

Table 3.2. Summary of major features of small rodent population dynamics at circumpolar monitoring sites with rodent focus. In addition, reports of relative abundance of small rodents in association with breeding bird studies from approximately the last 15 years can be found at the Arctic Birds Breeding Conditions Survey: <http://www.artcticbirds.net>

Site	Species	Features of population dynamics	Reference
Northern Norway	Norway lemming	1987-2006: Long period of low abundance with rare outbreak in 1988	Ims <i>et al.</i> 2011, Ims & Yoccoz unpubl.
	Tundra & gray red-sided vole	2007-2011: Moderate outbreaks every 4 years	
Nenetskaya Gryada, Russia	Tundra vole & Palearctic collared lemming	1987-2011: Outbreaks every 5 years with moderate amplitude	Ehrich <i>et al.</i> in Reid <i>et al.</i> 2011a
	Tundra vole & Palearctic collared lemming	2004-2010: Outbreaks in 2004 & 2008 (4 yrs) with low amplitude	
Southern Yamal Peninsula, Russia	Middendorff & narrow-headed voles; Siberian brown & Palearctic collared lemmings	1999-pre-sent: Outbreaks in 1999, 2002, 2005 and 2010 (3 to 5 yr period), and low to moderate amplitude	Sokolov 2002, Sokolov in Reid <i>et al.</i> 2011a
	Siberian brown lemming	1960-2001: Outbreaks every 3 to 4 years; lower amplitude in 1990s	
Lena River Delta, Russia	Siberian brown lemming	1993-2011: Fluctuations with more variable amplitude since 1990s; outbreaks in 2005 and 2008	Ebbinge & Masurov 2005, Popov 2009
	Siberian brown lemming	1951-1967: Outbreaks every 2 to 4 years	
Kolyma River lowlands, Russia	Siberian brown lemming & Palearctic collared lemming	1980-1984 & 1991-1996: Synchronous outbreaks every 2 to 4 years	Chernyavsky 2002
	Siberian brown lemming & Palearctic collared lemming	1969-1989: Synchronous outbreaks every 2 to 4 years	
Wrangel Island, Russia	Wrangel Island brown lemming & Wrangel Island collared lemming	1970-2011: Synchronous, low amplitude, outbreaks with period lengthening from 4-5 years in 1970s to 7 to 8 years in 1990s and 2000s	Chernyavsky & Tkachev 1982, Merlyushina <i>et al.</i> 2012
	Nearctic brown lemming & Nearctic collared lemming	1955-1973: Synchronous outbreaks every 4 to 6 years	
North slope, Yukon, Canada	Nearctic brown lemming & tundra vole	1989-1998: No outbreaks. Persistent low densities	Krebs <i>et al.</i> 2002, 2011
	Nearctic brown lemming & tundra vole	2006-2010: No outbreaks. Persistent low densities	
Banks Island, Northwest Territories, Canada	Nearctic brown lemming & Nearctic collared lemming	1993-1996: Outbreaks separated by 3 years, with different peak densities	Larter 1998
	Nearctic brown lemming & Nearctic collared lemming	1999-2011: Low amplitude outbreaks every 4 to 5 years. Less pronounced decline phase recently	
Pearce Point, Northwest Territories, Canada	Nearctic collared lemming & tundra vole	1987-1992: No outbreaks. Persistent low densities	Krebs <i>et al.</i> 1995, Reid <i>et al.</i> 1995
	Nearctic brown lemming, Nearctic collared lemming, Tundra vole & northern red-backed vole	1984-2000: Synchronous outbreaks every 4 to 5 years	
Devon Island, Nunavut, Canada	Nearctic collared lemming	1967-1973: Outbreaks every 2 or 4 years	Fuller <i>et al.</i> 1975
	Nearctic brown lemming & Nearctic collared lemming	1994-2011: Variable amplitude outbreaks every 3 to 4 years. Synchrony variable.	
Traill Island, NE Greenland	Nearctic collared lemming	1988-2000: High amplitude outbreaks every 4 years	Sittler 1995, Gilg <i>et al.</i> 2003, Sittler unpubl. data
	Nearctic collared lemming	2000-2011: Low amplitude fluctuations; higher every 2 to 3 years	
Zackenberg, NE Greenland	Nearctic collared lemming	1996-2000: High amplitude outbreak in phase with Traill Island	Schmidt <i>et al.</i> 2008, Schmidt unpubl. data
	Nearctic collared lemming	2000-2007: Lower amplitude outbreaks every 3 years	
		2007-2011: No outbreaks. Persistent low densities	