

SUBPOPULATION	SUBPOPULATION SIZE				SUBPOP. TREND		HABITAT QUALITY	HUMAN-CAUSED REMOVALS: 2009-2013						COMMENTS, VULNERABILITIES AND CONCERNS
	ESTIMATE	95% CI	YEAR	METHOD	Relative to historic level (25-year past)	Current (12-year centered on present)		5-year mean		3-year mean		Last year		
								Pot	Act	Pot	Act	Pot	Act	
Arctic Basin	Unknown				DD	DD								
Baffin Bay	1546	690-2402	2004	PVA (based on physical C-R estimate from 1998)	DD	D	reduced annual ice cover, earlier break-up, later freeze-up	156	156	149	152	151	134	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 population decline after 10 years. Subpopulation is currently being re-assessed using genetic capture-recapture.
Barents Sea	2644	1899-3592	2004	Distance sampling	DD	DD	reduced annual ice cover, earlier break-up, later freeze-up	NA	1	NA	1	NA	2	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	decreasing sea ice habitat and forecasts for longer ice-free seasons	NA	31 (US) + UNK in Russia	58	36 (US) + UNK in Russia	58	55 (US) + UNK in 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 2004-2010 suggest concern for future 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 and accurate information on human-caused removals is not available, although current levels are thought to be significantly lower than levels in the late 1990s.
Davis Strait	2158	1833-2542	2007	Physical C-R	DD	S	reduced annual ice cover, earlier break-up, later freeze-up	96	93	98	106	108	111	Some removals assigned to Davis Strait may be bears from East Greenland that have walked 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	reduced ice cover, earlier break-up, later freeze-up	60	59	64	64	64	60	Current and projected habitat decline, no abundance estimate or growth rate.
Foxe Basin	2580	2093-3180	2009-10	Distance sampling	NR	S	increased fragmentation, reduced ice cover	109	109	108	108	109	106	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	stable, probable shift to more dynamic ice	74	62	74	60	74	67	Current and projected habitat change may affect productivity of ecosystem. Population has high vital rates and low harvest. New assessment planned for 2015.
Kane Basin	164	94-234	1994-97	Physical C-R	DD	D	reduced ice cover, earlier break-up, later freeze-up	11	5	11	6	11	4	Harvest, current and projected habitat decline. 100% of PVA runs resulted in decline after 10 years. Sub population is currently being re-assessed using genetic capture-recapture.
Kara Sea	Unknown				DD	DD	earlier break-up, later freeze-up, relatively poor biological productivity		NA		NA		NA	There has been no hunting in the Kara Sea area since 1957. Recent habitat decline has in many years led to feeding problems for polar bears in the sea in ice-free season
Lancaster Sound	2541	1759-3323	1995-97	Physical C-R	DD	DD	LS is one of the most biologically productive areas in the Canadian Arctic; however, earlier break-up and later freeze-up may negatively affect bears now and in future	85	87	85	89.3	85	91	Demographic data are >15 years old. Selective hunting for males in the harvest decreased due to the US import ban and listing under the US ESA. Harvest, projected habitat decline, possible increase in shipping activities; TEK suggests the subpopulation is stable or increasing. Actual removals also include approved use of credits.
Laptev Sea	Unknown				DD	DD	earlier break-up, later freeze-up, relatively poor biological productivity		NA		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	stable, probable shift to more dynamic ice	3	2.8	3	3	3	3	Being "managed for increase" though actual trend unconfirmed. New reassessment of subpopulation to begin in 2014; potential for shipping activities if multiyear ice declines. Population is currently managed for recovery with harvest below sustainable rates.
Northern Beaufort Sea	980	825-1135	2006	Physical C-R	NR	S	extent of sea ice present over continental shelf in fall declining	65.0	37.4	65.0	46.7	65.0	43.0	September sea ice extent has declined significantly from 1979-2009. Further loss of habitat could result in declines in vital rates. TEK suggests population stable.
Norwegian Bay	203	115-291	1997	Physical C-R	DD	DD	stable, probable shift to dynamic multi-year ice	4	1.6	4	2.3	4	3	Initial PVA simulations resulted in population decline after 10 years, however vital rates from 2 populations were pooled for the analyses. Projections of decline were also high because of small sample size. Current data are >15 years old; small population. TEK suggests the population is stable or increasing.
Southern Beaufort Sea	1526	1211-1841	2006	Physical C-R	R	D	decreased annual availability of pack ice over the continental shelf	76	35.6	73	42.3	70	41	Current and projected habitat decline, declining body condition, declining survival rates
Southern Hudson Bay	970	680-1383	2012	Distance sampling	NR	S	earlier break-up, later freeze-up	45	57.2	45	71.7	45	49	Harvest, current and projected habitat decline, declining body condition, declining survival rates
Viscount Melville	161	121-201	1992	Physical C-R	DD	DD	stable, shift from multi-year to annual sea ice	7.0	5.2	7.0	6.0	7.0	7.0	Subpopulation currently being reassessed. Presently being "managed for increase" but no evidence that is happening. Area has very low densities of ringed seals.
Western Hudson Bay	1000	715-1398	2011	Distance sampling	R	D	earlier break-up, later freeze-up	20.2	19.6	23.0	22.0	28.0	22.0	Concerns include harvest, current and projected habitat decline, declining body condition in all age and sex classes results in higher mortality of cubs, subadults and old adults when breakup is early, and declining overall production of cubs. TEK suggests population increasing. A new population estimate based on extensive continued Physical Capture-Recapture will be available in 2014 and, will provide an updated assessment of the long-term trend in population size and vital rates, that is not possible from a single aerial survey.
© IUCN/PBSG Dec 2013	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