but robust method to rank species

Use the same criteria, groups, and share experts



Re-rank all species every 5 years

Add new species group to every report.

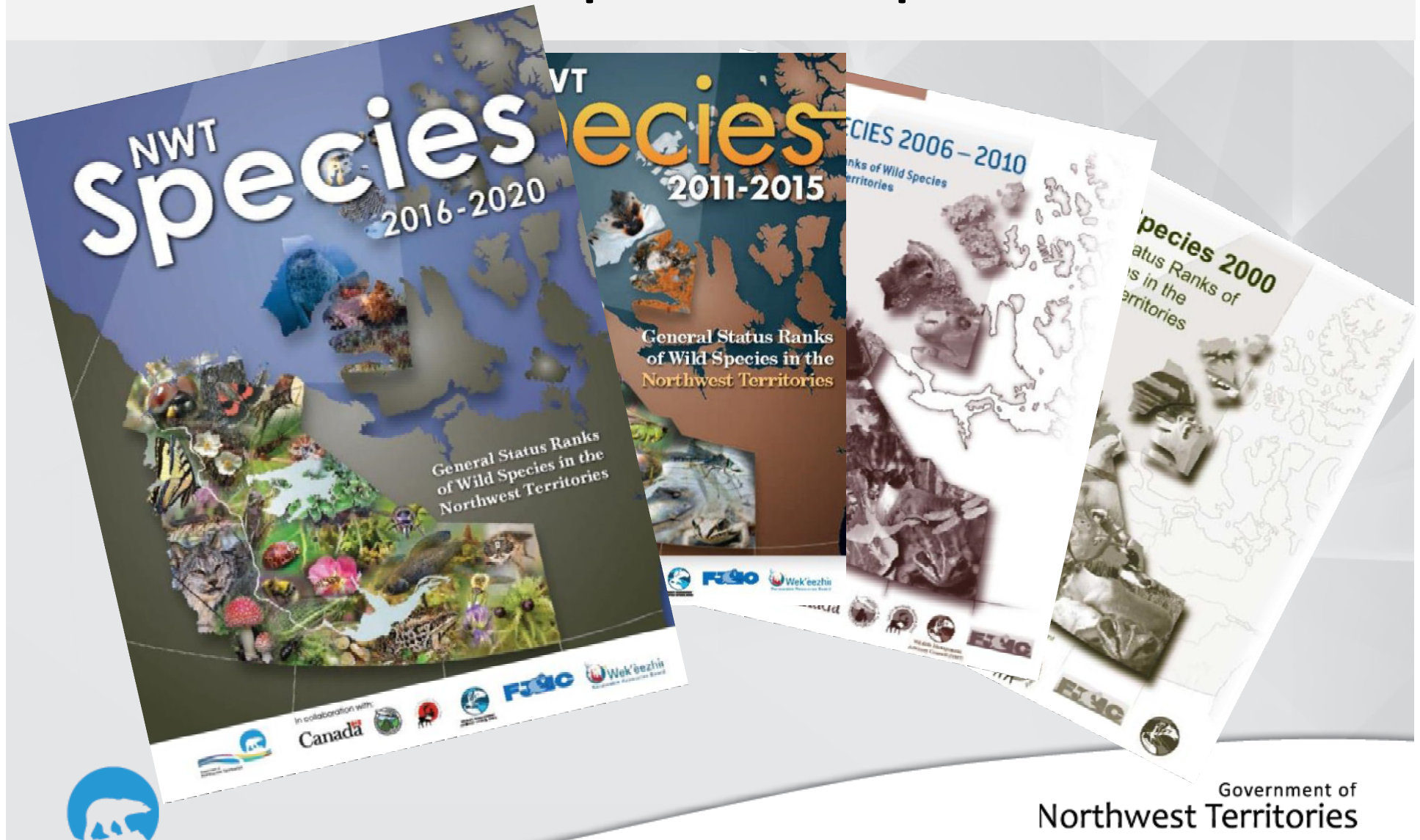


# Step 6: Show your Results





# NWT Species reports



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# Results ...

- Official species lists
- Priority lists for species at risk assessment under legislation
- Alien species tracking
- Participation in Arctic and circumpolar monitoring
- Impact assessments of industrial development



# Step 7: Do Better + Do More



I want to  
know more  
about  
insects!



# 34 Species groups in latest report!

Re-rank all  
species every 5  
years

Add new species  
group to every  
report.

## Plants and Fungi

- Macrofungi
- Macrolichens
- Bryophytes
- Vascular plants

## Molluscs

- Non-marine snails and slugs
- Freshwater bivalves

## Mega Fauna

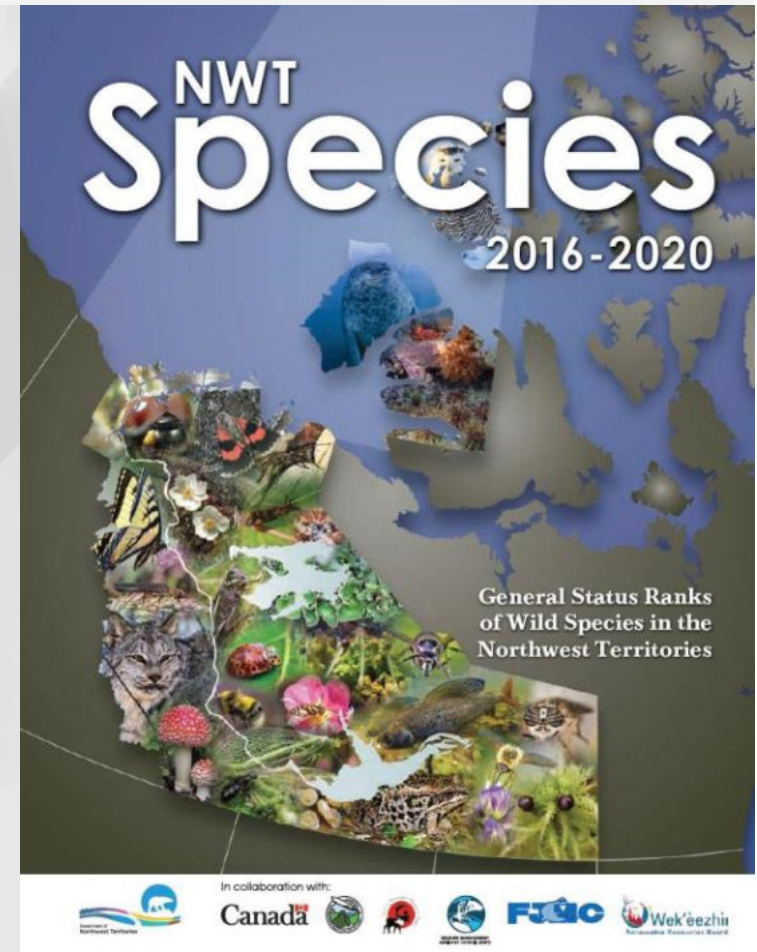
- Fishes
- Amphibians
- Reptiles
- Birds
- 

## Marine Species

- Decapods
- Sea cucumbers
- Sea urchins
- Sponges
- Corals

## Arthropods

- Odonates
- Grasshoppers
- Lacewings
- Beetles
- Ants
- Bees
- Vespid wasps
- Caddisflies
- Mayflies
- Stoneflies
- Lepidoptera
- Spiders
- Scorpionflies
- Black flies
- Mosquitoes
- Horse flies
- Bee flies
- Flower flies



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# Overall

- Wild Species 2015 represents **the most complete vision we ever had on species in Canada!**
- **29,848** species ranked among 34 taxonomic groups
- **Already working on 2020 report.**
- Working together = great results.
- [www.wildspecies.ca](http://www.wildspecies.ca)

Canada-wide report



NWT report

Wild Species  
2016-2020

General Status Ranks  
Wild Species in the  
Northwest Territories



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# Kysymyksiä?

**Rob Gau**

Government of the NWT

[WildlifeObs@gov.nt.ca](mailto:WildlifeObs@gov.nt.ca)

Join us on Facebook

*NWT SPECIES group*



[www.nwt-species-at-risk.ca](http://www.nwt-species-at-risk.ca)

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