

2014	SUBPOPULATION SIZE				SUBPOP. TREND		SEA ICE METRICS		HUMAN-CAUSED REMOVALS: 2010-2014				COMMENTS, VULNERABILITIES AND CONCERNS
					Relative to historic level (25-year past)	Current (12-year centered on present)	Change in spring ice retreat/ Change in fall ice advance (days per decade)	Change in summer sea ice area (percent change per decade)	5-year mean		Last year		
	ESTIMATE	95% CI	YEAR	METHOD					Pot	Act	Pot	Act	
Arctic Basin	Unknown				DD	DD	-3.2/8.0	-6.7					
Baffin Bay	1546	690-2402	2004	PVA (based on physical C-R estimate from 1998)	DD	D	-7.3/5.2	-18.9	144	149	132	137	Harvest, current and projected habitat decline, declining body condition. Population estimate for 2004 is simulated from vital rates measured in 1997. 100% of PVA runs resulted in subpopulation decline after 10 years. Subpopulation is currently being reassessed using genetic capture-recapture.
Barents Sea	2644	1899-3592	2004	Distance sampling	DD	DD	-16.6/24.2	-16.0	NA	2	NA	3	There has been no hunting in the Barents Sea area since 1973. Recent habitat decline has in many years led to late sea ice formation in autumn around some important denning habitat, in such years few females den in these areas.
Chukchi Sea	Unknown				DD	DD	-3.4/4.2	-18.8	58	30 (US) + ca. 32 (Russia)	58	23 (US) + ca. 32 (Russia)	Precise subpopulation size estimates historically not available; coarse estimate of 2,000-5,000 from 1990s based on maternity den surveys in Russia. U.S. capture-recapture research conducted spring 2008-2011 indicates good body condition and reproduction, suggesting capacity for positive natural growth despite sea ice loss. Observations of low cub production and maternity denning on Wrangel Island 2004-2013 suggest concern for reductions in natural growth. Uncertainty in subpopulation size and the number of human-caused removals in Russia results in uncertainty in trend. Observed loss of sea ice habitat is among the largest in the Arctic and the duration of the ice-free season is projected to increase. Potential negative effects of industry and shipping are a concern. Quota of up to 58 bears per year, to be shared between the U.S. and Russia, adopted by U.S.-Russia Polar Bear Commission in 2010. In the U.S., legal subsistence harvest continues as the U.S. works to implement the quota. In Russia, harvest remains illegal. Information on human-caused removals is from village interviews conducted 2010-2012. Current removal levels are thought to be significantly lower than in the late 1990s.
Davis Strait	2158	1833-2542	2007	Physical C-R	DD	S	-7.7/9.7	-19.9	99	99	103	105	Some removals from West Greenland assigned to DS may be bears from EG that have moved around the southern coast of Greenland. Low reproductive and recruitment rates may reflect negative effects of greater densities or worsening ice conditions.
East Greenland	Unknown				DD	DD	-6.2/5.5	-6.5	62	63	64	65	Current and projected habitat decline, no abundance estimate or growth rate. TEK suggests increase in numbers (meeting with hunters in 2011 both in Ittoqqortoormiit and Tasiilaq).
Foxe Basin	2580	2093-3180	2009-10	Distance sampling	NR	S	-5.3/5.8	-14.2	97.8	104	71	85	Bear-human interactions; potential for increased shipping activities; current and projected habitat decline; there are no estimates of vital rates. Harvest appears to be sustainable.
Gulf of Boothia	1592	870-2314	2000	Physical C-R	NR	S	-6.9/8.3	-12.2	60	58	58	52	Current and projected habitat change may affect productivity of ecosystem. Subpopulation has high vital rates and low harvest. New assessment planned to begin in 2015.
Kane Basin	164	94-234	1994-97	Physical C-R	DD	D	-7.2/5.6	-12.2	11	6	11	5	Harvest, current and projected habitat decline. 100% of PVA runs resulted in decline after 10 years. Subpopulation is currently being reassessed using genetic capture-recapture. TEK suggests increase in numbers.
Kara Sea	Unknown				DD	DD	-9.2/7.6	-18.6		NA		NA	There has been no hunting in the Kara Sea area since 1957. Recent habitat decline has in many years likely led to the displacement of polar bears from foraging habitats during the ice-free season.
Lancaster Sound	2541	1759-3323	1995-97	Physical C-R	DD	DD	-5.6/5.1	-7.7	93	84.8	102	83	Demographic data are >15 years old. Selective hunting for males in the harvest decreased due to the U.S. import ban and listing under the U.S. ESA. Harvest, projected habitat decline, possible increase in shipping activities; TEK suggests the subpopulation is stable or increasing.
Laptev Sea	Unknown				DD	DD	-8.2/6.5	-14.7		NA		NA	There has been no hunting in the Laptev Sea area since 1957. One of the main recent concerns is increasing uncontrolled activity of groups digging for mammoth ivory on the Novosibirsk Islands what leads to high potential poaching.
M'Clintock Channel	284	166-402	2000	Physical C-R	R	I	-3.9/5.8	-9.0	3	3	3	3	New reassessment of subpopulation began in 2014; potential for shipping activities if multiyear ice declines. Population is currently managed for recovery with harvest below sustainable rates based on the last population estimate. PVA analyses based on physical mark-recapture data from 1998-2000 suggests the subpopulation should be able to increase at present harvest levels. TEK reports the subpopulation is currently increasing.
Northern Beaufort Sea	980	825-1135	2006	Physical C-R	NR	S	-5.8/3.3	-5.9	65	37.4	65	43	Reported harvest data for period 2009-2013 due to boundary shifts between SB and NB. September sea ice extent has declined significantly from 1979-2009. Further loss of habitat could result in declines in vital rates. TEK suggests subpopulation stable.
Norwegian Bay	203	115-291	1997	Physical C-R	DD	DD	-1.3/4.3	-2.3	4	2.2	4	3	Initial PVA simulations resulted in subpopulation decline after 10 years, however vital rates from 2 subpopulations were pooled for the analyses. Projections of decline were also high because of small sample size. Current data are >15 years old; small subpopulation. TEK suggests the subpopulation is stable or increasing.
Southern Beaufort Sea	907	548-1270	2010	Physical C-R	R	D	-8.7/8.7	-20.5	76	35.6	73	42.3	Reported harvest data for period 2009-2013 due to boundary shifts between SB and NB. Current and projected habitat decline, declining body condition, declining survival rates.
Southern Hudson Bay	951	662-1366	2012	Distance sampling	NR	S	-3.1/4.1	-11.4	60	62	60	56	Harvest, current and projected habitat decline, declining body condition, declining survival rates.
Viscount Melville	161	121-201	1992	Physical C-R	DD	DD	-4.7/7.4	-6.1	5.6	7	6	7	Subpopulation currently being reassessed. Low densities of ringed seals and polar bears were observed during capture-recapture programs (2012-2014).
Western Hudson Bay	1030	754-1406	2011	Distance sampling	R	S	-5.2/3.6	-16.3	22.6	23.2	28	32	Concerns include harvest, projected habitat decline, declines in body condition, and lower productivity compared to adjacent FB and SH subpopulations. Decline in size of subpopulation from late 1980s through late 1990s/early 2000s was linked to reduced survival due to timing of sea ice breakup. Recent analysis indicated stability in subpopulation size from 2001-2010; a period during which there was no significant trend in timing of sea ice breakup or freezeup. This analysis confirmed continued linkage between female survival and sea ice conditions. TEK suggests that subpopulation is increasing.
© IUCN/PBSG Jan 2015	C-R = capture-recapture				DD = Data deficient, NR = Not reduced, R = Reduced, S = Stable, I = Increasing, D = Declining				Pot = Potential, Act = Actual				See http://pbsg.npolar.no/status for references