VERMONT CENTER FOR ECOSTUDIES
Uniting People and Science for Conservation

2023 Vermont Loon Conservation Project (VLCP) Summary

We identified 108 Common Loon nesting pairs in 2023. Seventy-three pairs successfully hatched 111 chicks with 78 of them surviving through August. The increased nesting rates in 2021-2023 can be explained by several new nesting pairs each year. The decline in chicks surviving per territorial year (0.53 ch/tp) can be attributed to more pairs not nesting along with slightly lower nest success (68%) and chick survival rates (70%). The 20-year average for nest success rate is 76%, chick survival rate 76%, and ch/tp 0.66. More than 350 volunteers helped monitor Vermont's loons this summer with assistance from Vermont Fish and Wildlife Department game wardens.

Vermont Loon Summary	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22	'23
Nesting pairs	62	61	66	72	72	70	81	84	87	93	97	91	101	96	109	106	108
Successful nests	47	49	53	57	52	50	62	57	65	65	74	66	75	65	77	78	73
Territorial pairs	83	86	90	92	98	103	106	110	112	117	118	123	129	135	137	139	149
Chicks surviving through August	56	55	74	70	60	66	71	62	69	80	92	73	87	74	84	88	78
Chick survival	79%	73%	89%	82%	79%	76%	73%	67%	67%	78%	79%	76%	76%	74%	67%	77%	70%
Loonwatch # adult loons in VT	218	225	228	210	271	280	297	301	298	301	308	356	339	358	349	379	348

Six new nesting pairs were identified, including Little Salem L. (failed nest), L. Memphremagog – NE (failed nest), Miles P. – west (failed nest), Minards P. (1 chick), Sherman Res. (failed nest), and Peacham P. –SE (chick disappeared). The loon pairs on L. Hortonia, L. Morey, and L. Rescue had chick(s) for the first time ever-recorded. The chick on L. Rescue died about 5 days after a major flooding event forcing the parent loons to leave much of the time due to zero clarity and high sediment load in the water. Loon chicks survived through August for the first time on Lowell L. and West Hill P. Volunteers counted fewer adult loons on the annual statewide Loonwatch day in part because of the flooding event a few days prior to the count and many missed surveys. For missed lakes with chicks, we made a conservative estimate of the number loons that would be present.

We documented 16 adult mortalities. The University of New Hampshire Veterinary Diagnostic Lab and the Vermont Institute of Natural Science (VINS) conducted 10 necropsies on adults and 3 on chicks. Known causes of mortality included lead fishing gear (Harvey's L. chick), other fishing gear (Colby P., Kent P., L. Memphremagog), boat hit (Newark P.), gunshot (Lower Symes P.), predation-bald eagle (Chittenden Res.), trauma – likely loon/possibly eagle (Lyford P.), aspergillosis (Harveys L.), and lung infection (Barre). We made 11 rescue attempts in 2023 (7 adults and 4 chicks). Eight of these loons were released (5 adults, 3 chicks). In addition, we rescued and released a red-throated loon (crash landing). We removed fishing line from a breeding adult on L. Rescue. Three other adults and 1 chick were found on or along roads/pavement (trauma – crash landing). We rescued a chick from Ricker Pond that was malnourished at about 10 weeks of age. It had gone over the dam at the outlet. VINS and Biodiversity Research Institute (BRI) rehabilitated the loon over several weeks (feeding and allowing feathers to become waterproof again) before the bird was successfully released; it was re-observed a month after release in western Massachusetts.

Nests: 39 pairs nested on nesting rafts (82% successful), 37 were on islands (70% successful), 26 were in marshes (50% successful), and 6 were on shorelines (33% successful). Nest warning signs were placed around 61 active nests. Seventy-two percent of signed-nests were successful compared to 63% for un-signed nests.

Nest Failures: The nest success rate was 68% (20-year average 76%). Of 37 pairs whose first nest attempts failed, 6 re-nested, and 3 were successful. Known causes of nest failure included flooding (9 nests), depredation (2 nests), loon disturbance (1 nest), human disturbance (1 nest), and overincubation (6 nests). The remaining failed nests were abandoned for unknown reasons with depredation and disruption from intruder loons being the most likely causes.

Chick Loss: The chick survival rate through August was 70% with 0.53 chicks surviving per territorial pair (ch/tp) in 2023. From 2003-2022, the 20-year average chick survival rate was 76% with 0.66 ch/tp. The estimate for a stable and sustainable population is 0.48 ch/tp (Evers 2006).

VERMONT CENTER FOR ECOSTUDIES
Uniting People and Science for Conservation

Vermont Center for Ecostudies
PO Box 420
Norwich, VT 05055
(802) 649-1431
www.vtecostudies.org

Eric Hanson and Eloise Girard, loon biologists
PO Box 22
Craftsbury, VT 05826
(802) 586-8065
loon@vtecostudies.org

Nongame Wildlife Fund

VLCP is a program of the Vermont Center for Ecostudies and the Vermont Fish and Wildlife Department