



HMANA

Hawk Migration Association
of North America

The Raptor Population Index Partnership



HAWK MOUNTAIN

Hawk Mountain Sanctuary
Association



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Raptor Population Index Update Counting for Conservation

No. 2, May 2007

This is a report of recent developments of the Raptor Population Index Project. The aim of the RPI project is to determine population trends of migratory raptors using migration counts. Specifically, RPI's goals are: (1) To produce statistically defensible indices of annual abundance and calculate long-term population trends from as many sites as possible, (2) To make these results widely available to participating count sites, the scientific community, conservation agencies, and the public.

RPI is a joint effort of the Hawk Migration Association of North America, Hawk Mountain Sanctuary, and HawkWatch International. It is operated by four staff and guided by two committees listed at the end of this report.

RPI in the National Conservation Scene

The RPI team is collaborating in several regional and national conservation and bird monitoring initiatives, inserting much-needed information on trends and status of raptors into policy documents and active conservation networks. The Northeastern Coordinated Bird Monitoring Partnership, a large coalition of federal and state agencies, academic institutions, and non-for-profit organizations, is generating a region-wide strategy for bird monitoring. RPI presented its model of coordination and Ernesto Ruelas and David Mizrahi currently work on the migration and raptor sections of the strategy. During a workshop recently held at the Cornell Laboratory of Ornithology in Ithaca, NY, Ernesto described the scope of RPI and delivered a report prepared by Chris Farmer summarizing raptor population trends for USFWS Region 5, the northeastern United States.

The recently-released report *Opportunities for Improving Avian Monitoring* (February 2007), prepared by the North American Bird Conservation Initiative's Monitoring Subcommittee, highlights RPI as one of six model continent-wide surveys with a taxonomic-group focus.

HawkCount.org and its Connections to Biological Data Warehouses

Data-sharing is responsible for progress in many scientific disciplines. The research and conservation communities are learning this quickly, and building the inter-connectedness of independent databases to allow access to data. In April 2007, HawkCount.org became a partner of the Cornell Laboratory of Ornithology's Avian Knowledge Network, a federation of independent observational data sets whose aim is to archive, expose, visualize, and analyze, datasets for scientific, educational, and conservation purposes. Soon, data posted in HawkCount.org and released by the owners, will be available in some of the largest biological datasets in existence worldwide, such as the Global Biodiversity Information Facility (GBIF) and the National Biodiversity Information Infrastructure (NBII), and available for conservation and research purposes.

In the meantime, RPI continues growing its own archives – HawkCount.org currently holds data from 183 established sites (during autumn 2006 alone, over 80 sites contributed daily records) and the first fully-developed 22 site profiles of its new Monitoring Site database will soon be available in RPI's web site. HawkCount.org now contains records of over 50 million raptors recorded across North and Middle America.

The State of North American Birds of Prey

The RPI team is currently working on the first continent-wide synthesis of migration count data available for population trend analysis. This winter, Laurie Goodrich led a team of volunteers to complete the data entry of Western and Gulf sites from paper forms into electronic format and into HawkCount.org. With this, Laurie has helped more than 10 different sites to transfer 15-30 years of data and make them available for analysis.

Chris Farmer has completed analyses of data sets from 22 migration sites across Canada, United States, and Mexico. This monumental and collective work will be presented this autumn in a symposium entitled *The State of North American Birds of Prey*, during the Raptor Research Foundation-HMANA conference in Fogelsville, Pennsylvania, September 12-16, 2007. (Attend the conference to hear about these exciting developments and meet RPI staff. Contact Laurie Goodrich, Local Committee Chair, at goodrich@hawkmtn.org or visit www.hawkmountain.org for more information on this landmark conference).

The RPI team also expects to deliver a book that summarizes these results to all conference attendees. The book will contain chapters on conservation and ecology of raptor migration; concepts, analysis methodologies, recommendations for raptor migration monitoring sites, profiles of each migration site, and conservation status reports for each species of North American raptor. At the core of the book are the analyses of long-term watch site data, arranged in three chapters with a regional scope: East, West, and Gulf Coast.

More than 20 authors will contribute to this book. This publication is expected to launch a series of RPI biennial updates on population trends based on HawkCount data from as many sites as possible.

What is next? The RPI team will soon begin the analysis of seven spring watch sites. Data entry is almost finished for Fort Smallwood MD, Montclair NJ, Derby Hill NY, Braddock Bay NY, Grimsby ON, Manzano Mountains NM, and Whitefish Point MI.

American Kestrel Declining Nearly Everywhere

Although many raptor species are currently relatively stable, an important finding of RPI analyses so far is that the American Kestrel has declined at most watch sites over the past 10-30 years. There will be a special one day symposium entitled *Are American Kestrels in Decline?* on Thursday September 13 as part of the RRF/HMANA meeting in Fogelsville PA (see details above).

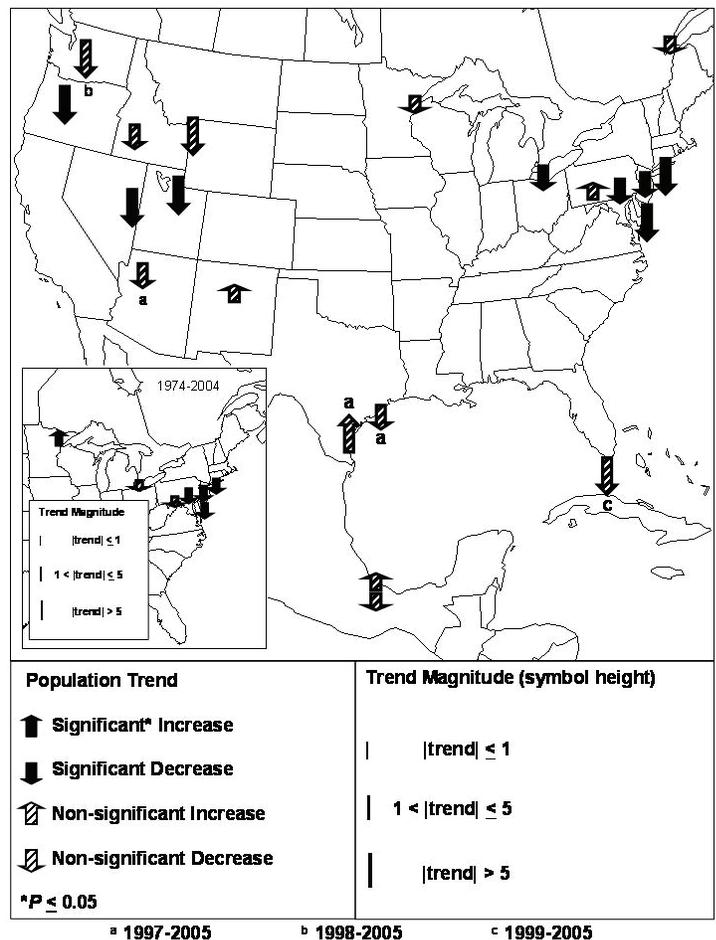


Figure 1. Short-term population trends for American Kestrels at 8 eastern and midwestern (1994-2004), 9 western (1995-2005), and 4 Gulf Coast (1995/1999-2005), fall raptor migration sites in North America. The inset shows long-term trends (1974-2004) for 7 eastern sites. Trend magnitudes are expressed in percent change per year. A bi-directional arrow indicates that the estimated trend is 0% per year (Figure courtesy of Dr. Chris Farmer).

NFWF Grants Third Year of Support for RPI

The National Fish and Wildlife Foundation (NFWF) approved a challenge grant of \$101,515 dollars to continue the year 3 of the Raptor Population Index Project. In order to access these funds, RPI will need to raise a total of \$62,116 dollars in cash from non-federal sources and to commit additional in-kind resources for the completion of this phase of the project.

The goals of year 3 include the dissemination of trend and conservation status information, further participation in conservation initiatives, maintenance and development of enhanced, user-friendly reporting capabilities of HawkCount.org and comparison of spring and autumn trends. At the end of this phase, the RPI team expects that the machinery that sustains RPI, from field data collection to data analysis to the delivery of results for on-line users of HawkCount.org will begin to fill the large information gap on raptor population status that we faced in 2005.

HMANA receives NMBCA Grant to support RPI

The U.S. Fish and Wildlife Service's Neotropical Migratory Bird Conservation Act (NMBCA), has approved a grant of \$83,050 dollars for RPI. The RPI team will use these funds to continue our operations beyond the termination of the NFWF grant in mid-2008. This is a challenge grant with a 1:3 matching requirement, and in order to access these funds, the RPI team needs to raise \$253,799 dollars by mid-2009.

Thank you!

The achievements of RPI would not be possible without your continued support! This is a citizen scientist-driven project, and is only possible with your submissions of hourly data to HawkCount.org, please help us keep the flow of data going and keep your and your site's contact information current in HawkCount.org.

Your financial support is also critical to RPI's success. Since August, 2006, RPI has received donations from 65 generous donors. The average donation amount is a great reflection of your commitment to RPI: over \$490 in average! (Donations range from \$10-10,000 dollars). We can not access the full grant amount offered by NFWF and NMBCA without your assistance. Please help us continue to make RPI a program for timely raptor monitoring. For a complete list of donors of RPI (2004-2006), please see the most recent issue of *Hawk Migration Studies* (Volume 32, Issue 2, page 16).

Management Committee:

Keith L. Bildstein, Chair, Stephen W. Hoffman, David J.T. Hussell, Iain MacLeod, Jeff P. Smith, Will Weber.

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