Arctic Biodiversity Trends 2010
Selected indicators of change
Endorsed by the Arctic Council

Arctic Council’s response to Arctic and global conservation needs

Arctic Council contribution to the UN International Year of Biodiversity in 2010

Arctic Council contribution to the CBD’s 3rd Global Biodiversity Outlook
22 indicators of change
7 key findings
Part of the Arctic Biodiversity Assessment
Unique Arctic habitats for flora and fauna, including sea ice, tundra, thermokarst ponds and lakes, and permafrost peatlands have been disappearing over recent decades.
Key findings

The majority of Arctic species examined in this report are stable or increasing, some species of importance to Arctic people or species of global significance are declining.
Climate change is emerging as the most far reaching and significant stressor on Arctic biodiversity. Contaminants, habitat fragmentation, industrial development, and unsustainable harvest levels continue to have impacts. Complex interactions between climate change and other factors have the potential to magnify impacts on biodiversity.
Since 1991, the extent of protected areas in the Arctic has increased, although marine areas remain poorly represented.

Changes in Arctic biodiversity are creating both challenges and opportunities for Arctic peoples.
Key findings

- Long-term observations are required to identify changes in biodiversity, assess the implications of observed changes, and develop adaptation strategies.

- Changes in Arctic biodiversity have global repercussions.
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Status & Trends:
- 19 subpopulations
- one increasing
- three stable
- eight declining
- seven with insufficient data

Challenges:
- climate change
- increasing contaminant loads
- sea-ice fragmentation
- loss of sea-ice habitat
Wild reindeer and caribou

**Status & Trends:**
- declined by ~ 33% since the 1990s & early 2000s
- the majority of large herds are in decline.

**Challenges:**
- climate change
- industrial development
- increased human activity
- changes may slow recovery of herds, some may disappear.
**Greening of the Arctic**

### Status & Trends:
- **area covered by Tundra**
  - Climate reduced by about 20% since 1980
- **predictions that by 2100 treeline will move north by 500 km - a loss of 51% of tundra habitat.**

### Challenges:
- **climate change**
- **diversity may increase**
- **globally it will result in loss of biodiversity**

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**Vegetation productivity trends 1982–2005**
- Increases in peak productivity and growing season
- Decline in productivity (forested areas not recently disturbed by fire)