# **2009 MAPS Year-End Recap**

BACKGROUND: The Monitoring Avian Productivity and Survivorship (MAPS) project is a continent-wide, breeding season population monitoring study that was started by the Institute for Bird Populations in Point Reyes, California in 1989. It has approximately 400-450 stations operating in any given year. Jug Bay has been a participant in MAPS since 1990 and is one of the oldest, continuously operating stations in the program. 2009 is the 20th year we have conducted this study.

HISTORICAL BANDING RATES: From 1990 through the end of the 2009 season we've banded 2,420 birds/61 species. Our Top Five migrant species that we've banded are: Wood Thrush/353, Red-eyed Vireo/312, Acadian Flycatcher/253, Ovenbird/160, and Common Yellowthroat/131. Our Top Five resident species are: Carolina Wren/148, Northern Cardinal/140, Tufted Titmouse/101, Downy Woodpecker/57 and Carolina Chickadee/47. We started using our current 14 net configuration (nets 1-11, 15-17) in 2004. Since then, we've averaged 88 bird bandings per season with a range of 64 in 2004 and 124 in 2008. During that same period we banded on average 23 species per season. We start banding in late May and end in late July/early August and have eight banding days per season.

AGE TERMINOLOGY: hatch year bird – a bird born during the current breeding season; after hatch year bird – a bird born previous to the current breeding season; second year bird – a bird born during the previous breeding season (last breeding season’s hatch year bird)

WEATHER SUMMARY FOR 2009: Temperatures and humidity levels throughout the 2009 season appeared to be slightly below seasonal norms. We experienced many rainy days in May and June but this only impacted one banding day. Day One was started on 26 May but high winds and some precipitation necessitated closing nets early. We were able to finish Day One on 29 May.

BANDING/RECAPTURE SUMMARY FOR 2009: In 2009, the number of birds banded, number of recaptures, and number of hatch year birds banded all exceeded the 5-year respective averages established since 2004 when we began using this current 14 net configuration (nets 1-11, 15-17). However, the number of species in each of these three categories was below the 5-year average.

We banded 95 birds/20 species. Our 5-year average is 88.2 birds banded (high of 124/2008 and low of 64/2004). Our 20 species banded however is below the 5-year average of 23.4 species banded (range 19/2004 to 30/2008). We did not add any new species to our station's banding list.

Our banding rate was 16.24 birds/100 net hours of operation. This is slightly above our 5-year average of 15.57 birds/100nh (low of 11.47 in 2004 and high of 21.60 in 2008) but below our average of 17.56 birds/100nh over the 1990-2008 time period.

In 2009 we banded 28 hatch year birds/8 species. Our 5-year average is 21.6 hatch year birds banded (range 16/2005 - 32/2006) of 10.2 species (range 8/2005 - 12/2006).

In 2009 we had 87 recaps/13 species. Please remember that recaptures do not necessarily equate to number of unique birds recaptured. For example - the same bird recaptured three times in the same season is counted as three recaptures. Our 5-year average is 67.8 recaptures (range 51/2005 - 85/2008) of 13.2 species (range 10/2004 - 18/2008). The earliest banding date of one of our recaptures was 2001.

We also captured, but did not band, single Swainson’s Thrush, Common Grackle and Mourning Dove. We nearly caught a Pileated Woodpecker but it got away.

2009 HIGHLIGHTS:

We banded a Yellow-billed Cuckoo (second year/sex unknown). This is only the 2nd Yellow-billed Cuckoo banded by our MAPS effort since 1990. The last Yellow-billed Cuckoo was banded in August 1999. While fairly regular breeders at JBWS, their relatively smaller numbers, furtive nature, and tendency to stay high in the tree canopy normally preclude capture in our ground-based mist nets.

We banded a Yellow-throated Warbler, only the 5th banded at JBWS since 1990 and the first since 2001.

Our top banded species was Acadian Flycatcher with an unusually high number of 17 bandings. Our 5-year average under our current 14-net configuration is only 6.8 bandings. Typically Red-eyed Vireo or Wood Thrush will occupy the top two spots with Acadian Flycatcher a distant 4th.

Of those 17 Acadian Flycatcher bandings, four were of hatch year birds - all banded on the same day. At least three of the Acadian Flycatcher hatch year birds were probably from the same brood. This is the most number of hatch year Acadian Flycatcher ever banded in the same day and ties the number banded in one season (four in 1994 and 1995 under a 17-net configuration). Historically, only 9% of the Acadian Flycatcher we band are hatch year birds.

Of the 12 Carolina Wren banded this season, 11 of them were hatch year birds! Our 5-year average is 4.2 hatch year Carolina Wren per season. Since 1990, about 25% of all birds that we band and age are hatch year birds. Carolina Wren however have a very high percentage (67%) of birds banded/aged that are hatch year birds. The most hatch year Carolina Wren we have banded in previous seasons is eleven in 1991, 1993 and 2001. Interestingly, of the 12 hatch year Carolina Wren, six of them were banded at net 15 over the course of four banding sessions.

We banded five Ovenbirds (5-yr average 6) of which four were hatch year birds (5-year average 2). These are the first hatch year Ovenbirds banded since 2006. Hopefully the 2007 decision not to conduct other research efforts in the MAPS Study Area during the breeding season will enhance Oven bird productivity. Oven birds are ground-nesters whose nests can readily be disturbed by foot traffic through the woods. Three of the hatch year Ovenbirds (1601-23443, 23444 and 23445) were banded at net one on 31 July over two rounds suggesting these may be from the same brood.

On 29 May, we banded a pair of Hairy Woodpecker (second year/male, female) that were caught in net 10 on the same round suggesting they are a mated pair. From 1990-2008 we had only banded 12 Hairy Woodpecker and only once before (11 Jun 1997) a possible mating pair.

On 26 May, we recaptured a probable pair of Scarlet Tanager (after hatch year/male, female) in net 5 on different rounds. These two tanagers were initially banded by us in July 2006 though caught in different nets and on different days.

We banded ten Northern Cardinals (after hatch year/8, hatch year/2) which is the most since 2001 when we banded 12. The 5-year average is 4.2.

The four most productive banding nets this season were Nets 1, 10, 15, and 16 accounting for 55% of all of our bandings (N=95). The 5-year average for these same nets is 35% of all bandings. Contrastingly, nets 6 and 7 accounted for about 1% of all bandings this season. There were no bandings from net 7 this season and only one from net six. Their combined 5-year average is about 11% of all bandings. Oddly enough, nets 6 and 7 accounted for 22 recaptures or 25% of our total (N=87) with a 5-year recapture average of 10% combined.

Surprisingly, the 0700, 0930 and 1020 rounds were almost equally productive banding rounds with about 20 birds banded in each. Conventional wisdom is that the numbers of birds banded decrease as the day goes on. In the past we haven't recorded round times in the database so we not able to determine historical norms.

2009 DETAILS:

TOP TEN SPECIES BANDED (W/2008 TOP TEN RANKING IN PARENS):

(M) Acadian Flycatcher/17 (7TH)

(R) Carolina Wren/12 (6TH)

(M) Wood Thrush/11 (1ST)

(R) Northern Cardinal/10 (5TH)

(M) Red-eyed Vireo/9 (2ND)

(R) Tufted Titmouse/6 (3RD)

(M) Ovenbird/5 (8TH)

(M) Common Yellowthroat/4 (4TH)

(R) Downy Woodpecker/3 (-)

(M) Eastern Phoebe/3 (-)

NOTE: M=Migrant Species R=Year-round resident species

In 2009, the Top Ten species of birds banded totaled 80 or 84% of all birds banded.

In 2008, the Top Ten species of birds banded totaled 85 or 69% of all birds banded.

BIRDS BANDED IN 2009 (NUMBER IN PARENS IS 2004-2008 AVERAGE PER YEAR):

Acadian Flycatcher/17 (6.8), Carolina Wren/12 (6.6), Common Grackle/2 (0.4), Common Yellowthroat/4 (6.8), Downy Woodpecker/3 (1.6), Eastern Phoebe/3 (1.2), Gray Catbird2 (1.8), Hairy Woodpecker/2 (1), Indigo Bunting/2 (1), Louisiana Waterthrush/1 (0.6), Northern Cardinal/10 (4.2), Ovenbird/5 (6), Prothonotary Warbler/1 (0.8), Red-bellied Woodpecker/1 (0.6), Red-eyed Vireo/9 (9.2), Scarlet Tanager/2 (2.8), Tufted Titmouse6 (4.6), Wood Thrush/11 (16.6), Yellow-billed Cuckoo/1 (0), Yellow-throated/1 (0).

HATCH YEAR VS. AFTER HATCH YEAR (PRODUCTIVITY):

In 2009 we banded and aged 95 birds of which 28 (or 29%) were hatch year birds. The 5-year average of hatch year birds to all birds banded/aged is 25%.

OTHER YEAR HATCH YEAR PERCENTAGES:

2009 - 29%

2008 - 18%

2007 - 20%

2006 - 31%

2005 - 23%

2004 - 34%

2009 HATCH YEAR BIRDS BANDED:

Acadian Flycatcher/4

Carolina Wren/11

Eastern Phoebe/3

Louisiana Waterthrush/1

Northern Cardinal/2

Ovenbird/4

Tufted Titmouse/1

Wood Thrush/2

TOTAL: 28

2009 RECAPTURES (SURVIVORSHIP):

We had 87 recaptures involving 60 individual birds. Four of those 60 birds were banded by other banders in the surrounding area with the remaining 56 birds originally banded by us.

The earliest banding date for a recapture was a Red-eyed Vireo (1551-23263) that was initially banded by us on 15 July 2001 and subsequently recaptured 1x in 2002, 2x in 2003, 1x in 2004, 2005, 2006, 2008 and 3x in 2009. This bird is at least 9 years old. The longevity record for a Red-eyed Vireo is 10 years 2 months according to the Bird Banding Lab at the Patuxent Wildlife Research Center in Laurel, MD. Red-eyed Vireos at JBWS have the highest number and percentage of birds that are recaptured in years subsequent to their banding year. In addition, they show a longer period of survivorship.

We also had a recap Ovenbird (2031-91146) that was initially banded by us on 1 July 2004 with only the one recapture in 2009. This bird is at least 6 years old. The longevity record for an Ovenbird is 11 years.

The 60 unique birds recaptured (total of 87 recaptures) had an initial banding year as follows:

2009 - 14 (Wood Thrush/4, Carolina Wren/3, Tufted Titmouse/2, Red-eyed Vireo/1, Common Yellowthroat/1, Ovenbird/1, Prothonotary Warbler/1, Acadian Flycatcher/1)

2008 - 24 (Wood Thrush/7, Red-eyed Vireo/4, Northern Cardinal/3, Carolina Wren/3, Tufted Titmouse/2, Common Yellowthroat/1, Brown-headed Cowbird/1, Downy Woodpecker/1, Prothonotary Warbler/1, Ovenbird/1)

2007 - 9 (Red-eyed Vireo/3, Acadian Flycatcher/2, Wood Thrush/2, Tufted Titmouse/1, Common Yellowthroat/1)

2006 - 11 (Red-eyed Vireo/3, Scarlet Tanager./2, Acadian Flycatcher/1, Wood Thrush/1, Tufted Titmouse/1, Northern Cardinal/1, Ovenbird/1, Blue Jay/1)

2005 - 0

2004 - 1 (Ovenbird)

2003 - 0

2002 - 0

2001 - 1 (Red-eyed Vireo)

BANDING NET PRODUCTIVITY (READ: NET NUMBER - 5-YEAR AVERAGE PERCENTAGE/2009 PERCENTAGE)

NET # - 2004-2008/2009

NET 1 - 13%/18%

NET 2 - 7%/4%

NET 3 - 5%/3%

NET 4 - 4%/4%

NET 5 - 4%/4%

NET 6 - *6%/1%*

NET 7 - *5%/0%*

NET 8 - 4%/7%

NET 9 - 9%/8%

NET 10 -*5*%/13%

NET 11 - 4%/5%

NET 15 - *8%/13%*

NET 16 - 9%/11%

NET 17 - 14%/8%

2004-2008 N=443

2009 N=95

RECAPTURE NET PRODUCTIVITY (READ: NET NUMBER - 5-YEAR AVERAGE PERCENTAGE/2009 PERCENTAGE)

NET # - 2004-2008/2009

NET 1 - 10%/5%

NET 2 - 12%/6%

NET 3 - 8%/8%

NET 4 - 7%/6%

NET 5 - 4%/7%

NET 6 - 5%/14%

NET 7 - 5%/11%

NET 8 - 7%/6%

NET 9 - 9%/9%

NET 10 - 4%/8%

NET 11 - 7%/8%

NET 15 - 6%/8%

NET 16 - 7%/1%

NET 17 - 8%/1%

2004-2008 N=334

2009 N=87

ROUND TIME BANDING PRODUCTIVITY:

0700 - 20 BIRDS

0750 - 14

0840 - 12

0930 - 19

1020 - 21

1110 - 9

Till next season.

*—Sandy Teliak (FOJB Volunteer)*