

# Detroit River Hawk Watch 2010 Season Summary



Submitted by:

**Rob Payne (2010 Official Counter)**

**Greg Norwood, SCEP Biologist  
Detroit River International Wildlife Refuge  
9311 Groh Road  
Grosse Ile, MI 48138  
Greg\_Norwood@fws.gov**



Photo credit: Jerry Jourdan.

Suggested Citation: Payne, R., and G. Norwood. 2010. Detroit River Hawk Watch 2010 Season Summary. Detroit River International Wildlife Refuge.

## Abstract

The 2010 count represented the 28th consecutive year of monitoring diurnal raptor migration at the mouth of the Detroit River and the 13th year of consistent coverage at Lake Erie Metropark (LEMP), with additional limited coverage at Pointe Mouillee State Game Area Headquarters (PMSGGA; Wayne County, Michigan). There were 593.5 hours of data collection with counts conducted on 82 days between 1 September and 30 November. A total of 300,020 raptors (214,597 at LEMP) of 18 species were recorded at both sites. Combined results of LEMP and PMSGGA show: three species were significantly above the long-term average (LTA) since 1998 (turkey vulture [*Cathartes aura*], bald eagle [*Haliaeetus leucocephalis*], and Cooper's hawk [*Accipiter cooperii*]); one species was far below the LTA (osprey [*Pandion haliaetus*]); seven species were moderately to slightly below the LTA (northern harrier [*Circus cyaneus*], sharp-shinned hawk [*Accipiter striatus*], red-shouldered hawk [*Buteo lineatus*], red-tailed hawk [*Buteo jamaicensis*], rough-legged hawk [*Buteo lagopus*], golden eagle [*Aquila chrysaetos*], and American kestrel [*Falco sparverius*]); and four species were consistent with the LTA (northern goshawk [*Accipiter gentilis*], broad-winged hawk [*Buteo platypterus*], merlin [*Falco columbarius*], and peregrine falcon [*Falco peregrinus*]).

## Methods

An hourly count of diurnal raptors was conducted each day between 1 September and 30 November 2010. 564.5 hours of coverage occurred at LEMP boat launch (N 42.0792, W 83.1937). During persistent north to northwest winds above 7 to 10 miles per hour (mph), there was additional coverage of 29 hours at PMSGGA (N 42.0379, W 83.1982). Days with excessive rain, exceptionally strong winds, or heavy fog were excluded. Observations began one to two hours after sunrise and ended one to two hours before dusk. Raptors were determined to be migrating if they were observed crossing (and not returning) an imaginary line originating at the observer and running to the northwest and southeast. All counting was conducted by allowing observers to freely use 8 to 10X magnification binoculars and spotting scopes with 20 to 60X magnification.

The wind direction and speed, cloud cover, visibility, precipitation, humidity, barometric pressure, and temperature were collected once at the beginning of each hour. Counts attempted to estimate birds exiting kettles in a stream-like fashion during periods of large migration volume.

2010 results are described in relation to the long-term trend from 1991 combining both LEMP and PMSGGA, or just LEMP starting in 1998 and are specified in this report. 2010 results are predominantly compared with data collected since 1998 because the number of hours of data collection was more consistent between 1998 and 2010 ( $s = 45.9$ ) than 1991 and 2010 ( $s = 178.3$ ).

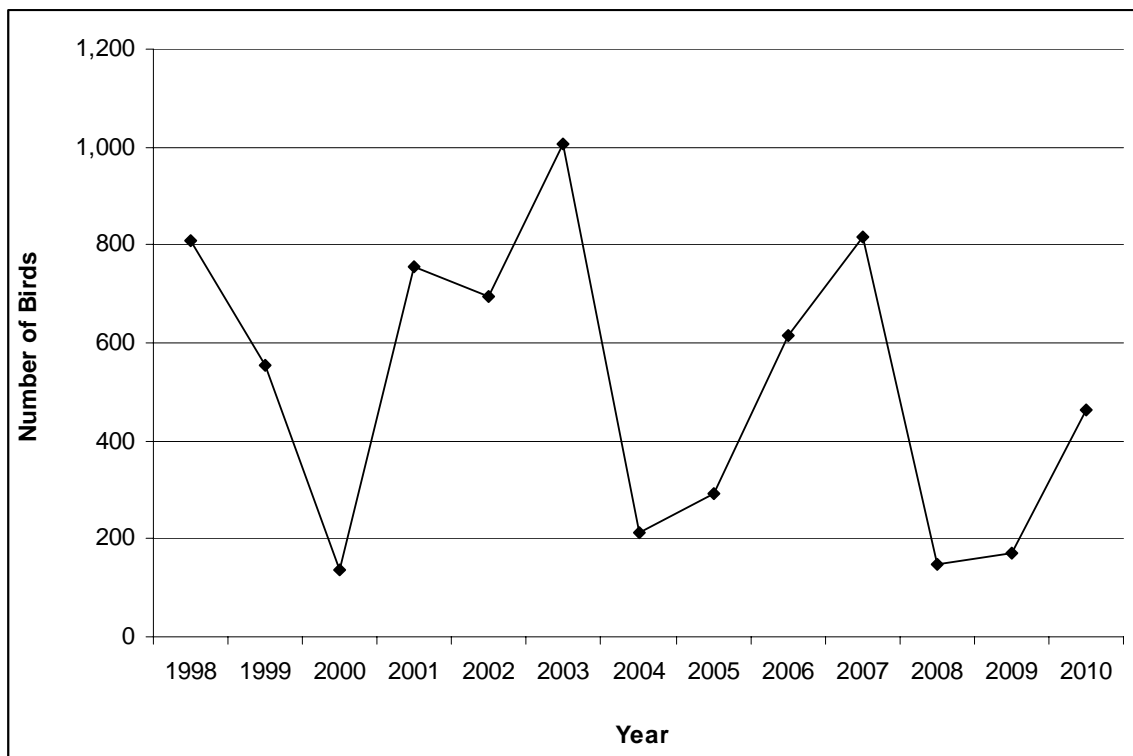
## **Results (Lake Erie Metropark, unless otherwise noted)**

### *September*

87,274 raptors were counted in September, which was 66% above the previous five-year average. 90% of these birds were broad-winged hawks. The first influx of this species occurred on 12 September (1,129) with migration starting in earnest on 15 September (13,883) with a cumulative total of 17,870 broad-winged hawks by that date. This first push of broad-winged hawks is consistent with the 1991–2008 cumulative average (starting 1 September and ending 15 September) between LEMP and PMSGGA of 18,950. Rain, heavy cloud cover, and haziness on 16 September delayed migration until the 17th. The most significant broad-winged hawk push of the season (56,850) was captured that day at PMSGGA between 11:00 and 13:00 EST on 4 mph northwest winds. Winds switched to the southeast in the afternoon producing a robust sharp-shinned hawk movement (1,689) at LEMP between 13:00 and 14:00 EST, and a day total of 2,077 at that site alone. The final significant passage of broad-wings occurred on 19 September (40,114) with exceptionally heavy migration volume between 15:00 and 16:00 EST (20,221).

The month ended with 153,513 broad-winged hawks between the two sites (79,363 at LEMP; 74,150 at PMSGGA). The broad-winged hawk season total between both sites (153,739) was consistent with the previous 12-year average of 159,644.

Bald eagles were recorded in unusually high numbers with 163 between the two count sites in September compared to an average (1991–2008) of 84. This is the second highest record for September since consistent coverage began in 1998 (179 in 2007). Cooper’s hawk was similarly high by the end of the month with a cumulative count of 266 compared to an average (1991–2008) of 152. On the contrary, osprey numbers were low. The average annual total between the two sites (1991–2008) is 153, but this year’s cumulative count was only 52 and the third lowest total since consistent coverage began in 1998. Northern harriers showed a 7% increase from the previous five-year mean with a high count of 64 on 19 September (Table 2). They have shown wide variation and appear highly cyclical at the mouth of the Detroit River (Figure 1).



**Figure 1.** The number of migrating northern harriers at Lake Erie Metropark between 1998 and 2010. Low years have occurred in 2000, 2004, 2005, 2008, and 2009.

A northern goshawk on 16 September and another on the 20th were unusually early; the 1991–2008 cumulative average of one between LEMP and PMSGGA is on 29 September with one other exceptionally early record on 9 September 2005. All seven Swainson's hawks were seen in September, five at LEMP and two at PMSGGA. Notable turkey vulture migration began on 25 September (251) creating a 2010 cumulative average on that day of 604 between the two sites. The 1991–2008 cumulative average on that day is 589, indicating a typical early season migration volume for turkey vulture.

A prairie falcon (*Falco mexicanus*) was counted twice during the month, once on the 13th and the other on the 30th, as well as October 7th. It is possible that this is an escaped bird. In spring of 2009, a southeast Michigan falconer reported losing an individual of this species (Paul Cypher, personal communication).

### *October*

Winds were consistently from the north and west until 9 October. Winds then made a 5-day shift to the southeast, which did not impact the migration, although the strength of the wind increased significantly. Winds made one more shift to the west and stayed from that direction for the remainder of the month. Only the 2nd and the 26th of the month had significant precipitation and data was excluded.

The first significant movement of turkey vultures occurred on 1 October (6,391) with an average (1991–2008) of 510 between the two count sites. Turkey vultures do not normally reach this daily total until 4–6 October with a peak during the second week of the month (Table 1).

The 2010 turkey vulture migration was the highest in count history. The October count was 118,124, with the previous five-year mean of 43,648 (Table 2). This migration peaked on 4 October with 49,704 between the two count sites, breaking the previous record of 43,280 on 9 October 2005.

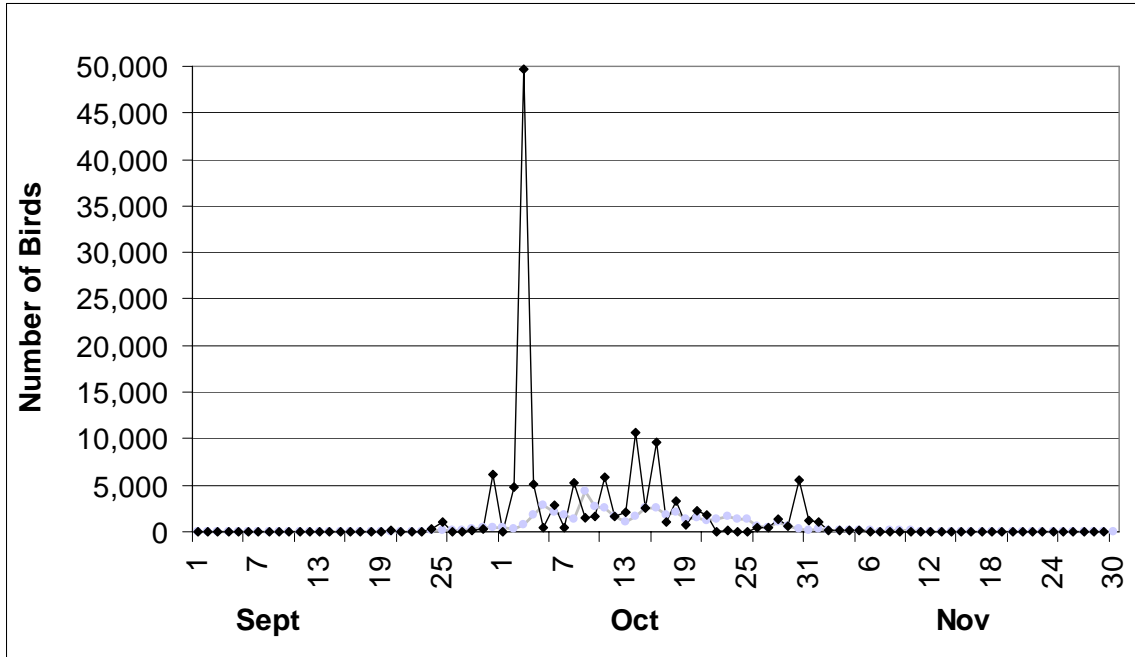
**Table 1.** The period in which 90% of a season total is counted and peak dates for 9 species that exhibit significant migration in October. Data is derived from an analysis combining LEMP and PMSGGA between 1991 to 2008 (Panko and Battaly 2010).

	<b>90% Passage Window</b>	<b>Peak Date</b>	<b>Season Average<sup>1</sup></b>
<b>Turkey Vulture</b>	1 October–28 October	9 October	38,870
<b>Cooper’s Hawk</b>	14 October–11 November	10 October	535
<b>Northern Goshawk</b>	8 October–18 November	29 and 30 October	27
<b>Red-shouldered Hawk</b>	9 October–14 November	29 October	699
<b>Red-tailed Hawk</b>	5 October–16 November	31 October	6,397
<b>Rough-legged Hawk</b>	17 October–21 November	28 October	65
<b>Golden Eagle</b>	17 October–21 November	31 October	100
<b>American Kestrel</b>	7 September–14 October	1st peak: 17 September 2nd peak: 7 October	1,314
<b>Peregrine Falcon</b>	10 September–1 November	4 October	46

<sup>1</sup> Lake Erie Metropark and Pointe Mouillee State Game Area combined

A strong storm front passed over the northern Atlantic coast at the beginning of October. This storm may have pushed east coast turkey vultures west, so that migration occurred north of Lakes Ontario and Erie. The record-breaking day on 4 October was 1.5 weeks before the expected peak of turkey vulture migration (Figure 2). Turkey vulture numbers

were typical for the remainder of the season, further supporting an east coast origin of these vultures.



**Figure 2.** Seasonal occurrence of turkey vultures in 2010 (black) and 1991–2008 daily averages (gray) at Lake Erie Metropark and Pointe Mouillee State Game Area.

60 bald eagles in October was 27% above the previous five-year mean. Northern harriers continued to be counted in above average numbers with 144, which was a 28% increase over the previous five-year mean. 505 Cooper’s hawks were the second highest recorded at LEMP in October (531 during October 2003), representing a 107% increase over the previous five-year mean. Merlins appeared in large numbers in October (24), which were twice as high as the previous five-year mean. The 24 tied the 24 counted in October 1998 and 2001.

There were no rough-legged hawks seen in October, which has never occurred since consistent coverage began at LEMP in 1998. Golden eagles were also down 53% compared with the previous five-year mean. Red-shouldered hawks totaled 272, which was consistent with the previous five-year mean. The seven northern goshawks in

October were consistent with the previous five-year mean. Red-tailed hawks had a very slow October with 1,081, which was 35% below the previous 5-year mean.

### *November*

Early November winds were light from the east for the first three days and switched to the southwest during the rest of the first week. Migration conditions were good. However, the second week was characterized by thick fog. When the fog lightened in the afternoon, a thick “wall” frequently remained positioned over Canada. 12 November was the final day of significant migration this season when 88 red-tailed hawks and four golden eagles were counted. The last two weeks of the count were dominated by strong winds low migration volume.

There were 58 golden eagles in November with a high count of 9 on the 6th. The first rough-legged hawk was seen on the first hour of counting on 1 November. 29 rough-legged hawks in 2010 were 53% below the previous 12-year mean between the two count sites. The high count came on 11 November (6); two peaks between the two count sites (1991–2008) are on 28 October and 9 November. 45% of the rough-legged hawks were dark morph. 13 northern goshawks, of which six were adults, is high compared to the previous five-year mean of 7, but the season total (21) was consistent with the previous 12-year mean of 25 at LEMP.

Northern harriers continued to show high numbers through the end of the season. There were 59 in November making the season total 465, which is just 10% below the previous 12-year mean at LEMP. Red-tailed hawks were 39% below the previous 12-year mean at LEMP, and continue to show low numbers over the last three count seasons. The peak passage occurred on 1 and 2 November (886) on light to moderate southeast winds.

### **Species Accounts**

**Coverage:** 564.5 hours at LEMP was above the previous 12-year average of 505.8 (Table 3). 29.0 hours of data were collected at PMSGGA.



**Turkey vulture:** 122,325 between 5 September and 28 November was 216% above the previous 12-year mean. The 132,976 at LEMP and PMSGGA is 134% above the previous 12-year average (Table 4).

High Count: (41,074) 4 October at LEMP; (8,630) 4 October at PMSGGA

**Osprey:** 63 between 1 September and 27 October was 62% below the previous 12-year mean. This year marked the third lowest count since consistent coverage began in 1998. This species has declined each year since 2005.

High Count: (7) 12 September

**Bald eagle:** 220 between 1 September and 30 November was 68% above the previous 12-year mean. This is the highest number of bald eagles ever recorded at LEMP. 252 is the second highest count (254 were recorded in 2007) combining LEMP and PMSGGA since full coverage began in 1998.

High Count: (21) 13 September

**Northern harrier:** 465 between 4 September and 28 November was 10% below the previous 12-year mean. This species is highly cyclical. 2000, 2004, 2005, 2008 and 2009 were extremely low years, while 2010 represents a high year.

High Count: (64) 19 September

**Sharp-shinned hawk:** 6,504 between 1 September and 20 November was 9% below the previous 12-year mean. The total of 6,819 is 28% below the previous 12-year average when combining LEMP and PMSGGA.

High Count: (2,077) 17 September

**Cooper's hawk:** 834 between 1 September and 28 November was 69% above the previous 12-year mean. This year was the highest count ever recorded at LEMP. 876 combining LEMP and PMSGGA is 29% above the previous 12-year average, marking the third highest count between the two sites since consistent coverage began in 1998.

High Count: (61) 5 October

**Northern goshawk:** 21 between 16 September and 28 November was 16% below the previous 12-year mean.

High Count: (3) 2 and 20 November

**Red-shouldered hawk:** 488 between 20 September and 28 November was 30% below the previous 12-year mean.

High Count: (108) 1 November

**Broad-winged hawk:** 79,572 between 1 September and 12 October was 54% above the previous 12-year mean. 153,739 combining LEMP and PMSGGA is consistent with the previous 12-year mean (159,644).

High Count: (58,623) 17 September at PMSGGA; (40,114) 19 September at LEMP; (65,734) 17 September at LEMP and PMSGGA combined

**Swainson's hawk:** 7 when combining LEMP and PMSGGA. LEMP: 13, 15, 19, 25 September (2); PMSGGA: 15, 17 September.

**Red-tailed hawk:** 3,207 between 1 September and 28 November was 39% below the previous 12-year mean. This is the second lowest total since consistent coverage began in 1998 (2,536 in 2009).

High Count: (468) 1 November

**Rough-legged hawk:** 29 between 1 and 21 November was 32% below the previous 12-year mean. The species began its migration through the corridor late compared to its average arrival date of 8 October.

High Count: (6) 11 November

**Golden eagle:** 76 between 3 October and 29 November was 28% below the previous 12-year mean. Inconsistent weather in November made for one of the slowest passages since 1998 (52 between both sites).

High Count: (9) 6 November

**American kestrel:** 675 between 1 September and 9 November was 37% below the previous 12-year mean. A species known to be cyclical, American kestrels have shown peaks in 1998, 2001–2003, and 2005–2007 averaging 1,441 during those years; 1999, 2000, 2004, 2008, and 2009 were low and averaged 554.

High Count: (114) 19 September

**Merlin:** 52 between 12 September and 12 November was 8% above the previous 12-year mean.

High Count: (5) 15 September

**Peregrine falcon:** 40 between 9 September and 7 November was 9% below the previous 12-year mean.

High Count: (4) 4 October

**Prairie falcon:** One each on 14, 30 September and 7 October. The only previous record was an individual on 14 October 2005. The three records in 2010 likely represent a single escaped bird.

*Table 2. 2005–2010 monthly data from Lake Erie Metropark with the 2010 percent deviation from the previous 5-year mean. See Appendix 1 for a reference to the species codes.*

September																					
	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	PR	UNK	Total
2005	220.0	0	1,264	192	72	244	4,238	128	2	0	56,217	8	245	0	0	965	40	15	0	0	63,630
2006	185.5	0	1,608	162	87	321	3,237	105	0	2	48,612	2	144	0	1	1,115	23	22	0	0	55,441
2007	240.3	0	1,785	147	139	500	6,705	173	0	8	69,535	2	363	0	0	1,062	26	35	0	8	80,488
2008	186.3	0	1,383	111	64	87	2,292	120	0	3	36,199	0	123	0	0	309	11	11	0	0	40,713
2009	195.9	0	746	43	48	75	1,572	87	0	1	19,934	1	116	0	0	305	22	14	0	0	22,964
2010	219.3	0	1,371	52	138	262	4,955	237	2	5	79,363	5	248	0	0	573	24	20	2	17	87,274
Average	207.9	0	1,360	118	91	248	3,833	142	1	3	51,643	3	207	0	0.14	722	24	20	0	4	58,418
2010 Mean Dev.	6.7		1.0	-60.3	68.3	6.8	37.3	93.3	400.0	78.6	72.2		25.1			-23.7	-1.6	3.1			65.8
October																					
	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	PR	UNK	Total
2005	136.5	0	27,435	24	38	29	1,317	196	9	218	12	0	1,518	19	22	49	12	18	0	0	30,916
2006	158.5	0	46,254	33	56	166	3,501	366	6	226	2,106	6	1,615	7	18	191	14	10	0	0	54,575
2007	194.5	0	57,621	44	56	248	3,034	334	2	416	39	0	2,341	4	34	210	12	26	0	0	64,421
2008	164.8	2	33,533	29	38	50	1,222	129	3	111	17	0	1,417	8	53	92	5	7	0	0	36,716
2009	181.6	0	53,401	3	49	71	1,632	193	16	351	82	3	1,372	5	63	133	17	18	0	12	57,421
2010	213.3	0	118,124	11	60	144	1,500	505	6	272	209	0	1,081	0	18	100	24	17	1	0	122,072
Average	174.9	0	56,061	24	50	118	2,034	287	7	266	411	2	1,557	7	35	129	14	16	0	2	61,020
2010 Mean Dev.	27.6		170.6	-58.6	26.6	27.7	-29.9	107.3	-16.7	2.9	-53.7		-34.6	-100.0	-52.6	-25.9	100.0	7.6			150.1
November																					
	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	SW	RT	RL	GE	AK	ML	PG	PR	UNK	Total
2005	99.8	0	1,000	2	6	18	68	108	7	81	0	0	856	11	23	4	3	4	0	0	2,191
2006	132.0	0	3,860	1	19	129	275	157	1	791	0	0	4,266	20	105	8	3	6	0	0	9,641
2007	163.0	0	3,476	4	16	70	170	217	4	602	0	0	6,702	25	90	3	3	6	0	0	11,388
2008	113.9	0	257	0	39	12	79	45	7	71	0	0	967	10	36	3	3	5	0	0	1,534
2009	142.0	0	842	0	21	23	55	55	8	263	0	0	986	8	54	3	0	3	0	2	2,323
2010	132.0	0	2,830	0	22	59	49	92	13	211	0	0	1,878	29	58	2	4	3	0	1	5,251
Average	130.5	0	2,044	1	21	52	116	112	7	337	0	0	2,609	17	61	4	3	5	0	1	5,388
2010 Mean Dev.	1.4		50.0		8.9	17.1	-62.1	-21.0	140.7	-41.6			-31.8	95.9	-5.8	-52.4	66.7	-37.5			-3.0

*Table 3. 1998–2010 data from Lake Erie Metropark with the 2010 percent deviation from the previous 12-year mean. Seasonal records in bold. See Appendix I for a reference to the species codes.*

	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	SW
<b>1998</b>	451.3	0	19,743	135	111	807	4,968	378	17	517	63,689	5
<b>1999</b>	481.0	0	17,559	58	69	556	6,534	299	23	556	45,711	8
<b>2000</b>	510.2	0	29,421	133	83	138	7,132	408	<b>49</b>	875	57,585	5
<b>2001</b>	526.0	0	28,237	213	115	757	<b>14,715</b>	693	46	858	19,386	3
<b>2002</b>	561.5	0	42,644	<b>238</b>	185	696	7,307	572	22	962	91,499	0
<b>2003</b>	545.3	0	54,975	234	147	<b>1,005</b>	10,643	709	28	533	<b>84,085</b>	<b>12</b>
<b>2004</b>	478.8	0	36,893	201	118	214	5,027	461	<b>49</b>	869	27,381	0
<b>2005</b>	456.3	0	29,699	218	116	291	5,623	432	18	299	56,229	8
<b>2006</b>	475.8	0	51,722	196	162	616	7,013	628	7	1,019	50,718	8
<b>2007</b>	598.5	0	62,882	195	211	818	9,909	724	6	<b>1,026</b>	69,574	2
<b>2008</b>	464.9	<b>2</b>	35,173	140	141	149	3,593	294	10	185	36,216	0
<b>2009</b>	519.4	0	54,989	46	118	169	3,259	335	24	615	20,016	4
<b>2010</b>	564.5	0	<b>122,325</b>	63	<b>220</b>	465	6,504	<b>834</b>	21	488	79,572	5
<b>Average</b>	510.3	0.15	45,097	159	138	514	7,094	521	25	677	53,974	5
<b>2010 Mean Dev.</b>	11.6		216.4	-62.3	67.5	-10.2	-9.0	68.7	-15.7	-29.6	53.5	9.1

	RT	RL	GE	AK	ML	PG	PR	SEOW	UNK	TOTAL
<b>1998</b>	3,782	17	33	1,046	<b>95</b>	52	0	1	86	95,482
<b>1999</b>	3,504	76	<b>208</b>	664	30	49	0	0	47	75,951
<b>2000</b>	5,754	55	188	790	34	24	0	<b>2</b>	37	102,713
<b>2001</b>	8,153	55	120	1,026	50	48	0	1	45	74,521
<b>2002</b>	6,565	63	79	<b>2,277</b>	64	52	0	1	15	153,241
<b>2003</b>	5,789	31	60	2,128	72	<b>82</b>	0	0	0	160,533
<b>2004</b>	6,155	<b>101</b>	79	470	38	20	0	0	0	78,076
<b>2005</b>	2,619	30	45	1,018	55	37	1	0	0	96,738
<b>2006</b>	6,025	27	124	1,314	40	38	0	0	0	119,657
<b>2007</b>	<b>9,406</b>	29	124	1,275	41	67	0	0	8	156,297
<b>2008</b>	2,507	18	89	404	19	23	0	0	0	78,963
<b>2009</b>	2,474	13	117	441	39	35	0	0	14	82,708
<b>2010</b>	3,207	29	76	675	52	40	<b>3</b>	0	18	<b>214,597</b>
<b>Average</b>	5,072	42	103	1,041	48	44	0	0.38	21	114,575
<b>2010 Mean Dev.</b>	-38.7	-32.4	-28.0	-37.0	8.1	-8.9			-14.3	102.0

**Table 4.** 1998–2010 data from Lake Erie Metropark and Pointe Mouillee State Game Area with the 2010 percent deviation from the previous 12-year mean. Seasonal records in bold. See Appendix 1 for a reference to the species codes.

	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW
<b>1998</b>	578.9	0	31,257	164	144	1,304	8,360	786	36	980	87,926
<b>1999</b>	583.0	0	28,902	80	114	1,159	11,571	390	32	733	<b>612,457</b>
<b>2000</b>	646.1	0	33,183	161	111	243	9,253	592	63	1,100	110,204
<b>2001</b>	667.9	0	37,184	267	176	1,158	<b>19,887</b>	<b>897</b>	<b>70</b>	<b>1,134</b>	82,732
<b>2002</b>	646.3	0	49,404	<b>282</b>	232	935	9,055	668	24	1,109	106,417
<b>2003</b>	624.8	1	73,886	246	199	<b>1,372</b>	12,080	882	50	874	87,359
<b>2004</b>	589.0	0	56,655	256	200	384	6,783	721	58	1,065	185,382
<b>2005</b>	595.8	0	104,538	241	178	571	8,519	854	37	956	91,089
<b>2006</b>	551.3	0	73,146	225	200	1,004	8,404	745	7	1,044	67,956
<b>2007</b>	637.0	0	69,703	209	<b>254</b>	929	10,745	771	6	1,045	127,167
<b>2008</b>	570.0	2	69,676	151	195	292	4,728	458	12	328	321,762
<b>2009</b>	542.2	0	55,055	62	126	189	3,597	359	24	615	35,274
<b>2010</b>	593.2	0	<b>132,976</b>	66	252	515	6,819	876	21	504	153,739
<b>Avg.</b>	602.0	0	62,736	185	183	773	9,215	692	34	884	159,190
<b>2010 Mean Dev.</b>	-1.6	-100.0	133.8	-66.2	42.0	-35.2	-27.6	29.4	-39.9	-44.9	-3.7

	SW	RT	RL	GE	AK	ML	PG	PR	SEOW	UNK	Total
<b>1998</b>	10	8,694	40	89 <sup>1</sup>	1,631	<b>119</b>	86	0	1	91	141,718
<b>1999</b>	14	5,445	94	246	1,529	45	90	0	0	80	<b>662,981</b>
<b>2000</b>	12	8,210	78	<b>251</b>	1,086	57	41	0	2	44	164,691
<b>2001</b>	6	10,638	70	174	1,860	75	<b>94</b>	0	1	54	156,477
<b>2002</b>	4	8,074	68	110	<b>3,248</b>	77	67	0	1	0	179,775
<b>2003</b>	<b>14</b>	<b>12,161</b>	100	124	2,380	83	87	0	2	12	191,912
<b>2004</b>	2	8,689	<b>125</b>	108	1,008	54	36	0	1	0	261,527
<b>2005</b>	10	7,711	67	90	1,745	74	51	1	0	0	216,732
<b>2006</b>	9	6,530	29	125	1,861	45	47	0	1	0	161,378
<b>2007</b>	3	9,676	29	124	1,391	47	73	0	0	0	222,172
<b>2008</b>	5	4,003	30	148	795	28	37	0	<b>4</b>	0	402,654
<b>2009</b>	5	2,536	13	117	509	43	38	0	0	14	98,576
<b>2010</b>	7	3,298	29	76	725	54	42	3	0	18	300,020
<b>Avg.</b>	8	7,359	59	137	1,521	62	61	0	1	24	243,124
<b>2010 Mean Dev.</b>	-10.6	-57.2	-53.2	-46.5	-54.3	-13.3	-32.5			-26.8	25.9

<sup>1</sup> Includes data from Marina Point and Wavepool at Lake Erie Metropark.

## Non-Raptor Summary

### *Waterfowl and Gulls*

On 6 October, eight northern shovelers (*Anas clypeata*) and 1 trumpeter swan (*Cygnus buccinator*) were seen from the count site. Common loons (*Gavia immer*) were seen moving on 17 and 31 October (two and one, respectively). A single female red-breasted merganser (*Mergus serrator*) was seen on 20 October. Transient waterfowl from the prairies and coastal tundra arrived on 29 October with three canvasbacks (*Aythya valisineria*) and 24 tundra swans (*Cygnus columbianus*), which marked the beginning of their passage with numbers increasing steadily over the remainder of the season. The season ended with a total of 747 tundra swans that passed the count site towards the south. There were two long-tailed ducks (*Clangula hyemalis*) on 7 November and three on 20 November. A female remained at the count site through the end of the season.

At least three Franklin's gulls (*Larus pipixcan*) were seen in 2010. The first was observed far to the south on 25 September. At least three Franklin's gulls were seen on 15 November. The first great black-backed gull (*Larus marinus*) was recorded on 18 October. A little gull (*Larus minutus*) was seen at a different location in LEMP on 13 November.

A white-winged dove (*Zenaida asiatica*) was well observed on 14, 19 and 25 September. The bird flew from south to north each occurrence and never landed within view.

### *Shorebirds*

There were 13 lesser yellowlegs (*Tringa flavipes*) and one black-bellied plover (*Pluvialis squatarola*) on 5 September. Two Baird's sandpipers (*Calidris bairdii*) were detected flying past the count site on 6 September. Four pectoral sandpipers (*Calidris melanotos*) were seen on 9 September. Shorebird migration was especially notable on 12 September with 26 black-bellied plovers, 3 lesser yellowlegs, and 1 Baird's sandpiper. Eight white-rumped sandpipers (*Calidris fuscicollis*) were counted on 27 September. Over 250 dunlin (*Calidris alpina*) were present on 28 October when they utilized a mudflat created by a strong northwest wind.

## *Corvids*

The first sign of the blue jay (*Cyanocitta cristata*) migration occurred on 19 September with approximately 300. These numbers consistently grew through mid-October and declined. It was not uncommon in late-September to see 50,000 per day. A conservative estimate of 500,000 blue jays crossed the Detroit River this season.

Another significant corvid passage is the American crow (*Corvus brachyrhynchos*) at this site, which began on 15 October and lasted until 22 November this year. Initial numbers were approximately 12 per day, but by 31 October there were over 135,000 per day. A conservative estimate of 800,000 American crows crossed the Detroit River this season.

## *Passerines*

Heavy passerine movement occurred on 4 September. Ruby-throated hummingbird (*Archilochus colubris*) migration was particularly heavy on 18 September during a low pressure system on light southwest winds when a minimum of 100 were noted during the day. Interestingly, a total of 11 Cape May warblers (*Dendroica tigrina*) were noted throughout the season in the spruce behind the LEMP count site. An olive-sided flycatcher (*Contopus cooperi*) was seen on 6 September. A single summer tanager (*Piranga rubra*) was heard by R. Payne on 9 September. A winter wren (*Troglodytes troglodytes*) arrived on 28 September and the species was seen regularly for an additional three weeks. A northern mockingbird (*Mimus polyglottos*) was seen on 9 October. Rusty blackbirds (*Euphagus carolinus*) began moving through the region on 9 October with dozens seen daily through mid-November. Tundra-nesting passerines arrived in late November. A flock of Lapland longspurs (*Calcarius lapponicus*) was seen and heard flying over on 20 November and five snow buntings (*Plectrophenax nivalis*) were observed on 23 November.

Large numbers of swallows (Hirundinidae) were migrating through October. Major migrant species included bank (*Riparia riparia*), barn (*Hirundo rustica*), cliff (*Petrochelidon pyrrhonota*), and tree swallows (*Tachycineta bicolor*), and purple martins (*Progne subis*) early in September. The first cave swallows (*Petrochelidon fulva*) in three years were seen on 29 October with four counted at 10:32am

EST at LEMP. Chimney swifts (*Chaetura pelagica*) began their migration in the third week of September and passed through in the thousands until the beginning of October when their numbers declined.

## **Acknowledgements**

This year's data could not have been collected without the tireless dedication and skill of the regular volunteers, many of whom showed up multiple times a week to lend a hand, scheduled or not. We especially thank Pat Mulawa, Fred Kirn, Jim Maki, Raburn Howland, John Elliot, Don Sherwood, and Rodney Laura. A very special word of appreciation goes to Josh Haas who covered for R. Payne during the second half of the season during most of the slow days. Josh is tremendously dedicated; he arrives at the count after a 3-hour drive to sit in the cold, often with few birds and it never results in a complaint. A simple thank you may not be enough for Jeff Schultz, who committed to teach R. Payne the sampling technique, and could always be relied on for advice. We would also like to acknowledge those who committed to the important job of welcoming visitors and interpreting the migration: Rodney Laura, Emily Cichon, Denise Ward, Rita Montague, Joe Chordash, Joy Barron, and Tom Fountain. The Lake Erie Metropark staff, especially Gerry Wykes, deserve recognition for providing volunteers, disseminating information, hosting a hawk seminar, and of course, allowing the Detroit River Hawk Watch to count at the boat launch.

We would like to acknowledge the contributions of the Detroit River Hawk Watch Advisory Committee for developing a vision, upholding the scientific standards, and crafting the webpage of the Detroit River Hawk Watch. Roy Bohling deserves special recognition as webmaster who greatly improved the website for 2010.

Finally, we thank the International Wildlife Refuge Alliance and its many private donors, Detroit River International Wildlife Refuge, and DTE Energy for funding, which enables us the opportunity to continue to conduct a formal count at this location. This year's primary counter hopes to see many of you in Arizona soon.



## Reference

Panko, D., and T. Battaly. 2010. Detroit River International Wildlife Refuge – Raptor Monitoring Compilation and Analysis of Hawk Watch Data: Lake Erie Metropark and Pointe Mouillee 1991–2008. Final report to Detroit River International Wildlife Refuge.

## Appendix 1.

**BV:** black vulture (*Coragyps atratus*)  
**TV:** turkey vulture (*Cathartes aura*)  
**OS:** osprey (*Pandion haliaetus*)  
**BE:** bald eagle (*Haliaeetus leucocephalis*)  
**NH:** northern harrier (*Circus cyaneus*)  
**SS:** sharp-shinned hawk (*Accipiter striatus*)  
**CH:** Cooper’s hawk (*Accipiter cooperii*)  
**NG:** northern goshawk (*Accipiter gentilis*)  
**RS:** red-shouldered hawk (*Buteo lineatus*)  
**BW:** broad-winged hawk (*Buteo platypterus*)  
**SW:** Swainson’s hawk (*Buteo swainsoni*)  
**RT:** red-tailed hawk (*Buteo jamaicensis*)  
**RL:** rough-legged hawk (*Buteo lagopus*)  
**GE:** golden eagle (*Aquila chrysaetos*)  
**AK:** American kestrel (*Falco sparverius*)  
**ML:** merlin (*Falco columbarius*)  
**PG:** peregrine falcon (*Falco peregrinus*)  
**PR:** prairie falcon (*Falco mexicanus*)  
**SEOW:** short-eared owl (*Asio flammeus*)  
**UNK:** unknown raptor species