

**Great Lakes HummerNet
2011 Hummingbird Banding Summary**



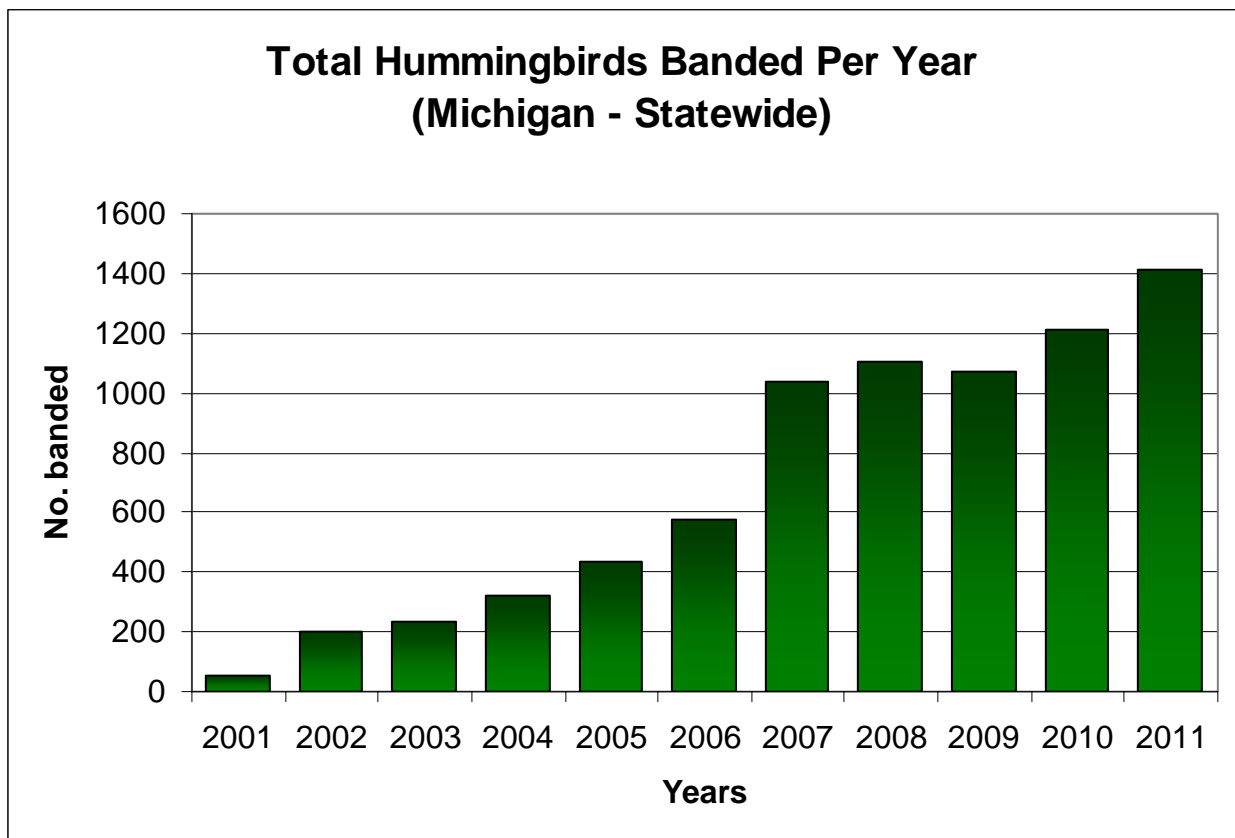
Allen T. Chartier
Permit #23156

Brenda S. Keith
Permit #23156-A

The 2011 banding season in Michigan was the best since the project began in 2001. Brenda Keith continues to band more and more birds in southwestern Michigan since obtaining her subpermit in 2007. A total of 1415 Ruby-throated Hummingbirds was banded in Michigan between 7 May and 30 September 2011 at 31 locations in 15 counties. Allen banded 754 Ruby-throated Hummingbirds, mostly in the southeastern Lower Peninsula, and Brenda banded 661 at various locales in the southwestern Lower Peninsula.

In general there was about a 17% increase in total hummingbirds banded from 2010 (see Figure 1 below). The number captured seems to have stabilized somewhat in the last five years with more consistent (and increased) effort.

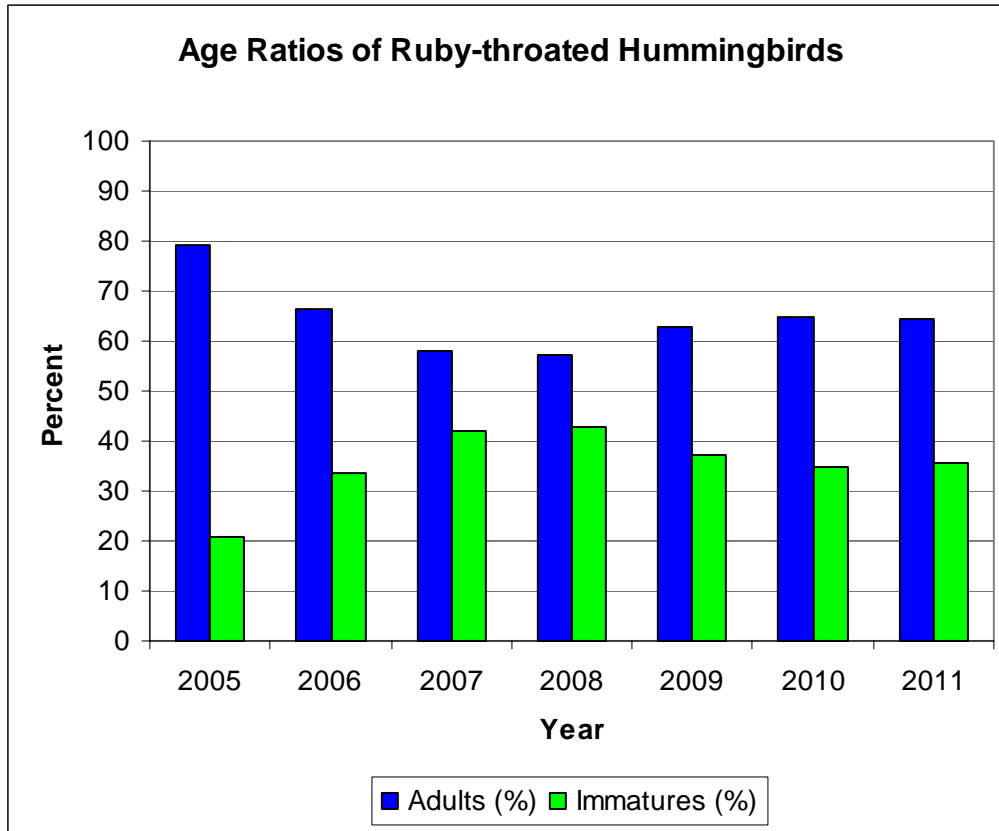
Figure 1. Total Hummingbirds banded per year in Michigan (n = 7647).



AGE RATIOS

A total of 331 adult males (23.4%), 581 adult females (41.1%), 289 immature males (20.4%), and 214 immature females (15.1%) were banded. The overall age ratio was 64% adult to 36% immature, which very consistent with the ratio over the past three years. A comparison of age ratios from 2005-2011 is shown in Figure 2 below.

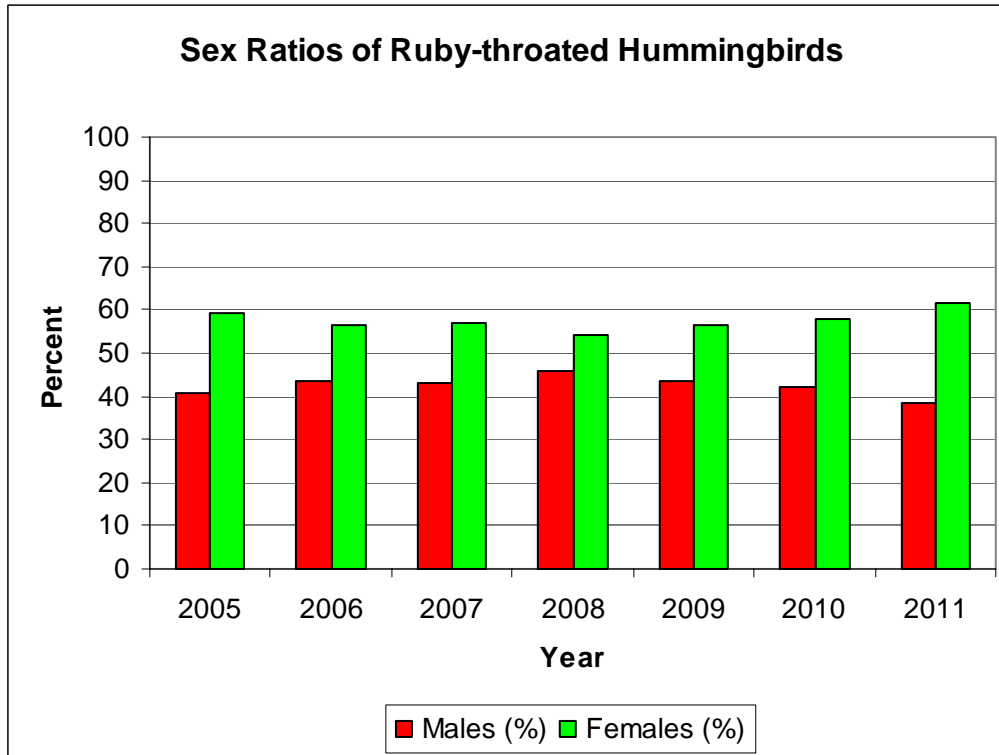
Figure 2. Age Ratios of all Ruby-throated Hummingbirds banded, by year.



SEX RATIOS

The overall sex ratio was 38.5% males to 62.5% females. A comparison of sex ratios from 2005-2011 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 2011 was slightly fewer males and more females.

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 2011 was 36% male to 64% female, and among immatures it was 57% male to 43% 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 some 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.

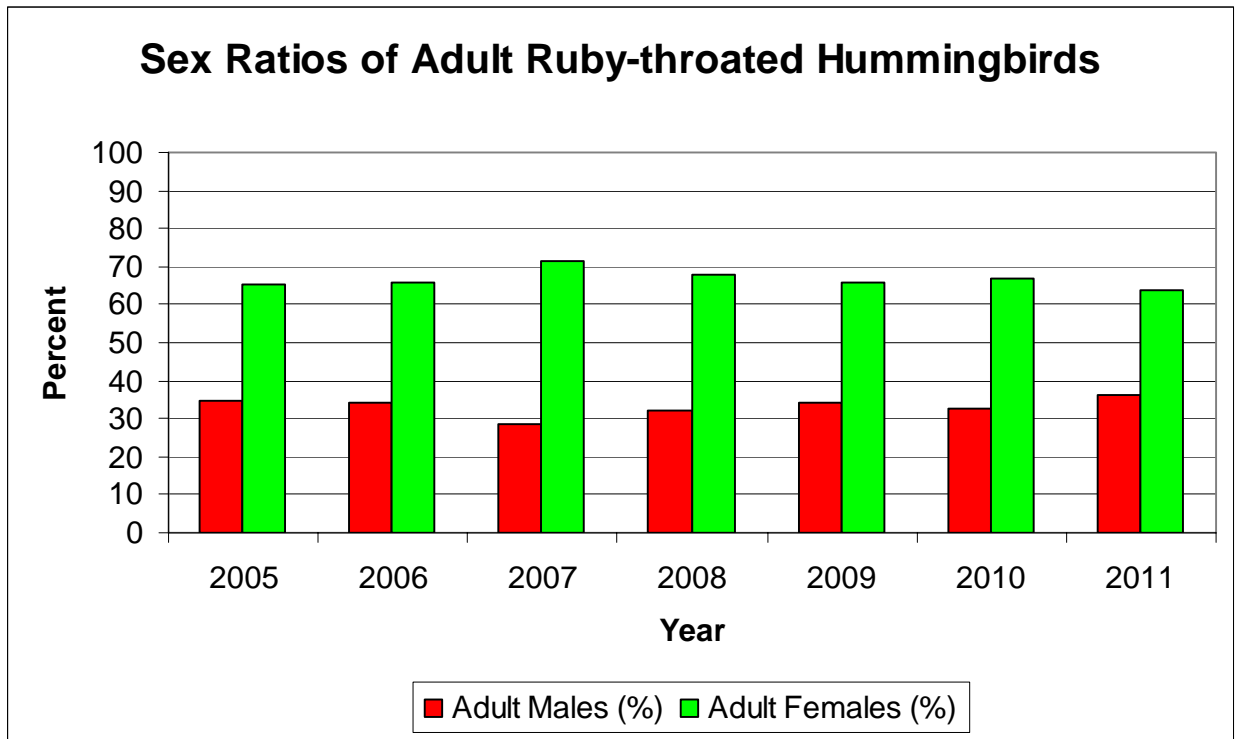
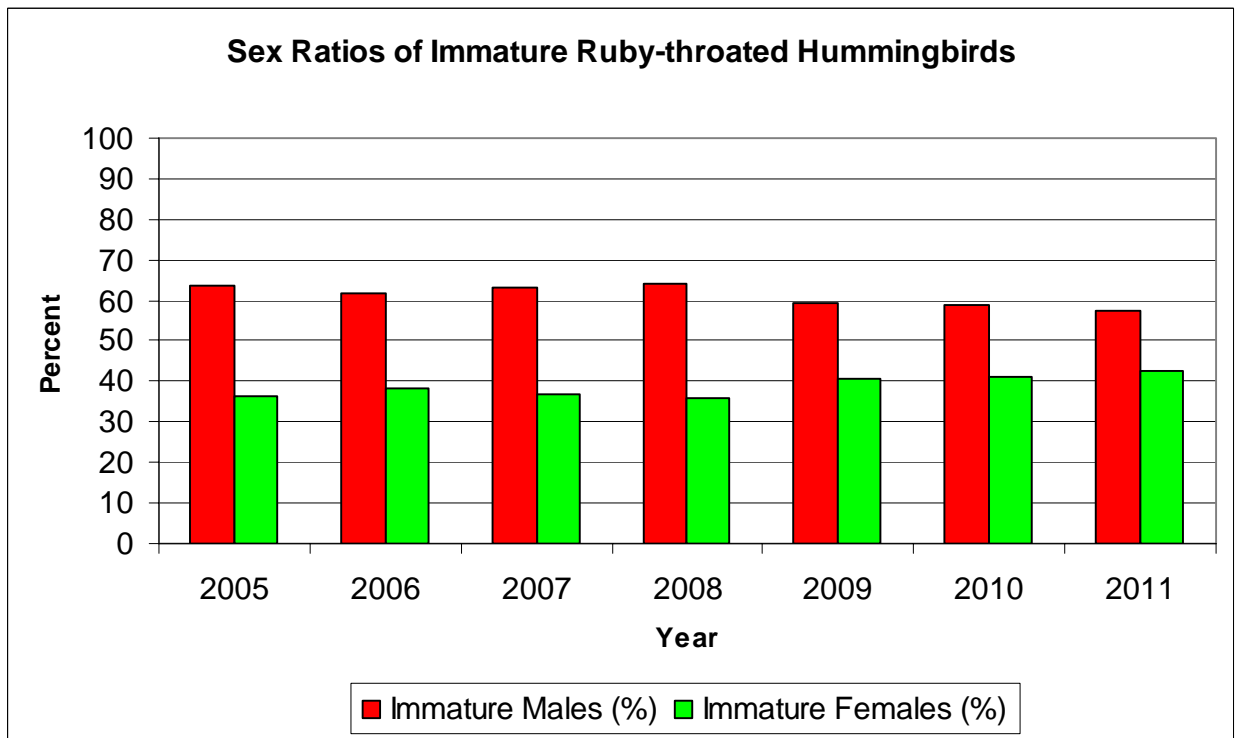


Figure 5. Sex Ratios of Immature Ruby-throated Hummingbirds by year.



STANDARDIZED CAPTURE RATES

A standardized comparison of capture rates and numbers for 2005-2011 is shown in Table 1 below. Only birds banded between June 1 and September 30 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 down after last year's high, and in August and September was the second lowest. This is likely due to the rather rainy summer and fall season, which limited the number of days available for banding. Good habitat conditions at Metro Beach Metropark probably resulted in an increase in birds mist-netted there in August and September. Overall the number banded was the highest yet, but capture rates were lower for trapping (likely the use of two or more traps on many days this year is the cause), while capture rates in mist nets increased significantly.

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

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

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).

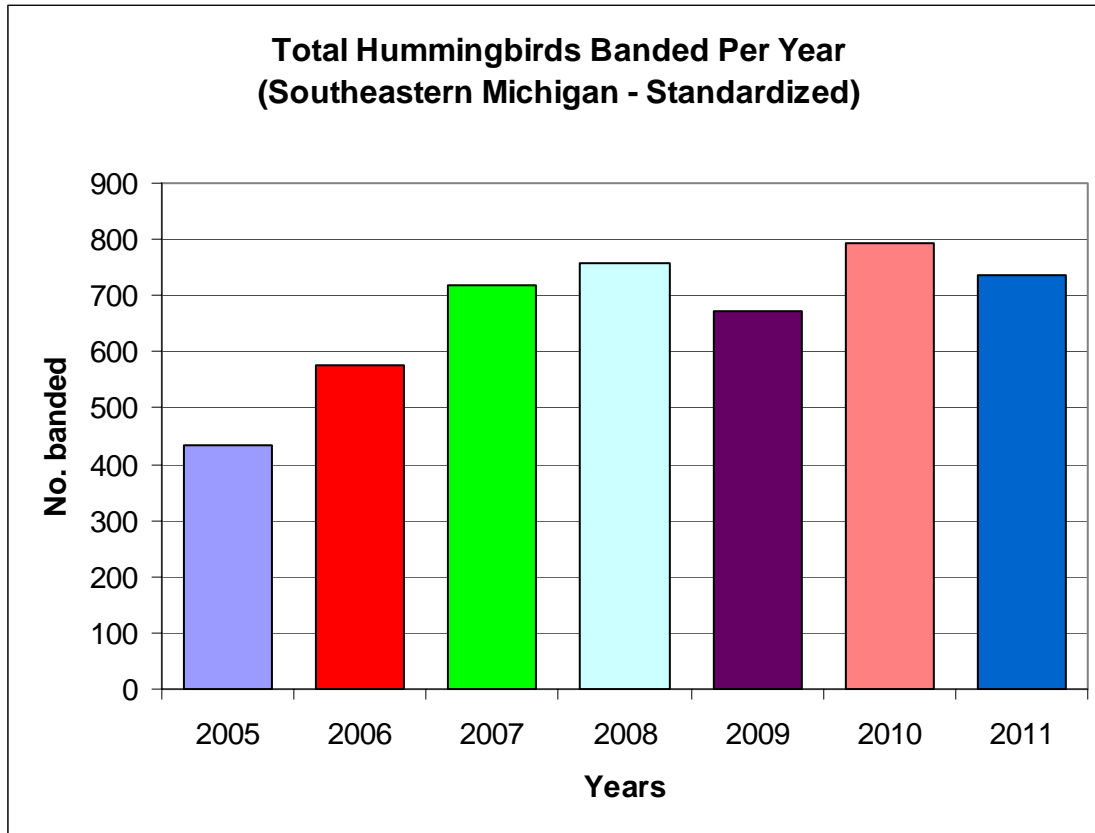
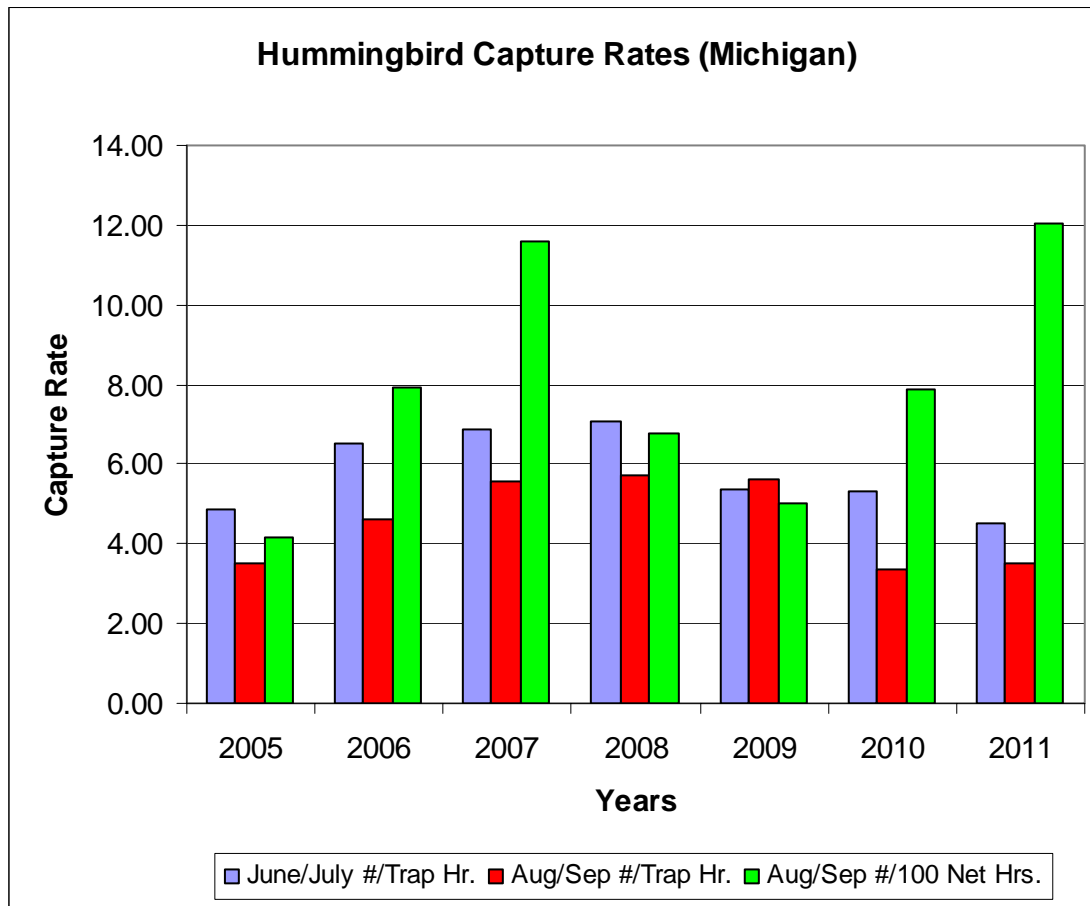


Figure 7. Standardized Hummingbird Capture Rates, compared by capture method.



Totals for all sites in 2011, including capture rates and number of recaptures from previous years, is shown in Table 2 below. The first hatch-year bird of the 2011 breeding season in Michigan was captured in Mary Bird’s garden in Calhoun County on 18 July 2011; earlier than normal.

RETURNS

The number of birds returning to Michigan in 2011 was notably higher than in the last three years, with 170 birds returning, including 2 from 2006, 9 from 2007, 22 from 2008, 32 from 2009, and 105 from 2010. The greatest number of returns (33) was from Mary Bird’s garden in Calhoun County, where the fourth greatest number (125) was also banded. Rich and Brenda Keith’s yard in Pavilion Township, Kalamazoo County yielded 27 returns (284 banded), and Rhonda Dunithan’s yard in Augusta, Kalamazoo County had 31 returns (144 banded). A total of 39 returns was tallied from the three locales in Waterloo Township, Jackson County (Claflin’s, Steere’s, and Laux/Taylor’s), where a total of 137 was banded at the three sites.

RECAPTURES

An after hatch-year female banded on 2 August 2010 by Brenda Keith at the Fort Custer Training Center (FCTC) was recaptured on 22 June 2011 at Mary Bird's garden in Battle Creek. This is a distance of 2.4 miles to the SE, and may have been a bird that was shifting its breeding area. Another after hatch-year female banded on 18 June 2010 in Mary Bird's garden in Battle Creek was recaptured on at the FCTC on 25 and 30 August.

Such between-year shifts have been recorded before between these two locations, and may turn out to be fairly frequent, and same year movements are being documented here as well. An after hatch-year female banded on 22 June 2011 by Brenda at Mary Bird's garden in Battle Creek was recaptured on 2 August 2011 at the FCTC, and another after hatch-year female banded in Battle Creek on 18 July 2011 was recaptured on 26 August 2011 at the FCTC. An after hatch-year female banded on 17 May 2011 at FCTC was recaptured on 8 August 2011 at Mary Bird's garden.

Probably the most interesting recapture was an after hatch-year female banded at FCTC on 2 July 2011 that was recaptured at Rich and Brenda Keith's home south of Kalamazoo on 7 September 2011, a distance of 13 miles to the SW. Perhaps it had initiated migration.

OHIO RUBY-THROATED HUMMINGBIRDS

Ruby-throated Hummingbirds are banded in Ohio primarily as part of public education events. During 2011, two public hummingbird banding demonstrations and programs were done at Lake Hope State Park, Vinton County, where such programs have been conducted annually since 2006. On 18 June 2011 a total of 17 Ruby-throated Hummingbirds were banded here, and one banded in 2010 was recaptured. On 9 July 2011 a total of 26 were banded. On the way home on 9 July, a new banding location in Muskingum County was visited where 37 were banded in 1.5 hours of effort. On 6 August 2011 a public banding demonstration and program was given the Shawnee Prairie Nature Center in Darke County for the 10th year in a row, and 6 were banded here. The primary focus of hummingbird banding in Ohio (and northern Indiana) is focused on rarities.

RARITIES

It was a very good year for Rufous Hummingbirds in the region, with a record number in Michigan and a notable increase in Ohio over recent years. Indiana continued the recent trend of low numbers. The warmer than normal winter in the region may have allowed several of these birds to remain later than normal.

- Rufous Hummingbird, (AHY-F) banded on 22 October 2011 east of Millersburg, Holmes Co., Ohio. First observed by the homeowner on 14 October 2011 and last observed on 2 January 2012. First county record.
- Rufous Hummingbird (HY-M) banded on 2 November 2011 near Homeworth, Columbiana Co. Ohio. First observed by the homeowner in early October 2011 and last observed on 10 November 2011. First county record.
- Rufous Hummingbird (HY-F) banded on 6 November 2011 in Prairieville Twp., Barry Co. Michigan. First observed by the homeowner in mid-October 2011 and last observed on 13 November 2011. First county record.
- Rufous Hummingbird (HY-F) banded on 7 November 2011 in Southgate, Wayne Co., Michigan. First observed by the homeowner on 7 November 2011 and last observed on 14 November 2011. First county record.
- Rufous Hummingbird (HY-F) banded on 20 November 2011 in Richland Twp., Kalamazoo Co., Michigan First observed by the homeowner in early October 2011 and last observed on 10 December 2011. Second county record.
- Rufous Hummingbird (AHY-F) banded on 22 November 2011 in Damascus, Mahoning Co., Ohio. First observed by the homeowner on 10 November 2011 and last observed on 3 January 2012. First county record.
- Rufous Hummingbird (AHY-F) banded on 10 December 2011 in Peoria, Union Co., Ohio. First observed by the homeowners on about 1 November 2011 and last observed in the afternoon of 10 December 2010.
- Rufous Hummingbird (HY-M) banded on 12 December 2011 in Fort Wayne, Allen Co., Indiana. First observed by the homeowners around 1 November 2011 and last observed on 17 April 2012!
- Rufous Hummingbird (HY-F) banded on 21 December 2011 near Wadsworth, Medina Co., Ohio. First observed by the homeowner on about 15 September 2011 and last observed on 12 January 2012.
- Rufous Hummingbird (HY-F) banded on 29 December 2011 in Lowell, Kent Co., Michigan. First observed by the homeowner in late September 2011 and last observed on 11 January 2012.
- Rufous Hummingbird (HY-F) banded on 30 December 2011 in Canfield, Mahoning Co., Ohio. First observed by the homeowners on 28 November 2011, but it was then absent until 7-9 December, after which it was absent again until 23 December. Two other homes in the area were known to have feeders still up, a very unusual situation in this region. Last observed on 20 February 2012. Second county record.
- Rufous Hummingbird (AHY-F) recaptured on 4 January 2012 in Mansfield, Richland Co., Ohio. First observed by the homeowner on 1 November 2011 and last observed on 14 January 2012. Second county record. This bird was originally banded by Allen Chartier on 20 October 2009 as an adult near Loudonville, Ashland Co., Ohio, about 15 miles east of the current location. In addition, this bird was recaptured on 18 December 2010 in Pensacola, Florida by Fred Bassett!
- Rufous Hummingbird (HY-M) in Augusta Twp., Washtenaw Co. was first observed (and photographed nicely) by the homeowner on 2 November 2011 and was last observed around noon on 8 November 2011. First county record. A banding attempt failed as the bird departed two hours before my arrival at the site.

Table 2. Michigan totals of Ruby-throated Hummingbirds banded for all sites (May-September 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]	40	39	114	91	284	2.9/ 100 NH 0.9/ Trap Hr	2007 (2) 2008 (1) 2009 (7) 2010 (17)
Macomb Co., Metro Beach Metropark [MBMP]	6	8	83	68	165	5.4/ 100 NH	-
Kalamazoo Co., Augusta (Rhonda Dunithan) [KAL16]	46	64	22	12	144	5.9/ Trap Hr	2009 (9) 2010 (22)
Calhoun Co., Battle Creek (Mary Bird) [CAL3]	51	58	12	4	125	4.6/ Trap Hr	2007 (1) 2008 (10) 2009 (2) 2010 (20)
Branch Co., River Lake Inn (Marv & Anita Bliss) [RLI]	29	54	7	8	98	3.3/ Trap Hr	2008 (1) 2009 (2) 2010 (13)
Jackson Co., Waterloo Twp. (Charity Steere) [JAC10]	18	54	2	3	77	5.3/ Trap Hr	2007 (3) 2008 (3) 2009 (4) 2010 (11)
Kalamazoo Co., Fort Custer Training Center [FCTC]	11	27	17	16	71	4.6/ 100 NH 0.3/ Trap Hr	2010 (4)
Hillsdale Co., Litchfield Twp. (Bill & Marlene Koons) [HIL3]	13	54	3	0	70	5.0/ Trap Hr	-
Washtenaw Co., Sylvan Twp. (Jocelyn Granger) [WAS23]	7	46	0	0	53	6.4/ Trap Hr	2010 (7)
Jackson Co., Parma Twp. (Aaron & Danielle Potts) [JAC13]	19	22	4	2	47	4.7/ Trap Hr	2008 (1) 2010 (1)
St. Joseph Co., Constantine (Todd & Penny Engels) [STJ1]	8	29	0	3	40	1.9/ Trap Hr	-
Jackson Co., Waterloo Twp. (Arlene Taylor & Matt Laux) [JAC2A]	16	16	0	0	32	2.4/ Trap Hr	2006 (1) 2008 (2) 2009 (5) 2010 (5)
Van Buren Co., Paw Paw (Jim & Joyce Moulthrop) [VAN7]	5	23	0	0	28	5.6/ Trap Hr	-
Jackson Co., Sandstone Twp. (Lynn Ward) [JAC15]	7	11	4	0	22	1.9/ Trap Hr	2010 (2)
Jackson Co., Waterloo Twp. (Lathe & Kathy Claflin) [JAC2]	9	9	0	0	18	2.0/ Trap Hr	2006 (1) 2007 (1) 2008 (2) 2009 (1)
Livingston Co., Hamburg Twp. (Jim & Melissa Pappas) [LIV11]	5	5	3	4	17	1.2/ Trap Hr	2010 (2)

Table 2. Cont'd.

Location/Host	AHY-M	AHY-F	HY-M	HY-F	Total	Capture Rate	Re-captures
Kalamazoo Co., Kalamazoo (Karen Amsbury) [KAL15]	3	10	2	1	17	5.7/ Trap Hr	-
Jackson Co., Waterloo Twp. (Frank & Rose Blackwell) [JAC11]	11	4	2	0	17	3.8/ Trap Hr	-
Oakland Co., Milford (Barb Jensen) [OAK13B]	4	11	0	0	15	2.1/ Trap Hr	2008 (1) 2010 (1)
Washtenaw Co., Salem Twp. (Sheila Boyer) [WAS22]	5	5	2	0	12	2.5/ Trap Hr	-
Hillsdale Co., Hillsdale (Tim Tyler) [HIL2]	2	9	0	0	11	1.6/ Trap Hr	2009 (1)
Washtenaw Co., Salem Twp NE (Amy Donoghue) [WAS24]	3	4	2	0	9	2.0/ Trap Hr	-
Kalamazoo Co., Kellogg Bird Sanctuary [KBS]	1	0	3	3	7	3.5/ Trap Hr	-
Wayne Co., Inkster (Allen & Nancy Chartier) [WAY1]	3	2	1	0	6	0.8/ Trap Hr	2007 (1)
St. Clair Co., Port Huron SGA [PHSGA]	2	4	0	0	6	0.5/ Trap Hr	-
Berrien Co., Fernwood Nature Center (Wendy Jones) [FNC]	2	3	0	0	5	1.7/ Trap Hr	-
Washtenaw Co., Hudson Mills (Ben & Linda Colman) [WAS21]	2	2	0	0	4	1.0/ Trap Hr	2007 (1) 2009 (1)
Oakland Co., Milford (Stella & Vaughn Koshkarian) [OAK13]	0	4	0	0	0	0.8/ Trap Hr	2008 (1)
Allegan Co., Allegan (Jim & Darlene Smith) [ALL1]	1	1	0	0	2	0.3/ Trap Hr	-
Oakland, E.L. Johnson Nature Center (Dan Badgley) [ELJ]	1	1	0	0	2	0.5/ 100 NH	-
Jackson Co., Dahlem Center [JAC-DC]	0	1	0	0	1	0.4/ Trap Hr	-
TOTAL OF ALL LOCATIONS	331	581	289	214	1415	-	2006 (2) 2007 (9) 2008 (22) 2009 (32) 2010 (105)
	23.4%	41.1%	20.4%	15.1%			