

**Great Lakes HummerNet  
2012 Hummingbird Banding Summary**



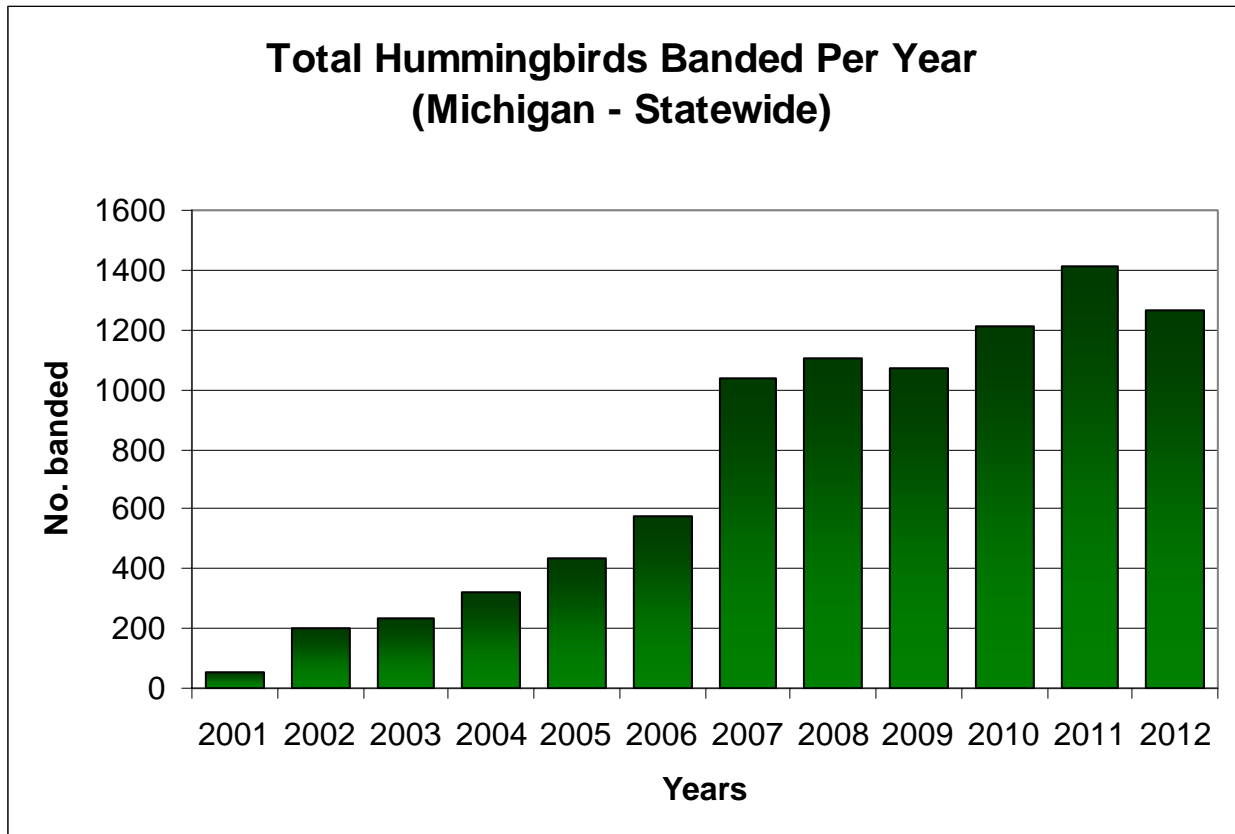
*Allen T. Chartier*  
Permit #23156

*Brenda S. Keith*  
Permit #23156-A

The 2012 hummingbird banding season in Michigan was the second highest since the project began in 2001. Brenda Keith continues to band more and more birds in southwestern Michigan since obtaining her subpermit in 2007, and during 2012 Rich Keith completed his training and will also be banding hummingbirds under his own subpermit beginning in 2013. A total of 1260 Ruby-throated Hummingbirds was banded in Michigan between 7 May and 30 September 2011 at 31 locations in 14 counties. Allen banded 581 Ruby-throated Hummingbirds, mostly in the southeastern Lower Peninsula, and Brenda banded 681 at various locales in the southwestern Lower Peninsula. Two individuals were banded after 30 September, one on 2 October in Pavilion Twp., Kalamazoo County, and one on 14 November in Columbus Twp., St. Clair County that remained until 26 November.

In general there was about an 11% decrease in total hummingbirds banded from 2011 (see Figure 1 below). The number captured seems to have stabilized somewhat in the last five years with more consistent (and increased) effort.

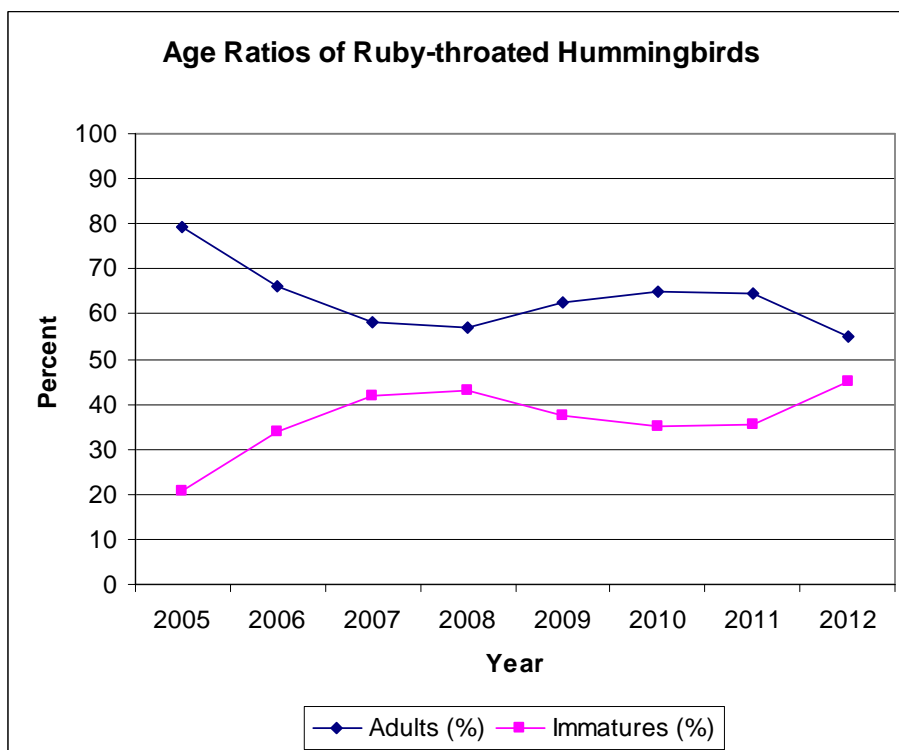
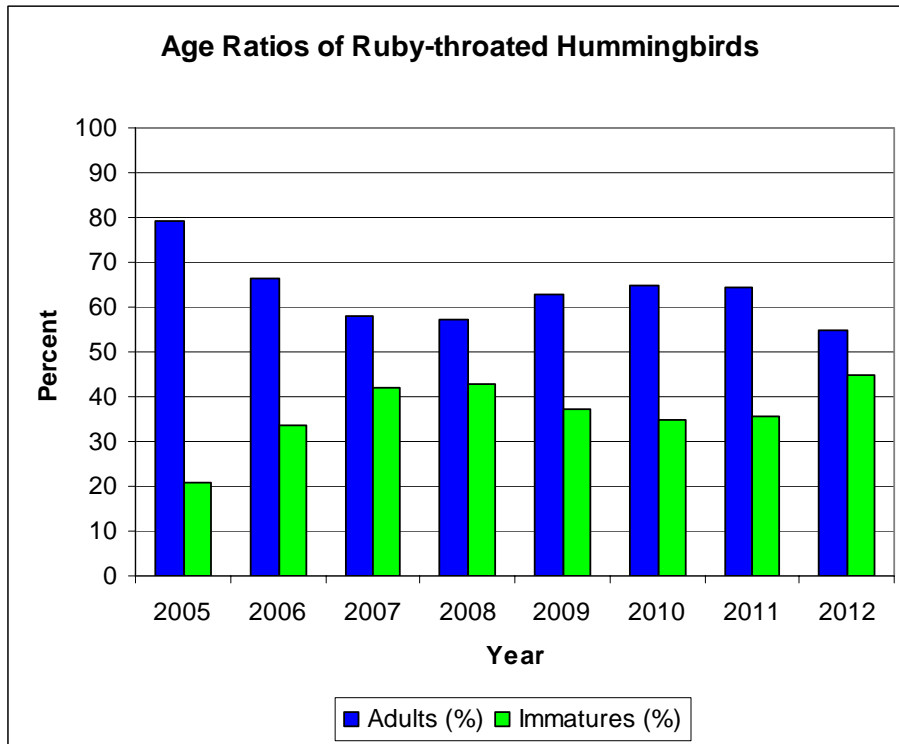
**Figure 1. Total Hummingbirds banded per year in Michigan (n = 8909).**



## AGE RATIOS

A total of 248 adult males (19.7%), 446 adult females (35.3%), 345 immature males (27.3%), and 223 immature females (17.7%) were banded. The overall age ratio was 55% adult to 45% immature, which is somewhat different from most recent years, suggesting a more productive nesting season. A comparison of age ratios from 2005-2012 is shown in Figure 2 below.

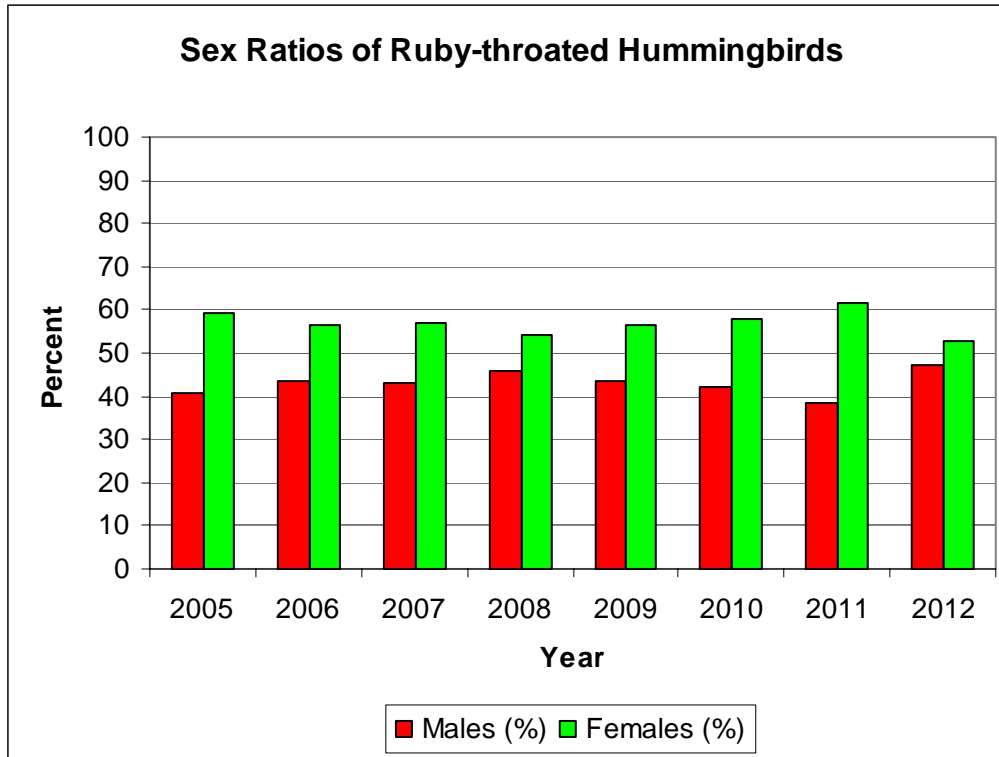
**Figure 2. Age Ratios of all Ruby-throated Hummingbirds banded, by year.**



## SEX RATIOS

The overall sex ratio was 47.0% males to 53.0% females. A comparison of sex ratios from 2005-2012 is shown in Figure 3 below. This ratio seems to be fairly consistent over the years at around 55-60 percent female to 40-45 percent male, although the ratio for 2012 was the highest ever for males.

**Figure 3. Overall Sex Ratios of Ruby-throated Hummingbirds by year.**



Looking at the sex ratios separated by age classes can give us additional insight. Among adults the sex ratio in 2012 was 36% male to 64% female, and among immatures it was 60% male to 40% female. In adults (Figure 4), the ratio has been fairly stable over all years, with males at 30-35% and females at 65-70%. This could indicate a lower survival rate of males, or could simply reflect a more wary nature of males to being trapped, thus limiting captures. In immatures (Figure 5), again there is considerable stability between years, but with the proportions reversed between the sexes with males at about 60% and females at about 40%. It is unclear whether this reflects the actual sex ratio of immatures, or whether there is capture bias here as well. But if males have lower survival rates, then perhaps a higher proportion of immature males allows sufficient males to survive to breeding age. Certainly, males are recaptured in subsequent years much less frequently than females, and the maximum known age for males is a full year less than for females.

Figure 4. Sex Ratios of Adult Ruby-throated Hummingbirds by year.

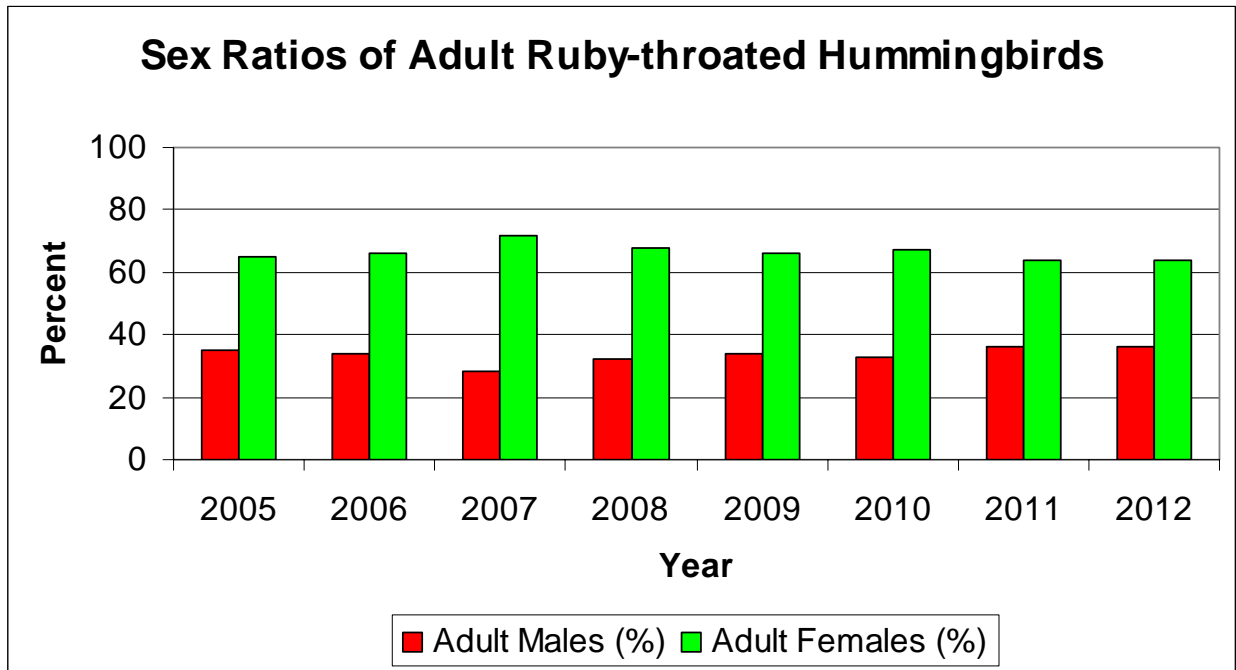
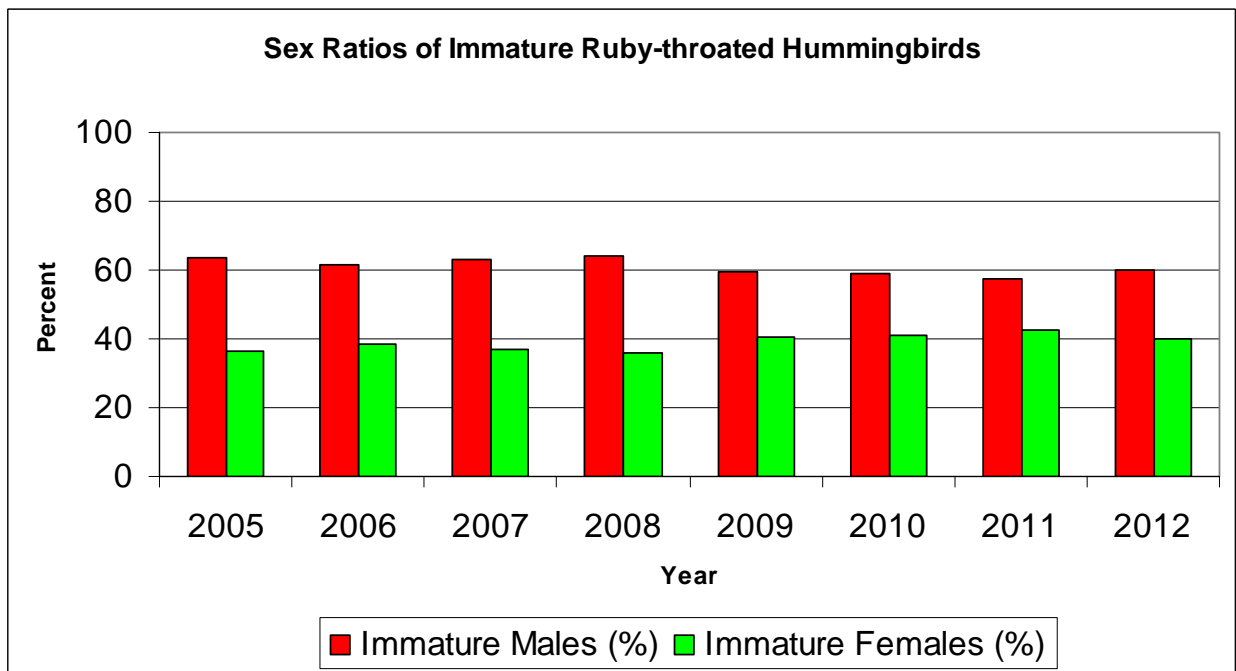


Figure 5. Sex Ratios of Immature Ruby-throated Hummingbirds by year.



## STANDARDIZED CAPTURE RATES

A standardized comparison of capture rates and numbers for 2005-2012 is shown in Table 1 below. Only birds banded between June 1 and September 30 in southeastern Michigan are included in this analysis, as banding effort before and after these dates is unpredictable. Capture rates are calculated as Birds per Trap Hour and Birds per 100 Net Hours, which seems to provide a reasonable comparison of these two very different capture methods.

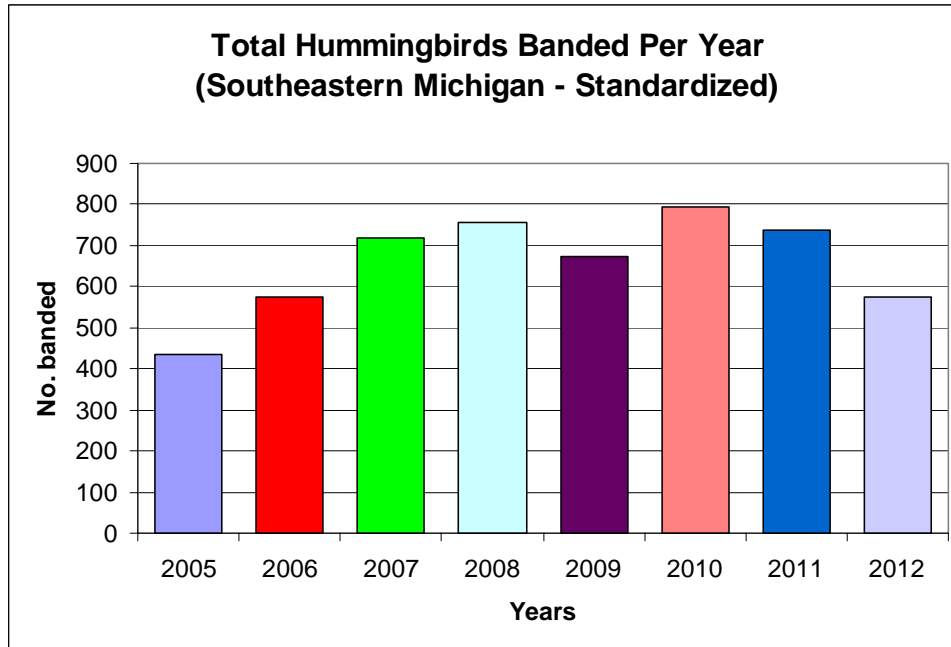
Trapping effort in June and July was lower than the last two years, but still the third highest ever, and in August and September was the highest ever. This is likely due to the extremely hot and dry summer which extended into the fall season (temperatures on many days reached well into the 90s on many days), which limited the number of days available for banding. Good habitat conditions at Metro Beach Metropark (renamed Lake St. Clair Metropark in 2012) did not produce an increase in birds mist-netted there in August and September, again perhaps due to drought and head lingering from summer. Overall the number banded was the third lowest, and capture rates were notably lower for trapping (likely the use of two or more traps on many days this year is likely the cause).

**Table 1. Standardized totals of Ruby-throated Hummingbirds banded (June 1 – September 30) in southeastern Michigan**

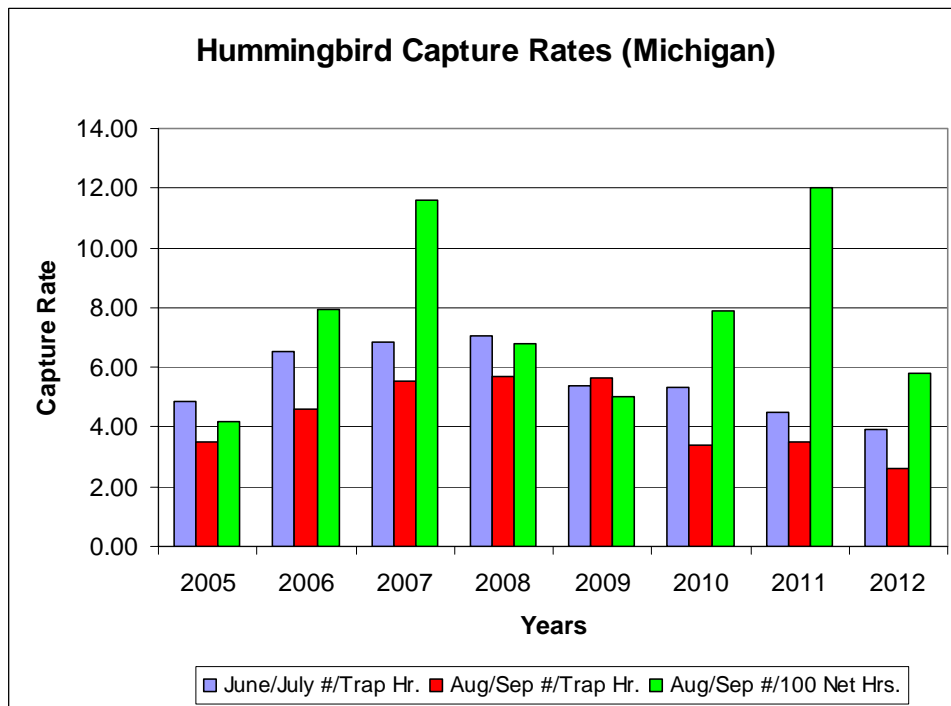
<b>Banding Periods/Method</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
June/July Total	218	240	266	263	364	470	362	278
June/July Trap Hrs.	45.00	36.75	38.75	37.25	67.75	104.75	102.50	88.75
June/July #/Trap Hr.	4.84	6.53	6.86	7.06	5.37	5.33	4.50	3.93
Aug/Sep Total (traps)	188	249	358	419	271	238	216	221
Aug/Sep Trap Hrs.	53.50	54.00	64.50	73.50	47.75	70.50	78.25	85.00
Aug/Sep #/Trap Hr.	3.51	4.61	5.55	5.70	5.67	3.38	3.50	2.6
Aug/Sep Total (nets)	28	86	96	74	64	86	158	76
Aug/Sep Net Hrs.	669.19	1082.56	828.69	1091.81	1269.00	1089.00	1311.50	1307.38
Aug/Sep #/100 Net Hrs.	4.18	7.94	11.58	6.78	5.04	7.90	12.04	5.81
<b>Total Banded</b>	<b>434</b>	<b>575</b>	<b>720</b>	<b>756</b>	<b>699</b>	<b>794</b>	<b>736</b>	<b>575</b>
June/July #/Trap Hr.	4.84	6.53	6.86	7.06	5.37	5.33	4.50	3.93
Aug/Sep #/Trap Hr.	3.51	4.61	5.55	5.70	5.67	3.38	3.50	2.60
Aug/Sep #/100 Net Hrs.	4.18	7.94	11.58	6.78	5.04	7.90	12.04	5.81

Results from the table above are graphed in Figures 6 & 7 below, and shows a fairly slow but steady decline in capture rates by traps since the peak in 2007 and 2008. Also, starting in 2010, the number of traps used at each banding locale was increased by using an average of two (max 6) at each site rather than the average of one in previous years. The number of birds mist-netted (all at Metro Beach Metropark, Macomb County, and almost all hatch-year birds) does not seem to be following any trend.

**Figure 6. Total Hummingbirds banded per year in southeastern Michigan during standardized dates (1 June to 30 September).**



**Figure 7. Standardized Hummingbird Capture Rates, compared by capture method.**



Totals for all sites in 2012, including capture rates and number of recaptures from previous years, is shown in Table 2 below. The first hatch-year bird of the 2012 breeding season in Michigan was captured in Rich and Brenda Keith’s yard in Kalamazoo County on 15 July 2012; which was record early.

## **RETURNS**

The number of birds returning to Michigan in 2012 was fairly high though lower than last year, with 154 birds returning, including 6 from 2007, 5 from 2008, 17 from 2009, 38 from 2010, and 88 from 2011. This is 12.2% of the total of new birds banded. The greatest number of returns (26) was from Rich and Brenda Keith's yard in Pavilion Township, Kalamazoo County (410 banded). Other high return rates were noted from Charity Steere's in Waterloo Twp., Jackson Co. (22 returns), Mary Bird's in Battle Creek, Calhoun Co. (21 returns), and Rhonda Dunithan's in Augusta, Kalamazoo County had (20 returns). A total of 32 returns was tallied from three clustered locales in along Glenn Road Waterloo Township, Jackson County (Claflin's, Steere's, and Laux/Taylor's), where a total of 105 was banded at the three sites.

## **RECAPTURES**

An after hatch-year male banded on 17 July 2012 in Mary Bird's garden in Battle Creek (CAL3) was recaptured on 3 August 2012 at Fort Custer Training Center (FCTC). This is a distance of 2.4 miles to the NW, and may have been a bird that was wandering more widely after nesting was completed. Such same-year shifts have been recorded before between these two locations, and may turn out to be fairly frequent, and between year movements are being documented here as well, though none this year.

## **OHIO RUBY-THROATED HUMMINGBIRDS**

Ruby-throated Hummingbirds are banded in Ohio primarily as part of public education events. During 2012, three public hummingbird banding demonstrations and programs were done, one on 14 July at Lake Hope State Park, Vinton County, where such programs have been conducted annually since 2006. A total of 21 Ruby-throated Hummingbirds were banded here, and 6 were recaptured, 2 banded in 2010 and 4 banded in 2011, with 3 hours of effort (7 trap hours). On the way home on 15 July, a new banding location in Muskingum County was visited for the second year, where 47 were banded and one from 2011 was recaptured in 1.75 hours of effort (3.5 trap hours). On 4 August a public banding demonstration and program was given at the Shawnee Prairie Nature Center in Darke County for the 11<sup>th</sup> year in a row, and 2 were banded here with one hour of effort (2 trap hours). On 16 June, a public banding demonstration and program was given at the William C. Kraner Nature Center near Newark, and a single adult male was banded there with 1.5 hours of effort (one trap). The primary focus of hummingbird banding in Ohio (and northern Indiana) is on documenting rarities.

## **INDIANA RUBY-THROATED HUMMINGBIRDS**

A public hummingbird banding demonstration and program was conducted for the first time at the Indiana Dunes State Park on August 11, 2012, where 15 Ruby-throated Hummingbirds were banded.



## **RARITIES**

It was a very good year for Rufous Hummingbirds in the region, with a record number in Michigan and in Ohio. Indiana continued the recent trend of low numbers, though there were a few reports of birds that were banded by other banders.

### Michigan Rufous Hummingbirds banded

- Rufous Hummingbird, (AHY-M) banded on 16 October 2012 in White Lake Twp., Oakland Co., Michigan. First observed by the homeowner on 2 October 2012 and last observed on 28 December 2012. Second county record.
- Rufous Hummingbird (HY-F) banded on 22 October 2012 in Sodus Twp., Berrien Co. Michigan. First observed by the homeowner on 15 October 2012 and last observed on 24 October 2012. Seventh county record.
- Rufous Hummingbird (AHY-F) banded on 5 November 2012 near Millington, Tuscola Co., Michigan. First observed by the homeowner around 1 October 2012 and last observed on 7 November 2012. First county record.
- Rufous Hummingbird (HY-F) banded on 8 November 2012 near Lake Isabella, Isabella Co., Michigan. First observed by the homeowner on about 5 October 2012 and last observed on 21 November 2012. First county record.
- Rufous Hummingbird (AHY-F) banded on 12 November 2012 in Imlay City, Lapeer Co., Michigan First observed by the homeowner on about 10 October 2012 and last observed on 21 November 2012. First county record.
- Rufous Hummingbird (AHY-M) banded on 13 November 2012 in Cooper Twp., Kalamazoo Co., Michigan. First observed by the homeowner on about 1 October 2012 and last observed on 18 December 2012. Second county record.

### Ohio Rufous Hummingbirds banded

- Rufous Hummingbird (HY-F) banded on 27 November at Black Swamp Bird Observatory , Ottawa Co., Ohio under the BSBO banding permit. First observed on 13 September and last observed on 21 January 2013.
- Rufous Hummingbird (AHY-F) banded on 7 November 2012 west of Sugarcreek (Walnut Creek Twp.), Holmes Co., Ohio. First observed by the homeowner on 26 October 2012 and last observed on 14 November 2012.
- Rufous Hummingbird (AHY-F) banded on 19 November 2012 in Westerville (Genoa Twp.), Delaware Co., Ohio. First observed by the homeowner on 26 October 2012 and last observed on 22 November 2012.
- Rufous Hummingbird (AHY-F) banded on 25 November 2012 in Lewis Center (Orange Twp.), Delaware Co., Ohio. First observed by the homeowner on 21 November 2012 and last observed on 4 January 2013.
- Rufous Hummingbird (AHY-M) banded on 19 November 2012 near Butler (Worthington Twp.), Richland Co., Ohio. First observed by the homeowner on about 20 September 2012.
- Rufous Hummingbird (HY-M) banded on 21 November 2012 in Findlay, Hancock Co., Ohio. First observed by the homeowner on 29 October 2012 and last observed on 1 January 2013.
- Rufous Hummingbird (HY-F) banded on 25 November 2012 in Chillicothe (Scioto Twp.), Ross Co., Ohio. First observed by the homeowner on about 1 November 2012 and last observed on 5 December 2012.

- Rufous Hummingbird (HY-F) banded on 25 November 2012 in Circleville, Pickaway Co., Ohio. First observed by the homeowner on about 27 October 2012, and last observed on 1 February 2013.
- Rufous Hummingbird (AHY-F) banded on 6 December 2012 in Canal Winchester (Bloom Twp.), Fairfield Co., Ohio. First observed by the homeowner on about 15 October 2012 and last observed on 3 January 2013.
- Rufous Hummingbird (AHY-F) banded on 11 December 2012 near Canton (Bethlehem Twp.), Stark Co., Ohio. First observed by the homeowner on about 1 November 2012 and last observed on 14 December 2012.
- Rufous Hummingbird (HY-F) banded on 14 December 2012 near Williamsburg, Clermont Co., Ohio. First observed by the homeowner on 22 November 2012 and last observed on 23 January 2013.

#### Other Hummingbird Reports (not banded)

In Michigan, a Rufous/Allen's Hummingbird was reported from 25 September – 4 November 2012 near Gowen, Montcalm Co., which was a first for the genus *Selasphorus* in the county, but unfortunately it was not present every day, and avoided capture for banding. In Ohio, an adult male Rufous Hummingbird was confirmed in North Olmsted, Cuyahoga County but not banded, and an adult female Rufous Hummingbird was found dead at a feeder in Ontario, Richland County. Also, a total of five additional Rufous/Allen's were reported in Ohio, but not banded, from Richland, Holmes, Greene, Franklin, and Union counties.

**Table 2. Michigan totals of Ruby-throated Hummingbirds banded for all sites (May-November 2012), sorted by total number banded. AHY=after hatch-year, HY=hatch year, M=male, F=female**

Location/Host	AHY-M	AHY-F	HY-M	HY-F	Total	Capture Rate	Re-captures
Kalamazoo Co., Pavilion Twp. (Rich & Brenda Keith) [KAL10]	25	36	216	133	410	3.4/ 100 NH 0.3/ Trap Hr	2007 (1) 2009 (2) 2010 (7) 2011 (16)
Kalamazoo Co., Augusta (Rhonda Dunithan) [KAL16]	46	62	13	8	129	4.2/ Trap Hr	2009 (4) 2010 (6) 2011 (10)
Macomb Co., Metro Beach Metropark [MBMP]	5	8	36	34	83	3.7/ 100 NH	2010 (1)
Calhoun Co., Battle Creek (Mary Bird) [CAL3]	20	44	12	4	80	3.4/ Trap Hr	2008 (2) 2009 (2) 2010 (5) 2011 (12)
Hillsdale Co., Litchfield Twp. (Bill & Marlene Koons) [HIL3]	22	41	2	4	69	4.0/ Trap Hr	2010 (1) 2011 (10)
Branch Co., River Lake Inn (Marv & Anita Bliss) [RLI]	23	33	6	5	67	1.9/ Trap Hr	2009 (1) 2010 (3) 2011 (4)
Kalamazoo Co., Fort Custer Training Center [FCTC]	8	28	8	4	48	4.0/ 100 NH 0.9/ Trap Hr	2010 (1)
Jackson Co., Waterloo Twp. (Charity Steere) [JAC10]	13	18	11	5	47	4.3/ Trap Hr	2007 (3) 2009 (4) 2010 (6) 2011 (9)
Jackson Co., Waterloo Twp. (Frank & Rose Blackwell) [JAC11]	8	14	13	6	41	4.3/ Trap Hr	2010 (2) 2011 (1)
Washtenaw Co., Sylvan Twp. (Jocelyn Granger) [WAS23]	3	28	2	0	33	4.4/ Trap Hr	2010 (3) 2011 (5)
Hillsdale Co., Hillsdale (Tim Tyler) [HIL2]	4	17	5	5	31	2.6/ Trap Hr	2010 (1)
Jackson Co., Waterloo Twp. (Arlene Taylor & Matt Laux) [JAC2A]	15	13	2	0	30	3.3/ Trap Hr	2009 (1) 2010 (1) 2011 (1)
Jackson Co., Waterloo Twp. (Lathe & Kathy Clafin) [JAC2]	5	18	3	2	28	4.7/ Trap Hr	2007 (1) 2008 (1) 2011 (5)
Livingston Co., Fowlerville (Craig & Heather Wise) [LIV15]	6	18	1	2	27	2.6/ Trap Hr	-
Livingston Co., Hamburg Twp. (Jim & Melissa Pappas) [LIV11]	6	13	2	1	22	1.8/ Trap Hr	2007 (1) 2009 (1) 2011 (1)
Washtenaw Co., Salem Twp. (Sheila Boyer) [WAS22]	7	9	3	0	19	4.5/ Trap Hr	2010 (1) 2011 (2)

**Table 2. Cont'd.**

<b>Location/Host</b>	<b>AHY-M</b>	<b>AHY-F</b>	<b>HY-M</b>	<b>HY-F</b>	<b>Total</b>	<b>Capture Rate</b>	<b>Re-captures</b>
Kalamazoo Co., Pavilion Twp. (Rod & Kathy Rhodes) [KAL12]	2	3	5	6	16	4.0/ Trap Hr	-
Jackson Co., Sandstone Twp. (Lynn Ward) [JAC15]	8	6	0	0	14	2.3/ Trap Hr	-
Oakland Co., Milford (Barb Jensen) [OAK13B]	3	5	1	2	11	1.6/ Trap Hr	2011 (1)
Oakland Co., West Bloomfield (Carl Pascoe & Rachel Powless) [OAK1]	4	6	0	0	10	6.7/ Trap Hr	-
Jackson Co., Parma Twp. (Aaron & Danielle Potts) [JAC13]	5	4	0	0	9	1.5/ Trap Hr	2008 (1) 2009 (2) 2011 (1)
St. Joseph Co., Constantine (Todd & Penny Engels) [STJ1]	2	7	0	0	9	1.5/ Trap Hr	2011 (8)
Washtenaw Co., Salem Twp NE (Amy Donoghue) [WAS24]	4	2	1	2	9	1.1/ Trap Hr	-
Washtenaw Co., Hudson Mills (Ben & Linda Colman) [WAS21]	2	3	0	0	5	1.7/ Trap Hr	-
Oakland Co., Milford (Stella & Vaughn Koshkarian) [OAK13]	0	4	1	0	5	0.7/ Trap Hr	2008 (1) 2011 (1)
Wayne Co., Inkster (Allen & Nancy Chartier) [WAY1]	1	3	0	0	4	0.4/ Trap Hr	2011 (1)
Oakland, E.L. Johnson Nature Center (Dan Badgley) [ELJ]	1	1	0	0	2	0.5/ 100 NH	-
Barry Co., Prairieville Twp. (Deborah Quinn) [BAR1]	0	0	2	0	2	0.3/ Trap Hr	-
Jackson Co., Dahlem Center [JAC-DC]	0	1	0	0	1	0.7/ Trap Hr	-
Macomb Co., St. Clair Shores (Karen Hildenbrand) [MCO12]	0	0	1	0	1	0.6/ Trap Hr.	-
St. Clair Co., Columbus Twp. (Sandi Combs) [STC4]	0	1	0	0	1	0.5/ Trap Hr	-
<b>TOTAL OF ALL LOCATIONS</b>	248	446	345	223	1262	-	2007 (6) 2008 (5) 2009 (17) 2010 (38) 2011 (88)
	19.7%	35.3%	27.3%	17.7%			