

2015 Polar Bear Technical Committee Status Table Terms

1. Purpose

Under its Terms of Reference, the Polar Bear Technical Committee (PBTC) is to provide an annual report to the Polar Bear Administrative Committee (PBAC) on the status of each of Canada's 13 sub-populations of polar bears that is based upon the best available scientific information and Traditional Ecological Knowledge.

This document defines the various terms used in the Status Table and the basis on which the status of each sub-population was assessed by the PBTC in February 2014.

2. Definitions

2.1. Population estimate

The most recent estimate of abundance reviewed and accepted by the PBTC.

2.2. Historic Trend

Historic trend is the PBTC's assessment of changes in abundance that a sub-population may have experienced since the signing of the international *Agreement on the Conservation of Polar Bears* (1973), which led to current management practices and research. The most recent population estimate and the first comparable documented historic estimate are examined. If a direct comparison of abundance estimates cannot be made or there is only a single estimate of abundance, other lines of evidence may be used in this assessment.

2.3. Recent Trend (15 Years Ago to Present)

Recent trend is the PBTC's assessment of the direction of abundance over the last 15 years. The objective of this assessment is to inform the PBAC as to whether a sub-population has increased, decreased, or remained stable. Recent trend is assessed by comparing the most recent population estimate to the previous population estimate. If a direct comparison of population estimates cannot be made or is not applicable, other lines of evidence such as population viability analyses, productivity indicators, and recent harvest pressure may be used to infer any changes in recent abundance.

2.4. Local and/or TEK assessment

This column represents known documented traditional ecological knowledge or Inuit Qaujimagatuqangit on the status of each of the polar bear subpopulations.

2.5. Future Trend (Present to 10 Years into the Future)

Future trend is the PBTC's assessment of the anticipated direction of abundance. The objective of this assessment is to inform the PBAC as to whether a sub-population is likely to increase, decrease, or remain stable over the next 10 years. Multiple lines of evidence including but not limited to population estimates, population viability analyses, productivity indicators, harvest pressure, and traditional ecological knowledge may be used in this assessment.

3. Appendix 1 – Assessment

3.1. Steps to Assess Historic Trend

1. Compare current population estimate with the first documented and comparable historic population estimate. When a current estimate is directly comparable to an historic estimate, a designation without any qualifier (i.e. reduced, stable, or increased) may be used.
2. If the current estimate is not directly comparable to an historic estimate because of differences in study area, or methods, a comparison may be made but any assessment of changes in abundance are inferred. In this case, a qualifier is required (i.e. likely reduced, likely stable, or likely increased).
3. When population estimates cannot be compared, other lines of evidence such as the most recent population attributes of the sub-population (e.g. age structure) may be used to infer changes in the abundance of the sub-population. This does not include TEK. Again, a qualifier is required (i.e. likely reduced, likely stable, or likely increased).
4. When there is insufficient information or lack of confidence in available information to make an assessment of change in abundance, the sub-population is assessed as uncertain.
5. Additional text is provided in the comments section of the status table. It includes listing items such as major threats and other lines of evidence that may have been used.

3.2. Status Designations

Reduced	Current population estimate is statistically significantly lower than historic population estimate
Stable	Current population estimate is not different from historic population estimate
Increased	Current population estimate is statistically significantly higher than historic population estimate
Likely Reduced	Current or inferred current population abundance is lower than historic or inferred historic population abundance
Likely Stable	Current or inferred current population abundance is not different from historic or inferred historic population abundance
Likely Increased	Current or inferred current population abundance is higher than historic or inferred historic population abundance
Uncertain	Insufficient information or lack of confidence in available information to make an assessment

4. Appendix 2 – Recent Trend Assessment

4.1. Steps to Assess Recent Trend

1. Compare current population estimate with previous population estimate assuming current population estimate is appropriately recent. When a current estimate is directly comparable to its previous population estimate, a designation without any qualifier is made (i.e. reduced, stable, or increased).
2. If the current estimate is not directly comparable to its previous population estimate because of differences in study area, methods, or is outdated, and cannot be updated by PVA, a comparison may be made but any assessment of changes in recent population abundance are inferred and a qualifier is required (i.e. likely reduced, likely stable, or likely increased).
3. When population estimates cannot be compared or are not applicable to assess recent trend, other lines of evidence such as the most recent population attributes of the sub-population (e.g. age distribution) may be used to infer any changes in the abundance of the sub-population. This does not include TEK. Again, a qualifier is required (i.e. likely reduced, likely stable, or likely increased).
4. When there is insufficient information or lack of confidence in available information to make an assessment of changes in population abundance, the sub-population is assessed as uncertain.
5. Additional text is provided in the comments section of the status table. It includes listing items such as major threats and other lines of evidence that may have been used.

4.2. Recent Trend Designations

Decline	Current population estimate is statistically significantly lower than previous population estimate
Stable	Current population estimate is not different from previous population estimate
Increase	Current population estimate is statistically significantly higher than previous population estimate
Likely Decline	Current or inferred current population abundance is lower than previous or inferred previous population abundance
Likely Stable	Current or inferred current population abundance is not different from previous or inferred previous population abundance
Likely Increase	Current or inferred current population abundance is higher than previous or inferred previous population abundance
Uncertain	Insufficient information or lack of confidence in available information to make an assessment

4. Appendix 2 – Recent Trend Assessment

4.3. Steps to Assess Future Trend

1. Compare current population estimate with future population estimate but not exclusive to a population viability analysis (PVA). PVAs are considered in the assessment as long as the data derived vital rates used to generate the simulations are not older than 15 years. In all these cases, a qualifier is required (i.e. likely reduced, likely stable, or likely increased).
2. In addition to PVAs, other lines of evidence (e.g. body condition, litter size, sea ice trend, TEK) may be used to predict future trend of a sub-population.
3. When there is contradictory evidence, insufficient information or lack of confidence in available information to make an assessment of future changes in population abundance, the sub-population is assessed as uncertain.
4. Additional text is provided in the comments section of the status table. It includes listing items such as major threats and other lines of evidence that may have been used.

4.4. Future Trend Designations

Likely Decline	Future population abundance predicted to be lower than current population abundance
Likely Stable	Future population abundance predicted not to be different from current population abundance
Likely Increase	Future population abundance predicted to be higher than current population abundance
Uncertain	Contradictory evidence, insufficient information, or lack of confidence in available information to make an assessment.