

Subpopulation	Estimate	±2 SE or 95% CI	Year of Population Estimate	Method	Historic Trend	Local and/or TEK assessment	Recent trend	Future trend	Historic annual removal (5 yr mean)	Historic annual removal (3 yr mean)	Historical annual removals (last year)	Potential Maximum Removals (last year)	Comments/Vulnerabilities/Habitat	Jurisdiction	Subpopulation
Baffin Bay	2,074	1542-2606	1997 <sup>1</sup>	M\R	likely reduced	stable <sup>2</sup>	likely decline <sup>3</sup>	uncertain <sup>4</sup>	141	137	137	133 (NU:65+GL:68)	currently being reassessed, high harvest, decline in sea ice, increased shipping	NU, GL	Baffin Bay
Davis Strait	2,158	1833-2542	2007 <sup>5</sup>	M\R	likely increased	increased <sup>6</sup>	likely increase <sup>7</sup>	likely decline <sup>8</sup>	104	118	126	QC + 75 (NU:61+NL:12+GL:2)	based upon 2007 survey information, high harvest; decline in sea ice;	NU, QC, NFLD & Lab, GL	Davis Strait
Foxe Basin	2,580	2093-3180	2009-10 <sup>9</sup>	A	stable	increased <sup>10</sup>	stable <sup>11</sup>	likely stable <sup>12</sup>	106	104	93	QC + 94	long term decline in sea ice; potential for increased shipping for mineral extraction	NU, QC	Foxe Basin
Gulf of Boothia	1,592	870-2314	2000 <sup>13</sup>	M\R	likely stable	increasing <sup>14</sup>	likely stable <sup>15</sup>	likely stable <sup>16</sup>	58	63	52	66	Current and projected habitat change may affect productivity of ecosystem. Subpopulation has high vital rates and low harvest.	NU	Gulf of Boothia
Kane Basin	164	94-234	1997 <sup>17</sup>	M\R	likely reduced	increasing <sup>18</sup>	uncertain <sup>19</sup>	uncertain <sup>20</sup>	13	12	5	11 (NU:5+GL:6)	currently being reassessed, likely a sink population connected with Baffin Bay, small population, decline in sea ice;	NU, GL	Kane Basin
Lancaster Sound	2,541	1759-3323	1995-7 <sup>21</sup>	M\R	likely stable	increasing <sup>22</sup>	uncertain <sup>23</sup>	uncertain <sup>24</sup>	85	90	85	85	historic sex-skewed harvest, habitat decline, potential for increased shipping for mineral extraction	NU	Lancaster Sound
M'Clintock Channel	284	166-402	2000 <sup>25</sup>	M\R	likely reduced	stable <sup>26</sup>	likely increase <sup>27</sup>	uncertain <sup>28</sup>	3	3	3	3	increasing oil/gas development; loss of multi-year ice; currently being reassessed	NU	M'Clintock Channel
Northern Beaufort Sea	1291*	n/a	2006 <sup>29</sup>	M\R	likely stable	stable <sup>30</sup>	likely stable <sup>31</sup>	likely stable <sup>32</sup>	39	45	40	77 (NU:6 + NWT:71)	TEK study ongoing; increasing oil/gas development; decline in sea ice;	NU, NWT	Northern Beaufort Sea
Norwegian Bay	203	115-291	1997 <sup>33</sup>	M\R	uncertain	stable <sup>34</sup>	uncertain <sup>35</sup>	uncertain <sup>36</sup>	2	2	3	4	small, isolated population	NU	Norwegian Bay
Southern Beaufort Sea	1215*	n/a	2006 <sup>37</sup>	M\R	uncertain	stable <sup>38</sup>	likely decline <sup>39</sup>	likely decline <sup>40</sup>	41	42	23	56 (US:35 + NWT:21)	Bromaghin et al. 2015 under review by Polar Bear Technical Committee; annual variability in ice conditions results in changes in density; bears are shifting to NB because of ice conditions; TK study completed; potential for oil/gas development	US, YK, NWT	Southern Beaufort Sea
Southern Hudson Bay	951	662-1366	2012 <sup>41</sup>	A	stable	stable James Bay; increased in East Hudson Bay <sup>42</sup>	stable <sup>43</sup>	uncertain <sup>44</sup>	62	49	38	60 (NU:25 + QC:30 + ON:5)	Uncertain due to contradictory lines of evidence: large declines of body condition, declines in survival rates yet no change in abundance, TEK indicates winter body condition has not changed, TEK indicates that reproductive rates have improved, TEK and science indicate changes in sea ice, ice free season increased by 28 days between 1980-2009. recent high harvest, habitat decline; decline of permafrost-based denning habitat; revised voluntary harvest agreement of 45 to take effect in 2014-2015	NU, QC, ON	Southern Hudson Bay
Viscount Melville Sound	161	93-229	1992 <sup>45</sup>	M\R	likely reduced	increased <sup>46</sup>	likely stable <sup>47</sup>	uncertain <sup>48</sup>	5	6	6	7	currently being reassessed	NU, NWT	Viscount Melville
Western Hudson Bay	1030	754-1406	2011 <sup>49</sup>	A	likely reduced	increased <sup>50</sup>	likely stable <sup>51</sup>	likely decline <sup>52</sup>	23	27	29	24 + Manitoba	sea ice decline; harvest; declines in body condition and lower productivity compared to adjacent Foxe Basin and South Hudson Bay subpopulations; historic decline in abundance from late 1980s through late 1990s linked to reduced survival due to timing of sea ice breakup; recent analysis indicated relative stability in subpopulation from 2001-2010, a period during which there was no significant trend in sea ice freeze up or breakup; continued linkage between female survival and sea-ice conditions.	MB, NU	Western Hudson Bay

**Notes**

M/R - Physical Mark Recapture Survey

A - Aerial survey

n/a - not available

\* The revised estimates for NB and SB is the result of management boundary change. It is based on a USGS analysis.

**2015 PBTC Status Table Footnotes**

1. Taylor et al. 2005

2. Dowsley 2005a; Dowsley 2005b; Dowsley 2007; Dowsley and Taylor 2006; Nunavut Wildlife Management Board (NWMB) Public Hearing minutes and

submissions for April 2008, September 2009;

3. Combined harvested considered unsustainable: Taylor et al. 2005 plus simulations in PBSG 14 and 15 proceedings suggest abundance of 1,546 in 2004

4. Vital rates for Riskman PVA are 18 years old; TEK indicates population is stable; there is current research and ongoing assessment

5. Peacock et al. 2013

6. Kotierk 2010a, 2010b

7. Peacock et al. 2013; Stirling 1980.

8. The impact of a TAH increase on the population has not been modeled; predicted trend after survey was completed at harvest levels in 2007 was considered stable (Peacock et al. 2013); NWMB Davis Strait public hearing submissions May 16-17, 2011

9. Government of Nunavut (GN) final report 2012

10. Sahanatien pers com. 7 Feb 2013; Dyck pers com. 7 Feb 2013; Canadian Wildlife Service Nunavut consultation report 2009

11. GN report 2012; Atkinson et al. 2010; Taylor et al. 2006; Taylor and Lee 1995

12. No signs of deteriorating body condition or litter size (GN report 2012)

13. Taylor et al. 2009

14. Keith et al. 2005; Canadian Wildlife Service Nunavut consultation report 2009

15. For the period 2000–2015, assuming all sources of removals in the population sum to 74 bears/yr, the population can be expected to persist at a stable population size (Taylor et al. 2009)

16. Hunters in area reporting ice conditions have improved productivity, harvest levels remain stable (Dyck pers com. 2013)

17. Taylor et al. 2008

18. Canadian Wildlife Service Nunavut consultation report 2009

19. Population simulations of existing data suggest that only a very small quota (<2) may be sustained for this subpopulation (Taylor et al. 2008).

20. Vital rates for PVA are 17 years old, current research and ongoing assessment

21. Schwinsburg et al. 1980; Taylor et al. 2006; Taylor et al. 2008

22. Canadian Wildlife Service Nunavut consultation report 2009

23. For the period 1997-2012, the population would be expected to be stable under the historical harvest regimen (1993-97). At the current mean harvest rate of 78 bears/yr (2002-2006), we estimate that the population is more likely to decline than to increase (Taylor et al. 2008).

24. Vital rates for Riskman PVA are 16 years old

25. Taylor et al. 2006

26. Inuit report that bears are moving to neighbouring areas throughout the region. (Keith et al. 2005; CWS Nunavut consultation report 2009)

27. Likely an increase based on quantitative assessment of growth rate (Taylor et al. 2006)

28. Vital rates for PVA are 14 years old; several research planning consultations has been completed; further consultations ongoing.

29. Griswold et al., unpublished; Stirling et al. 2011

30. Pokiak pers. comm. 7 Feb 2013; Carpenter pers com. 7 Feb 2013

31. Population size used for management was historically adjusted to 1,200 due to bias in in population estimate (Amstrup et al. 2005; Stirling et al. 2011).

32. Durner et al. 2009, Stirling et al. 2011, and TEK (Joint Secretariat, unpublished) indicate stable population and habitat conditions may improve in short-term

33. Taylor et al. 2006; Taylor et al. 2008

34. Canadian Wildlife Service Nunavut consultation report 2009

35. Vital rates for Riskman PVA are 17 years old and vital rates were substituted from other populations (Taylor et al 2008); no recent work in the area

36. Vital rates for Riskman PVA are 17 years old and vital rates were substituted from other populations (Taylor et al. 2008)

37. Griswold et al., unpublished; USGS 2010

38. Pokiak pers com. 7 Feb 2013; Carpenter pers com. 7 Feb 2013

39. Population estimate is lower but not statistically different from previous population estimates (Amstrup et al. 1986, Regehr et al. 2006).

Quotas were based on the understanding that the total harvest of independent females would not exceed the modelled sustainable maximum of 1.5% of the population (Taylor et al. 1987) and that a 2:1 ratio of males to females would be maintained in the total quota harvested (Stirling 2002)

40. Based on sea ice declines (Durner et al 2009), changes in body conditions measured in Alaska (Rode et al. 2010) and modelling (Regehr et al. 2010)

Estimated risk of future decline is based on vital rates estimated from 2001-2006 data used in demographic models that incorporate sea ice forecasts.

41. Obbard et al. 2013

42. NMRWB Public Hearing Inukjuak February 2014

43. Based on comparison with previous subpopulation estimates (Obbard et al. 2013; Obbard 2008; Kolenosky 1994).

44. Body condition decline, vital rate declines and changes in ice conditions; Inuit observations show no decline in body condition or abundance (Obbard pers com. 2014, Obbard et al. 2013, NMRWB, unpublished)

45. Taylor et al. 2002

46. Canadian Wildlife Service Nunavut consultation report 2009; community consultations in 2012 and 2013

47. Harvest managed for population growth since last survey including a 5 year moratorium; comparable litter size in 2012 (GNWT unpublished)

48. Vital rates for Riskman PVA are 22 years old; population reassessment currently in process

49. Stapleton et al. 2014

50. Canadian Wildlife Service Nunavut consultation report 2009, Kotierk 2012, NWMB Public Hearing minutes 2005; Tyrrell 2006

51. Lunn et al. 2014 Unpublished Report

52. Based on body condition, abundance estimates, reduced reproductive productivity, and changes in ice conditions (Stirling and Parkinson 2006, Stapleton et al. 2014, Lunn pers com.)