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Hurricane Survival in Central Florida of Some Resident Birds

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News, Notes, Comments

Hurricane Survival in Central Florida of Some Resident Birds

Bird banding at Wekiwa Springs State Park (WSSP), located north of Orlando, FL, has been conducted throughout the year since September 2002. Early in 2002 the area was logged and burned to control Southern Pine beetle (*Dendroctonus frontalis*). Vegetation around the nets is primarily small pines and oaks with a few tall trees.

During the summer of 2004, three hurricanes traversed central Florida, *Charley* on 13 Aug, *Frances* on 5 Sept, and *Jeanne* on 25 Sep. Their approximate wind speeds in central Florida were: *Charley*–105 mph, *Frances*–70 mph and *Jeanne*–80 mph.

We compared the number of captures of individual birds of five resident species in WSSP from 1 Jun thru 25 Sep and individual recapture rates from 26 Sep thru 31 Dec for 2003, 2004 and 2005 Table 1). Species examined were Carolina Wren (*Thryothorus ludovicianus*), Eastern Towhee (*Pipilo erythrophthalmus*), Tufted Titmouse (*Baeolophus bicolor*), Northern Cardinal (*Cardinalis cardinalis*) and White-eyed Vireo (*Vireo griseus*).

Recapture percentages for the five species appeared to be higher or about the same when comparing 2004 to 2003 (Table 1). When comparing 2004 to 2005, percent capture rates appeared to be less for Carolina Wren and Tufted Titmouse after the hurricanes in 2004, about the

Capture of Resident Birds in Wekiwa Springs State Park Before and After Hurricanes of 2004

	Recaps 1 Jul-25 Sep	Recaps 26 Sep-31 Dec	New Caps 1 Jul-25 Sep	New Caps 26 Sep-31 Dec
CAROLINA WREN:				
2003	2	1	6	1
2004	4	1	5	2
2005	3	1	9	1
EASTERN TOWHEE:				
2003	4	2	12	0
2004	4	5	10	7
2005	7	1	11	6
TUFTED TITMOUSE:				
2003	0	2	1	1
2004	0	0	1	1
2005	1	1	2	2
NORTHERN CARDINAL:				
2003	1	0	4	0
2004	0	3	9	5
2005	1	2	4	4
WHITE-EYED VIREO:				
2003	0	1	8	4
2004	5	2	8	11
2005	4	2	8	1

same for Eastern Towhee and less for Northern Cardinal and White-eyed Vireo.

Visual/aural counts were also taken in the area of the nets in 2004 and 2005. Total number of species and individuals for 2004 were: 24 Jul, 6 and 12; 29 Aug, 10 and 15; 19 Sep 15 and 29; 16 Oct, 11 and 29; and for 2005: 22 Jul, 8 and 19; 27 Aug, 6 and 23; 24 Sep, 12 and 27; and 22 Oct, 11 and 24.

While not definitive, these data suggest that the birds survived the three hurricanes of 2004 without severe loss. The wren, titmouse, towhee, and vireo are primarily insect eaters. The cardinal consumes insects, as well as fruit and seeds. Studies have shown that insectivores survive hurricanes better than frugivores and nectivores (Askins and Ewert 1991, Waide 1991, Wunderlele, Jr. 1998). Waur and Wunderle, Jr. (1992) suggest that hurricanes' greatest effect occur after passage because of destroyed food source rather than during impact.

LITERATURE CITED

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Finding Distance and Direction

I am in the process of setting up a database to record and evaluate the many banded bird recoveries and foreign retraps for which I have received notification over the years and am using the commercial database FileMaker Pro® which I like very much.

For the database I wanted to be able to calculate easily the distance and direction from point of banding to the point of recovery/foreign retrap. I asked the Bird Banding Laboratory for a way to make such determinations and Danny Bystrak very kindly gave me just what I was looking for. It is simple to use as follows: go to the Internet at: **http://homepages.nildram.co.uk/~vwlowen/java/circle.htm** Enter the coordinates of the latitude and longitude which the Banding Lab provides banders with banded bird recoveries. Also, for locations in North America, select north latitude and west longitude and click on the calculate button. It will give you instantly the great circle distance in statute miles, nautical miles and kilometers as well as the direction in degrees. Really neat.

To avoid having to go online every time you want to do this, you can put a shortcut for the calculator on your computer's desktop (monitor). With Internet Explorer in Windows 98, go to the web site given above, click on "File" in the upper left corner of the screen and select "Save As." In the drop down window "Save Web Page" select "Save it to Desktop." There should then be a shortcut on the desktop which you can double (left) click on to bring up the calculator. To do this with Windows XP (at least with the Internet browser Mozilla Firefox that I am using currently) the procedure is similar. After clicking on "File," select "Save Page As" and in the Desk Top window enter the file name such as "Great Circle Distance." Then click on "Save." The calculations are made using a program written in Java Script on the web page.

I have been given permission to publish this by the owner of the web page, John Owens, in the United Kingdom.

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