Waterbirds 43(2) – June 2020 – Electronic supplement

CHRISTINE LEPAGE, JEAN-PIERRE L. SAVARD, SCOTT G. GILLILAND

Spatial Ecology of White-winged Scoters (*Melanitta deglandi*) in Eastern North America: A Multi-year Perspective

Electronic supplement to: Lepage, C., J.-P. L. Savard and S. Gilliland. 2020. Spatial ecology of White-winged Scoters (*Melanitta deglandi*) in eastern North America: A multi-year perspective. Waterbirds 43(2): 147-162.

Appendix 1

Multi-year movements of 10 White-winged Scoters (*Melanitta deglandi*) with more than 2 years of tracking data and detailed information on arrival and departure dates during spring (from wintering site to molt site) and fall (from molting site to wintering site) migrations for 30 White-winged Scoters captured on their molt site in the St. Lawrence Estuary near Forestville, Quebec, in August 2010 and 2012.

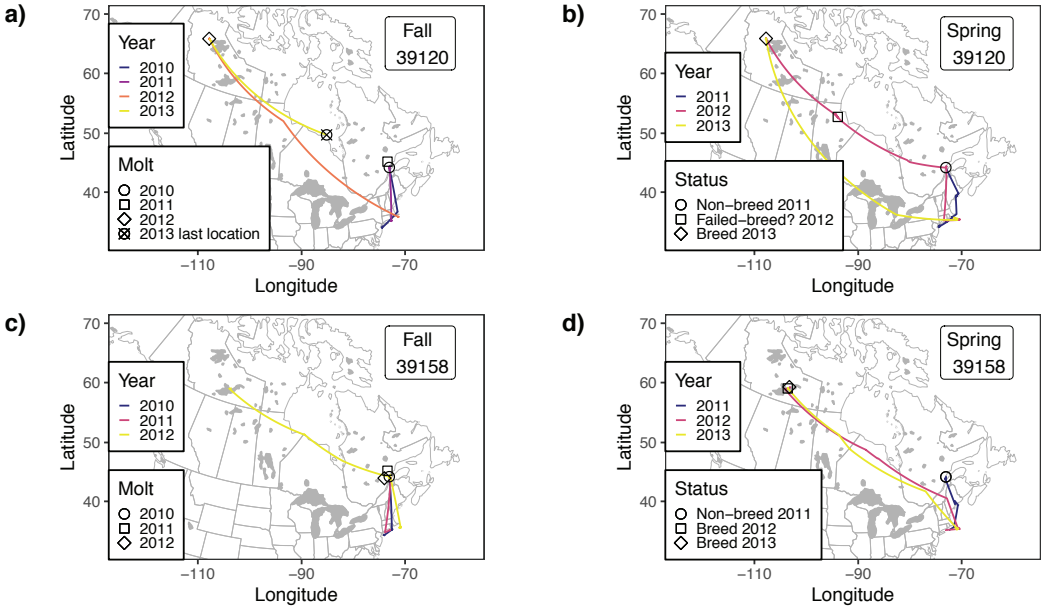

Figure A1. Annual movements for the two female White-winged Scoters (*Melanitta deglandi*) with more than 2 years of tracking data: a) Fall migration for female 39120; b) Spring migration for female 39120; c) Fall migration for female 39158; d) Spring migration for female 39158.

Female 39158 went twice to the same breeding location in the Northwest Territories. Female 39120 settled ~120 km southwest of Churchill, Manitoba from 6-19 June in the first year, and then moved on 28 June to Great Bear Lake, Northwest Territories, where she returned to breed the following year.

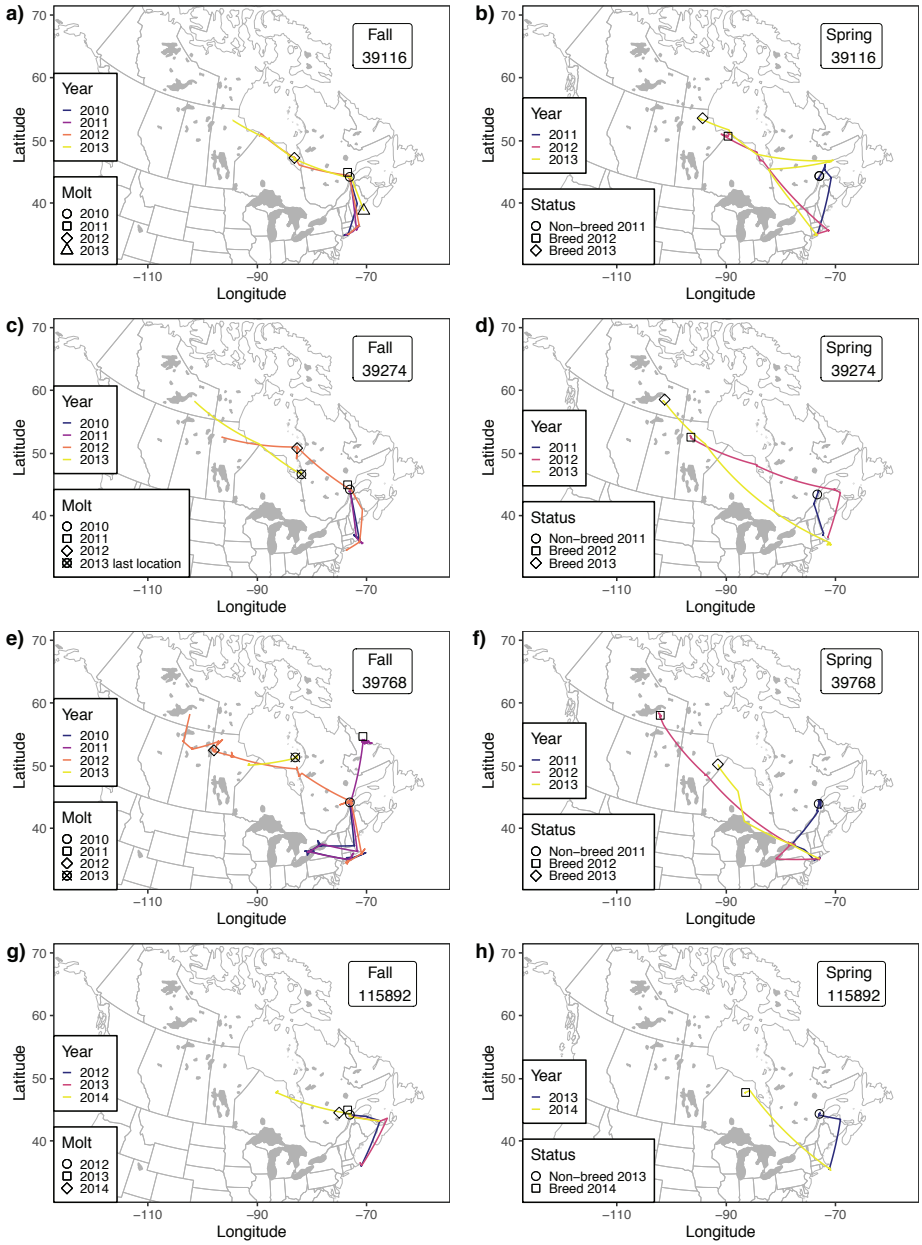

Figure A2. Annual movements for the four male White-winged Scoters (*Melanitta deglandi*) with more than 2 years of tracking data that went to breeding grounds at least 1 year: a) Fall migration for male 39116; b) Spring migration for male 39116; c) Fall migration for male 39274; d) Spring migration for male 39274; e) Fall migration for male 39768; f) Spring migration for male 39768; g) Fall migration for male 115892; h) Spring migration for male 115892.

None of the males that migrated to breeding areas and tracked for at least two complete years (n = 6) went to the same breeding location. One male staged on Lake Ontario before flying south to its wintering area near Long Island 2 years in a row; on the third year however, this bird flew directly to its wintering area from the St. Lawrence Estuary and did not stage on Lake Ontario.

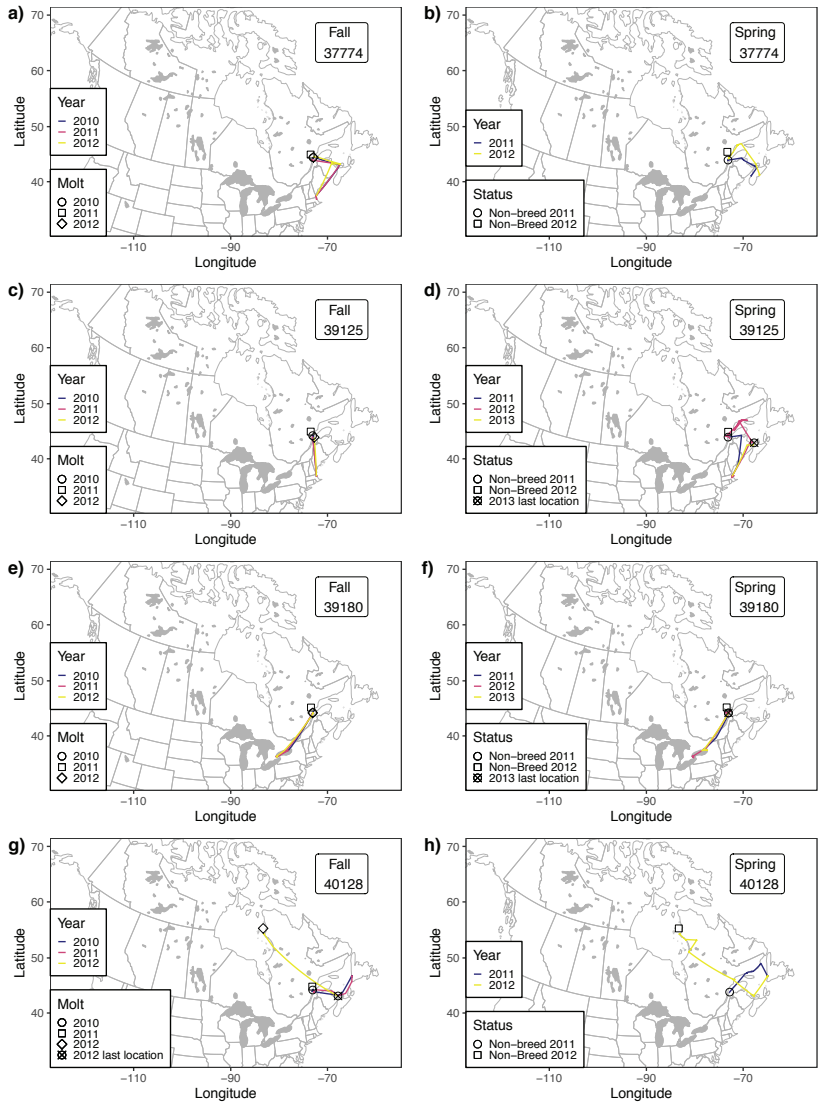

Figure A3. Annual movements for the four male White-winged Scoters (*Melanitta deglandi*) with more than 2 years of tracking data that never went to breeding grounds: a) Fall migration for male 37774; b) Spring migration for male 37774; c) Fall migration for male 39125; d) Spring migration for male 39125; e) Fall migration for male 39180; f) Spring migration for male 39180; g) Fall migration for male 40128; h) Spring migration for male 40128.

Among these four males, two remained year-round in Canada: one spent 7-8 months on Lake Ontario (late fall to early spring) and moved to the St. Lawrence Estuary to molt and stage for 4-4.5 months (late spring to early fall); the other one wintered on the west coast of Newfoundland (4-6 months depending on year), migrated either through the St. Lawrence or the Maritimes, and summered-molted either in the St. Lawrence or Hudson Bay (~4 months). The three males that migrated through the Maritimes did so consistently 3 years in a row. Similarly, one male staged on eastern Lake Ontario before reaching its wintering area near Hamilton, on western Lake Ontario, 3 years in a row.

Table A1. Spring migration of suspected breeding White-winged Scoters: spring staging, breeding and molting areas, timing and distances covered. Consecutive lines under a same transmitter number means multiple years.

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Distance last staging to breeding area (km)	Breeding area	Arrival on breeding area	Departure from breeding area	Molting area	Arrival on molting area	Distance breeding to molting area (km)	Distance wintering to breeding area (km)
39116m	Long I. (NY)[b]	30/04/12	194	Nant. (MA)	03/05/12	13/05/12	11								
			1519	James Bay	20/05/12	02/06/12	14	755	ON	08/06/12	04/07/12	James Bay	24/07/12	754	2468
39116m	Long I. (NY)	04/05/13	2254	SLE (QC)	14/05/13	29/05/13	16	2324	MB	15/06/13	30/06/13	James Bay	14/07/13	1107	4646
39120f	Long I. (NY)	02/04/12	156	Nant. (MA)	05/04/12	11/05/12	37								
			1129	SLE (QC)	21/05/12	27/05/12	7	3711	MB	03/06/12	19/06/12	NT	n/a[c]	0	4996
39120f	Nant. (MA)	07/05/13	0	---[d]	---[d]	---[d]	--[d]	4687	NT	05/06/13	04/08/13	Cape Henrietta Maria (Hudson Bay)?[e]	30/08/13?[e]	>2565	4687
39158f	Long I. (NY)	14/04/12	172	Nant. (MA)	17/04/12	13/05/12	27	3742	NT	28/05/12	06/08/12	SLE (QC)	03/09/12	3166	3946
39158f	Nant. (MA)	15/05/13	0	---[d]	---[d]	---[d]	--[d]	3739	NT	05/06/13	?[e]	---	---	---	3739
39274m	Nant.-Cape Cod (MA)	16/04/12	840	Chaleur Bay (QC-NB)	22/04/12	20/05/12	29								
			1300	James Bay	23/05/12	26/05/12	4	1154	MB	29/05/12	17/06/12	Belcher I. (Hudson Bay)	29/06/12	1259	3294
39274m	Nant.-Long I. (MA-NY)	21/03/13	116	Nant. (MA)	24/03/13	20/05/13	58	3477	NT	06/06/13	27/06/13	James Bay	24/07/13	2083	3593

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Distance last staging to breeding area (km)	Breeding area	Arrival on breeding area	Departure from breeding area	Molting area	Arrival on molting area	Distance breeding to molting area (km)	Distance wintering to breeding area (km)
39768m	Long I. (NY)	12/04/12	1012	Eastern L. Ontario (ON)	18/04/12	18/05/12	31	2762	NT	28/05/12	14/06/12	MB	10/07/12	1207	3894
39768m	Long I. (NY)	14/04/13	498	Eastern L. Ontario (ON)	18/04/13	14/05/13	27	1754	MB	08/06/13	22/06/13	Belcher I. (Hudson Bay)?[e]	23/06/13?[e]	>778	2330
94772m	Long I. (NY)	21/03/13	203	Nant. (MA)	24/03/13	15/05/13	53								
			1633	James Bay	25/05/13	01/06/13	8	84	QC	07/06/13	29/06/13	Long I. (Hudson Bay)	03/07/13	52	1920
115882f	Long I. (NY)	18/03/13	148	Nant. (MA)	21/03/13	16/05/13	57								
			1684	James Bay	22/05/13	28/05/13	7	61	QC	31/05/13	07/08/13	SLE (QC)	04/09/13	1093	1893
115884f	St. Marys Bay (NS)	15/04/13	257	Northum-berland Strait (NB)	18/04/13	27/04/13	10								
			633	North Shore (QC)	09/05/13	25/05/13	17	2086	MB	03/06/13	16/07/13	SLE (QC)	10/08/13	2082	2976
115885 m	Long I. (NY)	21/04/13	602	L. Erie (ON)	24/04/13	22/05/13	29	2550	SK	03/06/13	28/06/13	Cape Henrietta Maria (Hudson Bay)	19/07/13	1381	3152
115890f	Long I. (NY)	30/04/13	441	Eastern L. Ontario (ON)	03/05/13	19/05/13	17	3654	NT	03/06/13	04/10/13	NT	n/a[e]	0	4095
115892 m	Nant. (MA)	17/05/14	0	---[d]	---[d]	---[d]	--[d]	1814	ON	24/05/14	21/07/14	SLE (QC)	24/07/14	1254	1814

[a] PTT number; m = male; f = female

[b] North Shore = Gulf of St. Lawrence along the Quebec's North Shore, Quebec, Canada; L. Ontario = Lake Ontario; L. Erie = Lake Erie; LB = Labrador, Newfoundland and Labrador, Canada; Long I. = Long Island, New York, USA; MB= Manitoba, Canada; Nant. = Nantucket, Massachusetts, USA; NB = New Brunswick, Canada; NF = insular Newfoundland, Newfoundland and Labrador, Canada; NS = Nova Scotia, Canada; NT = Northwest Territories, Canada; ON = Ontario, Canada; PE = Prince Edward Island, Canada; QC = Quebec, Canada; SK = Saskatchewan, Canada; SLE = St. Lawrence Estuary, Quebec, Canada.

[c] n/a = female likely molted on the breeding site

[d] No spring staging area, arrival and departure dates, or length of staging; the bird likely remained on the wintering area until ready to migrate directly to its breeding ground

[e] ? = The PTT stopped transmitting at that period. If a location is given (e.g., James Bay?), the bird reached this location but the PTT did not transmit long enough to insure that this location was the final one for this period of the annual cycle.

Table A2. Spring migration of non-breeding White-winged Scoters in eastern North America: spring staging and molting areas, timing and distances covered. Consecutive lines under a same transmitter number means multiple years.

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Molting area	Arrival on molting area	Departure from molting area	Days spent in vicinity of molting area	Distance wintering to molting area (km)
37774m	Hampton Beach (NH)	28/03/11	500	Bay of Fundy (NS)	31/03/11	16/04/11	17					
			177	Northumb-erland Strait (NB-PE)	19/04/11	30/05/11	42					
			267	Chaleur Bay (QC-NB)	02/06/11	21/06/11	20	SLE (QC)[b]	24/06/11	28/08/11	66	1191
37774m	Hampton Beach (NH)	17/03/12	624	Cow Bay (NS)	20/03/12	18/04/12	30					
			203	Brackley Beach (PE)	21/04/12	04/05/12	14					
			439	North Shore (QC)	07/05/12	23/05/12	17	SLE (QC)	30/05/12	01/09/12	95	1615
39116m	Long I. (NY)	17/04/11	907	Chaleur Bay (QC-NB)	21/04/11	24/04/11	4					
			153	SLE (QC)	27/04/11	30/05/11	34	SLE (QC)	06/06/11	01/11/11	149	1349
39120f	Long I. (NY)	25/04/11	266	Nant. (MA)	01/05/11	14/05/11	14					
			283	North Haven (ME)	18/05/11	22/06/11	36	SLE (QC)	25/06/11	26/10/11	124	1048
39124m	Nant.-Long I. (MA-NY)	14/03/11	126	Nant. (MA)	17/03/11	17/05/11	62					
			705	SLE (QC)	20/05/11	30/05/11	11					
			949	James Bay	05/06/11	12/06/11	8	James Bay	01/07/11	24/08/11	55	1958

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Molting area	Arrival on molting area	Departure from molting area	Days spent in vicinity of molting area	Distance wintering to molting area (km)
39125m	Broad Sound (MA)	07/04/11	80	Cape Cod (MA)	10/04/11	30/04/11	21					
			790	Chaleur Bay (QC-NB)	03/05/11	06/05/11	4					
			209	SLE (QC)	13/05/11	04/06/11	23	SLE (QC)	08/06/11	16/09/11	101	1084
39125m	Broad Sound (MA)	16/04/12	680	Northumb-erland Strait (NB-PE)	19/04/12	02/05/12	14					
			425	North Shore (QC)	09/05/12	10/06/12	33	SLE (QC)	17/07/12	12/10/12	88	1496
39125m	Broad Sound (MA)	23/04/13	725	Northumb-erland Strait (NB-PE)	30/04/13	?[c]	--					
39158f	Long I. (NY)	05/04/11	172	Nant. (MA)	08/04/11	13/05/11	36					
			357	Penobscot Bay (ME)	17/05/11	05/06/11	20					
			527	SLE (QC)	08/06/11	06/07/11	29	SLE (QC)	09/07/11	23/10/11	107	1072
39173m	Nant. (MA)	17/05/11	939	SLE (QC)	24/05/11	09/06/11	17	SLE (QC)	12/06/11	04/10/11	115	1044
39180m	Western L. Ontario (ON)	14/03/11	239	Eastern L. Ontario (ON)	17/03/11	28/05/11	73					
			746	SLE (QC)	03/06/11	01/07/11	29	SLE (QC)	04/07/11	17/09/11	76	1017
39180m	Western L. Ontario (ON)	10/04/12	237	Eastern L. Ontario (ON)	13/04/12	11/05/12	29					
			796	SLE (QC)	18/05/12	01/07/12	45	SLE (QC)	08/07/12	26/09/12	81	1103

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Molting area	Arrival on molting area	Departure from molting area	Days spent in vicinity of molting area	Distance wintering to molting area (km)
39180m	Western L. Ontario (ON)	09/03/13	270	Eastern L. Ontario (ON)	16/03/13	12/05/13	58					
				SLE (QC)	20/05/13	?	?					
39274m	Cape Cod (MA)	05/03/11	84	Broad Sound (MA)	08/03/11	22/05/11	76					
			452	SLE (QC)	31/05/11	03/06/11	4	SLE (QC)	06/06/11	16/11/11	164	787
39768m	Long I. (NY)	12/04/11	461	Eastern L. Ontario (ON)	19/04/11	28/05/11	40					
			831	SLE (QC)	03/06/11	19/06/11	17					
			677	North Shore (QC)	29/06/11	05/07/11	7					
			614	Makkovik (LB)	12/07/11	15/07/11	4	Hopedale (LB)	18/07/11	02/09/11	47	2661
40128m	St. George's Bay (NF)	30/05/11	257	North Shore (QC)	03/06/11	08/07/11	36	SLE (QC)	13/07/11	22/09/11	72	991
40128m	St. George's Bay (NF)	18/04/12	437	Malpeque Bay (PE)	23/04/12	16/05/12	24					
			475	North Shore (QC)	21/05/12	30/05/12	10					
			940	Umiujaq (Hudson Bay)	04/06/12	09/06/12	6	Inukjuak (Hudson Bay)	29/06/12	19/09/12	83	2446
94771m	Nant. (MA)	13/05/13	984	La Malbaie Bay (Gaspe, QC)	20/05/13	29/05/13	10					
			227	North Shore (QC)	02/06/13	27/06/13	26	SLE (QC)	30/06/13	11/10/13	104	1861

Bird[a]	Wintering area	Departure from wintering area	Distance between sites (km)	Spring staging area	Arrival on staging area	Departure from staging area	Length of staging	Molting area	Arrival on molting area	Departure from molting area	Days spent in vicinity of molting area	Distance wintering to molting area (km)
115880m	Nant. (MA)	03/05/13	873	SLE (QC)	06/05/13	31/05/13	26	Black Tickle (LB)?	09/06/13	?	--	
115883m	Nant. (MA)	12/05/13	1437	James Bay	19/05/13	06/06/13	19	Long I. (Hudson Bay)	12/06/13	22/08/13	72	1687
115887f	Nant.-Long I. (MA-NY)	15/03/13	134	Nant. (MA)	18/03/13	22/05/13	66					
			188	Bakers Island (MA)	28/05/13	12/06/13	16	Jonesport (ME)	18/06/13	19/09/13	94	660
115891m	Cape Cod (MA)	12/04/13	792	SLE (QC)	21/04/13	31/05/13	41					
			403	North Shore (QC)	06/06/13	04/07/13	27	SLE (QC)	10/07/13	16/09/13	69	1599
115892m	Nant. (MA)	09/05/13	802	Miramichi Bay (NB)	12/05/13	19/05/13	8					
			332	SLE (QC)	25/05/13	22/06/13	29	SLE (QC)	28/06/13	25/08/13	59	835
115893f	Nant. (MA)	09/05/13	788	Western Hillsborough Bay (PE)	31/05/13	01/07/13	32	Eastern Hillsborough Bay (PE)?	10/07/13	?	--	
115894m	Nant. (MA)	19/05/13	912	SLE (QC)	28/05/13	22/06/13	26	SLE (QC)	13/07/13	13/08/13	--	1294

[a] PTT number; m = male; f = female

[b] North Shore = Gulf of St. Lawrence along the Quebec's North Shore, Quebec, Canada; L. Ontario = Lake Ontario; L. Erie = Lake Erie; LB = Labrador, Newfoundland and Labrador, Canada; Long I. = Long Island, New York, USA; MB= Manitoba, Canada; Nant. = Nantucket, Massachusetts, USA; NB = New Brunswick, Canada; NF = insular Newfoundland, Newfoundland and Labrador, Canada; NS = Nova Scotia, Canada; NT = Northwest Territories, Canada; ON = Ontario, Canada; PE = Prince Edward Island, Canada; QC = Quebec, Canada; SK = Saskatchewan, Canada; SLE = St. Lawrence Estuary, Quebec, Canada.

[c] ? = The PTT stopped transmitting at that period. If a location is given (e.g., James Bay?), the bird reached this location but the PTT did not transmit long enough to insure that this location was the final one for this period of the annual cycle.

Table A3. Fall migration of White-winged Scoters in eastern North America: fall staging and wintering areas, timing and distances covered. Consecutive lines under a same transmitter number means multiple years.

Bird[a]	Molting area	Departure from molting area	Distance between sites (km)	Fall Staging area	Arrival on staging area	Length of staging	Wintering area	Arrival in vicinity of wintering area	Days spent in vicinity of wintering area	Distance molting to wintering area (km)
37774m	SLE (QC)[b]	05/09/10	494	Brackley Beach (PE)	08/09/10	79	Hampton Beach (NH)	29/11/10	119	731
37774m	SLE (QC)	28/08/11	353	Brackley Beach (PE)	03/09/11	80	Hampton Beach (NH)	28/11/11	110	1216
37774m	SLE (QC)	01/09/12	435	Brackley Beach (PE)	04/09/12	27				1316
				Miramichi Bay (NB)	07/10/12	28	Hampton Beach (NH)?[c]	07/11/12	-	
39116m	SLE (QC)	28/10/10		(on molting)[d]			Long I. (NY)	03/11/10	165	925
39116m	SLE (QC)	01/11/11		(on molting)			Long I. (NY)	04/11/11	191	1171
39116m	James Bay	05/10/12	739	SLE (QC)	09/10/12	14	Long I. (NY)	25/10/12	192	1970
39116m	James Bay	11/09/13	931	SLE (QC)	18/09/13	61	Long I. NY)?	20/11/13	-	>1576
39120f	SLE (QC)	24/11/10		(on molting)			Long I. (NY)	30/11/10	165	1261
39120f	SLE (QC)	26/10/11		(on molting)			Long I. (NY)	29/10/11	195	862
39120f	NT	27/09/12		(on molting)			Nant. (MA)	14/10/12	205	4397
39124m	SLE (QC)	07/10/10		(on molting)			Nant.-Long I. (MA-NY)	10/10/10	220	829
39124m	James Bay	24/08/11	304	James Bay	31/08/11	17	Nant. (MA)	12/10/11	214	1676

Bird[a]	Molting area	Departure from molting area	Distance between sites (km)	Fall Staging area	Arrival on staging area	Length of staging	Wintering area	Arrival in vicinity of wintering area	Days spent in vicinity of wintering area	Distance molting to wintering area (km)
39125m	SLE (QC)	18/10/10		(on molting)			Broad Sound (MA)	25/10/10	187	706
39125m	SLE (QC)	16/09/11		(on molting)			Broad Sound (MA)	26/09/11	204	1199
39125m	SLE (QC)	12/10/12		(on molting)			Broad Sound (MA)	26/10/12	181	694
39158f	SLE (QC)	29/10/10		(on molting)			Long I. (NY)	01/11/10	193	1032
39158f	SLE (QC)	23/10/11		(on molting)			Long I. (NY)	29/10/11	197	948
39158f	SLE (QC)	23/11/12		(on molting)			Nant. (MA)	27/11/12	170	979
39173m	SLE (QC)	06/11/10		(on molting)			Nant. (MA)	12/11/10	190	806
39173m	SLE (QC)	04/10/11		(on molting)			Buzzards Bay (MA)?	07/10/11	-	1259
39180m	SLE (QC)	31/10/10	796	Eastern L. Ontario (ON)	03/11/10	20	Western L. Ontario (ON)	25/11/10	110	828
39180m	SLE (QC)	17/09/11	828	Eastern L. Ontario (ON)	23/09/11	57	Western L. Ontario (ON)	21/11/11	142	1004
39180m	SLE (QC)	26/09/12	879	Eastern L. Ontario (ON)	29/09/12	12	Western L. Ontario (ON)	12/10/12	149	996
39274m	SLE (QC)	30/10/10		(on molting)			Cape Cod (MA)	02/11/10	200	814
39274m	SLE (QC)	16/11/11		(on molting)			Nant.-Cape Cod (MA)	19/11/11	149	773

Bird[a]	Molting area	Departure from molting area	Distance between sites (km)	Fall Staging area	Arrival on staging area	Length of staging	Wintering area	Arrival in vicinity of wintering area	Days spent in vicinity of wintering area	Distance molting to wintering area (km)
39274m	Belcher I. (Hudson Bay)	16/09/12	1044	SLE (QC)	23/09/12	42	Nant.-Long I. (MA-NY)	09/11/12	192	2175
39768m	SLE (QC)	28/10/10	834	Eastern L. Ontario, (ON)	03/11/10	18				
			195	Western L. Ontario (ON)	23/11/10	24	Long I. (NY)	08/01/11	94	2113
39768m	Hopedale (LB)	02/09/11	73	Davis Inlet (LB)	05/09/11	11				
			82	Makkovik (LB)	21/09/11	14				
			978	SLE (QC)	07/10/11	21				
			1357	Western L. Ontario (ON)	06/11/11	24	Long I. (NY)	02/12/11	133	3503
39768m	MB	23/08/12	1088	James Bay	29/08/12	11				
			923	SLE (QC)	11/09/12	76	Long I. (NY)	28/11/12	137	2840
39839f	SLE (QC)	30/10/10		(on molting)			Long I. (NY)	02/11/10	186	968
40128m	SLE (QC)	10/11/10	515	Brackley Beach (PE)	14/11/10	24	St. George's Bay (NF)	11/12/10	171	935
40128m	SLE (QC)	22/09/11	445	Malpeque Bay (PE)	01/10/11	81	St. George's Bay (NF)	03/01/12	107	990
40128m	Inukjuak (Hudson Bay)	19/09/12	1403	Malpeque Bay (PE)	24/09/12		?			
94771m	SLE (QC)	25/11/12		(on molting)			Nant. (MA)	28/11/12	167	866

Bird[a]	Molting area	Departure from molting area	Distance between sites (km)	Fall Staging area	Arrival on staging area	Length of staging	Wintering area	Arrival in vicinity of wintering area	Days spent in vicinity of wintering area	Distance molting to wintering area (km)
94771m	SLE (QC)	11/10/13		(on molting)			Nant. (MA)?	14/10/13	-	776
94772m	SLE (QC)	17/11/12		(on molting)			Long I. (NY)	20/11/12	122	970
115880m	SLE (QC)	08/11/12		(on molting)			Nant. (MA)	12/11/12	173	825
115882f	SLE (QC)	24/10/12		(on molting)			Long I. (NY)	27/10/12	202	914
115882f	SLE (QC)	01/11/13		(on molting)			Long I. (NY)?	04/11/13	-	870
115883m	SLE (QC)	21/10/12		(on molting)			Nant. (MA)	24/10/12	201	826
115884f	SLE (QC)	12/10/12		(on molting)			St. Marys Bay (NS)	15/10/12	183	507
115884f	SLE (QC)	08/10/13		(on molting)			St. Marys Bay (NS)?	11/10/13	-	512
115885m	SLE (QC)	21/10/12		(on molting)			Long I. (NY)	24/10/12	180	968
115885m	Cape Henrietta Maria (Hudson Bay)	07/10/13		(on molting)			Long I. (NY)?	17/10/13	-	1859
115887f	SLE (QC)	15/11/12		(on molting)			Nant.-Long I. (MA-NY)	18/11/12	185	1024
115887f	Jonesport (ME)	19/09/13		Passamaquoddy Bay (NB)	22/09/13	--	?	?		
115888m	SLE (QC)	12/10/12		(on molting)			Broad Sound (MA)?	05/11/12	-	739

Bird[a]	Molting area	Departure from molting area	Distance between sites (km)	Fall Staging area	Arrival on staging area	Length of staging	Wintering area	Arrival in vicinity of wintering area	Days spent in vicinity of wintering area	Distance molting to wintering area (km)
115890f	SLE (QC)	02/11/12		(on molting)			Long I. (NY)	05/11/12	176	1032
115890f	NT	04/10/13	3785	SLE (QC)	14/10/13	19	Long I. (NY)?	04/11/13	-	4659
115891m	SLE (QC)	05/11/12		(on molting)			Cape Cod (MA)	08/11/12	156	745
115892m	SLE (QC)	09/10/12	281	Cavendish Beach (PE)	15/10/12	75	Nant. (MA)	03/01/13	127	1353
115892m	SLE (QC)	25/08/13	485	Ship Channel (PE)	28/08/13	94	Nant. (MA)	05/01/14	133	>467
115892m	SLE (QC)	03/10/14	468	Ship Channel (PE)	06/10/14	--	?	?		
115893f	SLE (QC)	05/11/12		(on molting)			Nant. (MA)	12/11/12	179	808
115894m	SLE (QC)	02/11/12		(on molting)			Nant. (MA)	05/11/12	196	811
115894m	SLE (QC)	23/10/13		(on molting)			Nant. (MA)?	10/11/13	-	894

[a] PTT number; m = male; f = female

[b] North Shore = Gulf of St. Lawrence along the Quebec's North Shore, Quebec, Canada; L. Ontario = Lake Ontario; L. Erie = Lake Erie; LB = Labrador, Newfoundland and Labrador, Canada; Long I. = Long Island, New York, USA; MB= Manitoba, Canada; Nant. = Nantucket, Massachusetts, USA; NB = New Brunswick, Canada; NF = insular Newfoundland, Newfoundland and Labrador, Canada; NS = Nova Scotia, Canada; NT = Northwest Territories, Canada; ON = Ontario, Canada; PE = Prince Edward Island, Canada; QC = Quebec, Canada; SK = Saskatchewan, Canada; SLE = St. Lawrence Estuary, Quebec, Canada.

[c] ? = The PTT stopped transmitting before the bird had reached the location. If a location is given (e.g., James Bay?), the bird reached this location but the PTT did not transmit long enough to insure that this location was the final one for this period of the annual cycle.

[d] The bird stayed on its molting area through all the fall period, until it flew to its wintering ground