

Figure 13. Diagram of floating larval drift net assembly used during lake sturgeon investigations in the Keeyask Study Area, 2003.

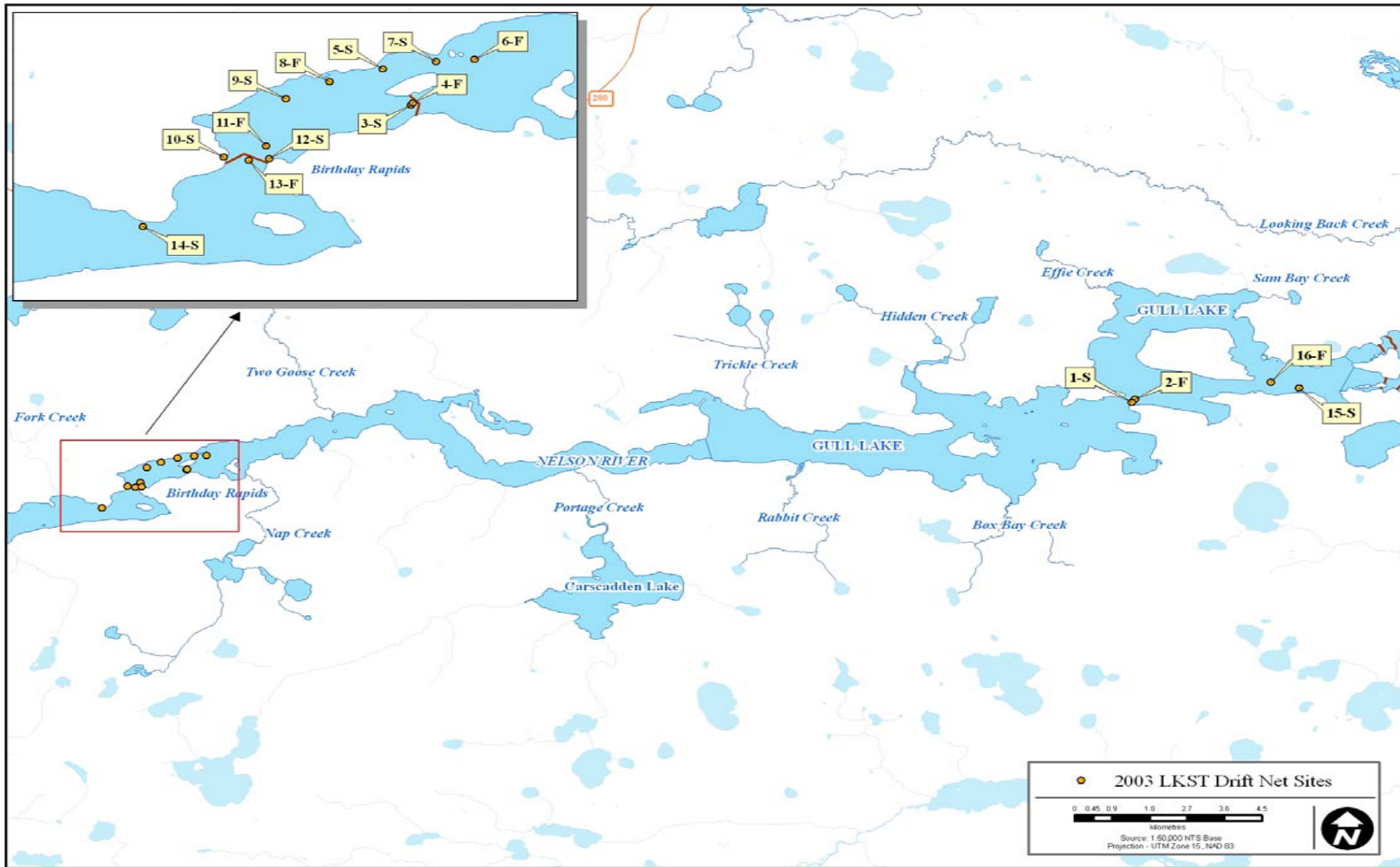


Figure 14. Drift net sites sampled in the Nelson River between Birthday and Gull rapids between 19 June and 21 July, 2003 (S = bottom set; F = floating set).

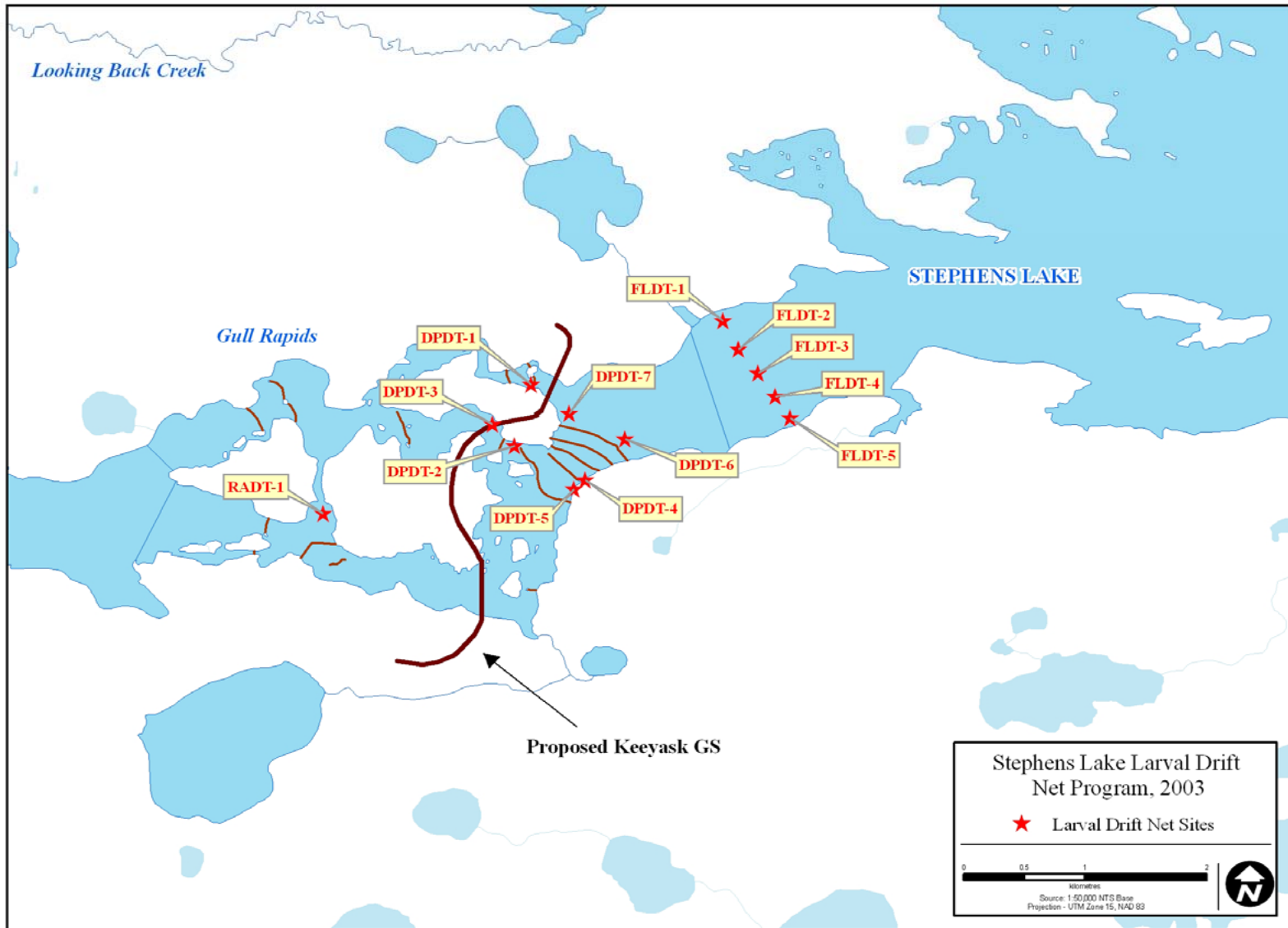


Figure 15. Map of drift net sites sampled in Gull Rapids and immediately downstream in Stephens Lake between 10 June and 20 July, 2003 (DPDT = bottom set; FLDT = floating set; RADT = bottom set within rapids).

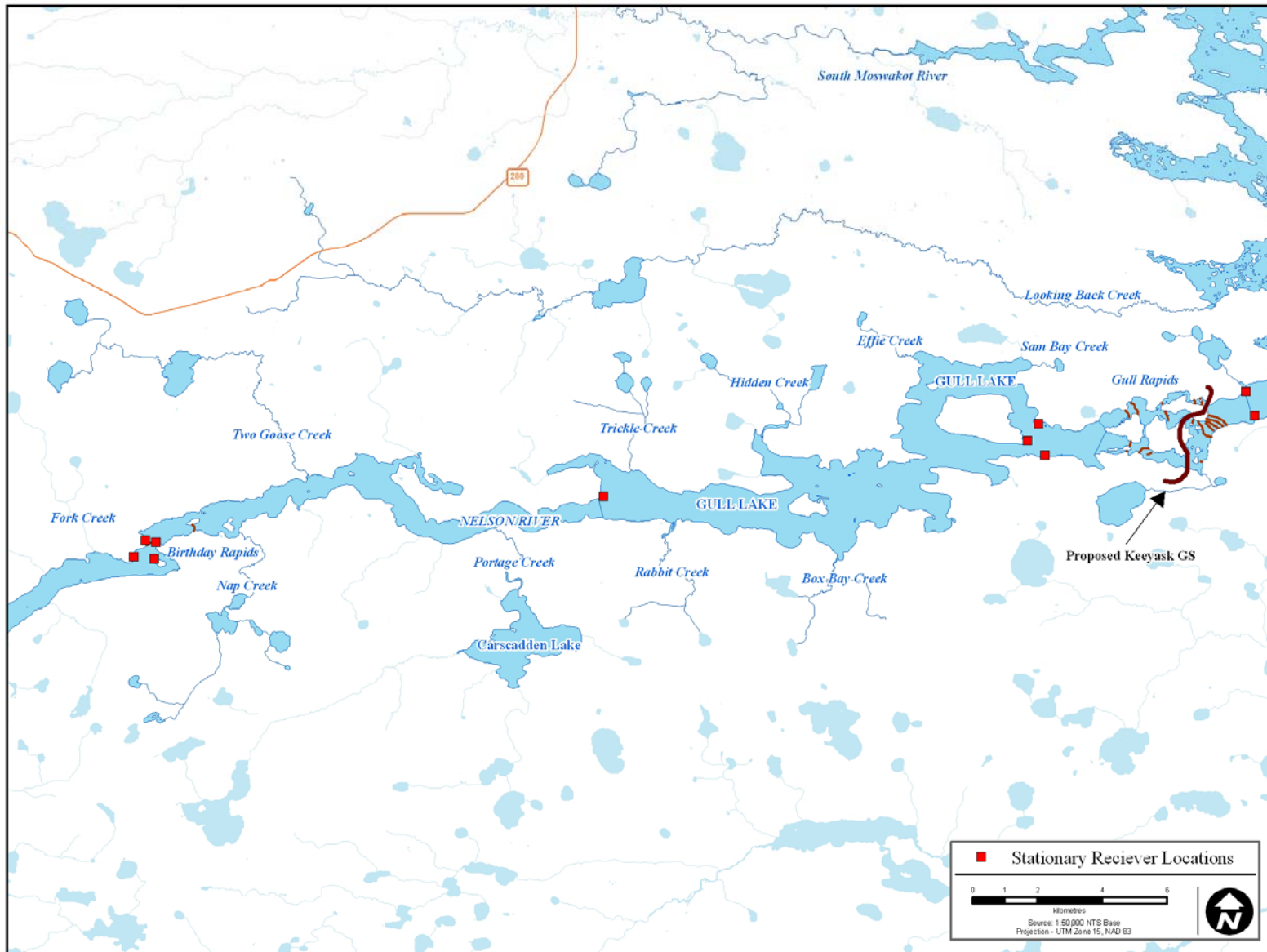


Figure 16. Location of stationary receivers in the Keeyask Study Area, 2003.

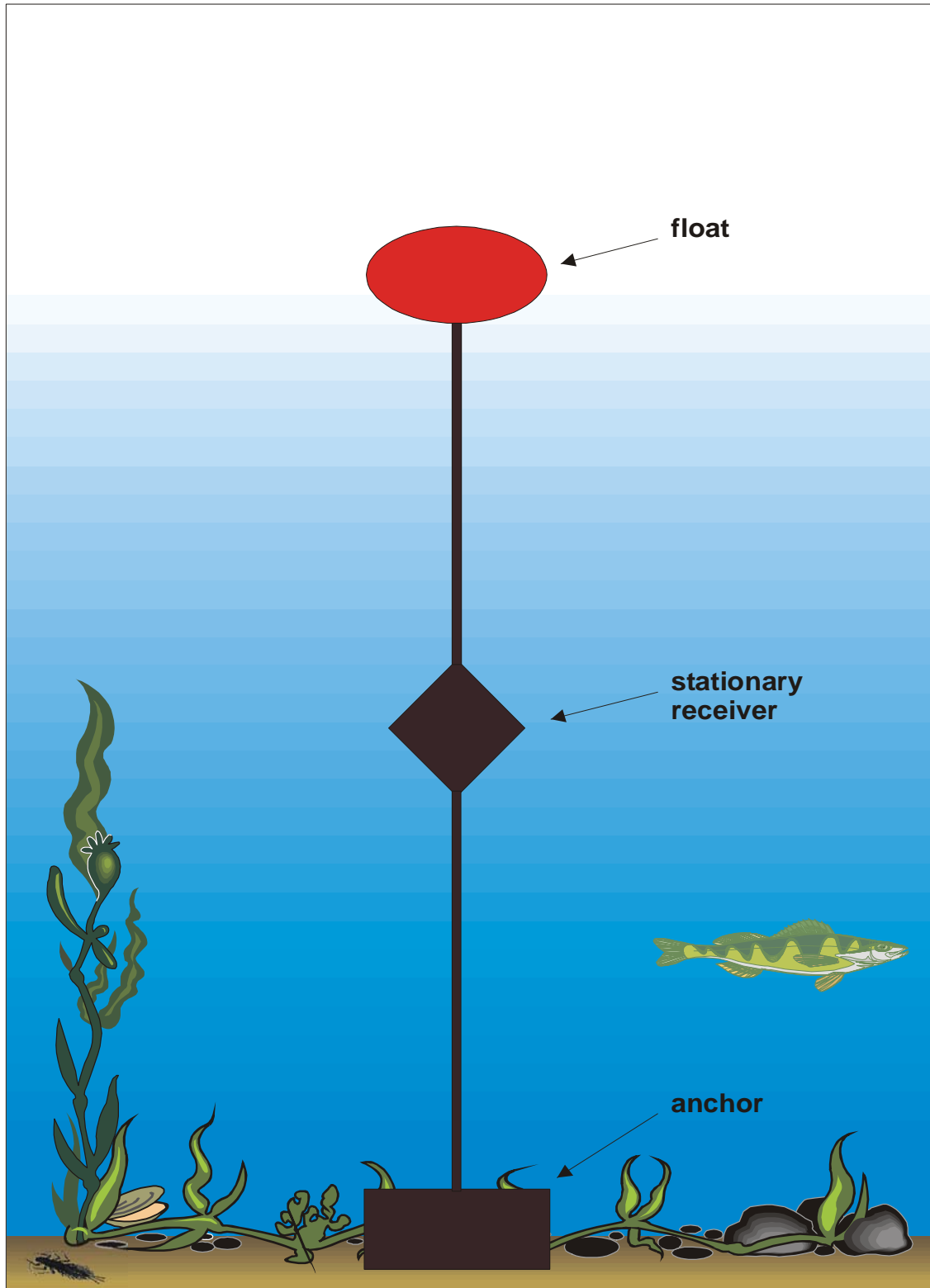


Figure 17. Diagram of a stationary acoustic receiver used during telemetry studies in the Keeyask Study Area, 2003.

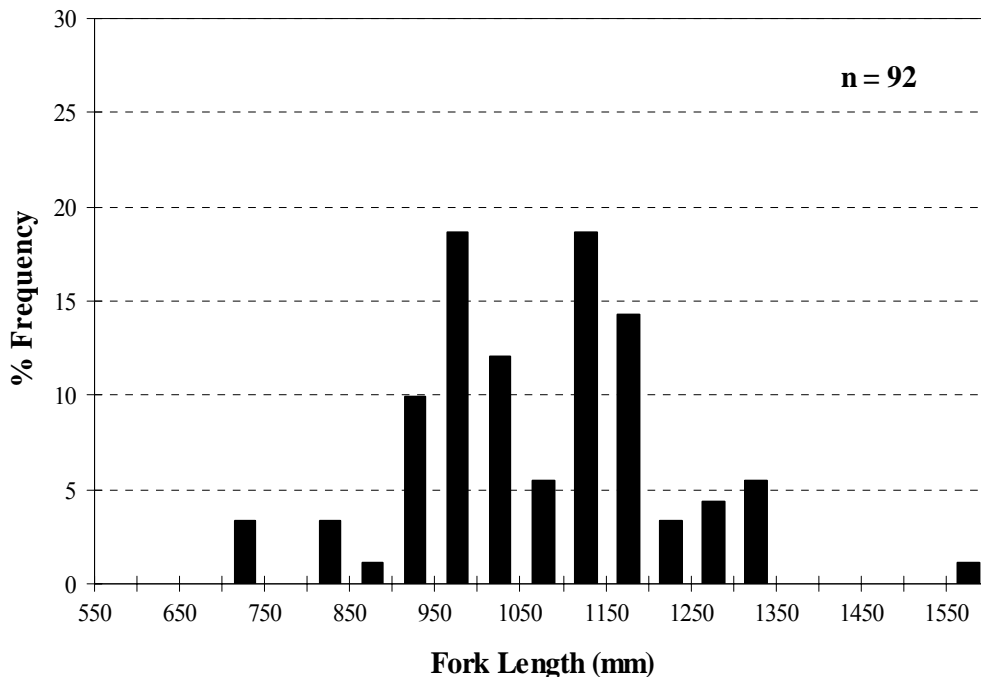


Figure 18. Length-frequency distribution for lake sturgeon captured in gill nets set in the Nelson River between Birthday and Gull rapids, spring 2003.

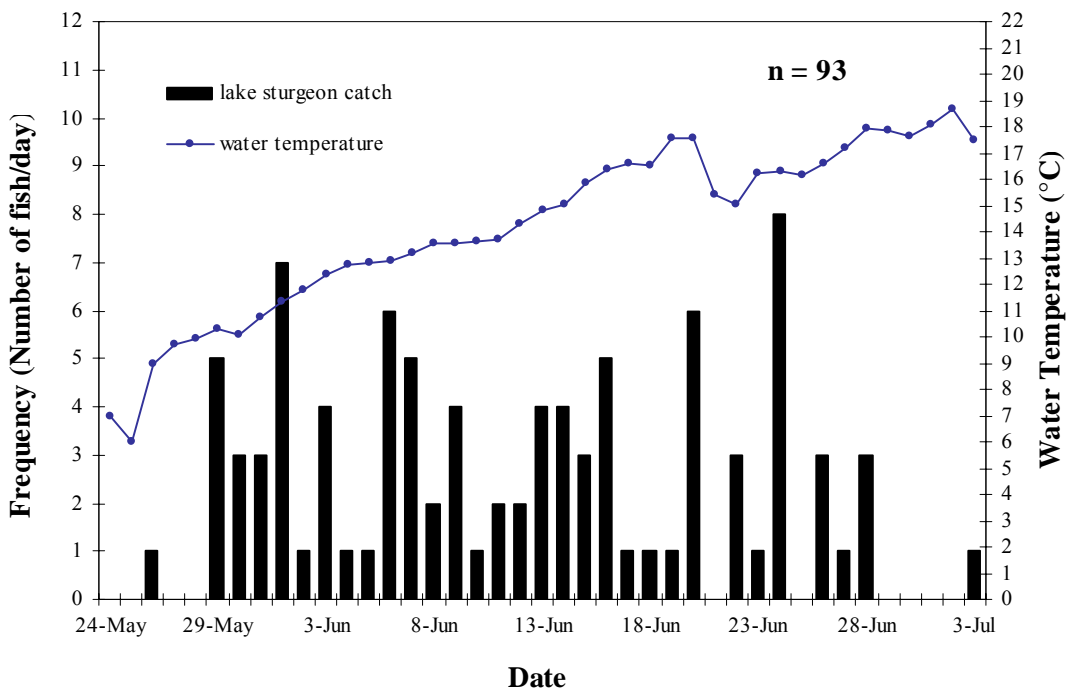


Figure 19. Daily frequency of lake sturgeon captured in gillnets set in the Nelson River between Birthday and Gull rapids, spring 2003. *Note: Does not include lake sturgeon that were captured more than once in 2003.*

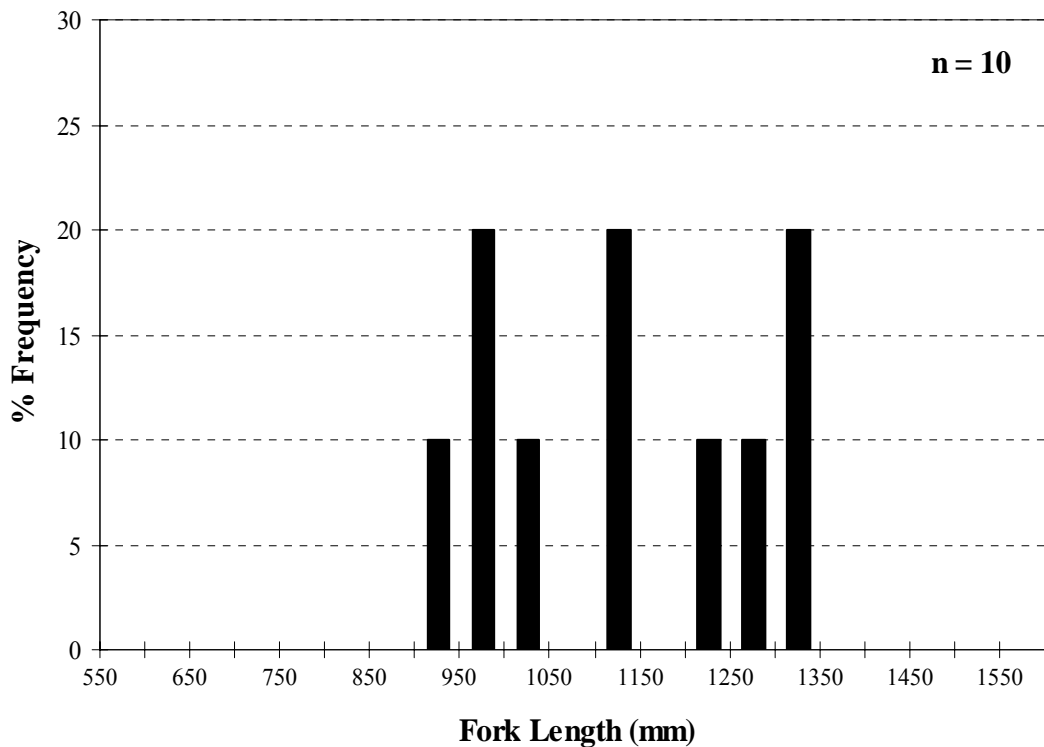


Figure 20. Length-frequency distribution for lake sturgeon captured in Gull Rapids, spring 2003.

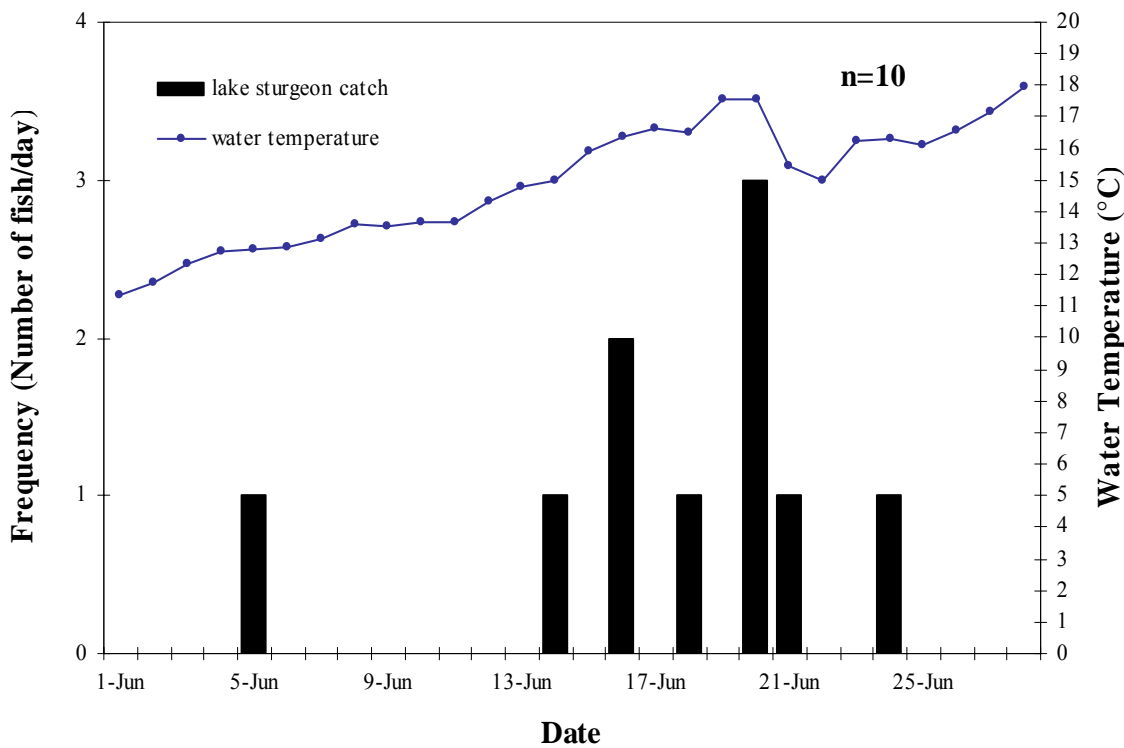


Figure 21. Daily frequency of lake sturgeon captured in Gull Rapids, spring 2003.

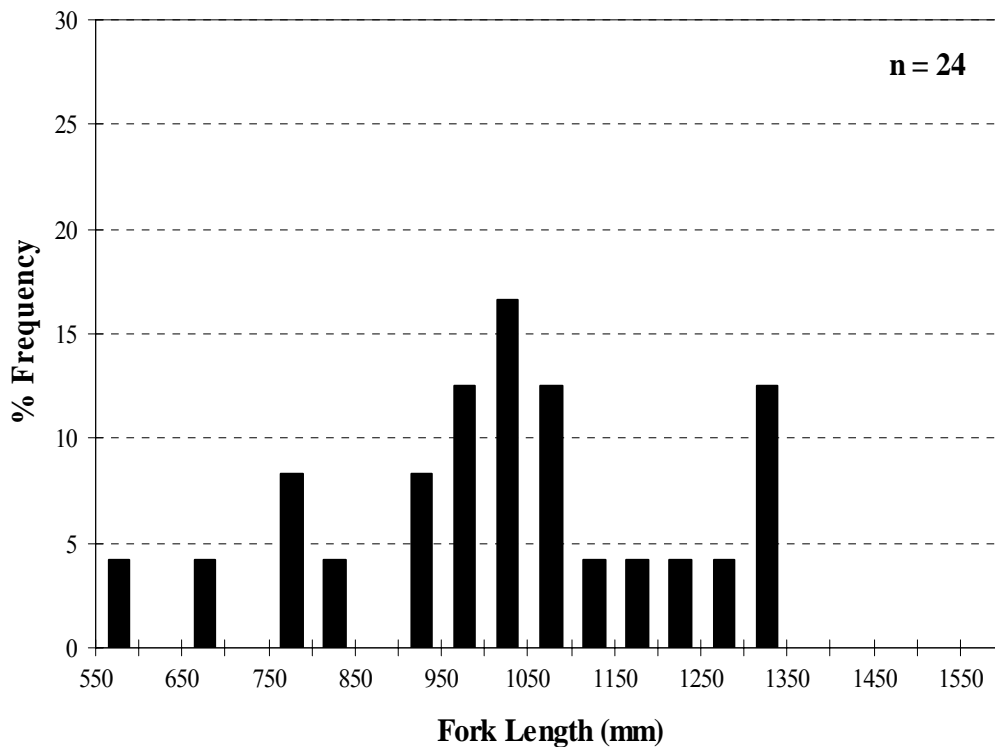


Figure 22. Length-frequency distribution for lake sturgeon captured in Stephens Lake, spring 2003.

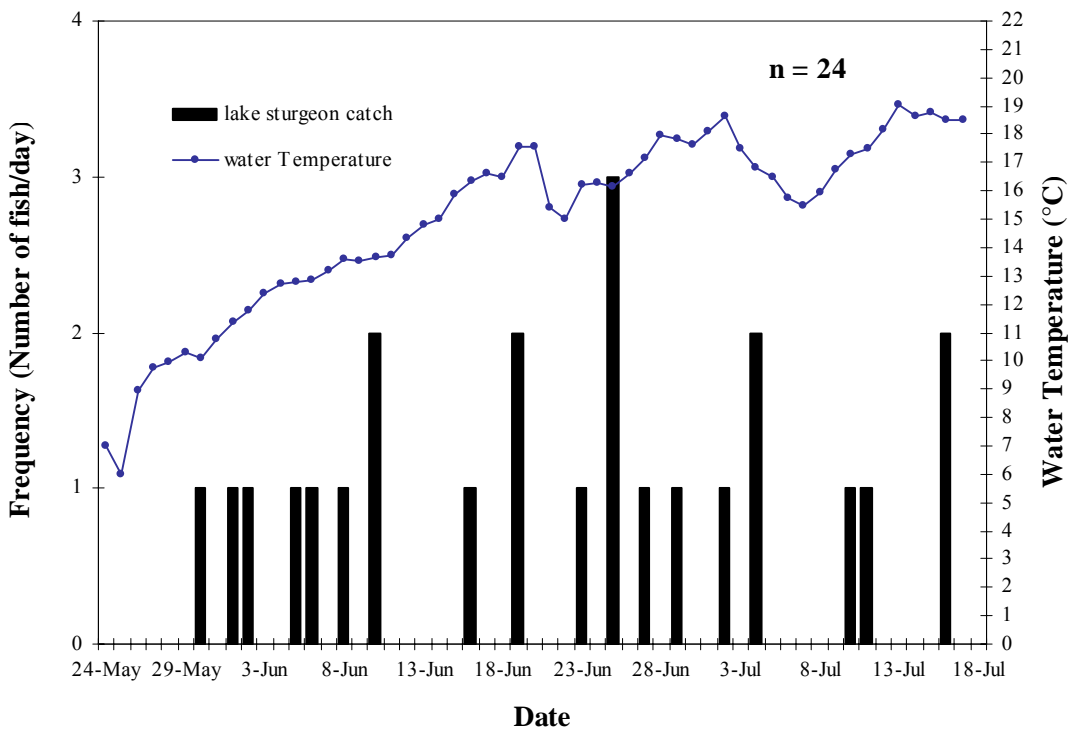


Figure 23. Daily frequency of lake sturgeon captured in Stephens Lake, spring 2003.



## APPENDIX 1

### BIOLOGICAL AND FLOY-TAG INFORMATION FOR LAKE STURGEON CAPTURED IN THE KEYYASK STUDY AREA, 2003

	<u>Page</u>
Table A1-1. Biological and Floy-tag information for all lake sturgeon captured in the Nelson River between Clark Lake and Birthday Rapids, 2003. ....	66
Table A1-2. Biological and Floy-tag information for all lake sturgeon captured in the Nelson River between Birthday Rapids and Gull Rapids, 2003 .....	67
Table A1-3. Biological and Floy-tag information for all lake sturgeon captured in Gull Rapids, 2003. ....	71
Table A1-4. Biological and Floy-tag information for all lake sturgeon captured in Stephens Lake, 2003 .....	72
Table A1-5. Biological and Floy-tag information for incidental lake sturgeon captures in the Keeyask Study Area during fish community investigations in 2003 .....	73

Table A1-1. Biological and Floy-tag information for all lake sturgeon captured in the Nelson River between Clark Lake and Birthday Rapids, 2003.

<b>Prefix</b>	<b>Tag Number</b>	<b>Species</b>	<b>Date Tagged</b>	<b>Gear Type</b>	<b>Capture Location (Map Area)</b>	<b>Fork Length (mm)</b>	<b>Total Length (mm)</b>	<b>Weight (g)</b>	<b>Sex</b>	<b>Maturity</b>	<b>Recap</b>
NSC	59135	LKST	02-Jul-03	GN	BR-U	1178	1330	15876	-	-	-

LKST = Lake sturgeon  
 GN = Gill net  
 Recap = Previous year recapture

Table A1-2. Biological and Floy-tag information for all lake sturgeon captured in the Nelson River between Birthday Rapids and Gull Rapids, 2003.

Prefix	Tag Number	Species	Date Captured	Gear Type	Capture Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap	Program
SLRMB	1033	LKST	16-Jun-03	GN	GL-C	968	1090	7711	-	-	Y	SPGN
SLRMB	1074	LKST	26-May-03	GN	GL-C	1165	1280	11000	-	-	Y	SPGN
SLRMB	1081	LKST	09-Jun-03	GN	GL-A	1319	1440	-	-	-	Y	SPGN
SLRMB	1100	LKST	22-Jun-03	GN	GL-A	1180	1307	12701	-	-	Y	SPGN
SLRMB	1287	LKST	03-Jun-03	GN	GL-C	919	1025	7505	-	-	Y	SPGN
SLRMB	1312	LKST	22-Jun-03	GN	GL-A	1130	1245	14742	-	-	Y	SPGN
NSC	46827	LKST	24-Jun-03	GN	BR-D	964	1060	8166	-	-	Y	SPGN
NSC	47084	LKST	26-Jun-03	GN	GL-C	906	1010	6350	-	-	Y	IN
NSC	47107	LKST	07-Jun-03	GN	GL-B	1330	1485	-	M	7	Y	SPGN
NSC	47108	LKST	28-Jun-03	GN	GL-A	1164	1282	15876	-	-	Y	IN
NSC	47115	LKST	20-Jun-03	GN	BR-D	1110	1210	12247	-	-	Y	SPGN
NSC	47117	LKST	13-Jun-03	GN	GL-A	1145	1292	-	-	-	Y	SPGN
NSC	47118	LKST	16-Jun-03	GN	BR-D	-	-	-	-	-	Y	SPGN
NSC	47181	LKST	23-Jun-03	GN	BR-D	810	926	4763	-	-	Y	SPGN
NSC	47186	LKST	31-May-03	GN	GL-C	1112	1237	12505	-	-	Y	SPGN
NSC	48552	LKST	14-Jun-03	GN	BR-D	1172	1280	11505	-	-	Y	SPGN
NSC	48596	LKST	28-Jun-03	GN	GL-A	1339	1452	21319	-	-	Y	IN
NSC	48806	LKST	18-Jun-03	GN	BR-D	1013	1125	8845	-	-	Y	SPGN
NSC	48810	LKST	24-Jun-03	GN	GL-C	820	935	5897	-	-	Y	SPGN
NSC	48811	LKST	24-Jun-03	GN	GL-C	934	1040	7711	-	-	Y	SPGN
NSC	48820	LKST	16-Jun-03	GN	BR-D	1174	1312	12727	-	-	Y	SPGN
NSC	48877	LKST	01-Jun-03	GN	GL-C	1112	1252	13255	-	-	Y	SPGN
NSC	48881	LKST	06-Jun-03	GN	GL-A	1265	1391	-	-	-	Y	SPGN

Table A1-2. Continued.

Prefix	Tag Number	Species	Date Captured	Gear Type	Capture Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap	Program
NSC	48886	LKST	13-Jun-03	GN	BR-D	986	1077	8750	M	7	Y	SPGN
NSC	48941	LKST	24-Jun-03	GN	GL-C	1094	1237	11340	-	-	Y	SPGN
NSC	50784	LKST	29-May-03	GN	GL-C	1149	1290	13505	-	-	-	SPGN
NSC	50785	LKST	29-May-03	GN	GL-C	1025	1150	9505	-	-	-	SPGN
NSC	50786	LKST	29-May-03	GN	GL-C	950	1065	7005	-	-	-	SPGN
NSC	50790	LKST	29-May-03	GN	GL-A	1122	1232	13255	-	-	-	SPGN
NSC	50792	LKST	29-May-03	GN	BR-D	1056	1190	11755	-	-	-	SPGN
NSC	50808	LKST	03-Jun-03	GN	GL-C	1015	1132	9505	-	-	-	SPGN
NSC	50809	LKST	03-Jun-03	GN	GL-C	1105	1247	13255	-	-	-	SPGN
NSC	50810	LKST	03-Jun-03	GN	GL-C	915	1010	6755	-	-	-	SPGN
NSC	50811, 50812	LKST	04-Jun-03	GN	GL-C	850	945	5505	-	-	-	SPGN
NSC	50819	LKST	05-Jun-03	GN	GL-C	1118	1203	13005	-	-	-	SPGN
NSC	50825	LKST	06-Jun-03	GN	GL-C	703	799	3000	-	-	-	SPGN
NSC	50826	LKST	06-Jun-03	GN	GL-C	980	1091	8500	-	-	-	SPGN
NSC	50831	LKST	06-Jun-03	GN	BR-D	956	1080	7500	-	-	-	SPGN
NSC	50835	LKST	06-Jun-03	GN	BR-D	1121	1228	15505	-	-	-	SPGN
NSC	50836	LKST	06-Jun-03	GN	GL-A	1159	1260	10500	-	-	-	SPGN
NSC	50838	LKST	07-Jun-03	GN	GL-A	969	1091	8250	-	-	-	SPGN
NSC	50839	LKST	07-Jun-03	GN	GL-B	961	1065	7250	-	-	-	SPGN
NSC	50841	LKST	07-Jun-03	GN	BR-D	991	1087	8750	-	-	-	SPGN
NSC	50843	LKST	07-Jun-03	GN	BR-D	985	1200	8500	-	-	-	SPGN
NSC	50845	LKST	08-Jun-03	GN	GL-A	916	1032	7500	-	-	-	SPGN
NSC	50850	LKST	08-Jun-03	GN	BR-D	1018	1135	10000	-	-	-	SPGN
NSC	50852	LKST	09-Jun-03	GN	GL-C	1235	1370	18505	-	-	-	SPGN

Table A1-2. Continued.

Prefix	Tag Number	Species	Date Captured	Gear Type	Capture Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap	Program
NSC	50853	LKST	09-Jun-03	GN	GL-C	1088	1210	14755	-	-	-	SPGN
NSC	50854	LKST	09-Jun-03	GN	BR-D	1025	1149	8500	-	-	-	SPGN
NSC	50858	LKST	10-Jun-03	GN	GL-A	1170	1300	17255	-	-	-	SPGN
NSC	50888	LKST	11-Jun-03	GN	BR-D	1540	1740	54431	F	2	-	SPGN
NSC	50891	LKST	11-Jun-03	GN	GL-C	1030	1137	10500	-	-	-	SPGN
NSC	50892	LKST	12-Jun-03	GN	BR-D	1118	1245	9500	-	-	-	SPGN
NSC	50893	LKST	12-Jun-03	GN	BR-D	838	962	6500	-	-	-	SPGN
NSC	50896	LKST	13-Jun-03	GN	BR-D	1115	1274	11250	-	-	-	SPGN
NSC	50897	LKST	13-Jun-03	GN	GL-C	991	1125	9500	-	-	-	SPGN
NSC	50898	LKST	15-Jun-03	GN	GL-C	965	1081	9000	-	-	-	SPGN
NSC	50899	LKST	15-Jun-03	GN	GL-C	1100	1212	12250	-	-	-	SPGN
NSC	50900	LKST	15-Jun-03	GN	GL-C	1080	1192	12500	-	-	-	SPGN
NSC	50910	LKST	30-May-03	GN	GL-C	1218	1335	19005	-	-	-	SPGN
NSC	50911	LKST	30-May-03	GN	GL-C	992	1132	9505	-	-	-	SPGN
NSC	50912	LKST	30-May-03	GN	GL-C	1108	1218	12255	-	-	-	SPGN
NSC	50915	LKST	31-May-03	GN	GL-C	1188	1310	17005	-	-	-	SPGN
NSC	50916	LKST	31-May-03	GN	GL-C	908	1037	7505	-	-	-	SPGN
NSC	50935	LKST	01-Jun-03	GN	GL-C	1029	1110	9505	M	7	-	SPGN
NSC	50936	LKST	01-Jun-03	GN	GL-C	990	1104	10255	-	-	-	SPGN
NSC	50938	LKST	01-Jun-03	GN	GL-C	951	1099	9505	-	-	-	SPGN
NSC	50941	LKST	01-Jun-03	GN	GL-C	1195	1305	16005	-	-	-	SPGN
NSC	50942	LKST	01-Jun-03	GN	GL-C	1108	1235	15255	-	-	-	SPGN
NSC	50947	LKST	01-Jun-03	GN	BR-D	1295	1423	18505	-	-	-	SPGN
NSC	50950	LKST	02-Jun-03	GN	GL-C	956	1068	8005	-	-	-	SPGN
NSC	50956	LKST	16-Jun-03	GN	BR-D	1160	1222	13608	-	-	-	SPGN

Table A1-2. Continued.

Prefix	Tag Number	Species	Date Captured	Gear Type	Capture Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap	Program
NSC	50957	LKST	16-Jun-03	GN	GL-A	1242	1353	17237	-	-	-	SPGN
NSC	50961	LKST	17-Jun-03	GN	GL-C	1198	1319	17463	-	-	-	SPGN
NSC	50969	LKST	19-Jun-03	GN	GL-C	700	786	3402	-	-	-	SPGN
NSC	50970	LKST	20-Jun-03	GN	GL-C	1340	1480	25855	-	-	-	SPGN
NSC	50971	LKST	20-Jun-03	GN	GL-C	1255	1370	17690	-	-	-	SPGN
NSC	50972	LKST	20-Jun-03	GN	GL-A	1025	1120	8618	-	-	-	SPGN
NSC	50973	LKST	20-Jun-03	GN	GL-A	1124	1230	14515	-	-	-	SPGN
NSC	50975	LKST	20-Jun-03	GN	BR-D	1000	1109	7257	-	-	-	SPGN
NSC	50977	LKST	22-Jun-03	GN	GL-C	958	1070	8165	-	-	-	SPGN
NSC	50987	LKST	24-Jun-03	GN	GL-A	1089	1196	10433	-	-	-	SPGN
NSC	50988	LKST	24-Jun-03	GN	GL-A	1045	1182	9525	-	-	-	SPGN
NSC	50989	LKST	24-Jun-03	GN	GL-C	1180	1302	15649	-	-	-	SPGN
NSC	50991	LKST	24-Jun-03	GN	GL-C	940	1069	7711	-	-	-	SPGN
NSC	50992	LKST	26-Jun-03	GN	GL-C	1105	1210	12927	-	-	-	IN
NSC	50997	LKST	26-Jun-03	GN	GL-C	1006	1125	11113	-	-	-	IN
NSC	50998	LKST	27-Jun-03	GN	GL-C	742	840	3856	-	-	-	IN
NSC	59126	LKST	28-Jun-03	GN	GL-A	940	1060	8165	-	-	-	IN
NSC	59138	LKST	03-Jul-03	GN	BR-D	924	-	-	-	-	-	IN
NSC	59605	LKST	14-Jun-03	GN	BR-D	1315	1462	31751	-	-	-	SPGN
NSC	59608	LKST	14-Jun-03	GN	GL-A	1270	1410	22680	-	-	-	SPGN
NSC	59609	LKST	14-Jun-03	GN	GL-C	1156	1299	12000	-	-	-	SPGN

LKST = Lake sturgeon

GN = Gill net

SPGN = Spring gillnetting; IN = Index gillnetting

Recap = Previous year recapture

\* Tags with the prefix SLRMB were originally tagged during a gillnetting study conducted in Gull Lake in 1995 (Manitoba Water Stewardship, unpublished data)

Table A1-3. Biological and Floy-tag information for all lake sturgeon captured in Gull Rapids, 2003.

Prefix	Tag Number	Species	Date Captured	Gear Type	Tagging Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap
NSC	56233	LKST	05-Jun-03	GN	GR-A	971	1092	7500	M	7	-
NSC	46807	LKST	14-Jun-03	GN	GR-A	1100	1197	12000	-	-	Y
NSC	46805	LKST	16-Jun-03	GN	GR-A	931	1006	6750	M	9	Y
NSC	47183	LKST	16-Jun-03	GN	GR-A	1300	1430	20500	-	-	Y
NSC	53194	LKST	18-Jun-03	GN	GR-A	1108	1252	13500	M	9	Y
NSC	46892	LKST	20-Jun-03	GN	GR-A	951	1057	7500	M	9	Y
NSC	56283	LKST	20-Jun-03	GN	GR-A	1035	1159	9025	-	-	-
NSC	56284	LKST	20-Jun-03	GN	GR-A	1339	1428	22000	-	-	-
NSC	46895	LKST	21-Jun-03	GN	GR-A	1205	1306	13250	-	-	Y
NSC	56289	LKST	24-Jun-03	GN	GR-A	1262	1362	16500	-	-	-

LKST = Lake sturgeon

GN = Gill net

Recap = Previous year recapture

Table A1-4. Biological and Floy-tag information for all lake sturgeon captured in Stephens Lake, 2003.

Prefix	Tag Number	Species	Date Captured	Gear Type	Capture Location (Map Area)	Fork Length (mm)	Total Length (mm)	Weight (g)	Sex	Maturity	Recap
NSC	46856	LKST	16-Jun-03	GN	STL-A	1024	1159	-	-	-	Y
NSC	47183	LKST	30-May-03	GN	STL-A	1279	1412	22273	-	-	Y
NSC	49040	LKST	10-Jun-03	GN	STL-A	1332	1459	16136	-	-	Y
NSC	49041	LKST	16-Jul-03	GN	STL-B	1052	1139	10500	-	-	Y
NSC	56152	LKST	01-Jun-03	GN	STL-A	912	1012	6124	M	7	-
NSC	56164	LKST	02-Jun-03	GN	STL-A	995	1085	7050	-	-	-
NSC	56179	LKST	05-Jun-03	GN	STL-A	979	1095	6804	-	-	-
NSC	56184	LKST	06-Jun-03	GN	STL-A	1249	1397	23360	M	7	-
NSC	56202	LKST	25-Jun-03	GN	STL-B	1002	1097	8500	-	-	-
NSC	56203	LKST	25-Jun-03	GN	STL-B	833	931	3500	-	-	-
NSC	56205	LKST	25-Jun-03	GN	STL-A	771	877	4000	-	-	-
NSC	56208	LKST	27-Jun-03	GN	STL-A	936	1052	6250	-	-	-
NSC	56210	LKST	29-Jun-03	GN	STL-B	664	744	3000	-	-	-
NSC	56225	LKST	23-Jun-03	GN	STL-A	759	861	4475	-	-	-
NSC	56307	LKST	02-Jul-03	GN	STL-B	994	1108	8750	-	-	-
NSC	56310	LKST	04-Jul-03	GN	STL-A	1051	1164	11050	-	-	-
NSC	56311	LKST	04-Jul-03	GN	STL-A	1321	1462	25000	-	-	-
NSC	56313	LKST	08-Jun-03	GN	STL-B	555	641	1700	-	-	-
NSC	56319	LKST	10-Jul-03	GN	STL-A	1026	1139	12000	-	-	-
NSC	56322	LKST	11-Jul-03	GN	STL-A	1054	1185	11500	-	-	-
NSC	56324	LKST	16-Jul-03	GN	STL-B	1163	1265	13250	-	-	-
NSC	56463	LKST	19-Jun-03	GN	STL-A	1135	1200	15500	-	-	-
NSC	56468	LKST	19-Jun-03	GN	STL-A	1340	1472	26000	-	-	-
NSC	56485	LKST	10-Jun-03	GN	STL-A	1007	1129	11150	F	2	-

LKST = Lake sturgeon

GN = Gill net

Recap = Previous year recapture



Table A1-5. Biological and Floy-tag information for incidental lake sturgeon captures in the Keeyask Study Area during fish community investigations in 2003.

<b>Prefix</b>	<b>Tag Number</b>	<b>Species</b>	<b>Date Captured</b>	<b>Gear Type</b>	<b>Capture Location (Map Area)</b>	<b>Fork Length (mm)</b>	<b>Total Length (mm)</b>	<b>Weight (g)</b>	<b>Sex</b>	<b>Maturity</b>
NSC	52393	LKST	04-Sep-03	GN	STL-A	644	717	2300	-	-
NSC	55557	LKST	19-Sep-03	GN	STL-A	717	790	2500	-	-
NSC	59519	LKST	03-Oct-03	GN	BR-D	841	965	-	-	-

LKST = Lake sturgeon  
GN = Gill net

## APPENDIX 2

### WEIGHT-LENGTH REGRESSION ANALYSIS FOR LAKE STURGEON CAPTURED IN THE KEEYASK STUDY AREA, 2003

	<u>Page</u>
Table A2-1. Weight-length regression equation, by location, for lake sturgeon captured in the Keeyask Study Area during 2003. ....	75

Table A2-1. Weight-length regression equation, by location, for lake sturgeon captured in the Keeyask Study Area during 2003.

<b>Location</b>	<b>n</b>	<b>Regression equation</b>	<b>R<sup>2</sup></b>
Nelson River (BR-GR)	87	$y = 39.70x - 30100$	0.73
Gull Rapids	10	$y = 35.26x - 26641$	0.94
Stephens Lake	24	$y = 31.27x - 20612$	0.84

BR - GR = Birthday Rapids to Gull Rapids

R<sup>2</sup> value measures how successful the fit is in explaining the variation in the data (i.e., a value closer to 1.00 indicates a better fit).

n = number of individuals captured

### APPENDIX 3

## SUMMARY OF LAKE STURGEON FLOY-TAG RECAPTURES IN THE KEYYASK STUDY AREA, 2003

	<u>Page</u>
Table A3-1. Biological information for lake sturgeon recaptured in 2003.....	77

Table A3-1. Biological information for lake sturgeon recaptured in 2003.

Prefix	Tag #	Species	Date Captured	Tagging Zone (Map Area)	Date Recaptured	Recapture Zone (Map Area)	Distance (km)	Days to Recapture
NSC	46805	LKST	27-May-01	STL-A	16-Jun-03	GR-A	3	750
NSC	46807	LKST	27-May-01	STL-A	24-Jun-03	GR-A	4	758
NSC	46827	LKST	28-May-01	STL-A	24-Jun-03	BR-D	39	757
NSC	46856	LKST	05-Jun-01	STL-A	16-Jun-03	STL-A	1	741
NSC	46892	LKST	27-Jun-01	STL-A	20-Jun-03	GR-A	3	723
NSC	46895	LKST	08-Jul-01	STL-A	21-Jun-03	GR-A	3	713
NSC	47084	LKST	29-May-01	GL-B	26-Jun-03	GL-C	11	758
NSC	47107	LKST	04-Jun-01	BR-D	07-Jun-03	GL-B	2	733
NSC	47108	LKST	04-Jun-01	GL-A	28-Jun-03	GL-A	2	754
NSC	47115	LKST	06-Jun-01	BR-D	20-Jun-03	BR-D	1	744
NSC	47117	LKST	06-Jun-01	BR-D	13-Jun-03	GL-A	18	737
NSC	47118	LKST	06-Jun-01	BR-D	16-Jun-03	BR-D	1	740
NSC	47181	LKST	07-Jul-01	GL-B	23-Jun-03	BR-D	26	716
NSC	47183	LKST	09-Jul-01	GL-B	30-May-03	STL-A	13	690
NSC	47183	LKST	09-Jul-01	GL-B	16-Jun-03	GR-A	12	707
NSC	47186	LKST	18-Jul-01	GL-B	31-May-03	GL-C	5	682
NSC	48552	LKST	22-Jun-02	GL-B	14-Jun-03	BR-D	23	357
NSC	48596	LKST	15-Jun-02	BR-D	28-Jun-03	GL-A	28	378
NSC	48806	LKST	28-Jun-02	BR-D	18-Jun-03	BR-D	1	355
NSC	48810	LKST	28-Jun-02	GL-B	24-Jun-03	GL-C	9	361
NSC	48811	LKST	28-Jun-02	GL-B	24-Jun-03	GL-C	4	361
NSC	48820	LKST	27-Jun-02	BR-D	16-Jun-03	BR-D	1	354
NSC	48877	LKST	1-Jul-02	BR-D	01-Jun-03	GL-C	14	335
NSC	48881	LKST	2-Jul-02	BR-D	06-Jun-03	GL-A	11	339
NSC	48886	LKST	8-Jul-02	BR-D	13-Jun-03	BR-D	5	340

Table A3-1. Continued.

Prefix	Tag #	Species	Date Captured	Tagging Zone (Map Area)	Date Recaptured	Recapture Zone (Map Area)	Distance (km)	Days to Recapture
NSC	48941	LKST	10-Jun-02	BR-D	24-Jun-03	GL-C	19	379
NSC	49040	LKST	26-Sep-01	STL-A	10-Jun-03	STL-A	1	622
NSC	49041	LKST	26-Sep-01	STL-A	16-Jul-03	STL-A	5	658
NSC	50835	LKST	6-Jun-03	BR-D	22-Jun-03	BR-D	1	16
NSC	50835	LKST	6-Jun-03	BR-D	23-Jun-03	BR-D	1	17
NSC	50897	LKST	13-Jun-03	GL-C	17-Jun-03	GL-C	1	4
NSC	50936	LKST	1-Jun-03	GL-B	9-Jun-03	GL-A	13	8
NSC	50936	LKST	1-Jun-03	GL-B	13-Jun-03	GL-C	0	12
NSC	50950	LKST	2-Jun-03	GL-C	4-Jun-03	GL-C	0	2
NSC	53194	LKST	16-Jun-02	STL-A	18-Jun-03	GR-A	3	367
NSC	56152	LKST	1-Jun-03	STL-A	4-Jun-03	STL-A	1	3
SLRMB	1100	LKST	24-Jun-01	GL-C	22-Jun-03	GL-A	7	728

LKST = lake sturgeon

SLRMB = Split Lake Resource Management Board

## APPENDIX 4

### SUMMARY OF PHYSICAL MEASUREMENTS TAKEN AT LAKE STURGEON INDEX GILLNETTING SITES, 2003

	<b><u>Page</u></b>
Table A4-1. Summary of physical measurements taken at 20 index gillnet sites in the Nelson River between Birthday Rapids and Gull Rapids, 2003. ....	80

Table A4-1. Summary of physical measurements taken at 20 index gillnet sites in the Nelson River between Birthday Rapids and Gull Rapids, 2003.

Site	Replicate	Net Pull Date	Water depth (m)		Velocity	Substrate composition/compaction
			Onshore	Offshore		
1	1	26-Jun	1.5	9.8	low	soft
	2	30-Jun				sand/clay
2	1	26-Jun	1.2	8.2	med	hard
	2	30-Jun				bedrock
3	1	26-Jun	0.6	6.1	low	soft
	2	30-Jun				sand/clay
4	1	26-Jun	1.5	7.1	low	soft
	2	30-Jun				sand/clay
5	1	26-Jun	1.8	6.4	med	hard
	2	30-Jun				rock
6	1	27-Jun	1.5	5.5	low	hard
	2	01-Jul				bedrock/some clay
7	1	27-Jun	0.9	6.7	low	hard
	2	01-Jul				bedrock/some sand/clay
8	1	27-Jun	0.6	3.4	low	soft
	2	01-Jul				clay/sand
9	1	28-Jun	1.2	5.5	low	hard
	2	01-Jul				bedrock
10	1	28-Jun	3.1	5.5	med	hard
	2	01-Jul				bedrock
11	1	28-Jun	1.5	5.2	med	hard
	2	02-Jul				rock
12	1	28-Jun	2.7	3.7	med	hard
	2	02-Jul				bedrock
13	1	28-Jun	1.5	5.5	low	hard
	2	02-Jul				gravel/bedrock
14	1	29-Jun	0.9	3.7	low	soft
	2	02-Jul				mud/sand some bedrock
15	1	29-Jun	0.6	5.2	low	hard
	2	02-Jul				bedrock
16	1	29-Jun	0.9	2.4	low	hard
	2	03-Jul				bedrock
17	1	29-Jun	1.8	7.9	med	hard
	2	03-Jul				bedrock
18	1	29-Jun	2.4	5.5	low/med	hard
	2	03-Jul				bedrock
19	1	29-Jun	0.6	1.8	med	hard
	2	03-Jul				bedrock
20	1	29-Jun	1.2	2.7	low/med	hard
	2	03-Jul				bedrock



## APPENDIX 5

### BIOLOGICAL DATA FOR LAKE STURGEON IMPLANTED WITH RADIO OR ACOUSTIC TAGS IN THE KEEYASK STUDY AREA

	<u>Page</u>
Table A5-1. Biological data for lake sturgeon tagged with acoustic transmitters in the Keeyask Study Area, 2001.....	82
Table A5-2. Biological data for lake sturgeon tagged with radio transmitters in the Keeyask Study Area, 2001.....	83

Table A5-1. Biological data for lake sturgeon tagged with acoustic transmitters in the Keyyask Study Area, 2001.

Code Number	Date Tagged	Map Area Tagged	Appendix Number	Fork Length (mm)	Total Length (mm)	Weight (g)	Floy tag Number	Sex	Status
31a	30-May	GL-C	-	1211	1355	14500	47059	-	R 2001
31b	29-Sep	STL-A	Figure A6-1	972	1080	7250	46894	-	MR 2003
32	26-Sep	STL-A	Figure A6-2	1002	1106	10000	49041	F	MR 2003
33	26-Sep	STL-A	Figure A6-3	1360	1440	32500	49040	F	MR 2003
34	14-Jun	STL-A	-	950	1050	8000	46887	-	R 2003
35	20-Jun	STL-A	-	1050	1152	9250	46889	-	LL 2002
36	24-Jun	GL-C	Figure A6-4	1020	1135	9000	47157	-	MR 2003
37	20-Jun	GL-C	-	964	1050	9000	47152	-	R 2003
38	20-Jun	GL-C	Figure A6-5	1010	1097	9750	47153	-	MR 2003
39	01-Jun	BR-D	Figure A6-6	1241	1371	24000	47096	F	SA 2002 and 2003
40	20-Jun	GL-C	Figure A6-7	1210	1300	15500	47529	-	MR 2003
41	05-Jun	BR-D	Figure A6-8	1329	1429	17750	47107	-	R 2003
42	01-Jun	GL-A	Figure A6-9	1240	1360	16250	47094	M	MR 2003
43	06-Jun	BR-D	Figure A6-10	1082	1190	10500	47115	M	MR 2003
44	07-Jun	BR-D	Figure A6-11	1130	1275	13000	47117	M	MR 2003
45	06-Jun	BR-D	Figure A6-12	1316	1401	28000	47024	F	MR 2003
46	30-May	GL-C	-	1105	1230	12500	47109	-	R 2002
47	04-Jun	GL-B	Figure A6-13	1180	1242	10500	47016	-	MR 2003
48	06-Jun	BR-D	Figure A6-14	940	1110	7750	47120	M	MR 2003
49	06-Jun	BR-D	Figure A6-15	945	1032	6750	47116	-	MR 2003
50	01-Jun	GL-C	Figure A6-16	1282	1380	23500	47099	M	MR 2003

R = Recaptured and tag returned to North/South Consultants

LL = Last located

SA = Same area

MR = Movement recorded

Table A5-2. Biological data for lake sturgeon tagged with radio transmitters in the Keeyask Study Area, 2001.

Date Tagged	Tag Frequency	Code Number	Map Area Tagged	Appendix Table	Fork Length (mm)	Total Length	Weight (g)	Floy tag Number	Sex	Status
28-May	149.500	1	STL-A	-	1175	1290	15000	46848	-	LL 2002
31-May	149.560	1	STL-A	-	1320	1448	20500	46701	F	LL 2002
19-Jun	149.560	2	STL-A	Figure A6-17	1235	1388	20000	46888	-	MR 2003
13-Jun	149.580	1	STL-A	-	1247	1430	16500	46886	F	LL 2001
24-Jun	149.580	2	STL-A	-	1230	1315	18000	46891	-	LL 2001
29-May	149.620	1	STL-A	Figure A6-20	1210	1310	15250	46849	M	MR 2003
29-May	149.720	1	BR-D	-	1355	1461	23500	47076	F	R
05-Jun	149.720	2	GL-B	Figure A6-21	1275	1380	17500	47112	-	MR 2003
07-Jun	149.720	3	BR-D	Figure A6-22	1147	1262	13250	47118	M	MR 2003
07-Jun	149.720	4	BR-D	Figure A6-23	1260	1346	16500	47125	M	MR 2003
20-Jun	149.580	3	BR-D	Figure A6-18	1145	1237	14500	47530	-	MR 2003
20-Jun	149.580	4	GL-C	Figure A6-19	1184	1301	16800	47158	-	LL 2002

R = Recaptured and tag returned to North/South Consultants

LL = Last located

SA = Same area

MR = Movement recorded

## APPENDIX 6

### TAGGING AND RELOCATION DATES AND SITES FOR LAKE STURGEON IMPLANTED WITH RADIO OR ACOUSTIC TRANSMITTERS

		<u>Page</u>
Figure A6-1.	Movement of lake sturgeon AT#31b in the Keeyask Study Area, 2003.....	86
Figure A6-2.	Movement of lake sturgeon AT#32 in the Keeyask Study Area, 2003. ....	87
Figure A6-3.	Movement of lake sturgeon AT#33 in the Keeyask Study Area, 2003. ....	88
Figure A6-4.	Movement of lake sturgeon AT#36 in the Keeyask Study Area, 2003. ....	89
Figure A6-5.	Movement of lake sturgeon AT#38 in the Keeyask Study Area, 2003. ....	90
Figure A6-6.	Movement of lake sturgeon AT#39 in the Keeyask Study Area, 2003. ....	91
Figure A6-7.	Movement of lake sturgeon AT#40 in the Keeyask Study Area, 2003. ....	92
Figure A6-8.	Movement of lake sturgeon AT#41 in the Keeyask Study Area, 2003. ....	93
Figure A6-9.	Movement of lake sturgeon AT#42 in the Keeyask Study Area, 2003. ....	94
Figure A6-10.	Movement of lake sturgeon AT#43 in the Keeyask Study Area, 2003. ....	95
Figure A6-11.	Movement of lake sturgeon AT#44 in the Keeyask Study Area, 2003. ....	96
Figure A6-12.	Movement of lake sturgeon AT#45 in the Keeyask Study Area, 2003. ....	97
Figure A6-13.	Movement of lake sturgeon AT#47 in the Keeyask Study Area, 2003. ....	98
Figure A6-14.	Movement of lake sturgeon AT#48 in the Keeyask Study Area, 2003. ....	99
Figure A6-15.	Movement of lake sturgeon AT#49 in the Keeyask Study Area, 2003. ....	100
Figure A6-16.	Movement of lake sturgeon AT#50 in the Keeyask Study Area, 2003. ....	101
Figure A6-17.	Movement of lake sturgeon RT#149.560 Code 2 in the Keeyask Study Area, 2003. ....	102
Figure A6-18.	Movement of lake sturgeon RT#149.580 Code 3 in the Keeyask Study Area, 2003. ....	103
Figure A6-19.	Movement of lake sturgeon RT#149.580 Code 4 in the Keeyask Study Area, 2003. ....	104

	<b><u>Page</u></b>
Figure A6-20. Movement of lake sturgeon RT#149.620 Code 1 in the Keeyask Study Area, 2003. ....	105
Figure A6-21. Movement of lake sturgeon RT#149.720 Code 2 in the Keeyask Study Area, 2003. ....	106
Figure A6-22. Movement of lake sturgeon RT#149.720 Code 3 in the Keeyask Study Area, 2003. ....	107
Figure A6-23. Movement of lake sturgeon RT#149.720 Code 4 in the Keeyask Study Area, 2003. ....	108

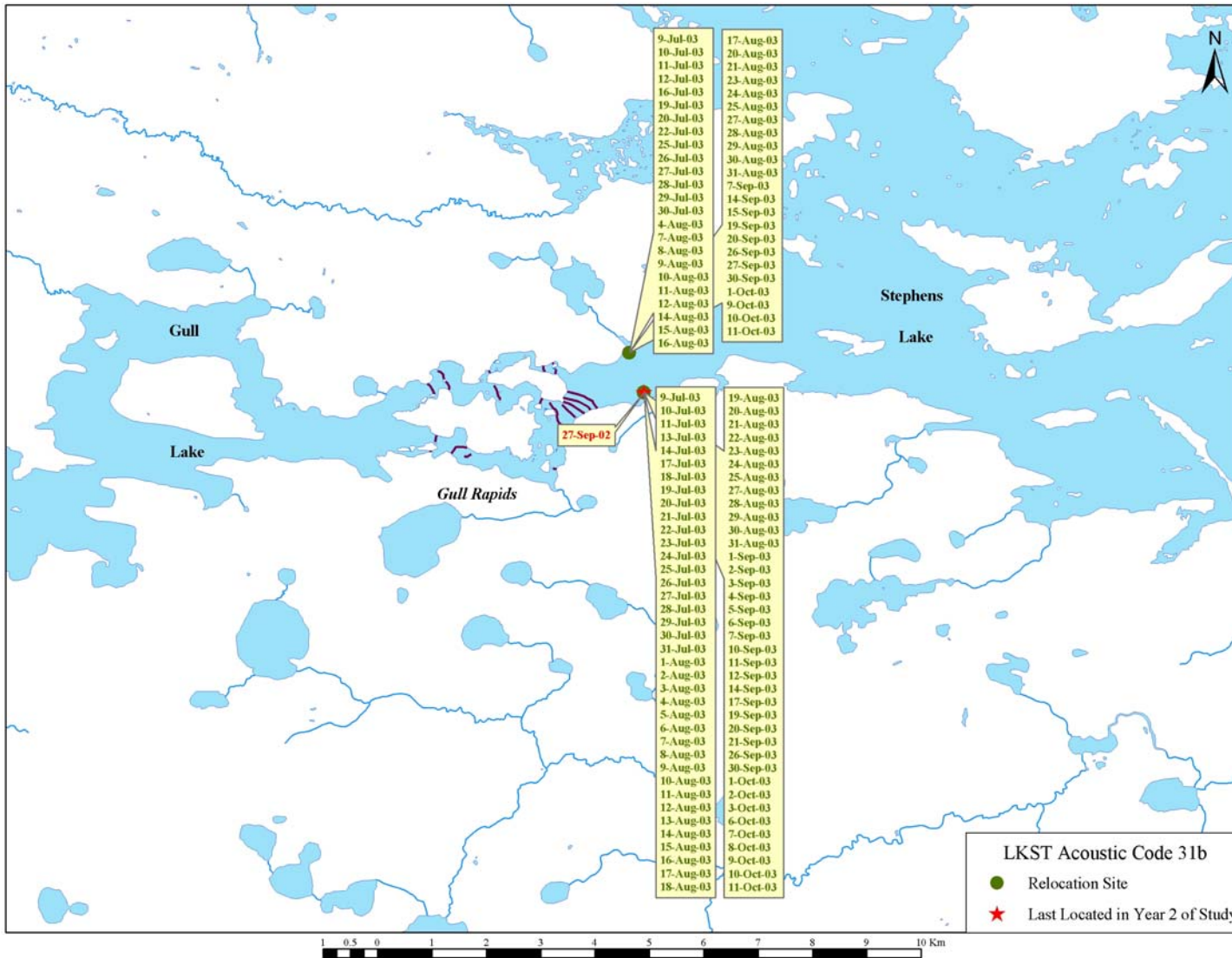


Figure A6-1. Movement of lake sturgeon AT#31b in the Keeyask Study Area, 2003.



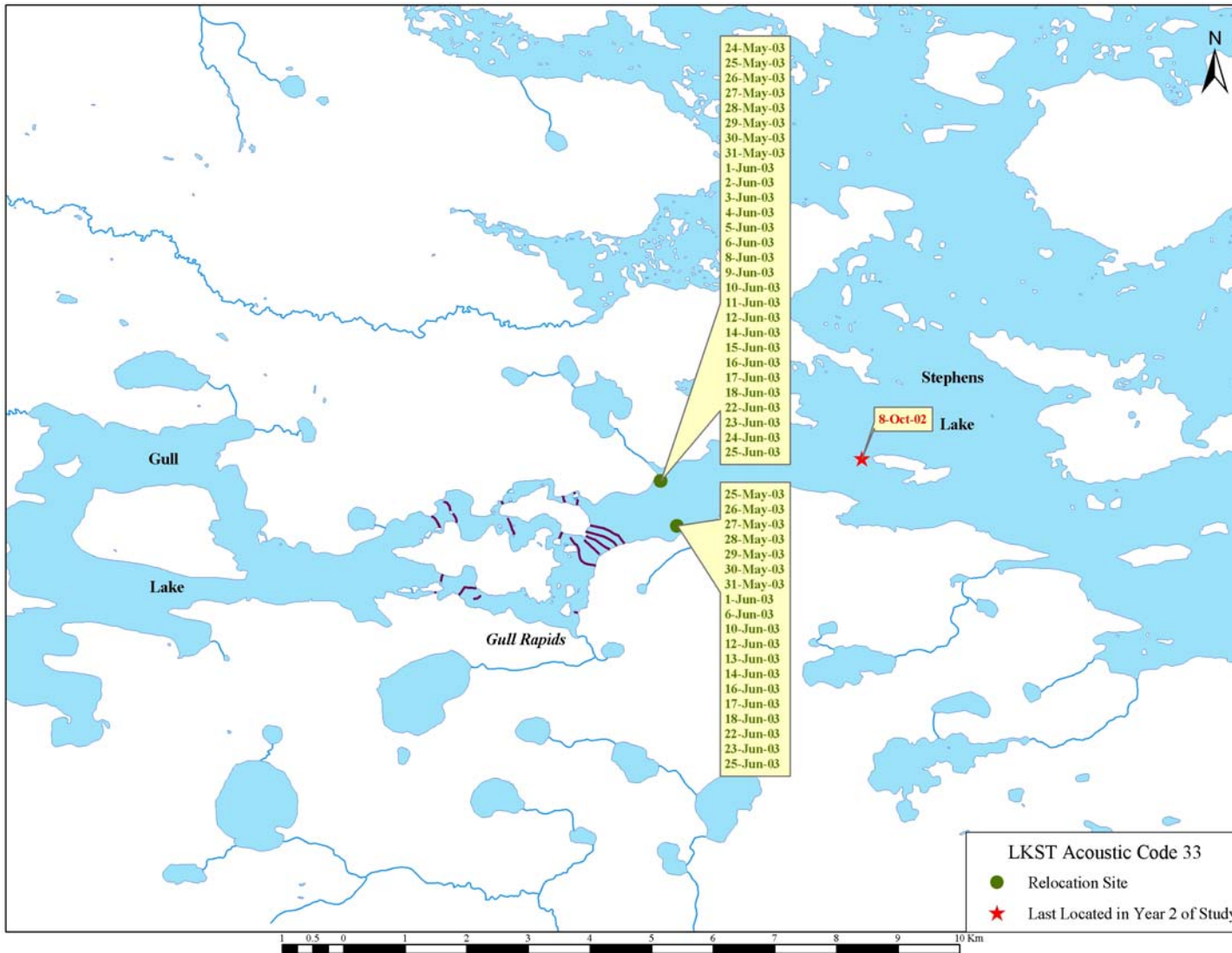


Figure A6-3. Movement of lake sturgeon AT#33 in the Keeyask Study Area, 2003.



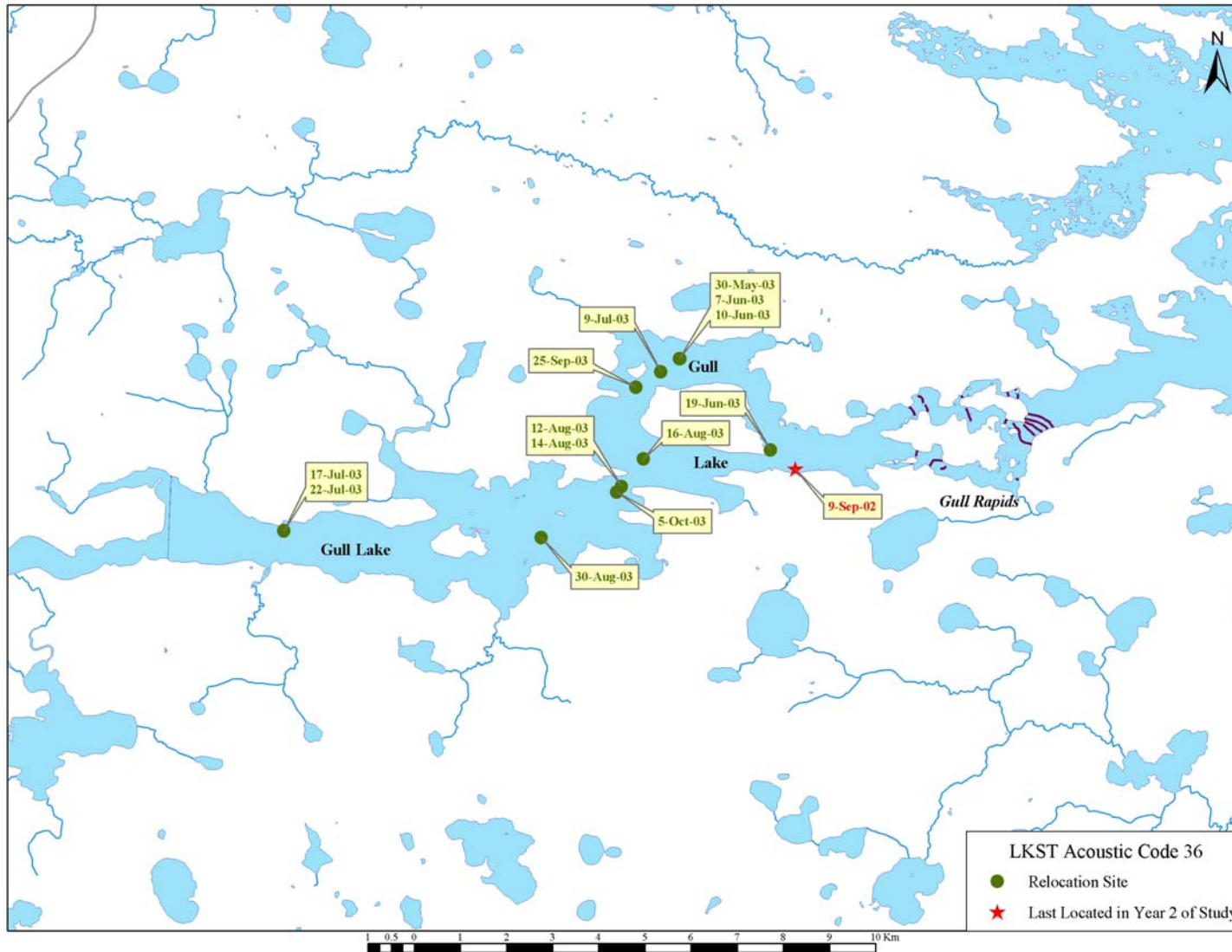


Figure A6-4. Movement of lake sturgeon AT#36 in the Keeyask Study Area, 2003.

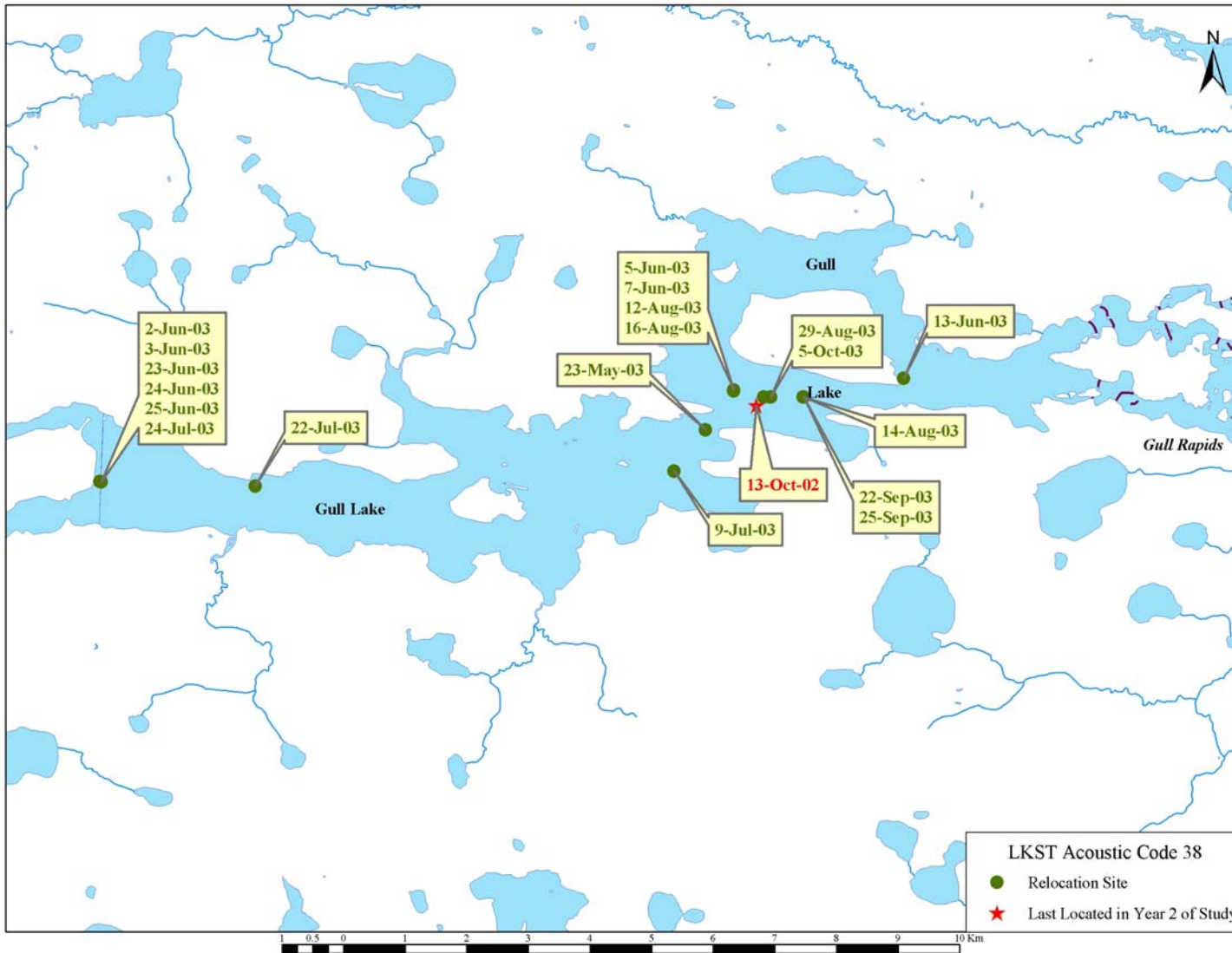


Figure A6-5. Movement of lake sturgeon AT#38 in the Keeyask Study Area, 2003.

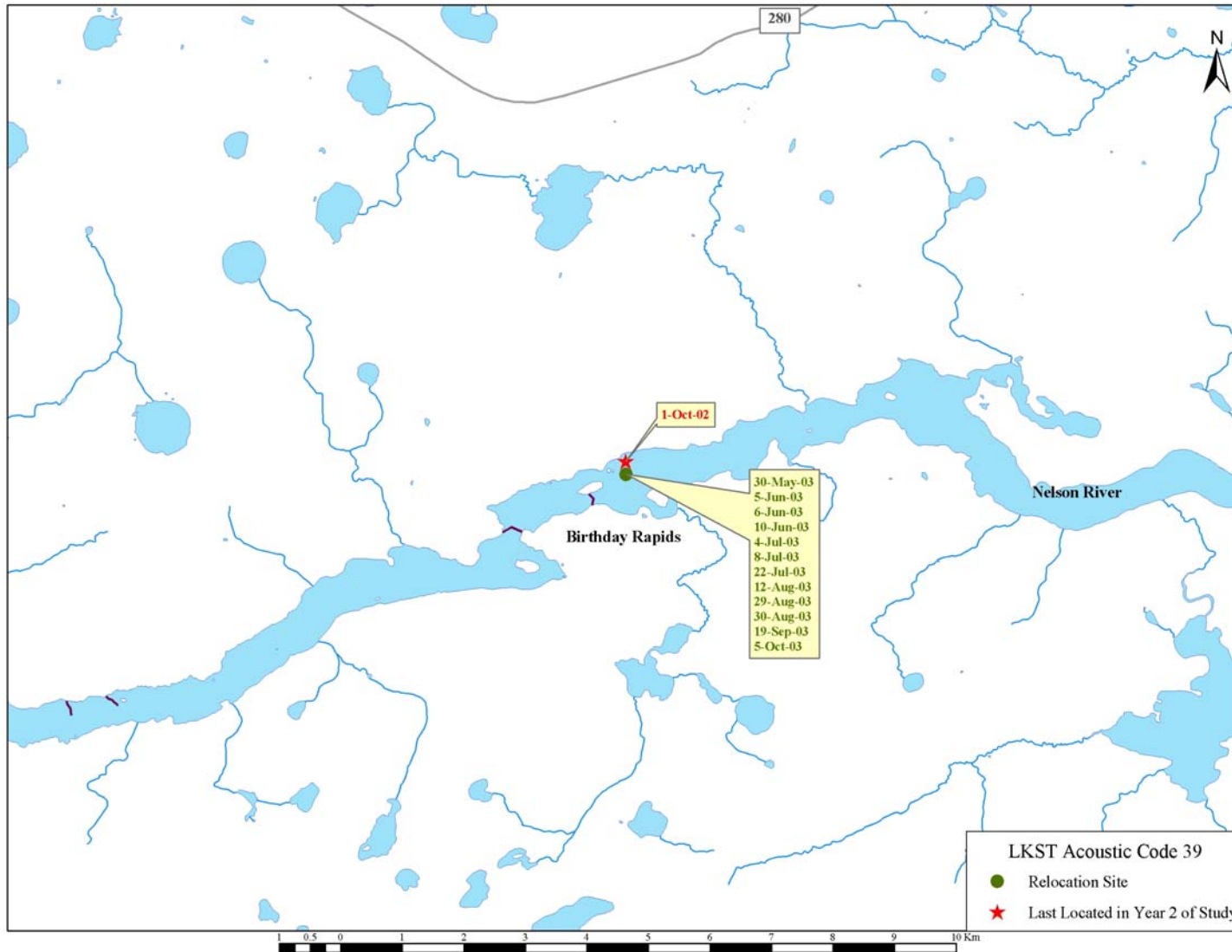


Figure A6-6. Movement of lake sturgeon AT#39 in the Keeyask Study Area, 2003.

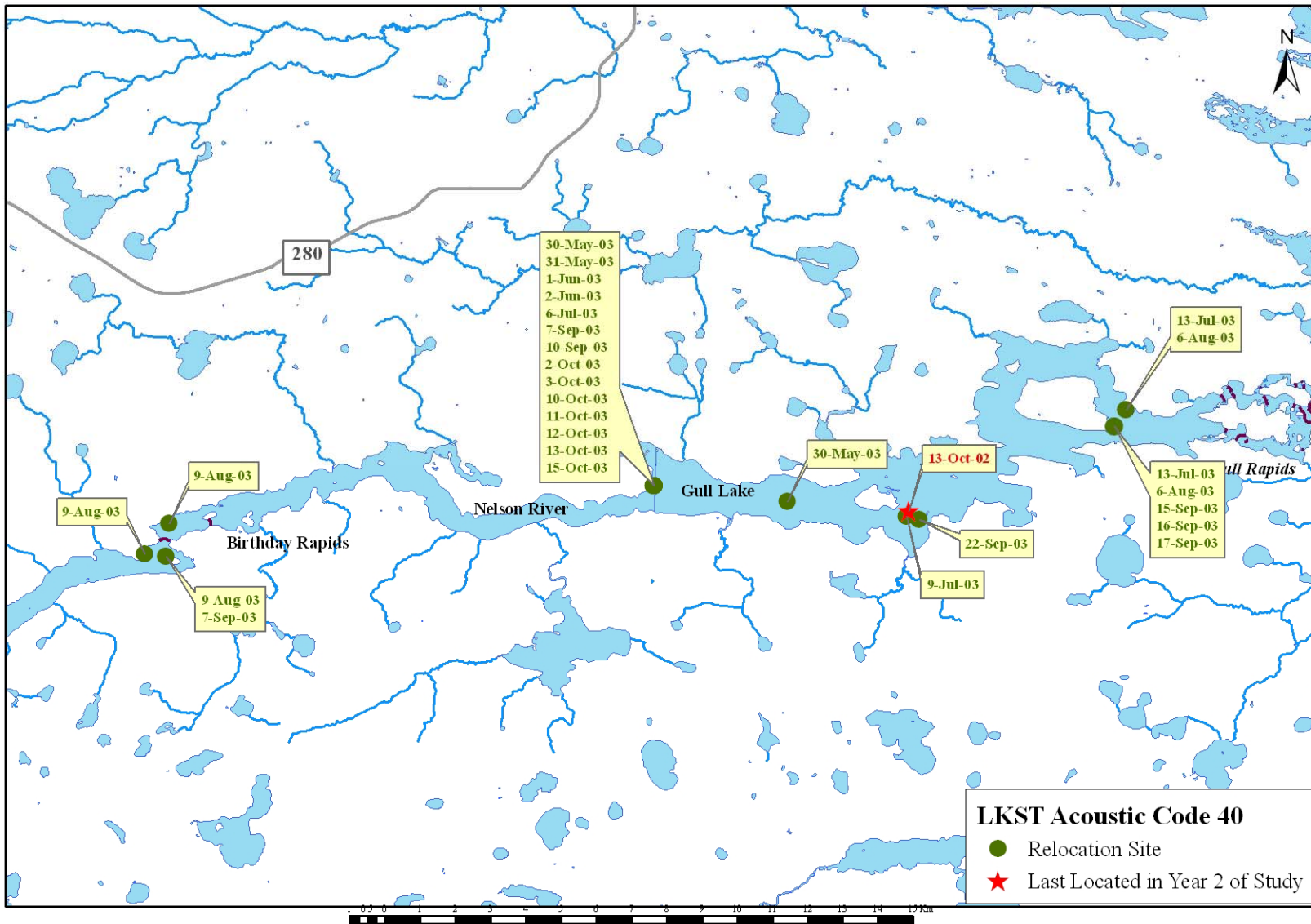


Figure A6-7. Movement of lake sturgeon AT#40 in the Keeyask Study Area, 2003.

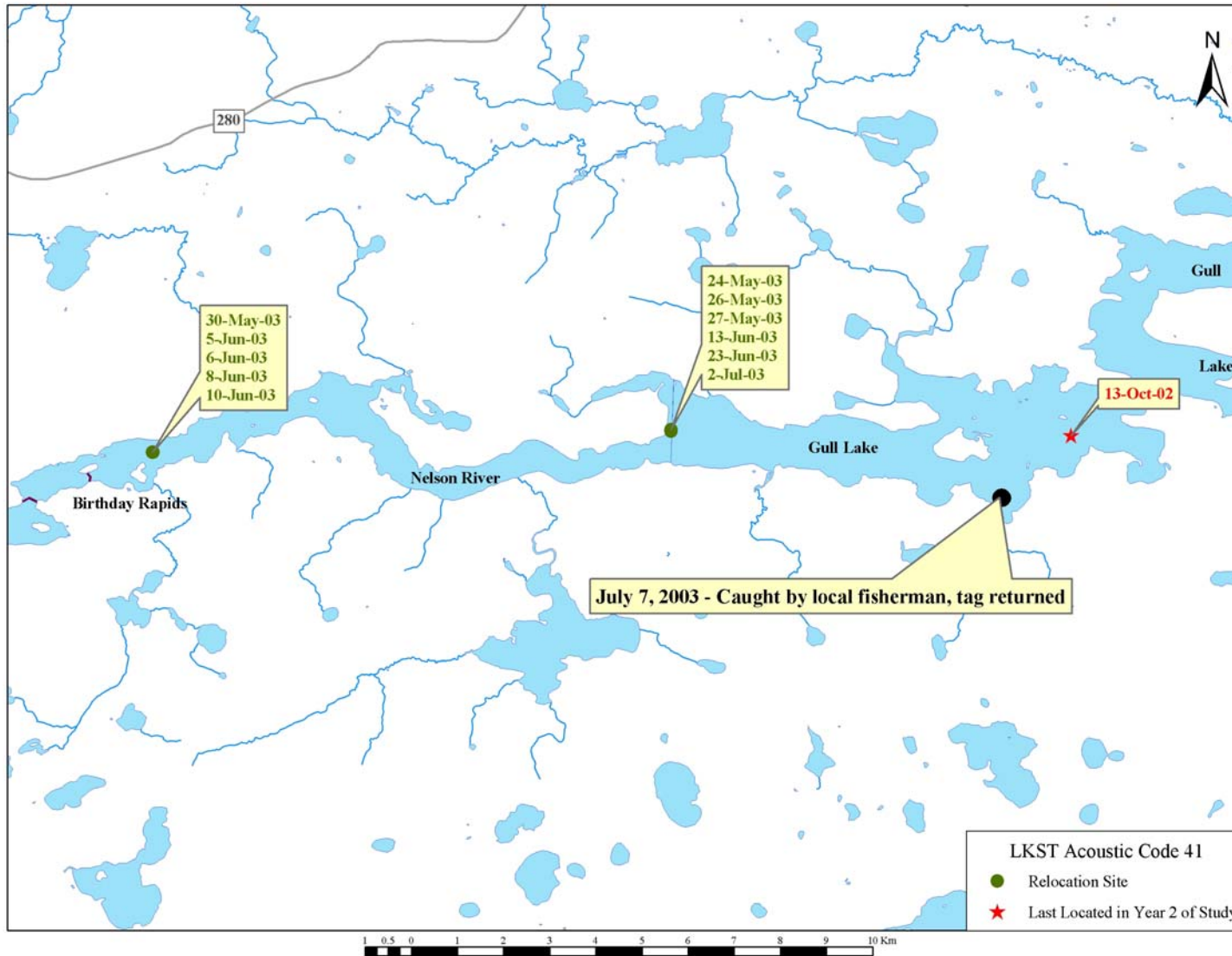


Figure A6-8. Movement of lake sturgeon AT#41 in the Keeyask Study Area, 2003.

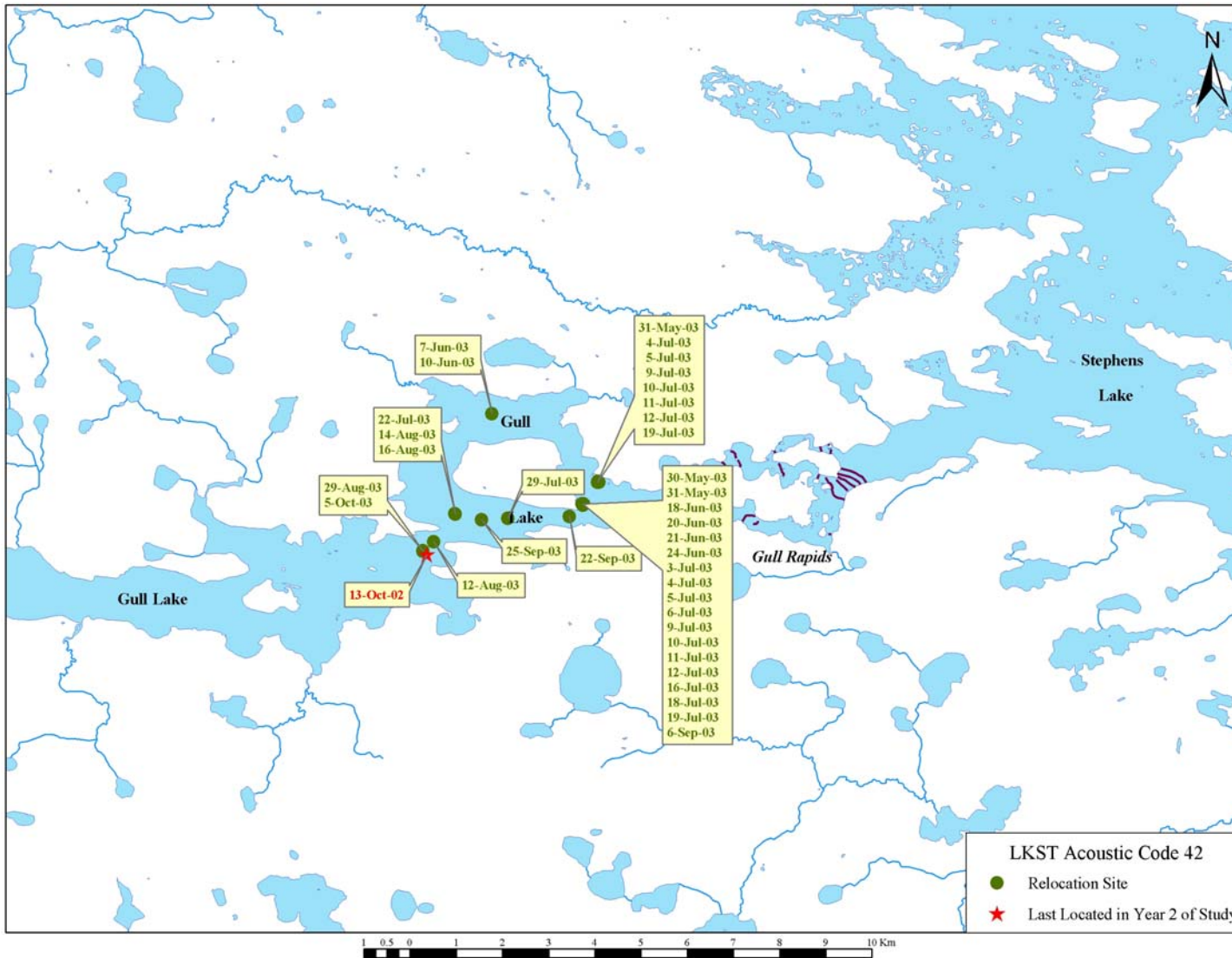


Figure A6-9. Movement of lake sturgeon AT#42 in the Keeyask Study Area, 2003.

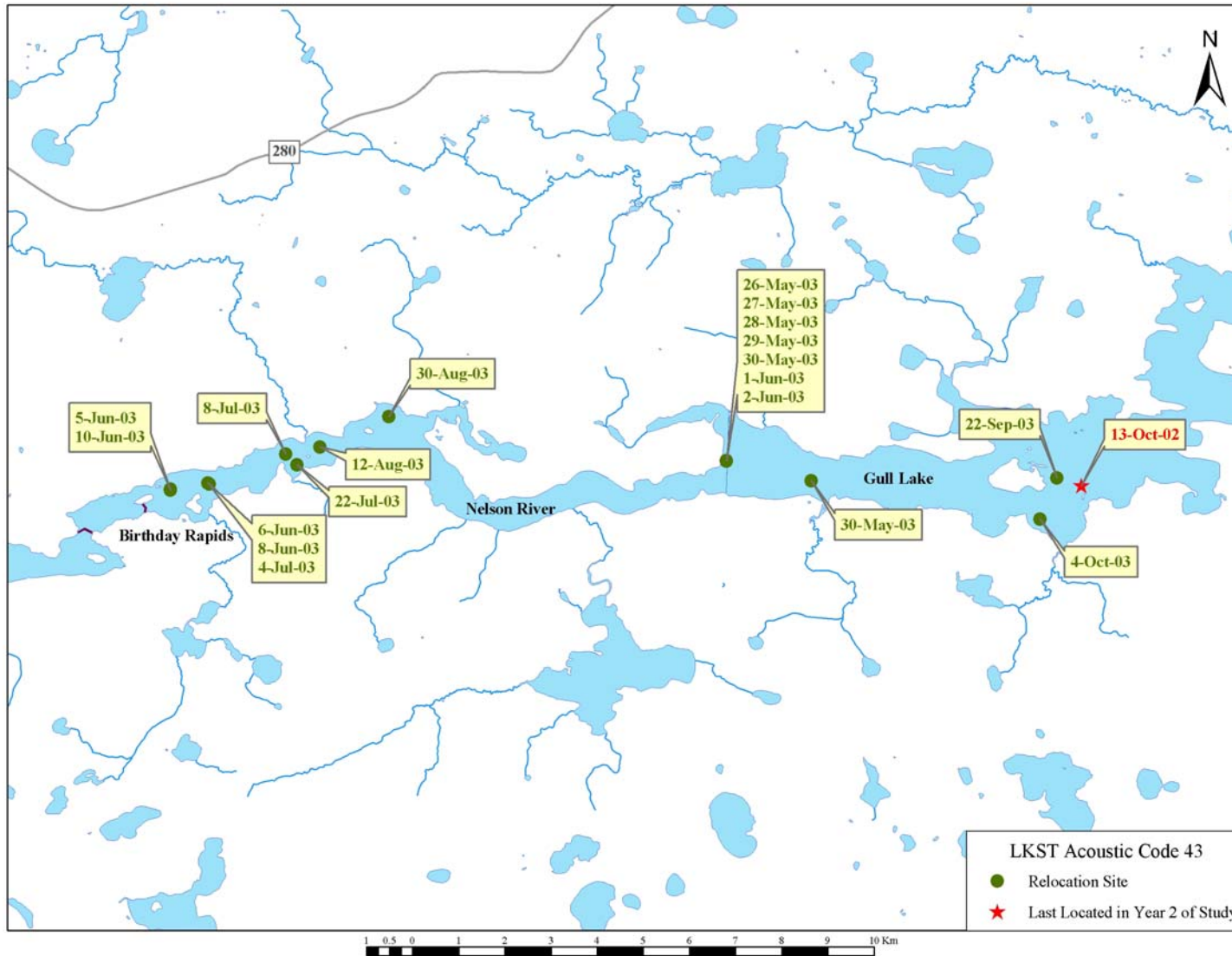


Figure A6-10. Movement of lake sturgeon AT#43 in the Keeyask Study Area, 2003.

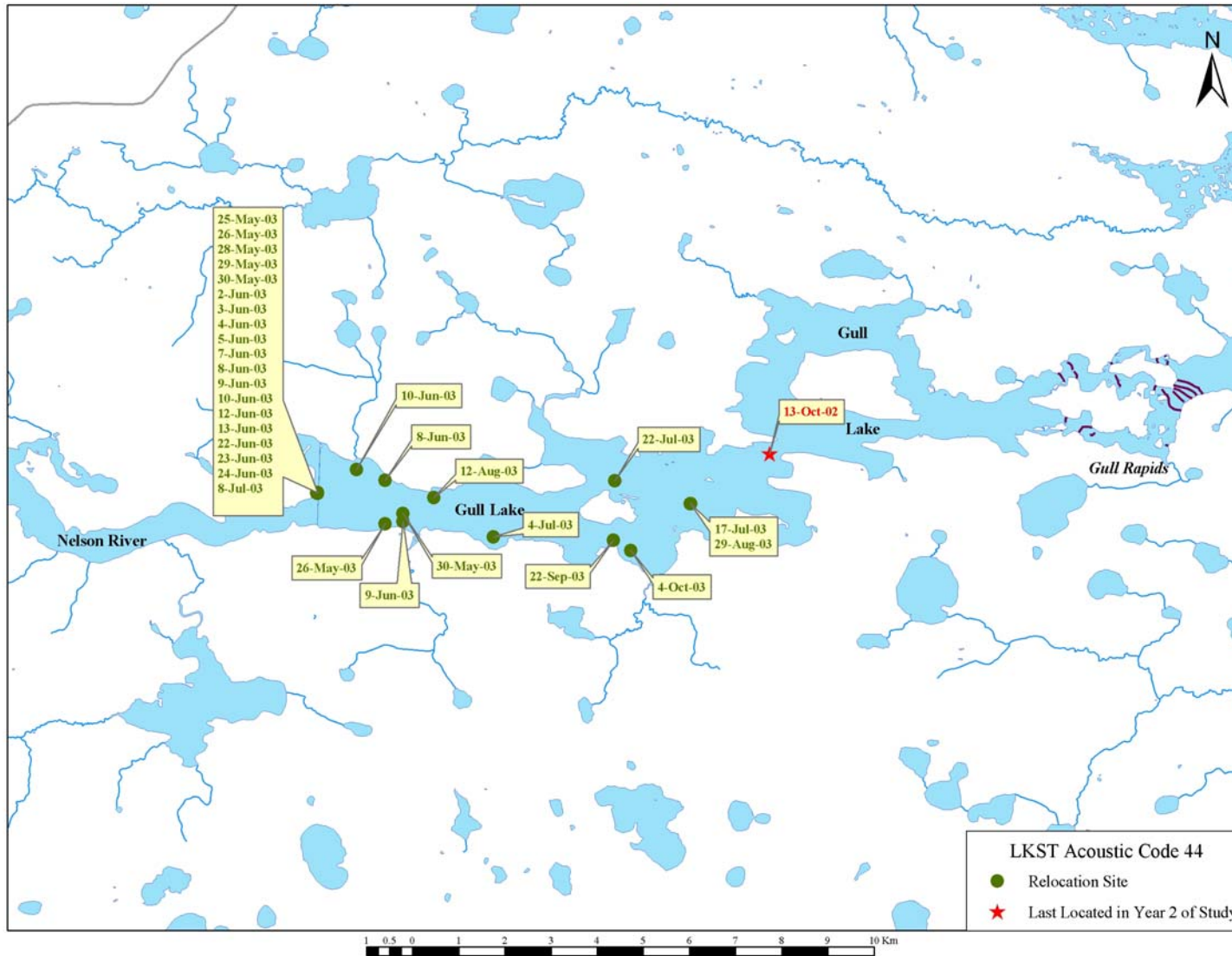


Figure A6-11. Movement of lake sturgeon AT#44 in the Keeyask Study Area, 2003.



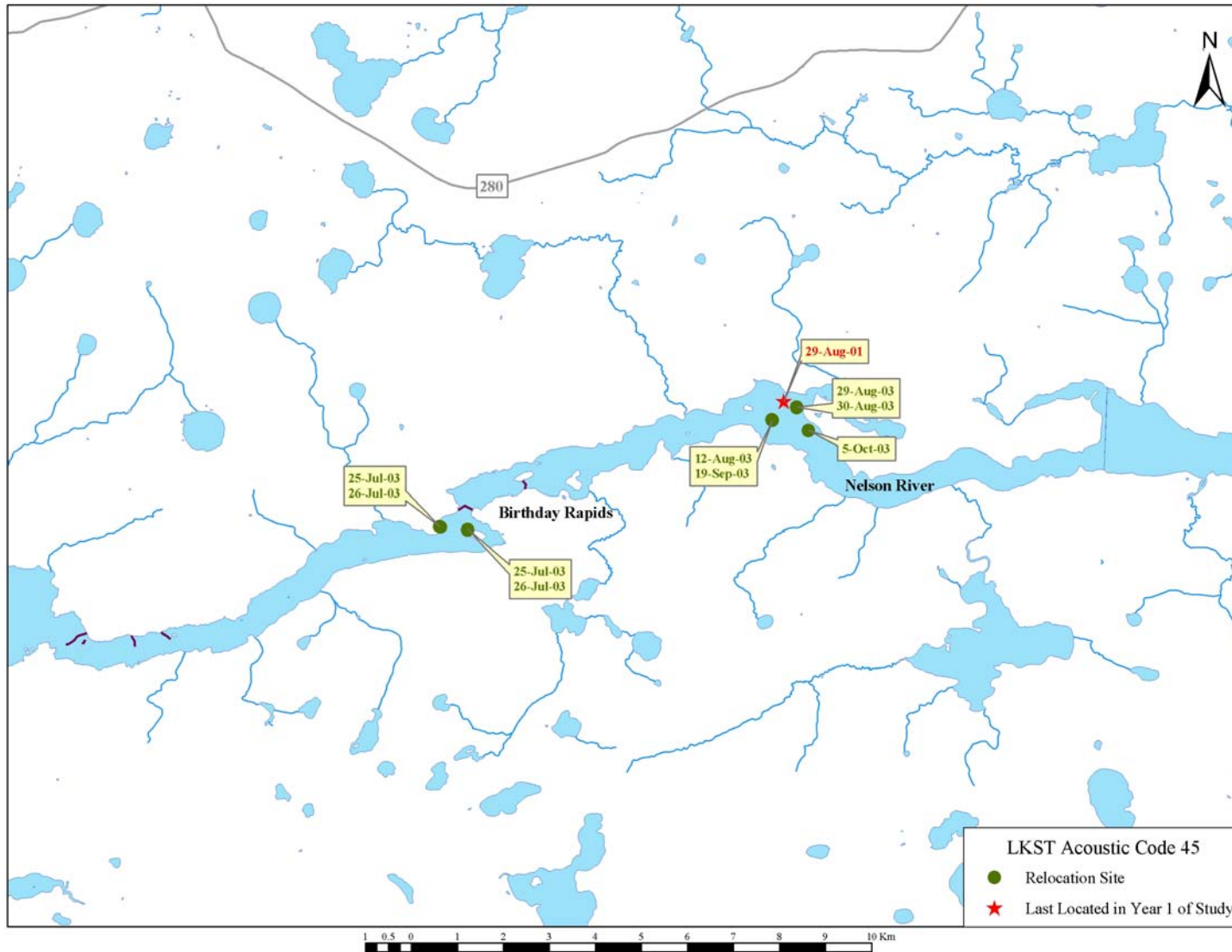


Figure A6-12. Movement of lake sturgeon AT#45 in the Keeyask Study Area, 2003.

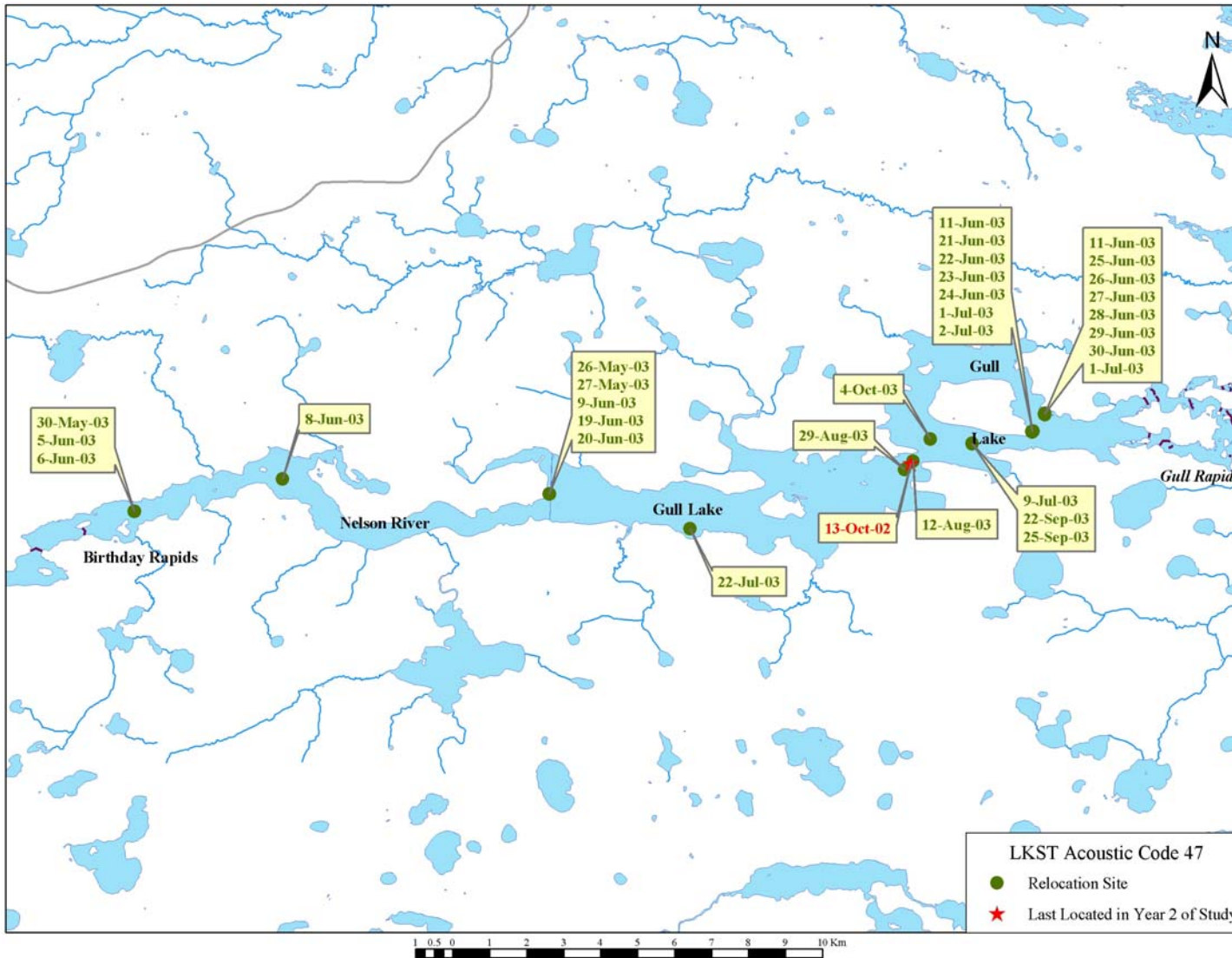


Figure A6-13. Movement of lake sturgeon AT#47 in the Keeyask Study Area, 2003.

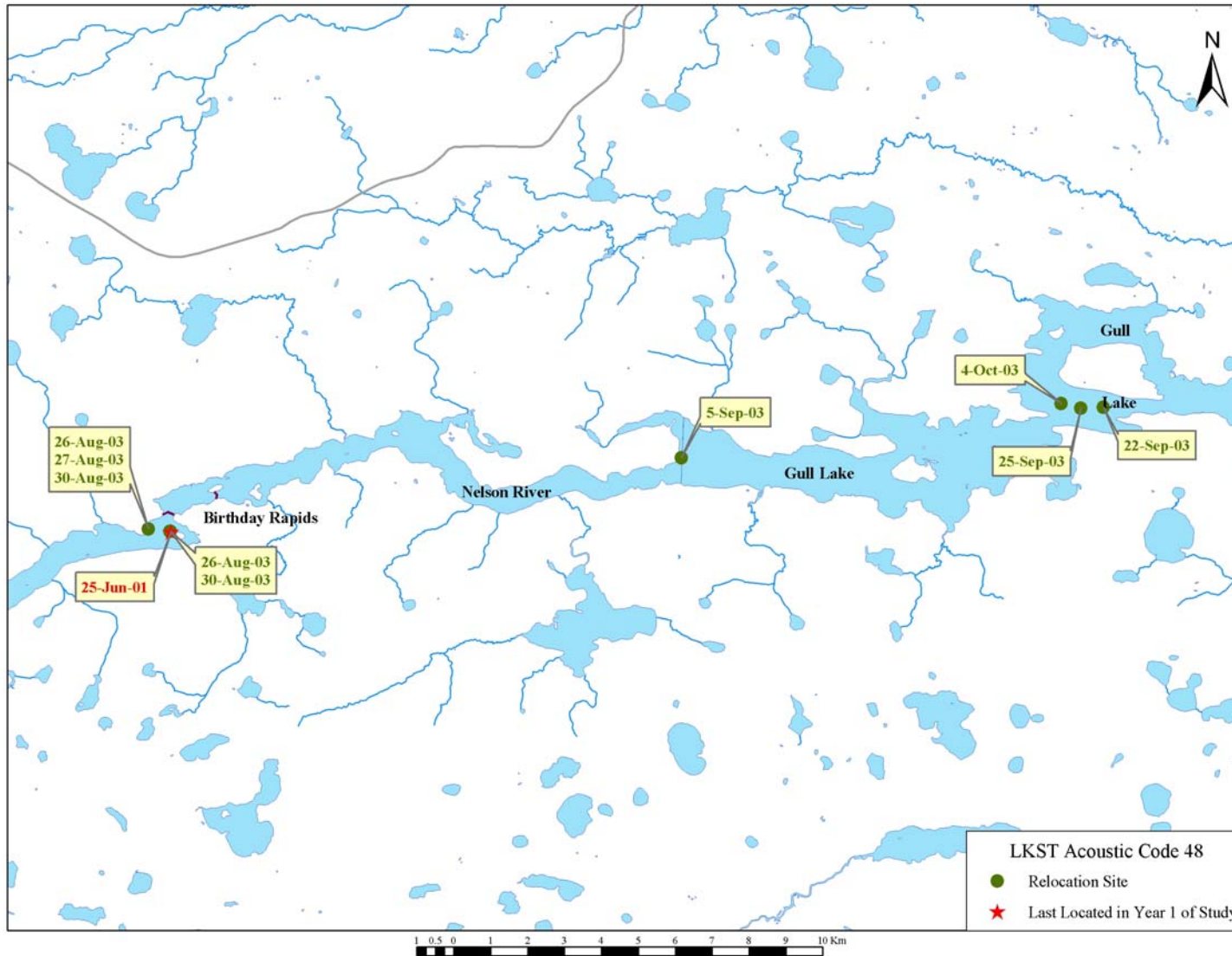


Figure A6-14. Movement of lake sturgeon AT#48 in the Keeyask Study Area, 2003.

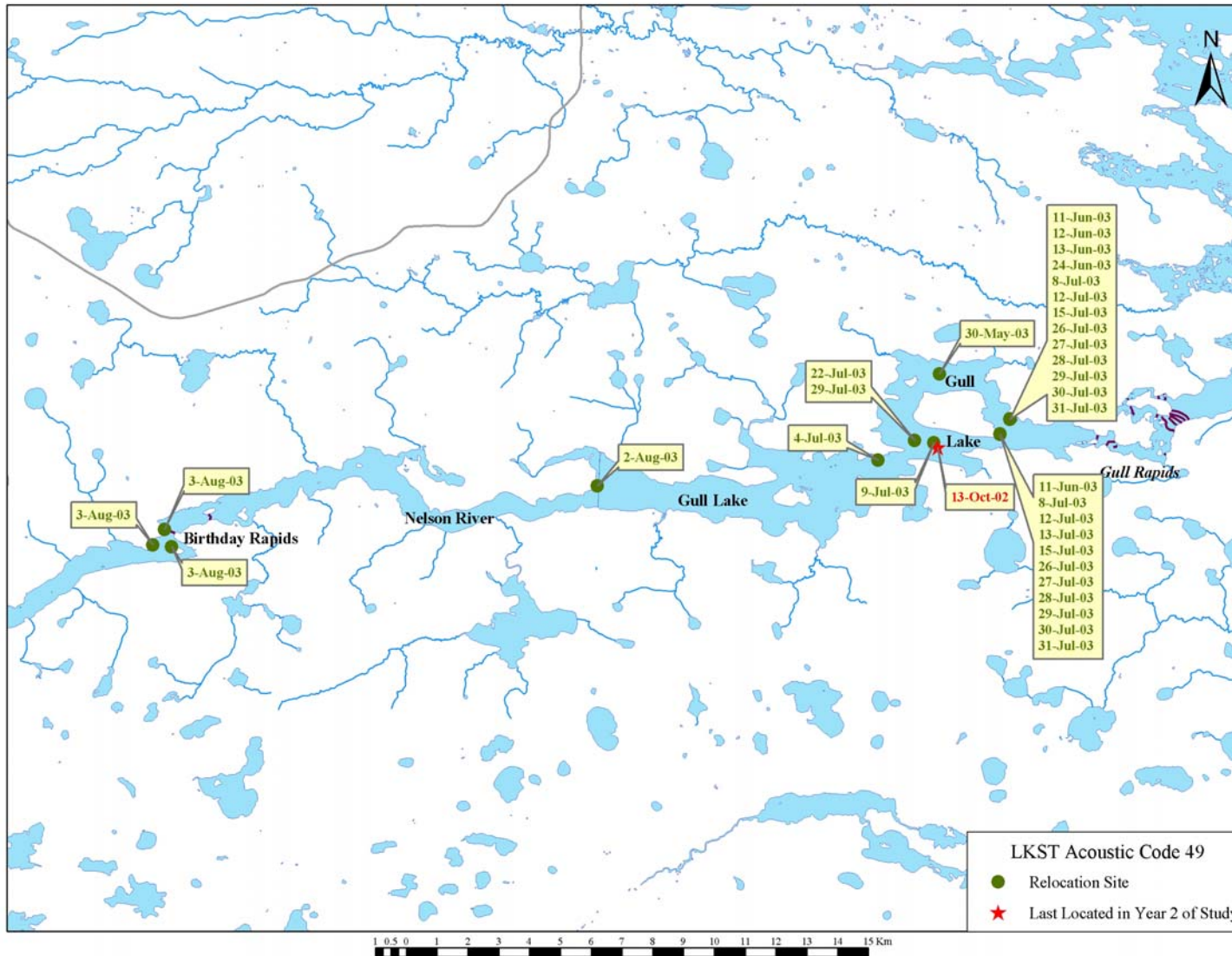


Figure A6-15. Movement of lake sturgeon AT#49 in the Keeyask Study Area, 2003.

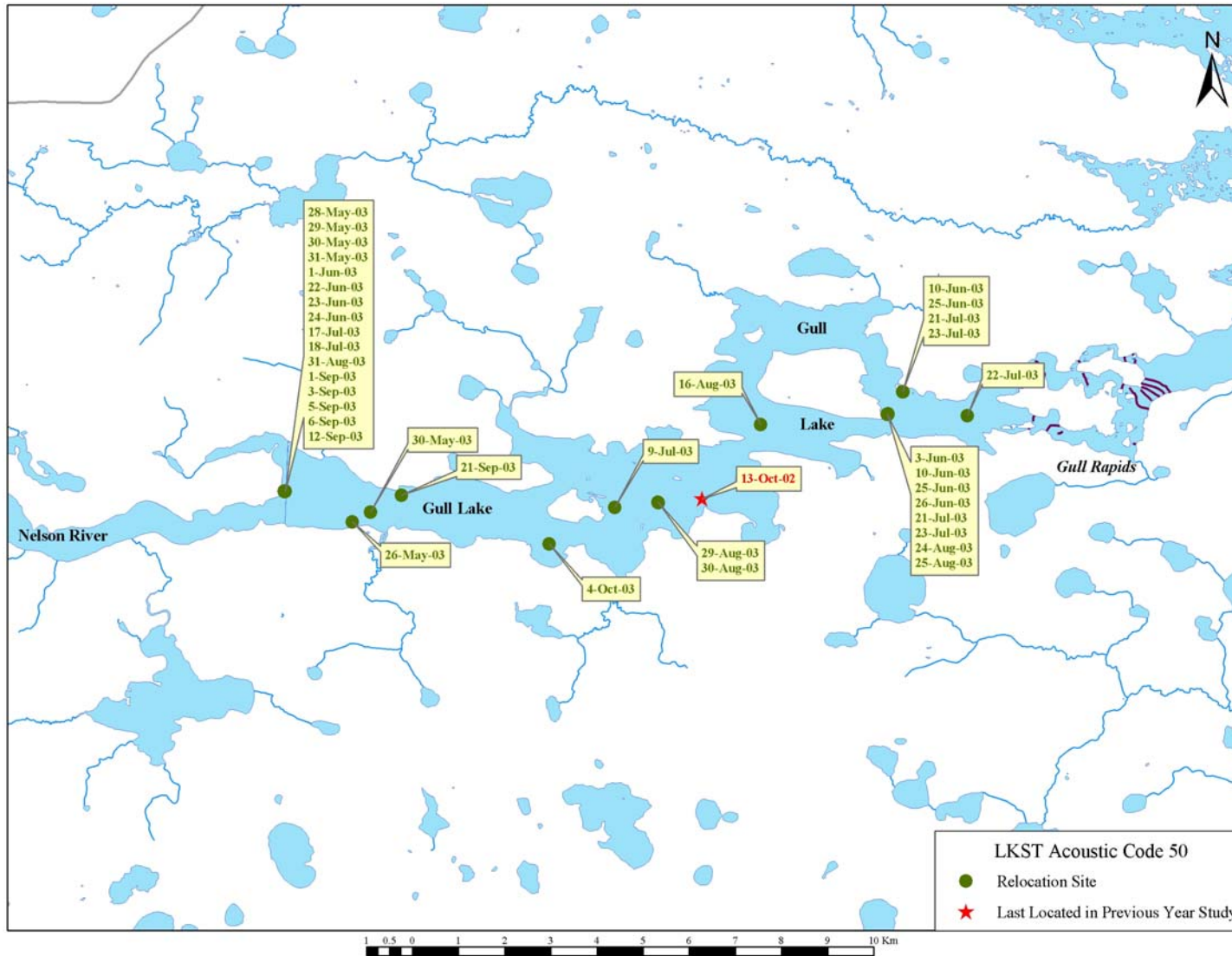


Figure A6-16. Movement of lake sturgeon AT#50 in the Keeyask Study Area, 2003.

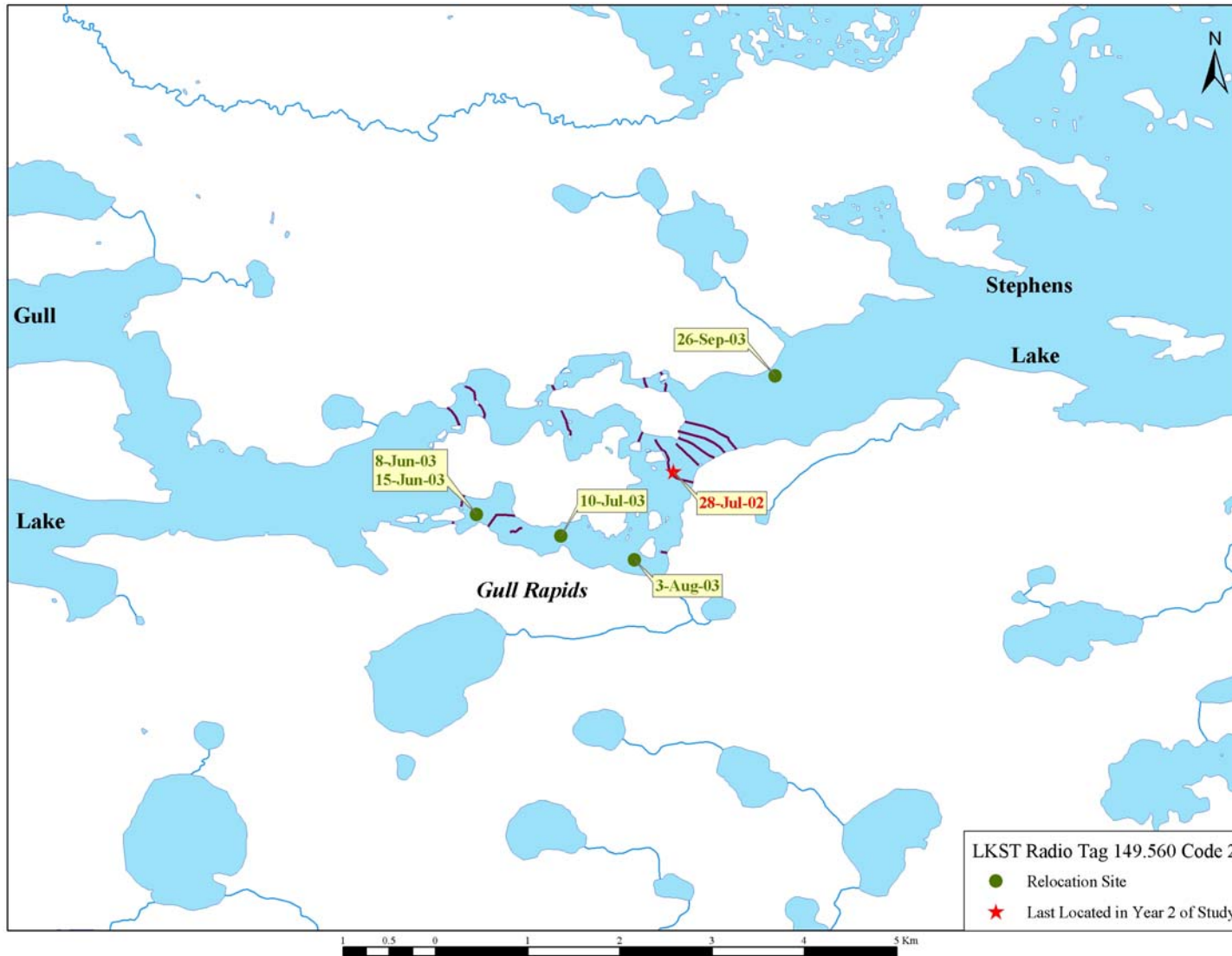


Figure A6-17. Movement of lake sturgeon RT#149.560 Code 2 in the Keeyask Study Area, 2003.

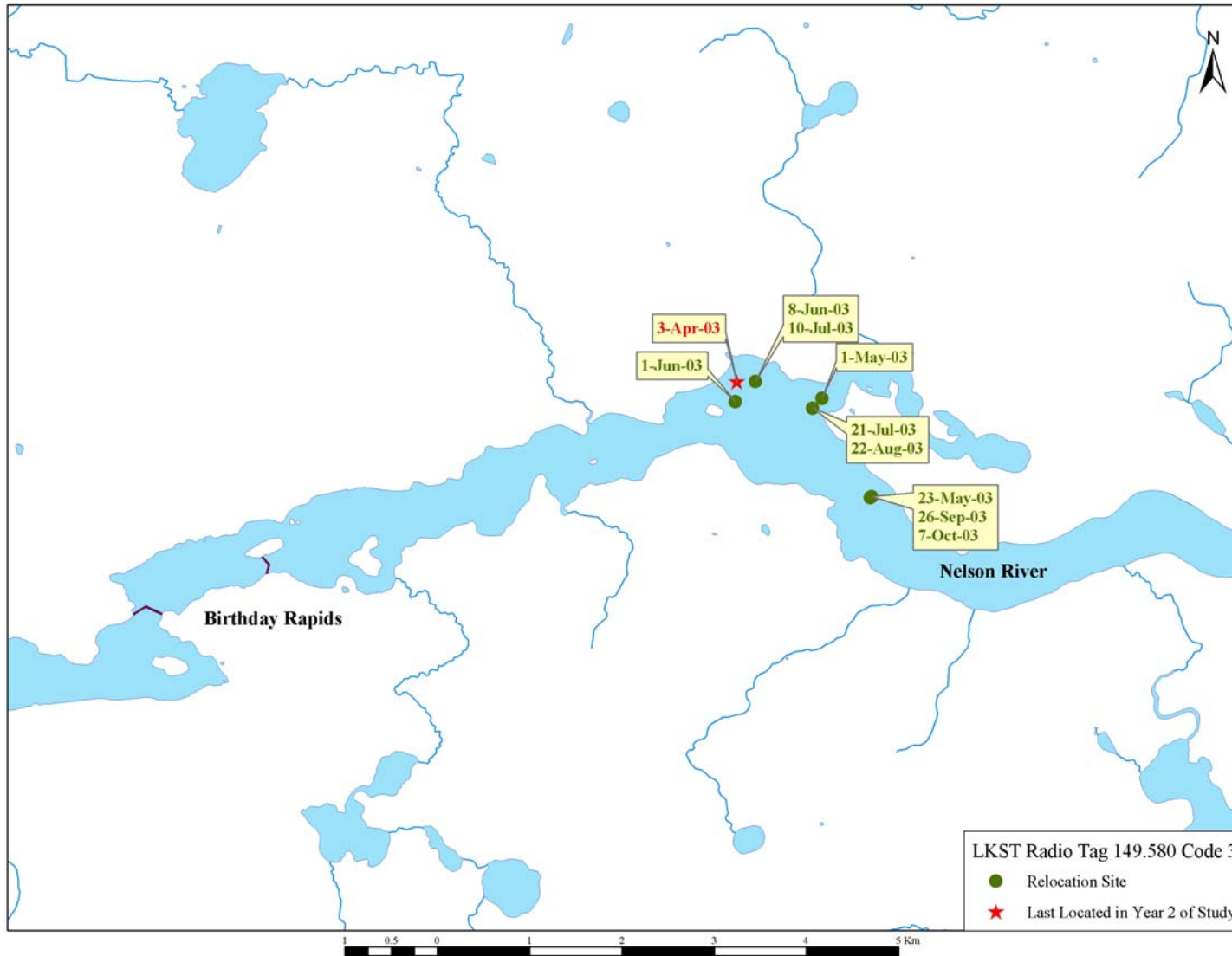


Figure A6-18. Movement of lake sturgeon RT#149.580 Code 3 in the Keeyask Study Area, 2003.

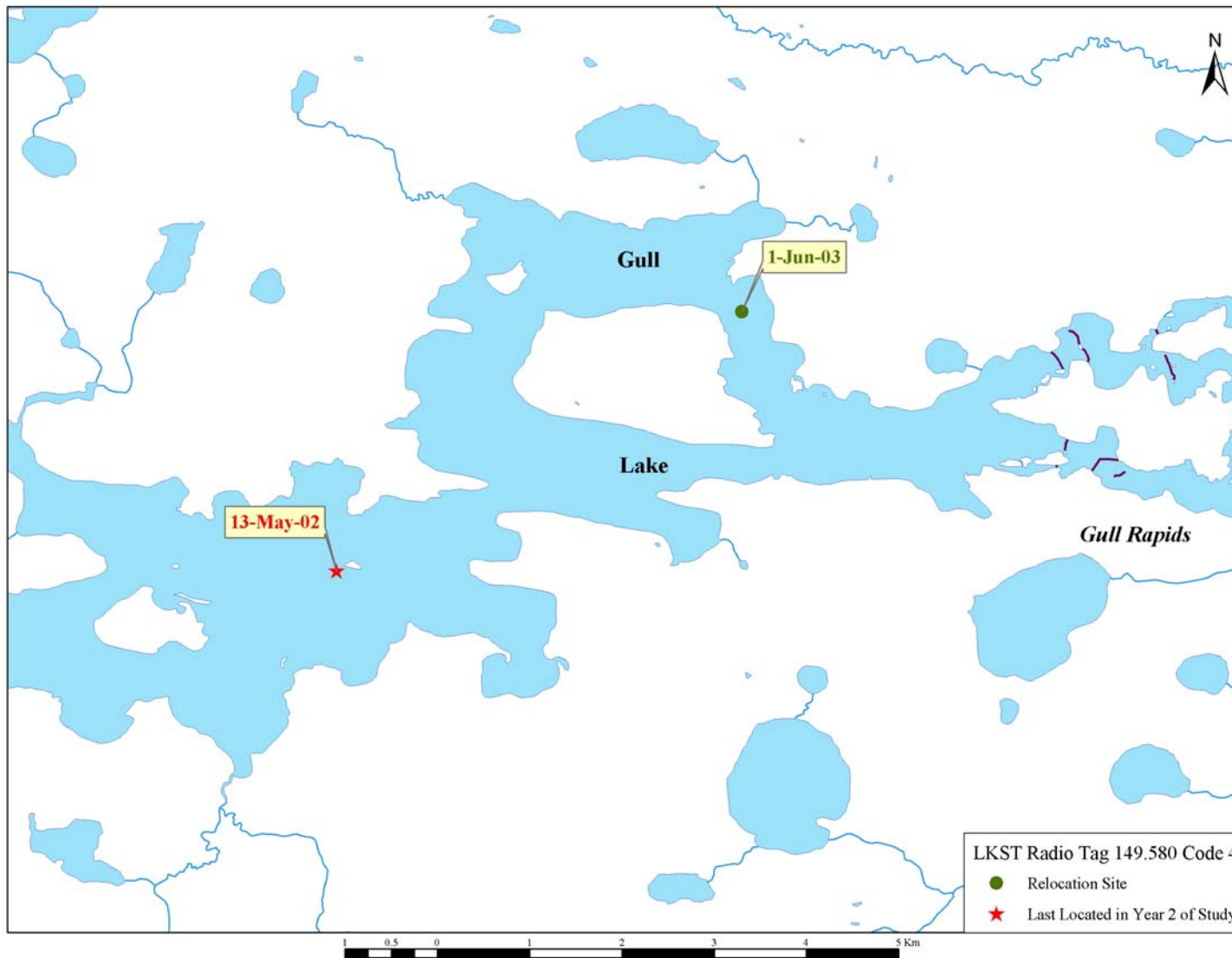


Figure A6-19. Movement of lake sturgeon RT#149.580 Code 4 in the Keeyask Study Area, 2003.



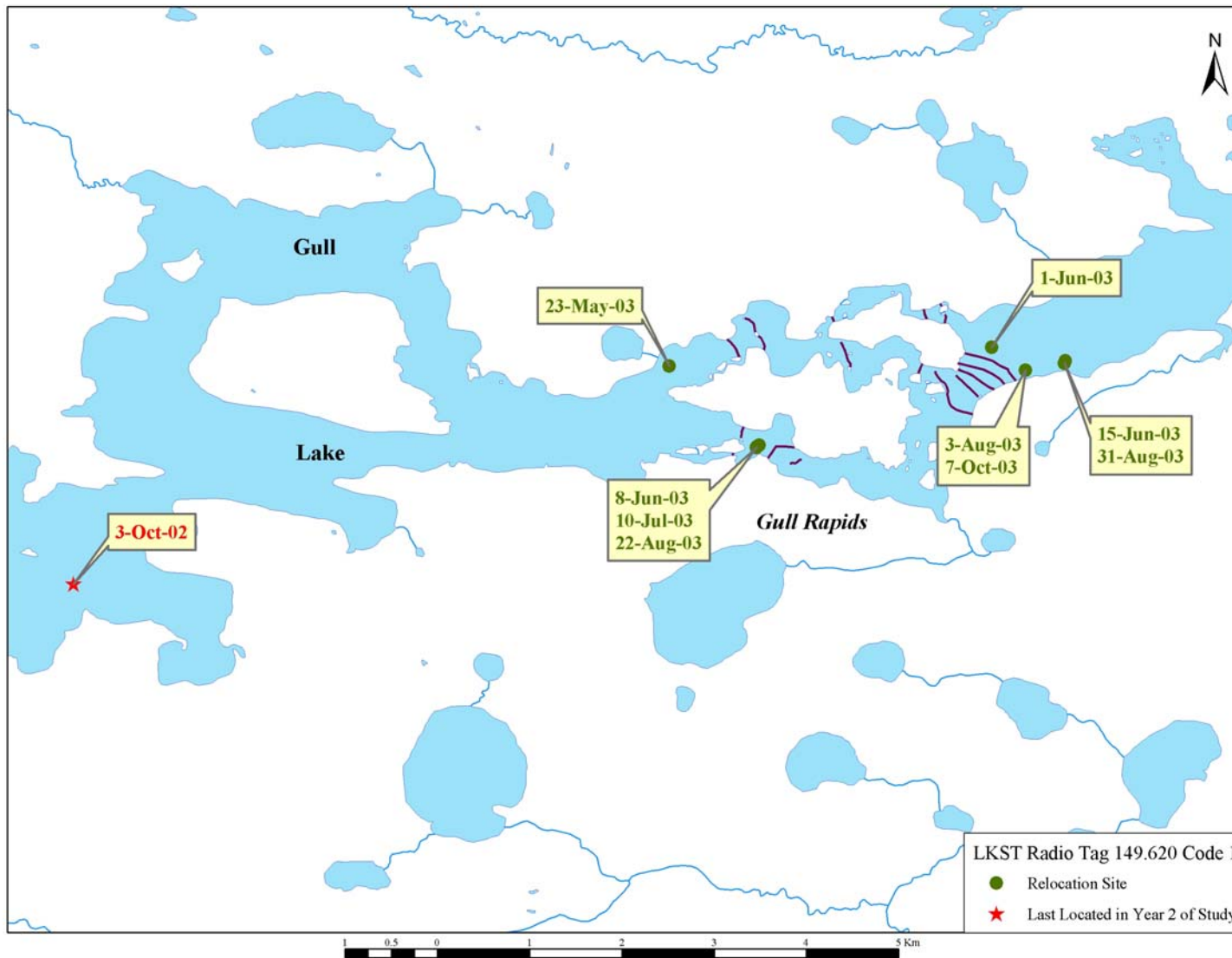


Figure A6-20. Movement of lake sturgeon RT#149.620 Code 1 in the Keeyask Study Area, 2003.

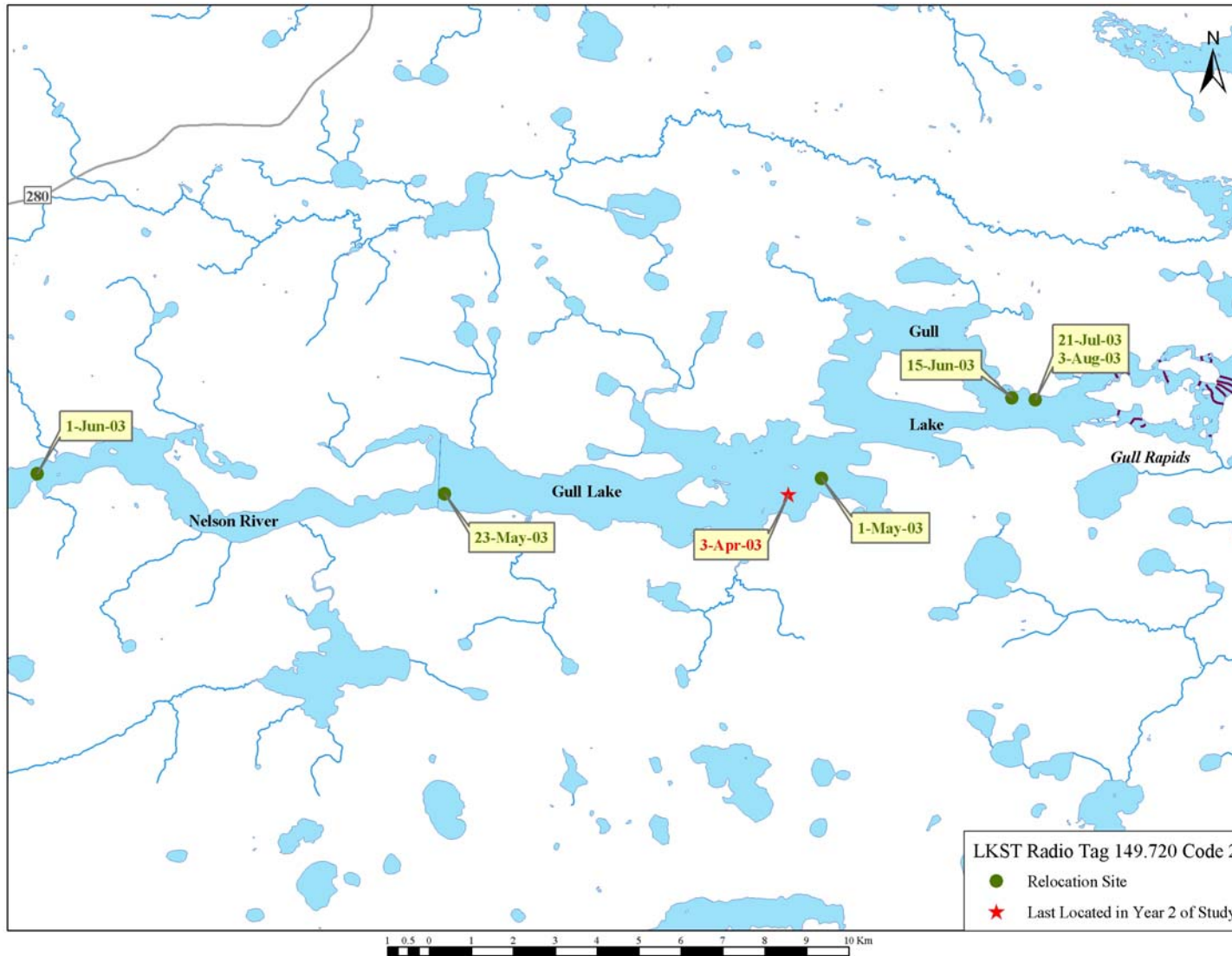


Figure A6-21. Movement of lake sturgeon RT#149.720 Code 2 in the Keeyask Study Area, 2003.

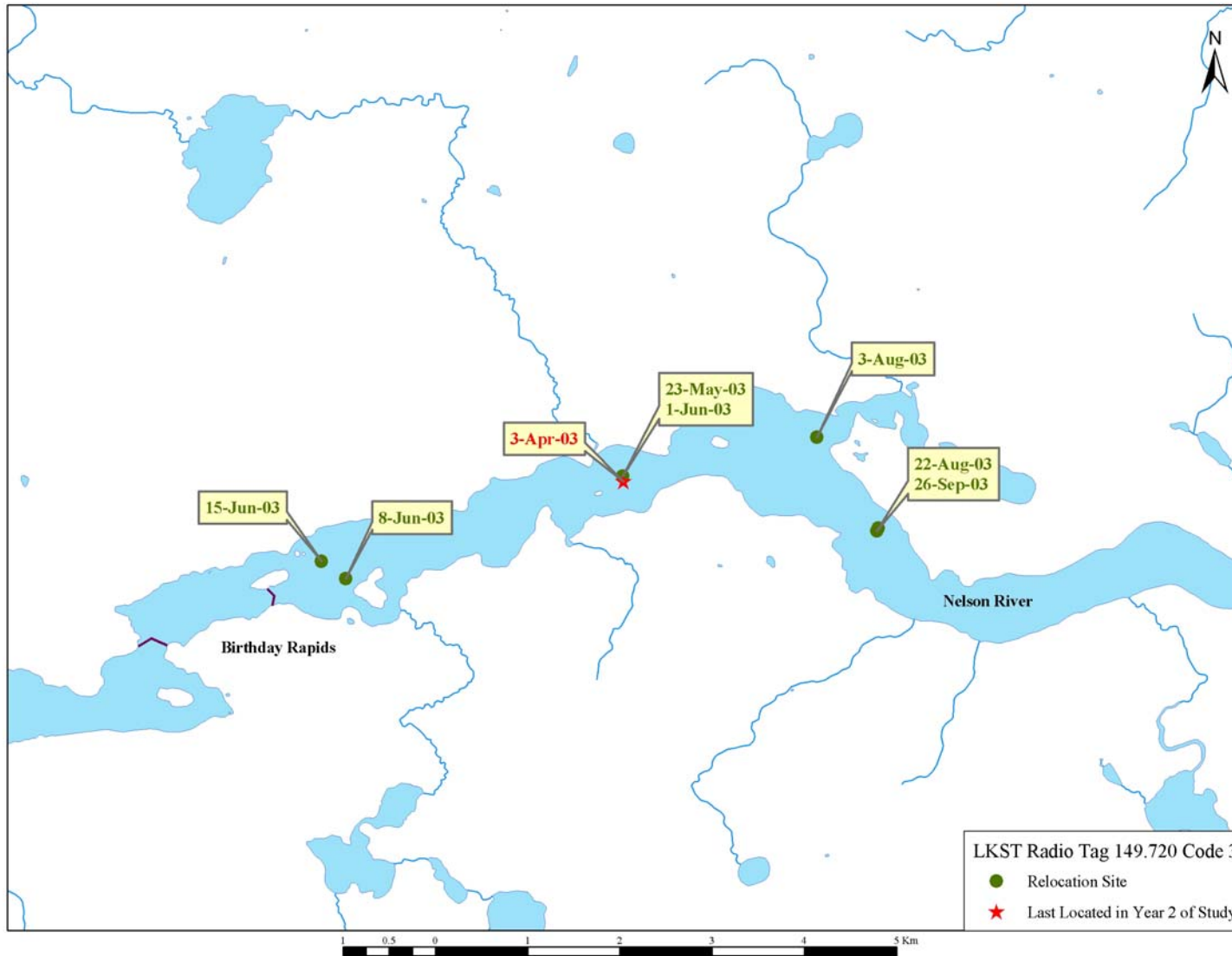


Figure A6-22. Movement of lake sturgeon RT#149.720 Code 3 in the Keeyask Study Area, 2003.

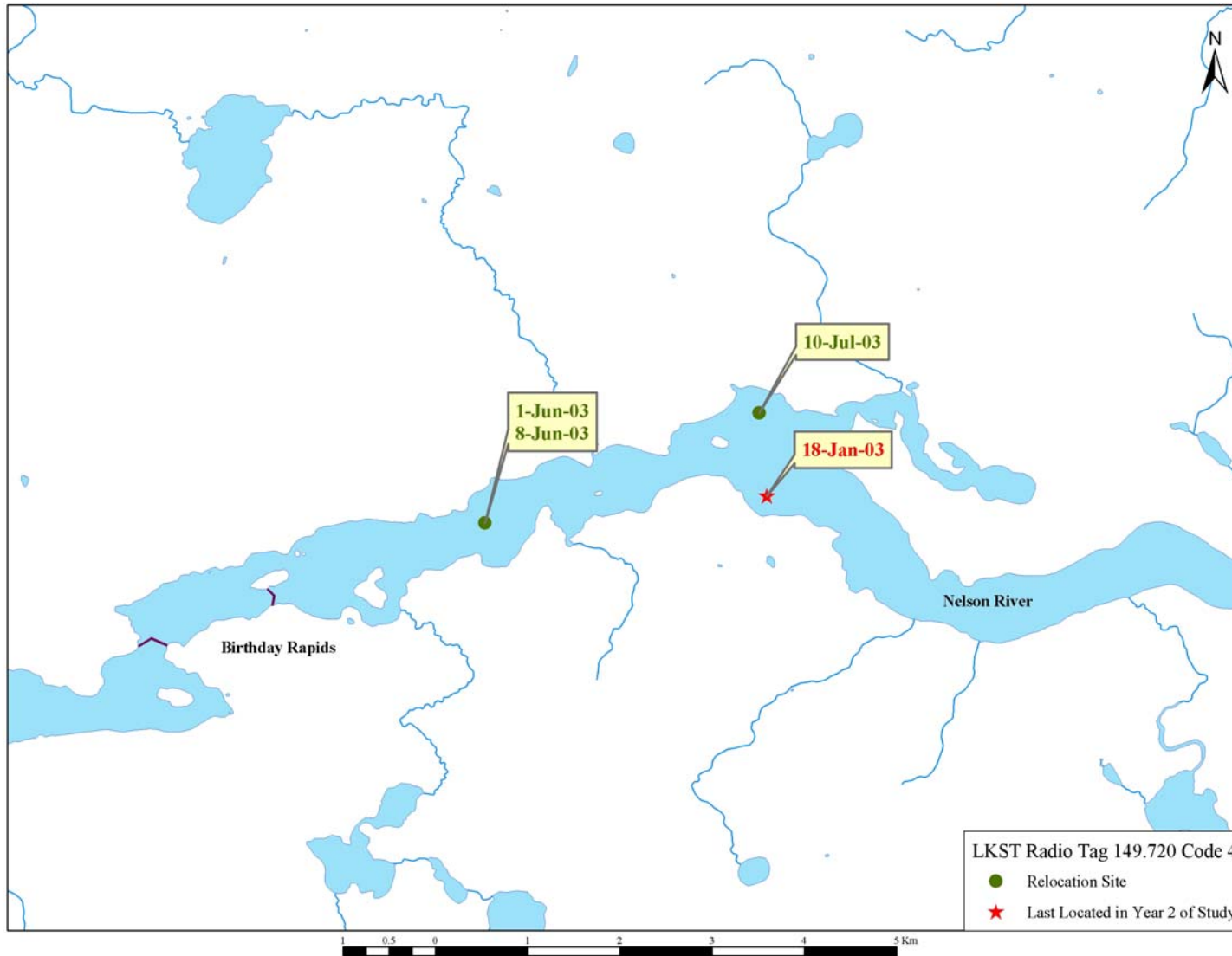


Figure A6-23. Movement of lake sturgeon RT#149.720 Code 4 in the Keeyask Study Area, 2003.

## APPENDIX 7

### POST-CRD DAILY AVERAGE WATER DISCHARGE, 1977-2003

	<u>Page</u>
Figure A7-1. Post-CRD daily average discharge 1977-2002 from the Kelsey GS .....	110
Figure A7-2. Post-CRD daily average discharge 1977-2003 from the Kelsey GS .....	111

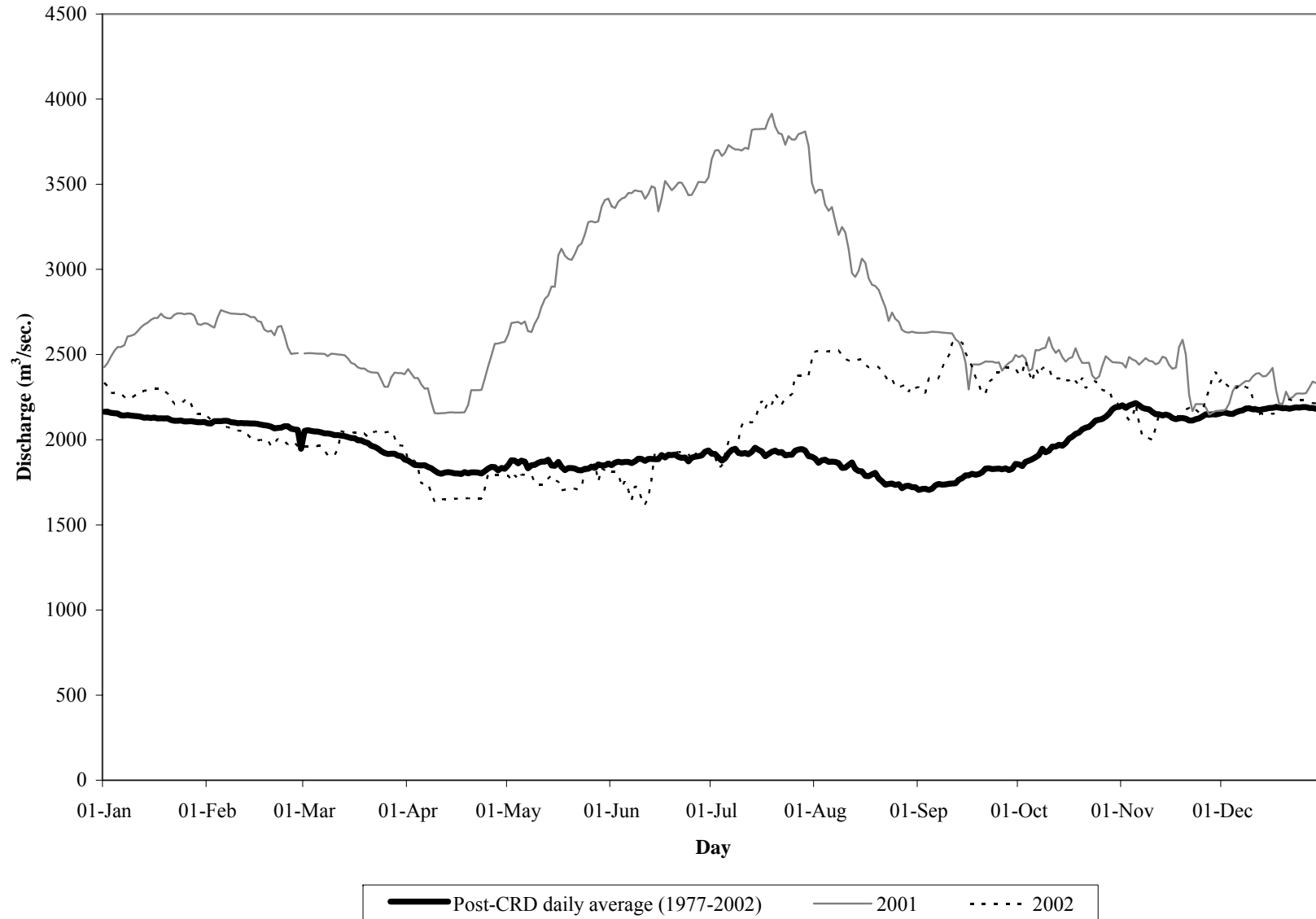


Figure A7-1. Post-CRD daily average discharge 1977-2002 from the Kelsey GS.

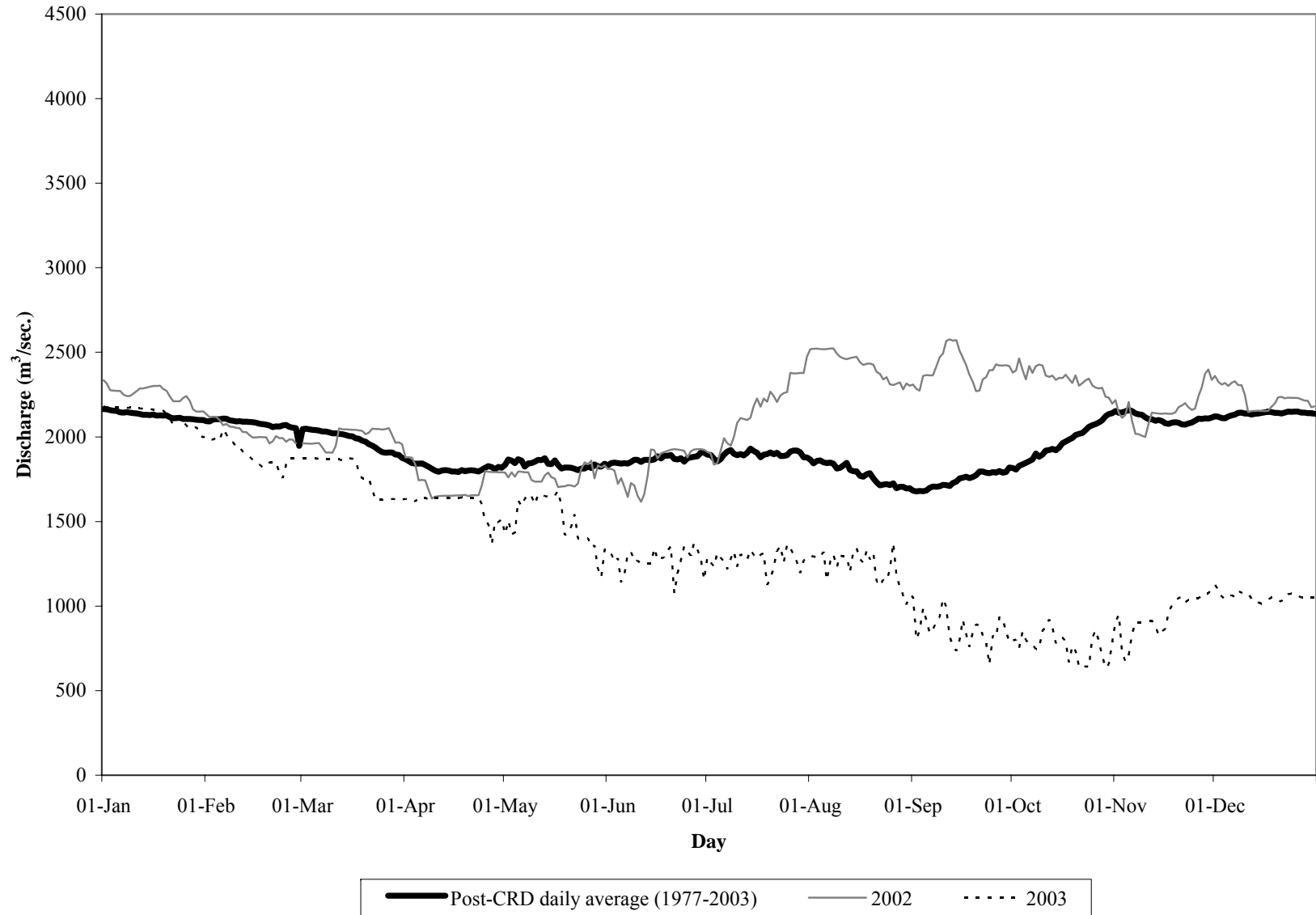


Figure A7-2. Post-CRD daily average discharge 1977-2003 from the Kelsey GS.