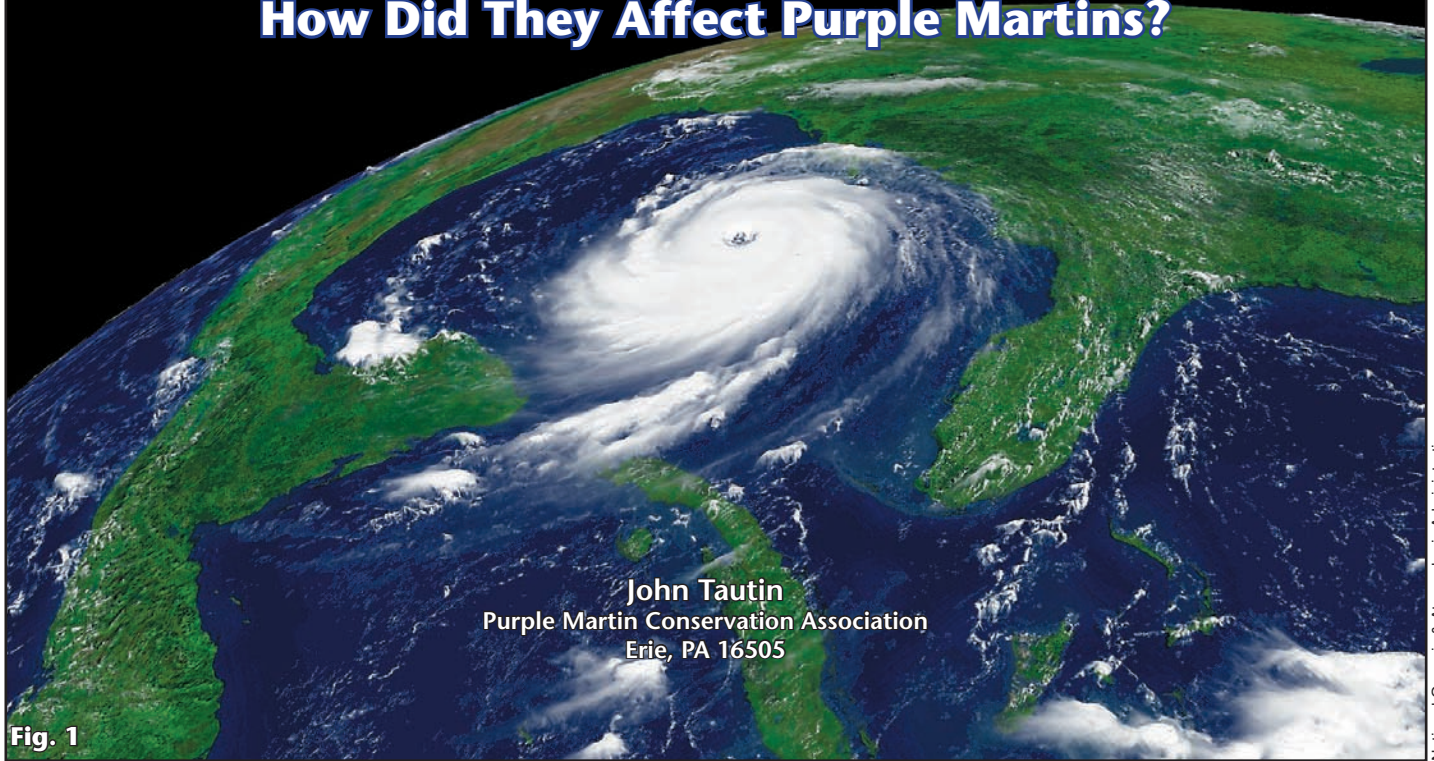


Hurricanes Katrina & Rita

How Did They Affect Purple Martins?



John Tautin
Purple Martin Conservation Association
Erie, PA 16505

Fig. 1

National Oceanic & Atmospheric Administration

On August 28, Hurricane Katrina, a powerful Category 4 hurricane, struck the Gulf Coast in the vicinity of New Orleans, LA. Katrina was followed by Category 3 Hurricane Rita striking the Gulf Coast on September 24 near Beaumont, TX, only a couple of hundred miles to the west of New Orleans. These hurricanes, particularly Katrina, brought unprecedented destruction and disruption to the Gulf Coast from eastern Texas to the panhandle of Florida. On behalf of the Board of Directors, staff and members of the *Purple Martin Conservation Association*, we extend our deepest sympathies to the victims of Hurricanes Katrina and Rita. Our thoughts and best wishes go out to all who were affected, and to all who are helping the victims in so many ways.

What Happened to Martin Roosts?

The human tragedy associated with Hurricanes Katrina and Rita is becoming well documented. Less is known about how Purple Martins may have been affected. Several major roosts, including ones at Biloxi Bay, MS, Dauphin Island, AL and the famous roost at Lake Ponchartrain, LA were directly in the path of Katrina. Pre-hurricane observations made by roost watchers, and analyses of Doppler radar images indicate that martins were present at some of these roosts prior to the arrival of Katrina. Post hurricane observations indicate that, indeed, Katrina seriously damaged some of these roosts. Much of the available information comes courtesy of inveterate roost monitor Keith Kimmerle, of Columbus, MS. He has studied the martin roosts in the Gulf region for more than a decade. See Kimmerle's extensive postings on the *PMCA's Purple Martin Forum* for details on how Katrina affected martin roosts along the Gulf Coast <http://www.purplemartin.org/forum/viewtopic.php?t=757>.

What Happened to the Martins?

While it is clear that their roosts locations were damaged, what actually happened to the martins is a more speculative matter. Had martins stayed at the roosts during the hurricanes, one certainly would expect significant, direct mortality. However, anecdotal information suggests that many martins would have left prior to the hurricanes.

Martins are early migrants, with some going around the Gulf of Mexico, and others thought to go directly across it. We have two reports from Mexico that suggest that substantial numbers of martins would have migrated from the southern U.S. prior to the arrival of Katrina. The first report is from Robert Straub, Coordinator *Turismo para la Conservación, Pronatura*, at Veracruz, Mexico. Veracruz is a famous migration site on the west coast of the Gulf of Mexico. Based on previous years' observations, Straub reported that: "We have a substantial migration of Purple Martins along the coast here...Purple Martins are the least numerous [swallow] species, but they still migrate in very large numbers. They are also one of the earliest migrants, beginning as early as late July, and most migrate through in August and barely into early September, with some late arrivals through September...I cannot tell you about this year, but I suspect that a large number of Purple Martins came through here before Katrina."

The second report from Mexico comes from Paul Wood, an ornithologist who works at the *Reserva Natural T'isil*, near Cancun on the Yucatan Peninsula of eastern Mexico. The Yucatan is where many trans-Gulf migrants make landfall. Wood reported that: "Our first [Purple Martin] records this year were of an adult male, an immature male, and two females on July 8th. However, before [Hurricane] Emily struck on the 17th, our maxi-

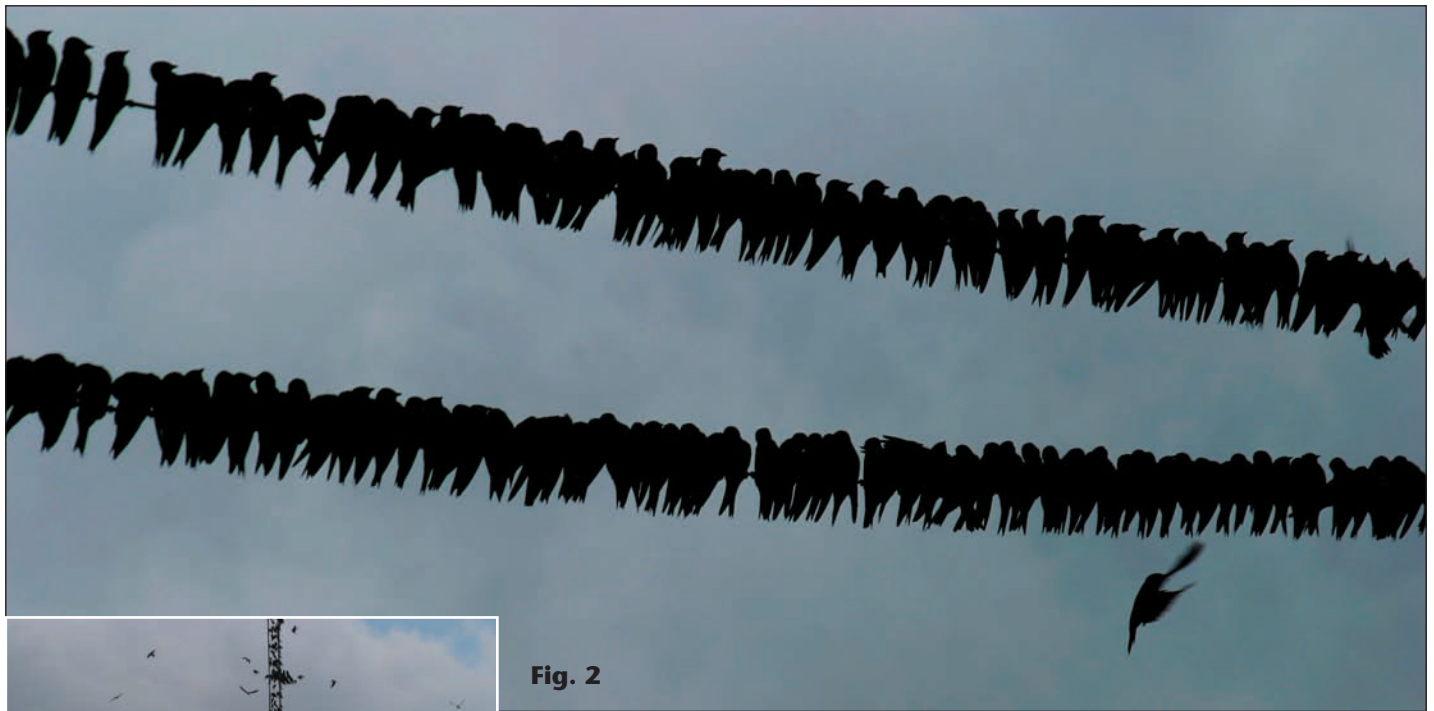


Fig. 2



Fig. 3

Fig 1: Hurricane Katrina approaches the Gulf Coast. Photo courtesy NOAA. Fig 2 & 3: Thousands of Purple Martins stop on migration at Reserva Natural T'isil near Cancun, Mexico. Photos by Paul Wood.

mum was only 32. August, by contrast, saw some substantial movements and we estimate 300-500 a day at T'isil during most of the month, with occasionally larger concentrations of 1,500-2,000 birds on a few days.

Looking at last year's numbers should give your members cause for hope. Out of over 43,000 birds counted between July 10th (first date) and October 13th (last date), just over 34,000 (almost 80%) had passed through by August 30th. This suggests that the bulk of the population had probably already passed through by the time Katrina hit."

Hopefully, as these reports suggest, many, if not most, martins would have migrated before Hurricanes Katrina and Rita struck. But what of those that had not migrated and were still using roosts in the southern U.S.? Some anecdotal information suggests that they may have dispersed from some roosts before Katrina. One would hope so, but in the short term, we may never know exactly what happened to those martins present at Gulf Coast roosts immediately prior to the hurricanes.

In the longer term, information from the U.S. Department of the Interior's Breeding Bird Survey (BBS) <<http://www.pwrc.usgs.gov/bbs/>> will help assess whether Hurricanes Katrina and Rita seriously affected Purple Martin populations. Nearly 40 years of BBS data document high breeding densities of Purple Martins along the Gulf Coast. These data showed martin population declines following Hurricane Abby in 1968 and Hurricane Agnes in 1972¹. Next year's data from PMCA's Project Martinwatch may shed additional light on the question.

What Happened to Martin Housing, and What to Do About It?

Given the horrific level of destruction to property along the Gulf Coast, it is reasonable to assume that many Purple Martin landlords lost their martin housing, if not their own homes to Hurricanes Katrina and Rita. Purple Martin landlords are dedicated people, and most will strive to rebuild their colonies as they rebuild their own homes. But it will surely be difficult for many landlords, and there is a real possibility that martins that escaped the hurricanes of 2005 could return to find a shortage of housing in 2006. To help landlords rebuild and assure adequate housing for returning martins, the PMCA is offering any and all landlords in the affected region substantial discounts on martin housing purchased through the PMCA through the end of the year. See our news item on page 1 of this issue for details, or our website <<http://www.purplemartin.org>>.

Again, our hearts and best wishes go out to all who were affected by Hurricanes Katrina and Rita. We wish you and your martins a speedy recovery in 2006.

¹ Robbins, C. S., D. Bystrak and P.H. Geissler. 1986. The Breeding Bird Survey: Its first 15 years, 1965-1979. U.S. Fish and Wildlife Service, Resource Publication 157. 196 pages.