

Eyes on the Sky

Counting For Conservation



Photo: Jason Sodergren

The Raptor Population Index

2004-2005 Annual Report





Red-tailed Hawk

Working Together for Raptors: A Message from the Partners

Accurate knowledge of population status and change is fundamental for bird conservation. Lack of reliable information on populations of many raptors forms a conspicuous gap in North American bird monitoring.

RPI brings together 3 leading hawk watch and migration research organizations – the Hawk Migration Association of North America (HMANA), Hawk Mountain Sanctuary (HMS) and HawkWatch International (HWI) - in a program whose goal is to contribute to conservation of North America's migratory raptors by creating a new continent-wide monitoring program based on counts of hawks during their migrations.

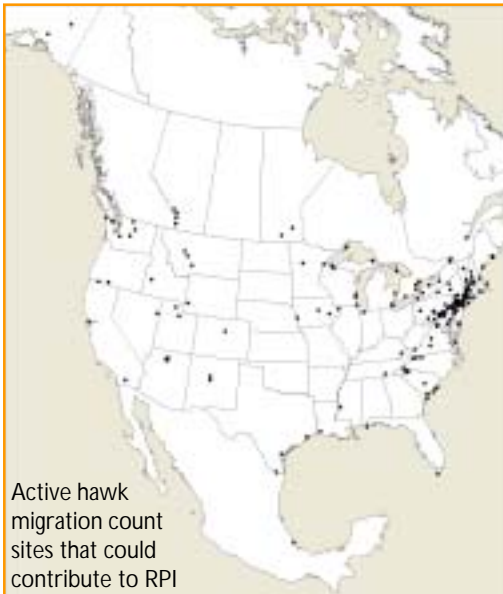
RPI got off the ground in August 2004 when Hawk Mountain Sanctuary hired Chris Farmer as North American Monitoring Coordinator. A challenge grant from the National Fish and Wildlife Foundation, along with generous matching contributions from members and friends of the partner organizations, enabled RPI to begin to soar in 2005. In May, Ernesto Ruelas Inzunza joined the program as HMANA's RPI Project Manager.

We are pleased to report on progress of RPI over the past year and to acknowledge and thank the many organizations and individuals who have helped RPI take flight. We specially appreciate significant donations from three watch sites, as recognition that RPI is a joint endeavor that benefits all components of the hawk watching community. Indeed, RPI is a partnership not only among our organizations but between hawkwatchers, scientists, and conservationists, all focussed on the same goal. Together we can do more for raptors than any of us can do alone. We invite you to join us in this journey and to help bring RPI to its destination.

Ernesto Ruelas Inzunza,
RPI Project Manager,
HMANA

Keith L. Bildstein,
Sarkis Acopian Director
of Conservation Science,
HMS

Jeff P. Smith,
Science Director,
HWI



Active hawk migration count sites that could contribute to RPI

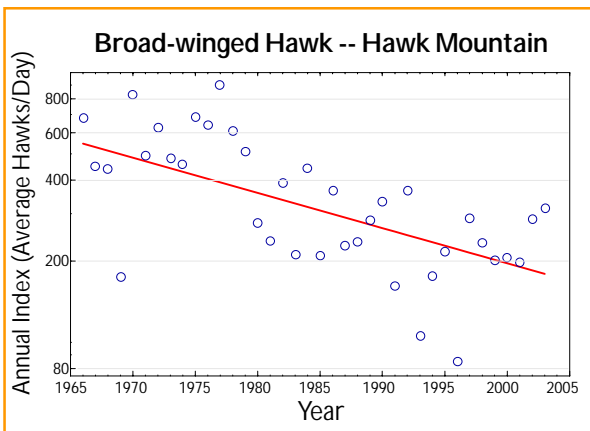
RPI Purpose and Need

Raptors are particularly sensitive indicators of environmental health and change because they inhabit most ecosystem types, occupy large home ranges, feed at the top of the food pyramid, and are highly sensitive to chemical contamination and other forms of human-caused disturbance.

Through their majesty and mastery of the air, birds of prey enrich the lives of those who see them. Hawk migrations attract a broad array of people, young and old, novice and expert alike, who find themselves drawn to mountain tops and coastlines each spring and fall to witness one of the great spectacles of the natural world – raptor migration. It is our responsibility to ensure that these opportunities remain available to future generations.

Lack of reliable information on populations of many raptors forms a conspicuous gap in North American bird monitoring. An authoritative recent report* recommended: "... improvement of migration monitoring to meet information needs of many raptors..." Among other objectives, RPI is designed to implement that recommendation.

The large volume of potentially useful data, collected by a network of citizen scientists over the years at numerous hawk watch sites, has never before been brought together in a coordinated scheme to provide timely information on raptor population trends. RPI will use those data to understand what is happening to raptors on a broad scale in near-real time.



*Partners in Flight North American Landbird Conservation Plan;
http://www.partnersinflight.org/cont_plan/default.htm



Peregrine Falcon

The RPI Vision

The vision of the RPI partners is to contribute to effective conservation of migratory raptors through continent-wide long-term monitoring of raptor migration, scientifically sound assessments of population status, and public outreach and education.

The specific objectives of the Raptor Population Index (RPI) program are to (1) produce statistically defensible indices of annual abundance and trends for each species of migratory raptor from as many count sites as possible, (2) provide frequently updated assessments of the status of each species, and (3) make those results widely available, i.e. to participating count sites, the scientific community, conservation agencies, and the public.

Taking Flight: Progress Review, 2004-2005

Data Analyses and Conservation Assessments

The analysis unit of RPI is located at Hawk Mountain's Acopian Center for Conservation Learning under the leadership of Chris Farmer. Assisted by David Hussell and David Mizrahi, Chris has completed an analysis of fall migration counts from Cape May NJ and Hawk Mountain PA, which included evaluation of six different methods of calculating annual abundance indices and trends. This work has been written up and submitted to a scientific journal for publication. Subsequently, Chris has started work on counts from five other eastern fall migration sites: Hawk Ridge MN, Holiday Beach ON, Waggoner's Gap PA, Montclair NJ, Lighthouse Point CT.

Meanwhile, Jeff Smith and co-workers at HWI are compiling data from several western sites and Chris Farmer has completed a preliminary analysis of counts from Bridger Mountains MT. Other sites to be included in this western phase of the work will likely include Bonney Butte OR, Goshute Mountains NV, Wellsville Mountains UT, and Manzano and Sandia Mountains NM.

Graphs depicting preliminary results of some of these analyses are included in this report.

Preliminary assessments of the status of American Kestrel and Bald Eagle in the north east have been posted on the Hawk Mountain web site (http://www.hawkmountain.org/raptor_conservation.htm). An RPI goal is to create readily available and regularly updated regional assessments for all species of migratory raptor.

HawkCount (<http://HawkCount.org>)

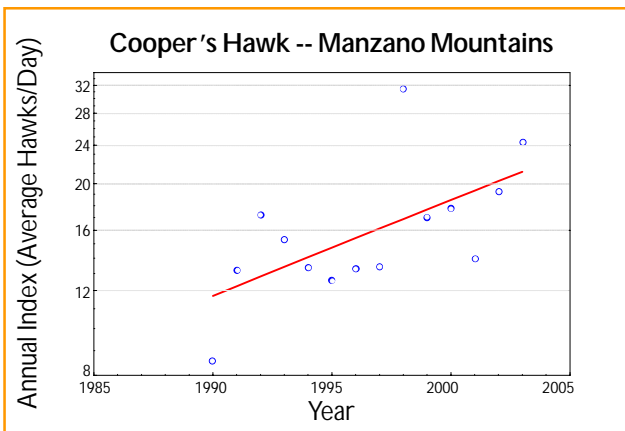
HMANA's principal roles in the RPI program are to expand the available data via the HawkCount web site and database, to encourage and assist existing and new watch sites to deposit their current and historical hourly counts into HawkCount, and to develop ways to effectively communicate RPI results to hawkwatchers, the conservation community and to the public.

A challenge grant from the National Fish and Wildlife Foundation (NFWF), enabled HMANA to employ Jason Sodergren part-time as the RPI Database Specialist, starting 1 January 2005. Jason continues to work from his office in Detroit MI. Ernesto Ruelas Inzunza joined HMANA as RPI Project Manager on 16 May 2005. Ernesto is well-known to many hawk watchers for his association with the Veracruz River of Raptors project in Mexico. Ernesto's office will be located at the Cornell Laboratory of Ornithology in Ithaca NY. Hawk watchers can expect to hear more from him as their direct contact with the RPI program.

Jason has implemented many improvements to HawkCount, many of which are behind the scenes and not obvious to users of the web site, such as hosting HawkCount in a new server with improved data storage safety features and multiple backup capabilities. These enhancements ease the transfer of data from HawkCount to the analysis unit at Hawk Mountain.



Red-tailed Hawk



Data Volunteers:

We thank the volunteers who have jointly contributed over 1,400 hours to entering and proofing count data into the computer for analysis in RPI from August '04 to August '05:

- Phil Campbell
- Greg Cryer
- Mark Dristy
- Sue Ferrance
- Ray Fluck
- Ellen Grim
- Kevin Grim
- Dave Grove
- Michael Hendrick
- Ginny Kauffman
- Eleanor Kline
- Ann Lessel
- Jon Levin
- Cindy Markovits
- Jim Morris
- Bill Reichard

and the many others that enter hourly counts into HawkCount or who helped with data entry elsewhere.



Red-shouldered Hawk



Photo: Iain MacLeod

Biologists, citizen scientists, birdwatchers, and the interested public gather at migration sites to identify and count raptors.

The database continues to expand: as of 31 August it contained nearly 30,000 hawk count data days, an increase of 27% over the past year. The number of hawkwatches that currently contribute data is 149, a 9% increase since 2004.

In August 2005, an updated Data-Release Policy was posted on the web site. This aims to make HawkCount data as freely available as possible to researchers, while respecting the proprietary interests of those who collected and own the data.

Also, a generic spreadsheet is now available for entry of historical data into HawkCount, for use by those who prefer this approach to entry on the web.

Funding Development

Funding of the RPI program comes from a grant from NFWF, contributions of the partner organizations, and donations from friends of RPI. The NFWF challenge grant of \$86,100 was for the first year of a 3-year project starting 1 January 2005. The grant must be matched 2:1 by contributions from non-federal government sources.

Hawk Mountain Sanctuary made a major long-term commitment to raptor monitoring by funding the permanent position of North American Monitoring Coordinator at HMS's Acopian Center for Conservation Learning. This accounted for about 30% of the match required to access the NFWF grant. An appeal to members and friends of HMANA generated over \$28,000 in "Founding Sponsorships" of the RPI program, worth an additional \$14,000 from the NFWF grant.

We must build on these successes to ensure that RPI is put on a firm financial footing for the future. As this report goes to the printer, we await news from NFWF concerning the second year of the challenge grant, which also must be matched 2:1. To ensure that we meet this challenge, we plan to submit applications to several foundations and to seek continuing and new support from individuals and Hawk Watch Sites through Annual Sponsorships.

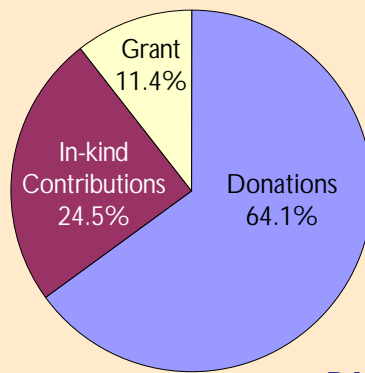
The anticipated NFWF funding will be partially matched again by "in-kind" contributions from the partner organizations and volunteer time donations, including a substantial continuing contribution from Hawk Mountain Sanctuary. However, to fully match and access money from the NFWF grant, we need to raise at least \$75,000 cash over the coming year.

Thanks to two generous challenge donations of \$10,000 each, our 2005 Sponsor campaign is off to a great start. Together with the NFWF grant they ensure that the next \$20,000 in Sponsor donations will be worth \$60,000 to RPI. Our goal is to raise this first \$20,000 and claim the matching funds by 31 December 2005.

Financial Summary (Year ending July 31 2005)

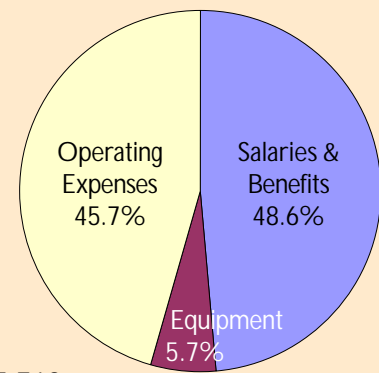
INCOME

\$203,954



EXPENSES

\$178,236



BALANCE: \$25,718

(The balance is cash reserve, to cover expenses and part of the match for the remainder of the current NFWF grant, 1 August 2005 to 31 March 2006. "Donations" include \$102,410 contributed by HMS and \$28,303 donated by members and friends of HMANA. "In-kind Contributions" include value of time and other expenses donated by committee members and other volunteers).

(Unaudited financial summary based on RPI project accounts)

Founding Sponsors:

Foundations/Grants:

Golden Eagle (\$5,000+)

National Fish & Wildlife Foundation

Hawk Watches:

Goshawk (\$1,000-\$2,499)

Eastern Massachusetts Hawk Watch

Peregrine (\$500-\$999)

Holiday Beach Migration Observatory

Niagara Peninsula Hawkwatch

Other Organizations:

Broad-wing (\$100-\$499)

Bird Protection Quebec (POSPB)

Kelly Fund

Individuals:

Golden Eagle (\$5,000+)

Jennifer P. Speers

Goshawk (\$1,000-\$2,499)

Kirk Moulton

Janet E. Sidewater

Jason Sodergren

Harrison B. Tordoff

Peregrine (\$500-\$999)

George N. Appel

Vic Berardi

Mark Blauer

Joan E. Boudreau

Sue Fogleman

Laurie Goodrich

David Hussell

Sharon E. Johnson

Iain & Susan MacLeod

Chandler S. Robbins

Paul Roberts

Will Weber

Joseph Wojtanowski

Broad-wing (\$100-\$499)

Ajit I. Antony

David W. Babington

Donald Barnes

John B. Bazuin, Jr.

Adele Bennett

Warner B. Bertoff

Keith L. Bildstein

Peter H. Bloom

Don Bryant

Philip J. Campbell

Judith C. Cinquina

Alden G. Clayton

Neil W. Currie

Eric Delbecq

Bruce Duncan

Russell D. Edmonds

Andrew Francis

David & Ursala Goodine

Else M. Greenstone

Joan R. Guillaume

Manuel R. Llorca

Daneil E. Miller

Benjamin Olewine IV

Frank L. Rawling, Jr.

John Reed

Robert D. Rossi

Jane & Ben Schaaf

Soaring to Greater Heights: Plans for 2006

Building on the momentum achieved in the past year, we expect to see several positive developments in 2006. With qualified staff in place, many initiatives started in 2005 will start to bear fruit in the coming year.

Among other things, the RPI plan for 2006 calls for:

- Strengthening the network of contributing watch sites, by recruiting new sites, increasing services and feedback to site organizers, as well as by direct contacts by HMANA's RPI Program Manager and additions and improvements to the HawkCount website.
- Refining and developing statistical approaches to assessing the status and trends of populations of migratory raptors at regional and continental scales.
- Expanding the number of sites included in RPI analyses with the aim of widespread continental coverage.
- Assessing status and trends of migratory raptors, based on counts from as many sites as possible, and distributing that information widely to watch sites, the conservation community and the public.

Benefits to Hawk Watches and Hawk Counters

As the RPI program grows and develops, we expect to provide increasingly regular feedback to individual sites that have submitted their hourly counts and signed on to be a part of RPI. You will be able to summarize your results in your newsletter, on your website, on posters for public display, etc., showing what has happened to hawk numbers at your site over the years. We look forward to developing HawkCount to provide count statistics and trends interactively over the web.

Also, we expect to provide an overview of trends on a regional and continental scale. This will raise the profile of participating sites and enhance public awareness of raptors and their conservation needs.

What you can do to help the RPI Program

RPI is truly a joint program. It unites three organizations, HMANA, HMS and HWI in a common goal, but more importantly, it is a partnership between citizen scientist hawk watchers and the RPI program team. Together we can benefit the cause of raptor conservation. What can you do to help RPI succeed?

First, if you are a hawk counter, keep on counting hawks at your site, following a consistent standardized protocol.

Second, if you are a watch site leader or coordinator, report your hourly data to HawkCount (<http://hawkcount.org>), and release your data for use by RPI. The RPI analysis team cannot analyze data from all sites immediately, but the sooner your counts are in the database the sooner they are likely to be included in RPI. Moreover HawkCount can ensure safe keeping of your data for future use.

Third, make a donation to RPI (see next section). Last year many individuals, acknowledged herein, became Founding Sponsors of RPI, making invaluable contributions that enabled RPI to take flight. Now we are inviting our Founding Sponsors as well as other hawk watchers, sympathetic individuals, and hawk watch and conservation organizations to help keep RPI aloft in 2006 by becoming Annual Sponsors.

Remember that although a Golden Eagle is likely to be a highlight of any hawkwatcher's day, every American Kestrel is just as important a contribution to the RPI database. Likewise, every dollar donated makes a valuable contribution to RPI goals. Moreover, challenge donations and the NFWF grant guarantee that each dollar you donate will be worth as much as \$3.00. Please help to ensure that we meet the challenge and RPI continues to soar to greater heights.

Broad-wing (continued)

Susan K. Simovich
Robert I. Stoll
Mike Street
Steve Walter
Art & Joyce Woods

Kestrel (<\$100)

Doris Applebaum
Robert F. Boehm
David Brandes
Francis V. Budney
Anina E. Butler
Mary E. Clemesha
Cynthia D. Ellis
Michael D. Fitzpatrick
Gregory W. Grove
Brian Hardiman
Brian Hillegrass
James T. Jennings
Barton D. Kamp
Joseph P. Kleiman
Thomas and Janet Kuehl
Danny Kunkle
William C. Latta
Angelo C. Mincone
Scott S. Moorhouse
Darrin S. O'Brien
Thomas M. O'Donnell
Frederick D. Paley
Sue A. Ricciardi
Robert L. Rineer
Rick Schmude
Dan A. Sherman
Steve Small
Robert B. Sulski
Margaret M. Wilsbach
William Zinaveah

RPI Watch Sites

Thanks to the following sites that have submitted at least 250 site-days of hawk counts over 5 or more years, in hourly format (as of 31 August 2005). These data are suitable for use in RPI analyses.

Barre Falls, MA
Beamer Conservation Area, ON
Blueberry Hill, MA
Bonney Butte, OR
Bridger Mountains, MT
Cape May, NJ
Derby Hill, NY
Fort Smallwood Park, MD
Franklin Mountain, NY
Goshute Mountains, NV
Hawk Mountain, PA
Hawk Ridge, MN
Holiday Beach, ON
Jack's Mountain, PA
Lighthouse Point, CT
Lipan Point, AZ
Manzano Mountains, NM
Montclair, NJ
Picatinny Peak, NJ
Rose Tree Park, PA
Sandia Mountains, NM
Second Mountain, PA
Stone Mountain, PA
Waggoner's Gap, PA
Wellsville Mountains, UT

Become a Sponsor of the RPI Project

We invite individuals and hawk watches to become Annual Sponsors of the RPI program at one of the following six levels:

Golden Eagle	\$5,000+
Osprey	\$2,500 - \$4,999
Goshawk	\$1,000 - \$2,499
Peregrine	\$500 - \$999
Broad-wing	\$100 - \$499
Kestrel	<\$100

Please make checks payable to:
"HMANA (RPI project)" and send to:

Ernesto Ruelas Inzunza,
Raptor Population Index Project Manager,
Cornell Lab of Ornithology,
159 Sapsucker Woods Road,
Ithaca, NY 14850.

Alternatively, you may contribute on line at <http://hmana.org/rpi>

**All contributions are tax deductible to the extent allowed by law.*

The RPI Team

Management Committee:

Keith L. Bildstein, Steve Hoffman, David J.T. Hussell, Kirk Moulton, Jeff P. Smith, Will Weber.

Science Advisory Committee:

Jonathan Bart, Keith L. Bildstein, Charles M. Francis, Mark R. Fuller, Laurie J. Goodrich, Steve Hoffman, David J.T. Hussell, David Mizrahi, Jeff P. Smith.

RPI Staff:

Ernesto Ruelas Inzunza, *RPI Program Manager, HMANA*
Jason Sodergren, *HawkCount Database Specialist, HMANA*
Chris A. Farmer, *North American Monitoring Coordinator, HMS*

Organization Support:

Laurie J. Goodrich (HMS), Casey Lott (HWI), Iain MacLeod (HMANA).

RPI Project Contacts

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