Detroit River Hawk Watch
2009 Season Narrative

Submitted by:

Seth Cutright (2009 Official Counter)

Greg Norwood, Biological Technician
Detroit River International Wildlife Refuge
9311 Groh Road
Grosse Ile, MI 48138
Greg_Norwood@fws.gov

Introduction

The 2009 count represented the 27th year of continuous monitoring of diurnal raptors at the mouth of the Detroit River and the 12th year of consistent coverage at Lake Erie Metropark (LEMP; N 42.07918, W 83.19369) and Pointe Mouillee State Game Area (PMSGA; N 42.03791, W 83.19829), Wayne County, Michigan. This was the tenth year in which a full-time paid counter was hired.

542.2 hours were logged with counts conducted on 83 days between 1 September and 30 November. The 519.4 hours at LEMP is very near the 1998-2008 average of 504.5. A total of 98,577 raptors of 17 species were recorded at both sites. Turkey vulture and golden eagle had strong years; bald eagle, northern goshawk, red-shouldered hawk, merlin, peregrine falcon, and Swainson's hawk were average; and osprey, northern harrier, sharp-shinned, Cooper's, broad-winged, red-tailed, rough-legged hawk, and American kestrel had low totals in 2009.

Methods

From 1 September to 30 November 2009, an experienced observer conducted hourly counts of diurnally migrating raptors each day without excessive rain or heavy fog. Observations began one to two hours after sunrise and ended one to two hours before dusk. There were two count sites; 519.42 hours were logged at the boat launch at LEMP and 22.75 hours were logged at PMSGA. PMSGA was the count site during periods of persistent north winds above 7 to 10 mph. 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 to the southeast. All counting was conducted using 8 to 10 magnification binoculars and spotting scopes with 20 to 60 magnification.

For each hour, the prevailing wind direction and speed, as well as cloud cover, visibility, precipitation, and temperature was collected in the field, while barometric pressure was obtained from local weather stations. The number of observers actively scanning for migrating raptors was recorded.

During periods of large migration volume, counts attempted to estimate birds exiting kettles.

Results (Lake Erie Metropark, unless otherwise noted)

September

The first day of the count, 1 September 2009, started out with zero percent cloud cover, and hardly any wind from the east-northeast. At 7:50am EST, the first raptor of the season was counted – a northern harrier. The day finished with 68 migratory raptors. In the first month, a total of 75 northern harriers were counted and is 71% below the previous five-year mean (Table 2). Two of the first five days had daily totals over 100 raptors. Weather was consistently around 27°C with winds from either the southeast or northeast. They were predominantly light and only around 5-10 mph.

The fall passage of broad-winged hawks was detected in significantly low numbers in 2009 (Tables 2, 3, and 4). Generally, their seasonal passage rate in this corridor steadily increases by a few thousand per day starting during the second week of September, with a pronounced peak during the third week of the month and usually reaches over 100,000 individuals at both sites combined (Table 3). In 2009, the first pulse of migration occurred on 10 September when 495 raptors (367 broad-winged hawks) were counted. Numbers steadily increased on 13 September with 1,155 raptors counted (1,003 broad-winged hawks) and reached 10,729 (10,486 broad-winged hawks) by the 15th. However, the peak of broad-winged hawk migration during the third week of the month was not observed.

The jet stream remained at higher latitudes preventing any cold fronts or weather systems from reaching southeastern Michigan during the first half of September. Winds had either a west or south component on 13, 14, and 15 September. North and east winds dominated 16, 17, 18, 19, and 20 September. A low-pressure system finally passed through the region, causing rain and fog from 21–23 September. Although the weather system was followed by light to moderate north to east-northeast winds on 24 and 25 September, which can funnel birds over the count area, few broad-winged hawks were observed. South winds prevailed from 26–28 September and westerly winds during the rest of the

month, which are not conducive to sizable broad-winged hawk flights through this corridor.

Although numerous routes are taken by birds, of interest is the relative number using different strategies to by-pass the Great Lakes. Three general explanations have been proposed to account for the low number of broad-winged hawks detected at LEMP in 2009. The first is that the broad-winged hawk flight preceded the 21 September low-pressure system and significantly more birds crossed the lower Detroit River than were detected because they were too distant and at too great of an altitude to be observed (J. Schultz pers commun.). This may have occurred anytime between 17 and 20 September. High migration volume could also have occurred for a few days after this low-pressure system had cleared out by the 23rd, although birds were too high and distant to be detected.

The second explanation is that birds moved from Ontario into Michigan well north of the count sites and north of Lake St. Clair, possibly a result of the sustained westerly winds from 13-15 September (A. Chartier pers. commun.).

The third explanation is that a large percentage of broad-winged hawks took a very different trajectory through the Great Lakes. An unusually large flight of 24,000 broad-winged hawks was noted on 15 September at Manistique, MI (45.946 N 86.235 W) by Ron Annelin, suggesting that a significant number of birds travelled north of Lake Huron and proceeded south through Wisconsin (A. Chartier pers. commun.).

The month ended with 35,192 broad-winged hawks between the two sites (19,934 at LEMP; 15,258 at PMSGA). The 35,274 in 2009 between the two count sites is 79% below the previous 11-year mean of 170,950. The season's first influx of turkey vultures occurred on 27 September with 124. On 30 September, 385 raptors (318 turkey vultures) were counted. Northern harriers and American kestrels were well below their typical September numbers, which resulted in a second low year (Table 1).

Table 1. *A display of high and low years for two cyclical species, northern harrier and American kestrel, at LEMP and PMSGA from 1998– 2009. The asterisk indicates the only year in which they did not match high and low years.*

Year	Northern Harrier	American Kestrel
1998	↑	↑
1999	↑	↑
2000	↓	↓
2001	↑	↑
2002	↑	↑
2003	↑	↑
2004	↓	↓
2005	↓*	↑*
2006	↑	↑
2007	↑	↑
2008	↓	↓
2009	↓	↓

September Summary

It was a typical start to September, with an increase in broad-winged hawks during the second week of September. However, during the third week of the month when the broad-wing flight was expected to peak, a low pressure system swept through creating weak migration conditions until after 26 September, which appears to be too late for a good broad-wing flight. During periods of suitable weather after the weather front, large broad-winged hawk numbers were at high altitudes beyond the limit of visibility or were pushed to other locations to the north of the count site or significant numbers used entirely different routes through the Great Lakes. The raptor species totals for September are well below past years (Table 2).

October

With September and the first third of the count done, species such as golden eagle, northern goshawk, and rough-legged hawk were expected to appear, in addition to large flights of turkey vultures – a phenomenon well documented at this Great Lakes site.

The first significant movement of turkey vultures occurred on 1 October. A total of 1,244 individuals were recorded, along with the season's first golden eagle. Although juveniles migrate before adults, this bird was identified as an adult. Within the first five days of the month, just over 1,000 turkey vultures were counted, with 1.5 days rained out. Most of the days had winds from the west or southwest. On 7 October, the first rough-legged hawk was observed.

Many days had either fog, haze, or at least some rain during the month. Winds were mostly from the west or west-southwest. No count was conducted on 9 October due to poor weather. However, on 10 October, a total of 7,809 turkey vultures were counted. This was the first time this season that a total of more then 2,000 had been recorded. Other highlights of the day included 212 sharp-shinned hawks, 37 American kestrels, and 9 peregrine falcons, two golden eagles, one rough-legged hawk, and the season's first northern goshawk. By the end of the day, all 16 common raptor species, including a Swainson's hawk had been seen and counted. The total raptor count for the day was 8,166.

Winds had been changing from west-southwest to west on 10 October. By 11 October, they were from the northwest, setting up ideal migration conditions. There was clear visibility and a mix of light to moderate wind speeds, and 45% cloud cover most of the day. A total of 16,580 raptors (16,292 turkey vultures and 142 sharp-shinned hawks) were counted. All 16 common raptor species were again documented. Some highlights were 2 northern goshawks, eight broad-winged hawks (a relatively high count for mid-October), two Swainson's hawks, one rough-legged hawk, and six golden eagles. Combining 10 and 11 October, a total of 24,101 turkey vultures were counted.

Another golden eagle and northern goshawk were counted the next day, along with just over 1,000 turkey vultures. Each day between 13 and 17 October, well over 2,000 turkey vultures were tallied. Red-shouldered and red-tailed hawks began to noticeably increase at this time. Following several days of west and northwest winds on 15 October, 45 red-shouldered hawks and 89 red-tailed hawks were counted. On 16 October, another strong Buteo showing occurred with 85 red-shouldered hawks and 267 red-tailed hawks. A continued increase occurred on 17 October with 116 Red-shouldered Hawks and 282 Red-tailed Hawks. A total of 14 and 18 golden eagles were counted on 17 and 18 October, respectively. This was the earliest push of golden eagles ever recorded at the Detroit River watch sites.

There was frequently a combination of fog and winds predominantly from the south or southwest during the last week and a half of October. Turkey vulture numbers started to decline at this time. 28 October started out slowly with early fog for a few hours. However, a good flight took place by the time it cleared at 11:00am EST. A total of 904 turkey vultures were counted, the most since 18 October when a total of 1,341 was counted. Also on the 28th, 11 golden eagles were recorded and five were counted the next day. Very thick fog early in the day kept the count low. There was no count on 30 October because of rain, and the last day was slow due to southwest-south winds at around 10-30 mph.

October Summary

Weather in October was not as stable as in September. It had weather more conducive to raptor migration, but it also had more days with rain all or for part of the day, and many days with strong winds and fog. There was a total of four rain days and 8 days with partial cover (< 6.5 hours).

More than half of the season's total for golden eagles was counted in October with a total of 63. Three days had very high numbers for the season with totals of 11, 14, and 18. Just

over half of the season's northern goshawks were seen in October, with a season total of 24, 16 of which were in October. Over half of the red-tailed hawks were counted in October, while just a few more than half of the sharp-shinned hawks were counted in the month. A relatively high total of 51,813 turkey vultures were counted in October. Total raptors in the month was 27% above the previous 5-year mean and was due to increases in turkey vulture, bald eagle, northern goshawk, red-shouldered hawk, golden eagle, merlin, and peregrine falcon (Table 1). Rough-legged hawk and osprey had the second lowest and lowest October total, respectively, since full coverage began in 1998.

November

The first five days of November were slow because winds were predominantly from the west, southwest, and/or east. On 6 November, there were 197 red-tailed hawks and 2 northern goshawks. On 9 November, only 7 raptors were counted with some east-southeast winds and fog.

10 November looked to be a good day with clear conditions, moderate northeast winds, and complete cloud cover, but it still turned out to be slow. The day ended with 202 raptors, of which 117 were red-tailed hawks. 11 November had another good flight of red-tailed hawks with 182 and 68 red-shouldered hawks. Another highlight of that day was 6 golden eagles. The next day had 3 more golden eagles, 104 red-tailed hawks, and 82 red-shouldered hawks. Over the next few days the weather would change from northeast to east-southeast winds, which kept the migration slow.

There were steady winds from the northwest on 15 November and it was decided to start the count at PMSGA, which often has higher migration volume during relatively strong northerly winds. It was soon apparent after the first two hours of the count, that more birds were making the Detroit River crossing at LEMP. 9 raptors were recorded there, while observers at PMSGA did not record any. Highlights at LEMP included 4 golden eagles in quick succession and a fourth bird not long after.

There were many slow days from the 16 to 21 November with winds changing from the northeast to the southwest. One day had bad haze in the background, while three days had fog. Very light winds were also common. East winds took over and brought in thick fog or light or no wind at all. Numbers really slowed down or were not seen at all after this. From the 27th to the last count day, 30 November, only 14 raptors were counted. The one and only raptor counted on the last day was a red-tailed hawk. Light west-northwest or west-southwest winds predominated during the final stage of the count.

November Summary

November temperatures were above normal for most of the month. Winds were light and came from the west, southwest, or east. Only two rain days occurred, but many days had light rain early in the day or late in the day to slow or stop the count. Fog was common and often in the background over Canada. Numbers for November were 60% below the previous five-year average (Table 2).

The Number of Hours: The 519.42 hours logged at LEMP in 2009 is very close to the previous 11-year average of 504.5.

Turkey Vulture: 54,989 between 1 September and 21 November was 48% above the previous 11-year average and 4% below for LEMP and PMSGA combined. Over 50,000 individuals continue to be counted annually at the two sites since 2003. High Count: (16,292) 11 October.

Osprey: 46 between 1 September and 11 October was 74% below the previous 11-year average and was the lowest since full coverage began in 1998. This species has declined each year since 2005. High Count: (10) 15 September (14 on 18 September at PMSGA).

Bald Eagle: 118 between 3 September and 28 November was 11% below the previous 11-year average and is the lowest combining LEMP and PMSGA since full coverage began in 1998. High Count: (13) 10 September.

Northern Harrier: 169 between 1 September and 22 November was 69% below the previous 11-year average. A cyclical species, northern harriers were above 550 in 1998 and 1999, 2001–2003, and 2006 and 2007, and were under 300 all other years. High Count: (12) 1 September.

Sharp-shinned Hawk: 3,259 between 1 September and 29 November was 64% below the previous 11-year average and was the lowest since full coverage began in 1998. 2009

was 57% below the previous 11-year average combining LEMP and PMSGA. High Count: (212) 10 October.

Cooper's Hawk: 335 between 1 September and 28 November was 34% below the previous 11-year average. High Count: (24) 11 October.

Northern Goshawk: 24 between 10 October and 18 November was 4% below the previous 11-year average and was the highest since 2004. High Count: (3) 18 October.

Red-shouldered Hawk: 615 between 12 September and 27 November was 12% below the previous 11-year average, but significantly higher than the 185 in 2008. The species appears cyclical in our dataset, with high years 2000–2002, 2004, and 2006 and 2007, with 2009 near the 12-year median of 736.5 (mean: 693). High Count: (116) 17 October.

Broad-winged Hawk: 20,016 between 1 September and 18 October was 79% below the previous 11-year average and was attributed to poor detectability or significant numbers taking alternate routes through the Great Lakes. High Count: (10,486) 15 September.

Red-tailed Hawk: 2,474 between 1 September and 30 November was 55% below the previous 11-year average and is the lowest since full coverage began in 1998. High Count: (282) 17 October.

Rough-legged Hawk: 13 between 7 October and 12 November was 72% below the previous 11-year average and is the lowest since full coverage began in 1998. High Count: (2) 29 October, 6 November, and 10 November.

Golden Eagle: 117 between 1 October and 18 November was 12% above the previous 11-year average, but 19% below when combining LEMP and PMSGA. High Count: (18) 18 October.

American Kestrel: 441 between 1 September and 17 November was 61% below the previous 11-year average. 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: (69) 15 September.

Merlin: 39 between 1 September and 31 October was 20% below the previous 11-year average and well above the 19 in 2008. High Count: (7) 10 October.

Peregrine Falcon: 35 between 4 September and 29 November was 22% below the previous 11-year average. It is well above last year's 23, although when combining the two count sites, 2008 and 2009 were 37 and 38, respectively. High Count: (9) 10 October.

Mississippi Kite: 1 on 20 September was the first since regular coverage at LEMP. There is one other record from 5 September 1997.

Swainson's Hawk: 4 between 19 September and 11 October was 50% below the previous 11-year average of 8. 1 Swainson's hawk was seen at PMSGA on 18 September. High Count: (2) 11 October.

***Table 2**. 2004–2009 monthly data from Lake Erie Metropark with the 2009 percent deviation from the previous 5-year mean.*

	September																				
	Hours	**BV**	**TV**	**OS**	**BE**	**NH**	**SS**	**CH**	**NG**	**RS**	**BW**	**RT**	**RL**	**GE**	**AK**	**ML**	**PG**	**UR**	**MK**	**SW**	**Total**
2004	202.0	0	2,106	166	72	150	2,992	115	0	15	27,376	362	0	0	386	29	9	0	0	0	33,778
2005	220.0	0	1,264	192	72	244	4,238	128	2	0	56,217	245	0	0	965	40	15	0	0	8	63,630
2006	185.5	0	1,608	162	87	321	3,237	105	0	2	48,612	144	0	1	1,115	23	22	0	0	2	55,441
2007	240.3	0	1,785	147	139	500	6,705	173	0	8	69,535	363	0	0	1,062	26	35	8	0	2	80,488
2008	186.3	0	1,383	111	64	87	2,292	120	0	3	36,199	123	0	0	309	11	11	0	0	0	40,713
2009	195.9	0	746	43	48	75	1,572	87	0	1	19,934	116	0	0	305	22	14	0	1	1	22,965
Average	205.0	0	1,482	137	80	230	3,506	121	0	5	42,979	226	0	0	690	25	18	1	0	2	49,503
2009 mean deviation	-0.053		-0.542	-0.724	-0.447	-0.712	-0.596	-0.321			-0.581	-0.531			-0.603	-0.147	-0.239			-0.583	-0.581
	October																				
	Hours	**BV**	**TV**	**OS**	**BE**	**NH**	**SS**	**CH**	**NG**	**RS**	**BW**	**RT**	**RL**	**GE**	**AK**	**ML**	**PG**	**UR**	**MK**	**SW**	**Total**
2004	188.5	0	33,187	29	30	51	1,918	249	19	534	5	3,742	61	29	83	8	10	0	0	0	39,955
2005	136.5	0	27,435	24	38	29	1,317	196	9	218	12	1,518	19	22	49	12	18	0	0	0	30,916
2006	158.5	0	46,254	33	56	166	3,501	366	6	226	2,106	1,615	7	18	191	14	10	0	0	6	54,575
2007	194.5	0	57,621	44	56	248	3,034	334	2	416	39	2,341	4	34	210	12	26	0	0	0	64,421
2008	164.8	2	33,533	29	38	50	1,222	129	3	111	17	1,417	8	53	92	5	7	0	0	0	36,716
2009	181.6	0	53,401	3	49	71	1,632	193	16	351	82	1,372	5	63	133	17	18	12	0	3	57,421
Average	171.0	0	41,905	27	45	103	2,104	245	9	309	377	2,001	17	37	126	11	15	2	0	2	47,334
2009 mean deviation	0.077		0.348	-0.906	0.124	-0.347	-0.258	-0.243	1.051	0.166	-0.812	-0.355	-0.747	1.019	0.064	0.667	0.268				0.267
	November																				
	Hours	**BV**	**TV**	**OS**	**BE**	**NH**	**SS**	**CH**	**NG**	**RS**	**BW**	**RT**	**RL**	**GE**	**AK**	**ML**	**PG**	**UR**	**MK**	**SW**	**Total**
2004	88.3	0	1,600	6	16	13	117	97	30	320	0	2,051	40	50	1	1	1	0	0	0	4,343
2005	99.8	0	1,000	2	6	18	68	108	7	81	0	856	11	23	4	3	4	0	0	0	2,191
2006	132.0	0	3,860	1	19	129	275	157	1	791	0	4,266	20	105	8	3	6	0	0	0	9,641
2007	163.0	0	3,476	4	16	70	170	217	4	602	0	6,702	25	90	3	3	6	0	0	0	11,388
2008	113.9	0	257	0	39	12	79	45	7	71	0	967	10	36	3	3	5	0	0	0	1,534
2009	142.0	0	842	0	21	23	55	55	8	263	0	986	8	54	3	0	3	2	0	0	2,323
Average	123.0	0	1,839	2	20	44	127	113	10	355	0	2,638	19	60	4	2	4	0	0	0	5,237
2009 mean deviation	0.189		-0.587		0.094	-0.525	-0.612	-0.559	-0.184	-0.295		-0.668	-0.623	-0.112	-0.211	-1.000	-0.318				-0.601
2009 mean deviation	0.189		-0.587		0.094	-0.525	-0.612	-0.559	-0.184	-0.295		-0.668	-0.623	-0.112	-0.211	-1.000	-0.318				-0.601

Table 3. *1998–2009 data from Lake Erie Metropark with the 2009 percent deviation from the previous 11-year mean.*

	Hours	BV	TV	OS	BE	NH	SS	CH	NG	RS	BW	RT
1998	451.3	0	19,743	135	111	807	4,968	378	17	517	63,689	3,782
1999	481.0	0	17,559	58	69	556	6,534	299	23	556	45,711	3,504
2000	510.2	0	29,421	133	83	138	7,132	408	49	875	57,585	5,754
2001	526.0	0	28,237	213	115	757	14,715	693	46	858	19,386	8,153
2002	561.5	0	42,644	238	185	696	7,307	572	22	962	91,499	6,565
2003	545.3	0	54,975	234	147	1,005	10,643	709	28	533	84,085	5,789
2004	478.8	0	36,893	201	118	214	5,027	461	49	869	27,381	6,155
2005	456.3	0	29,699	218	116	291	5,623	432	18	299	56,229	2,619
2006	475.8	0	51,722	196	162	616	7,013	628	7	1,019	50,718	6,025
2007	598.5	0	62,882	195	211	818	9,909	724	6	1,026	69,574	9,406
2008	464.9	2	35,173	140	141	149	3,593	294	10	185	36,216	2,507
2009	519.4	0	54,989	46	118	169	3,259	335	24	615	20,016	2,474
Average	505.7		38,661	167	131	518	7,143	494	25	693	51,841	5,228
2009 Mean Dev.	0.030		0.479	-0.742	-0.110	-0.693	-0.565	-0.342	-0.040	-0.121	-0.634	-0.548

	RL	GE	AK	ML	PG	UR	MK	SW	GY	WE	SEOW	SNOW	TOTAL
1998	17	33	1,046	95	52	86	0	5	0	0	1	0	95,482
1999	76	208	664	30	49	47	0	8	1	0	0	0	75,952
2000	55	188	790	34	24	37	0	5	0	0	2	1	102,714
2001	55	120	1,026	50	48	45	0	3	0	0	1	1	74,522
2002	63	79	2,277	64	52	15	0	0	0	1	1	0	153,242
2003	31	60	2,128	72	82	0	0	12	0	0	0	0	160,533
2004	101	79	470	38	20	0	0	0	0	0	0	0	78,076
2005	30	45	1,018	55	37	0	0	8	0	0	0	0	96,737
2006	27	124	1,314	40	38	0	0	8	0	0	0	0	119,657
2007	29	124	1,275	41	67	8	0	2	0	0	0	0	156,297
2008	18	89	404	19	23	0	0	0	0	0	0	0	78,963
2009	13	117	441	39	35	14	1	4	0	0	0	0	82,709
Average	43	106	1,071	48	44	21		5					106,238
2009 Mean Dev.	-0.715	0.120	-0.609	-0.203	-0.217			-0.137					-0.237

Table 4. *1998–2009 data from Lake Erie Metropark and Pointe Mouillee State Game Area with the 2009 percent deviation from the previous 11-year mean.*

	Hours	BV	TV	OS	BE	WE	NH	SS	CH	NG	RS	BW
1998	578.9	0	31,257	164	144	0	1,304	8,360	786	36	980	87,926
1999	583.0	0	28,902	80	114	0	1,159	11,571	390	32	733	612,457
2000	646.1	0	33,183	161	111	0	243	9,253	592	63	1,100	110,204
2001	667.9	0	37,184	267	176	0	1,158	19,887	897	70	1,134	82,732
2002	646.3	0	49,404	282	232	1	935	9,055	668	24	1,109	106,417
2003	624.8	1	73,886	246	199	0	1,372	12,080	882	50	874	87,359
2004	589.0	0	56,655	256	200	0	384	6,783	721	58	1,065	185,382
2005	595.8	0	104,538	241	178	0	571	8,519	854	37	956	91,089
2006	551.3	0	73,146	225	200	0	1,004	8,404	745	7	1,044	67,956
2007	637.0	0	69,703	209	254	0	929	10,745	771	6	1,045	127,167
2008	570.0	2	69,676	151	195	0	292	4,728	458	12	328	321,762
2009	542.2	0	55,055	62	126	0	189	3,597	359	24	615	35,274
Avg.	603.0	0	56,882	195	177	0	795	9,415	677	35	915	159,644
2009 Mean Dev.	-0.109	-1.000	-0.035	-0.701	-0.308		-0.778	-0.638	-0.491	-0.332	-0.348	-0.794

	SW	RT	RL	GE	AK	ML	PG	SO	SE	MK	UNK	Total
1998	10	8,694	40	89	1,631	119	86	0	1	0	91	141,718
1999	14	5,445	94	246	1,529	45	90	0	0	0	80	662,981
2000	12	8,210	78	251	1,086	57	41	1	2	0	44	164,692
2001	6	10,638	70	174	1,860	75	94	1	1	0	54	156,478
2002	4	8,074	68	110	3,248	77	67	0	1	0	0	179,776
2003	14	12,161	100	124	2,380	83	87	0	2	0	12	191,912
2004	2	8,689	125	108	1,008	54	36	0	1	0	0	261,527
2005	10	7,711	67	90	1,745	74	51	0	0	0	0	216,732
2006	9	6,530	29	125	1,861	45	47	0	1	0	0	161,378
2007	3	9,676	29	124	1,391	47	73	0	0	0	0	222,172
2008	5	4,003	30	148	795	28	37	0	4	0	0	402,654
2009	5	2,536	13	117	509	43	38	0	0	1	14	98,577
Avg.	8	7,697	62	142	1,587	62	62	0	1	0	25	238,383
2009 Mean Dev.	-0.382	-0.689	-0.804	-0.190	-0.698	-0.328	-0.410				-0.452	-0.607

Non-raptor Highlights

On 6 September, 8 red knots were recorded. Some movement of double-crested cormorants was apparent with 80 on 7 September, and 45 on 9 September.

Significant flocks of migrating blue jays began starting in earnest on 13 September. On 23 September, five American pipits were counted. A red-headed woodpecker was seen migrating over the count on 17 September.

The first good days of small landbird movement occurred on 26 and 27 September. This was very late due to the high-latitude of the jet stream and, therefore, no cold fronts moved through the region. Over 10,000 blue jays were estimated on 27 September. Many warblers, two dark-eyed juncos, and a few hundred swallows feeding along the shoreline were observed on 27 September. There were 5 Caspian terns on 30 September.

The first movement of American crows occurred on 30 September with a flock of 7 individuals. Blue jays tallied 9,460 on 1 October. One fly-by green-winged teal was also noted on 1 October.

Twenty great egrets passed on 7 October. Red-winged blackbirds, along with some rusty blackbirds, started to move in larger numbers on 8 October. Three semi-palmated plovers flew over on that day. The first small flock of ruddy ducks could also be seen at times, along with a sora found in the nearby marsh. A few chimney swifts, along with both tree and northern rough-winged swallows also flew over on the 8th.

Between 13 to 15 October, small numbers of Forster's terns and Bonaparte's gulls were seen.

By 18 October, the blue jay flocks started to slow down, and were replaced by large flocks of American crows. Two late common nighthawks were seen on 22 October.

The first flocks of tundra swans were seen on 26 October. A dunlin was also recorded, along with 928 American crows. The next day included 2 red-necked grebes, 4 common loons, and a dickcissel.

A massive American crow flight occurred on 28 October with over 25,000 estimated. Five Forster's terns were getting late on 29 October.

During November, flocks of ducks, tundra swans, and snow buntings were seen. Some American tree sparrows appeared on 8 November, as well as a Lapland longspur and American golden plover. The large flocks of red-winged blackbirds, American crows, and blue jays slowed down by mid-November.

On 29 November, a cattle egret flew over the count. On the same day, 12 black-crowned night herons flew just below treetop level and were counted entering the channel of Marsh Creek. This late season heron flight was noted in 2008 and 2007 as well. Approximately 10 black-crowned night herons were seen on 28 November 2008. On 27 November 2007, there were 22 black-crowned night herons, 10 great egrets, and 15 great blue herons. On 28 November 2007, there were 44 great blue herons, 6 black-crowned night herons, and 4 great egrets.

Word of Thanks

First, I would like to state my appreciation for the opportunity to count here as an independent contractor, birder, artist, and photographer. I come from southeast Wisconsin, and have spent eight seasons at a local hawk count. The 2008 fall season was my first as a paid hawk counter, where I worked at the Cape May Hawk Watch. In the spring of 2009, I was the migration counter at the Sandy Hook Migration Count. Although the Detroit River sites have been around since 1983, more recognition seems to be coming to this location and I was glad to contribute to it.

I would like to thank the U.S. Fish and Wildlife Service for providing funds for 2009 and the International Wildlife Refuge Alliance for their support through the season, as well as the Detroit River Hawk Watch Advisory Committee who had many helpful suggestions for this report.

Finally, a "thank you" goes to those of you who have come and counted, worked, or volunteered here before me. It is encouraging to see such a tremendous amount of support and energy put into this hawk watch, which makes it is a very nice place for a counter. I hope all have had fun this season and enjoy my review and summary of the 2009 count.