

APPENDIX

Table A1. Predicted annual mean densities of Marbled Murrelets (MAMU) from the trend model over 31 years of surveys in Laskeek Bay, Haida Gwaii, BC, Canada

Year	Predicted MAMU per km	95% Confidence Intervals (\pm Standard Error)	
		lower	upper
1990	1.08	0.70	1.46
1991	1.17	0.75	1.59
1992	1.57	1.02	2.11
1993	2.49	1.64	3.34
1994	1.38	0.91	1.86
1995	1.42	0.93	1.91
1996	1.57	1.01	2.14
1997	0.91	0.67	1.16
1998	3.44	2.70	4.18
1999	0.64	0.43	0.84
2000	1.32	0.98	1.67
2001	3.46	2.58	4.34
2002	5.41	4.06	6.77
2003	1.17	0.88	1.46
2004	0.97	0.70	1.24
2005	1.76	1.28	2.25
2006	1.66	1.20	2.11
2007	0.76	0.56	0.95
2008	1.83	1.30	2.36
2009	2.13	1.55	2.71
2010	1.01	0.61	1.40
2011	3.89	2.88	4.89
2012	0.61	0.42	0.79
2013	2.36	1.77	2.94
2014	0.76	0.54	0.99
2015	1.56	1.10	2.02
2016	1.39	1.00	1.79
2017	0.60	0.42	0.78
2018	0.68	0.49	0.87
2019	2.46	1.89	3.04
2020	1.00	0.74	1.26

Comparison of counts between regions in British Columbia, Canada

To investigate similarities and differences in annual fluctuations in Laskeek Bay, Haida Gwaii, versus West Coast Vancouver Island, we plotted data from both locations, using time periods for which similar data exist in both locations. The west coast Vancouver Island dataset is from surveys conducted in Pacific Rim National Park Reserve (Zharikov 2017). Marine birds are counted every two weeks in May – August (Zharikov & Yakimishyn 2020). Here we present linear density (Marbled Murrelets per km of survey) from both regions between 1999 and 2017.

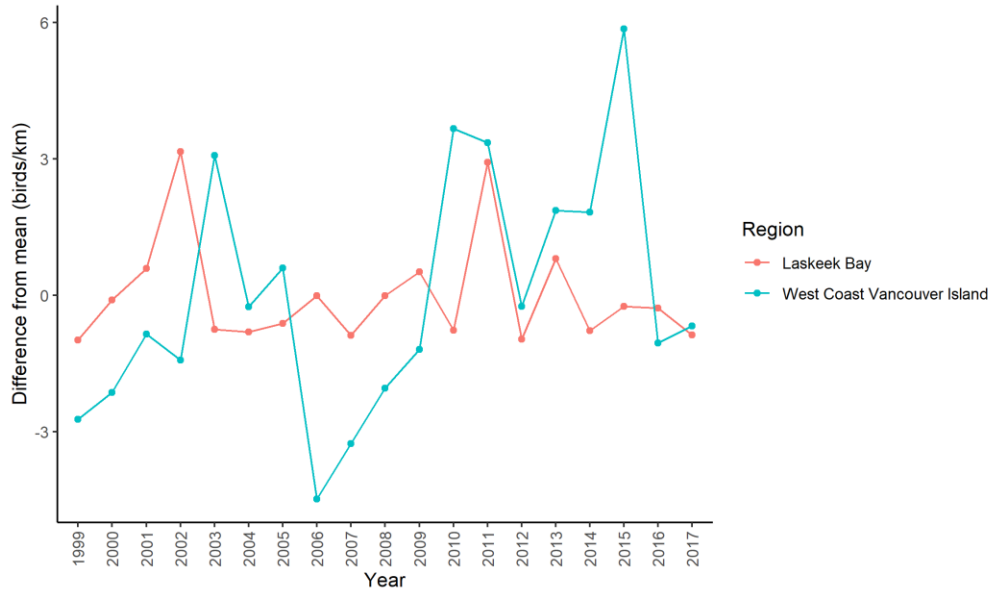


Fig. A1. Deviation from mean density of Marbled Murrelets (birds per km) counted in Laskeek Bay and west coast Vancouver Island (Pacific Rim National Park Reserve), 1999 and 2017. Data are from surveys conducted from May - August (west coast Vancouver Island) and May – July (Laskeek Bay).

References

ZHARIKOV, Y. 2017. *Seabird Populations – Pacific Rim*. Government of Canada Open Data record ID a918ab0b-c015-444e-9628-edf5b5064208. Gatineau, Canada: Parks Canada. [Accessed at <https://open.canada.ca/data/en/dataset/a918ab0b-c015-444e-9628-edf5b5064208> on 03 June 2023.]

ZHARIKOV, Y. & YAKIMISHYN, J. 2020. Seabird and Grey Whale population trends in Pacific Rim National Park Reserve of Canada. In: BOLDT, J.L., JAVORSKI, A. & CHANDLER, P.C. (Eds.). 2020. *State of the Physical, Biological and Selected Fishery Resources of Pacific Canadian Marine Ecosystems in 2019*. Canadian Technical Report of Fisheries and Aquatic Sciences 3377. Sidney, Canada: Fisheries and Oceans Canada, Institute of Ocean Sciences.