# Eyes on the Sky Counting for Conservation





American Kestrel Photo by Vic Berardi

# The Raptor Population Index

2007 Annual Report









Golden Eagle Photo by Joseph Kennedy

Osprey Photo by Joseph Kennedy



Northern Harrier Photo by Joseph Kennedy

# Counting for Conservation: A Message from the Partners

This report has an outstanding conservation message: We have completed the first continental-scale assessment of the status of North American raptor populations. The resulting report *The State of North America's Birds of Prey, 2007*, which will be published later this year, contains chapters on the history of raptor conservation, updates on our knowledge of migration ecology, and recommendations for the operation of migration watchsites.

Our conservation assessment depends upon two critical elements provided by hawk-watchers: (1) high-quality field data submitted to HawkCount.org, and (2) financial contributions made in support of RPI. Please find more information on the soon-to-be-published *The State of North America's Birds of Prey, 2007*, below.

We thank you for your help during the first three years of the RPI project, and invite you to renew your support for raptor conservation.

Ernesto Ruelas Inzunza, RPI Project Manager, Hawk Migration Association of North America Keith L. Bildstein, Sarkis Acopian Director of Conservation Science, Hawk Mountain Sanctuary Jeff P. Smith,

Conservation Science Director,

HawkWatch International

# **RPI Purpose, Need, and History**

Diurnal raptors are at the top of many food chains and are sensitive indicators of ecosystem health. Hawkwatchers have combined their enjoyment of raptor migration with the collection of valuable long-term data on the status of birds of prey from migration watchsites at mountaintops and along shorelines.

Hundreds of watchsites contributed data to a central repository over the past several decades, but most of these data remained unused for many years.

RPI started in the summer of 2004 in response to the need to put these count data to conservation use. The existing network of watchsites, operated by hundreds of volunteer citizen scientists and professional biologists, was brought together to fill this gap by submitting count data collected at these sites to the HawkCount.org web site, RPI's central data bank.

# **RPI Vision and Objectives**

The RPI partners believe that raptor migration counts contribute effectively to long-term population monitoring by producing scientifically-sound assessments of population status that are shared widely through public outreach and education.

### Specifically, RPI is:

- (I) Producing statistically defensible indexes of annual abundance and trends for each species of migratory raptor from as many count sites as possible;
- (2) Providing frequently updated assessments of the status of each species, and;
- (3) Making those results widely available to participating count sites, the scientific community, conservation agencies, and the public.



Hawk watchers at Illinois Beach State Park in Illinois Photo by Vic Berardi



American Kestrel
Photo by Joseph Kennedy



Merlin Photo by Joseph Kennedy



Peregrine Falcon Photo by Iain MacLeod

# Announcing a Milestone Report: The State of North America's Birds of Prey, 2007

The State of North America's Birds of Prey, 2007, is the first continent-wide assessment of the population status of raptors using migration count data. The report compiles autumn counts from 22 watchsites in the East, West, and around the Gulf Coast, from Canada to México. Data submitted in hourly format to HawkCount.org, or transferred manually by HawkWatch International and Hawk Mountain Sanctuary scientists and volunteers, were analyzed to assess population trends for periods of between 9 and 30 years.

The report contains some important results, including documentation of recoveries of several species following the DDT era (Figure 1) and recent declines of American Kestrels nearly everywhere (Figure 2).

Results from this landmark publication will be presented this autumn in a symposium entitled The State of North America's Birds of Prey, 2007 at the joint meeting of the Raptor Research Foundation and Hawk Migration Association of North America in Fogelsville, Pennsylvania, 12-16 September 2007. A formal announcement of the publication will be made later this autumn.

# **Progress Review 2006-2007**

- Completed the compilation of data and population trend analyses for 22 autumn counts
- · Prepared profiles for each of the sites used for analysis
- Prepared conservation status reports for eighteen species of raptors
- Introduced RPI and preliminary outcomes to the scientific community in a symposium held in Veracruz, México
- Participated actively in inserting RPI into large-scale conservation initiatives such as the Northeastern Coordinated Bird Monitoring Partnership
- Developed the connection of HawkCount.org to other biological data warehouses such as the Avian Knowledge Network

# **Funding Development**

Primary funding for RPI comes from a 2:1 challenge grant from the National Fish and Wildlife Foundation (NFWF). In 2007, NFWF approved a third-year grant of \$101,515. To fully access the grant, those dollars must be matched with \$204,161 from non-federal sources.

These matching funds come from the three RPI partner organizations. Hawk Mountain continues its long-term commitment to supporting the position of North American Monitoring Coordinator, along with time from their Senior Monitoring Biologist, and many other in-kind contributions, including volunteer entry of counts. HawkWatch International and the Hawk Migration Association of North America also are making significant contributions to the matching funds needed. In grant-year 2007-2008, our goal is to raise \$61,116 so that we may access the NFWF grant in full.

## Plans for 2007-2008

#### During the next year, RPI will:

- Publish The State of North America's Birds of Prey, 2007;
- Convene a symposium at the 2007 joint meeting of the Raptor Research Foundation and Hawk Migration Association of North America to highlight the RPI Project and The State of North America's Birds of Prey, 2007 report;
- Improve HawkCount.org;
- Enter counts for 10-15 spring monitoring sites and analyze them.

#### **RPI** Watchsites

We thank the following watchsites for submitting at least 250 site-days of hawk counts in hourly format, over five years or more, for RPI (as of July 2007)

Allegheny Front, PA

Audubon Hawkwatch at Waggoner's Gap, PA

Barre Falls, MA

Beamer Conservation Area, ON

Belvédère Raoul-Roy, QC

Blueberry Hill, MA

Boise Ridge, ID

Bonney Butte Raptor Migration Project, OR

Borrego Valley, CA

Braddock Bay, NY

Bridger Mountains Raptor Migration

Project, MT

Cape May Bird Observatory, NJ

Chelan Ridge Raptor Migration Project, WA

College Creek, VA

Corpus Christi Raptor Migration Project, TX

Eagle Crossing, QC

Florida Keys Raptor Migration Project, FL

Fort Smallwood Park, MD

Franklin Mountain, NY

Goshute Mountains Raptor Migration

Project, NV

Grand Canyon Raptor Migration

Project, AZ - Lipan Point

Grand Canyon Raptor Migration

Project, AZ - Yaki Point

Hamburg Hawkwatch, NY

Hawk Cliff, ON

Hawk Mountain Sanctuary, PA

Hawk Ridge Bird Observatory, MN

Holiday Beach Migration

Observatory, ON

Illinois Beach State Park, IL

Jacks Mountain, PA

Kiptopeke, VA

Kittatinny Mountain, PA

Lighthouse Point Hawk Watch, CT

Mahogany Rock, NC

Manzano Mountains Raptor Migration

Project, NM

Montclair Hawk Lookout, NI

Montreal West Island, QC

Mount Lorette, AB

Observatoire d'oiseaux de Tadoussac, QC

Peak Mountain, CT

Picatinny Peak, NJ

Pilgrim Heights, MA

Ripley Hawk Watch, NY

Rose Tree Park, PA

Sandia Mountains Raptor Migration

Project, NM

Second Mountain, PA

Smith Point Raptor Migration Project, TX

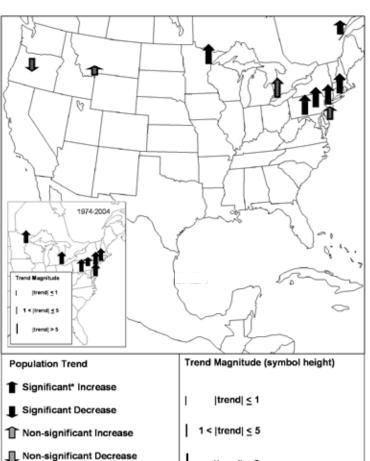
Snickers Gap, VA

Stone Mountain, PA

Tuscarora Summit, PA

Veracruz River of Raptors, México

Wellsville Mountains Raptor Migration Project, UT



b 1998-2005

|trend| > 5

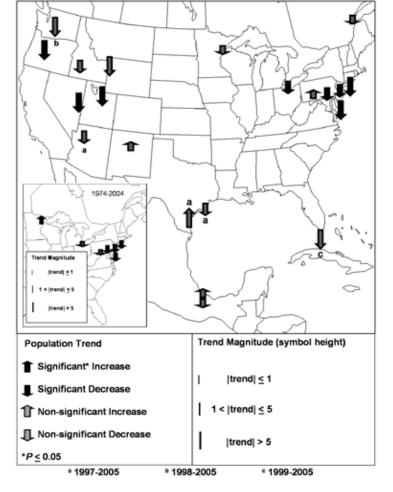
c 1999-2005

Figure 1. Bald Eagle population trends. After the DDT era, Bald Eagle populations have experienced a remarkable recovery.

Figure 2. American Kestrel population trends. Scientists are trying to elucidate the reasons for the American Kestrel's recent and widespread declines.

\* 1997-2005

\*P ≤ 0.05



#### **RPI Sponsors:**

#### **Grants:**

#### **Golden Eagle (\$5,000+)**

National Fish and Wildlife Foundation

#### Northern Goshawk (\$1,000-\$4,999)

U.S. Fish and Wildlife Service Neotropical Migratory Bird Conservation Act

#### **Organizations:**

#### Peregrine Falcon (\$500-\$999)

Eastern Massachusetts HawkWatch

Hawk Mountain Sanctuary Volunteers

Niagara Peninsula Hawkwatch

#### Broad-winged Hawk (\$100-\$499)

Birding Club of Delaware County Niagara Peninsula Hawkwatch (in memoriam Bruce Duncan)

#### Individuals:

#### **Golden Eagle (\$5,000+)**

Jennifer P. Speers George W. Perkins, Jr.

#### Northern Goshawk (\$1,000-\$4,999)

Jason Sodergren

#### Peregrine Falcon (\$500-\$999)

Andrew Francis

David J.T. Hussell and Erica Dunn

lain and Susan MacLeod

David P. McNicholas

Stephen B. Oresman

Chandler S. & Eleanor C. Robbins

Will Weber

Joseph E. Wojtanowski

# Broad-winged Hawk (\$100-\$499)

Ajit I. and Liza Antony

David W. Babington

Warner B. and Ann E. Berthoff

Peter H. Bloom

Robert F. Boehm

David and Catherine A. Brandes

Terry L. Bronson

Judith C. Cinquina

Alden C. Clayton

Mary E. Clemesha

Neil W. Currie

Russell D. Edmonds

Susan and Wavell Fogleman

Ralph and Jane Geuder

David and Ursula Godine

Laurie J. Goodrich

John C. and Marya B. Halderman

Stephen W. Hoffman

Sharon Johnson

Daniel E. Miller

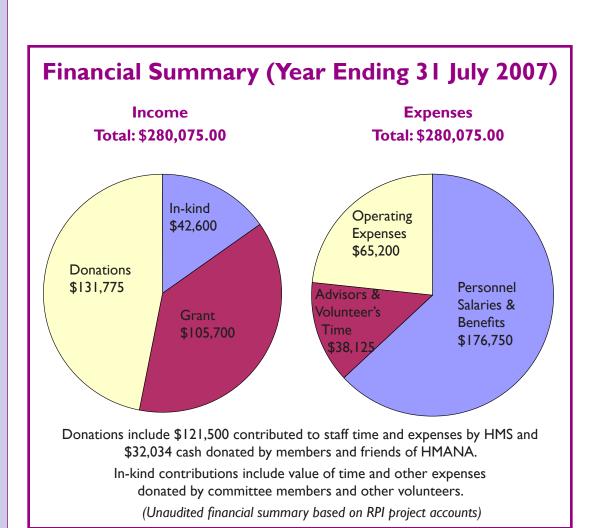
### Collaborate with RPI

#### Why should your hawkwatch be part of RPI?

- RPI provides safe storage of your counts and makes data visible and available for use to researchers, conservation managers, and the general public
- RPI provides results to many data queries in real time (and continues to improve and further develop its reporting capabilities)
- RPI will provide you with statistically valid assessments of trends of raptors at your site and comparisons with other sites
- Through RPI, counting hawks at your site counts for raptor conservation. As RPI develops, we expect to improve and increase our direct interactions with participating sites and with the conservation community.

### **How You Can Contribute to RPI**

- Collect data systematically at your watchsite and report it in hourly format in the HawkCount.org web site
- Adopt the current, standardized RPI (HMANA) data-collection protocol (available at www.rpi-project.org)
- Enter historical hourly counts from your site into the HawkCount.org database
- Help promote awareness of the RPI Project and its values among your local hawkwatching community
- Make a donation to RPI



#### **Broad-winged Hawk** (continued)

Angelo C. and Marian L. Mincone Scott S. Moorhouse Mary Normandia

Benjamin Olewine

Stephanie P. Parkinson

R. Gilbert and Jann M. Randell

Ernesto Ruelas Inzunza

Ernesto Ruelas Inzunza

Jane M. and Bernard W. Schaaf

Susan K. Simovich Pamela Kim Van Fleet

#### American Kestrel (< \$100)

George N.Apell
John M. Brotherton
Francine Cantor
Cynthia D. Ellis
Norval Fairman

Robert and Linda Feldman

Gregory A. George

A. Craig and Isabel L. Houston

Rudolph Keller

Arlene F. and David M. Koch

Thomas J. and Janet L. Kuehl

William C. Latta

Lawrence F. LaPré

Betty E. Oleary

Sue Ann Ricciardi

Susan D. and Jeffrey L. Schmoyer

Dan A. Sherman

Arthur Slaughter

Matilda E.Thompson

Matthew E.Wlasniewski

# Data entry Staff and Volunteers:

Laurie Conlon

Mary-Therese Grob

lack Holcomb

Eleanor Kline Ann Lessel

Jon Levin

Jim Morris

Marc Robinson

Don Woodring

Linda Ziegler

Hawk Mountain interns

# **Become a Sponsor of the RPI Project and Support Raptor Conservation**

Generous support of individuals and hawk watches has been critically important to the successful launching of RPI. We cordially invite individuals and hawk watches to help bring the RPI vision to reality by becoming Annual Sponsors.

#### Please choose one of the following six levels of sponsorship:

 Golden Eagle
 \$5,000 or more

 Osprey
 \$2,500 - \$4,999

 Northern Goshawk
 \$1,000 - \$2,499

 Peregrine Falcon
 \$500 - \$999

 Broad-winged Hawk
 \$100 - \$499

 American Kestrel
 < \$100</td>

Please make checks payable to: HMANA and send them to Ernesto Ruelas Inzunza, Raptor Population Index Project Manager, Cornell Laboratory of Ornithology, 159 Sapsucker Woods Road, Ithaca, NY 14850. Alternatively, you may contribute on line at http://www.hmana.org/rpi. All contributions are tax deductible to the extent allowed by law. RPI donors over \$100 receive a complimentary one-year HMANA membership.

### The RPI Team

#### **Management Committee**

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

#### **Science Advisory Committee**

David J.T. Hussell, Chair (Ontario Ministry of Natural Resources); Jonathan Bart (United States Geological Survey), Keith L. Bildstein (Hawk Mountain Sanctuary), Charles M. Francis (Canadian Wildlife Service), Mark R. Fuller (United States Geological Survey), Laurie J. Goodrich (Hawk Mountain Sanctuary), Stephen W. Hoffman (Montana Audubon Society), Steven T. Kelling (Cornell Lab of Ornithology), David Mizrahi (New Jersey Audubon Society), Bruce Peterjohn (United States Geological Survey), Jeff P. Smith (HawkWatch International).

#### **RPI Staff**

Ernesto Ruelas Inzunza, RPI Project Manager, HMANA, ruelas@hmana.org; Christopher A. Farmer, North American Monitoring Coordinator, HMS, farmer@hawkmtn.org; Jason Sodergren, HawkCount Database Specialist, HMANA jason@taiga.com.

#### **Organization Support**

Laurie J. Goodrich (HMS) and Iain MacLeod (HMANA)

# **RPI Project Contacts**

Ernesto Ruelas Inzunza
Hawk Migration Association of North America
Cornell Lab of Ornithology
159 Sapsucker Woods Rd.

Ithaca, NY 14850 ruelas@hmana.org

Tel. (607) 254-2464

Organizational background at:

www.hmana.org

Keith L. Bildstein
Acopian Center for Conservation Learning
Hawk Mountain Sanctuary
410 Summer Valley Rd.
Orwigsburg, PA 17961
bildstein@hawkmtn.org
Tel. (570) 943-3411, ext. 108
Organizational background at:
www.hawkmountain.org

Jeff P. Smith
HawkWatch International
1800 S.West Temple, Suite 226
Salt Lake City, UT 84115
jsmith@hawkwatch.org
Tel. (801) 484-6808, ext. 109
Organizational background at:
www.hawkwatch.org