



# Biology and Conservation of Owls of the Northern Hemisphere

## Second International Symposium

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Winnipeg, Manitoba, Canada

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## 2nd Owl Symposium

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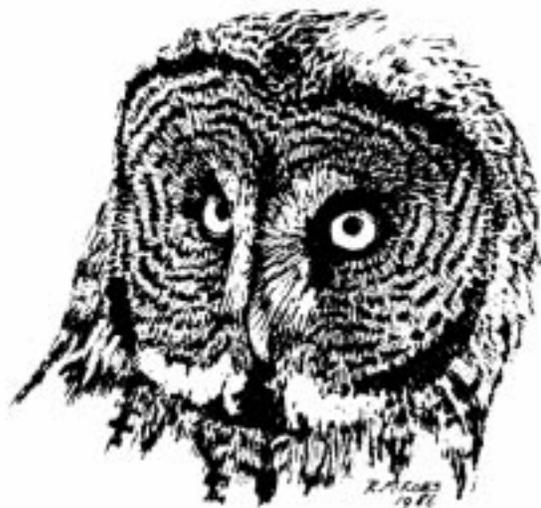
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#### About our Logo:

The Great Gray Owl logo, first used at the 1987 Owl Symposium, is from a sketch by Rudolf Koes.

Rudolf was born and raised in The Netherlands, where he started birding and painting during childhood. He currently teaches in the Winnipeg School Division #1, but spends much of his spare time in the field or working on the forthcoming ***Birds of Manitoba*** book.





***Dedication:***

This International Symposium on the “Biology and Conservation of Owls of the Northern Hemisphere” is dedicated to the memory of Don G. Follen, Sr.

Don is well remembered for his natural history research on owls, raptors, and other birds in Wisconsin. His active work with the media brought the Great Gray Owl to the attention of thousands. He never lost an opportunity to share his contagious enthusiasm for owls with children and adults from all walks of life.

Don was born 19 August 1939, in the town of Arpin, Wisconsin. He received a degree in Biology from the University of Wisconsin-Stevens Point. Don served in the US Army, was a teacher, and then entered the construction business. In 1986, he founded the still active Wisconsin Foundation of Wildlife Research, serving as its President. A Master Bird Bander, Don received the Don Hasenohrl Award for his dedication and study of birds. The Marshfield Free Library benefited from Don's contribution to its bird collection. He was a member and on the Advisory Board of the Zoological Society of Marshfield, WI. The last day of this symposium marks the ninth year since Don's death at 48 years of age. Many of you will fondly remember Don from the 1987 Owl Symposium.

Don's motivation, his love of owls, and especially his ability to share information encapsulates the spirit of this symposium and sends an important reminder to us all. Sound research and knowledge of owls is not enough to ensure their conservation. Owls and other wildlife, and the habitats that support them, have to be relevant to the public at large. Don's generous efforts helped to make owls important and personal to hundreds, one person at a time.

*James R. Duncan*

## INTRODUCTION

It was the interest and excitement generated by studying Great Gray Owls in Manitoba and adjacent Minnesota that led to the organization of an international symposium on owls of the northern forest in Winnipeg in February 1987. The idea of holding a second owl symposium was first suggested by Jim Duncan, who, with the assistance of his wife Patricia, studied Great Gray Owls, earning a Ph.D. thesis in 1992. Supportive comments by Merlin W. Shoesmith, who played a major role in organizing the 1987 owl symposium, provided strong impetus to hold a second symposium in February 1997, 10 years after the first event. But Denver Holt must also accept some credit for this affair. When Holt informed Duncan in January 1995 that he was planning an owl symposium for 1997 in Missoula, Montana, things began to happen at Winnipeg. What had been a hopeful idea became an action plan almost overnight. Further discussions between Duncan and Holt, and several other owl researchers, led to a decision by mutual agreement to hold a second owl symposium, broadened to include a wider range of species, in Winnipeg. The published proceedings of the 1987 owl symposium describe mainly the technical presentations; the good spirit and fellowship enjoyed by delegates is still a fond memory, and that is part of the reason for wanting to host this second gathering of owl enthusiasts.

*Robert W. Nero*

## PREFACE

Like many of the participants at the 1987 International Owl Symposium, I arrived in Winnipeg for the meeting, took part in the intense discussions and attended the highly entertaining social events and field trips, and then left to resume my field studies. My impressions of the meeting were mirrored in these words of the late Don G. Follen, Sr., from a letter to Bob Nero in August 1987:

“God was that a great experience. I again cannot emphasize the hospitality and professionalism, yet humanism and feeling that was there from around our little globe; simply great.”

The 1987 symposium convinced me that there was a need for, and a rewarding career in, owl research. The contagious passion for owls and their conservation was evidently shared by many people from around the world. Owls have significantly altered my life. They have influenced how I make my living, where I live, and most importantly, whom I married. I met Patsy, also a zoologist, while I was studying Great Gray Owls in southeastern Manitoba. Together, we have tried to return the favour, so to speak, back to the owls. In addition to continuing our scientific studies on owls, in 1991 we decided to involve the public in owl research by coordinating a volunteer owl survey in Manitoba. Over 260 people have participated since then.

As 1997 approached, our thoughts more frequently focused on the desire and need for another gathering of the “owl clan”. In 1994, I suggested to Bob Nero that we consider organizing a second owl symposium in Winnipeg in 1997. His first recommendation was for me to check with Patsy, now looking after our son Connor and expecting our second child, to see if she would miss me for a couple of years. At the time I did not fully appreciate the effort involved in organizing such an event. Needless to say, Patsy was equally enthusiastic and supportive.

As coordinating chair of the organizing and program committees, I had the pleasure of working with a dedicated crew, including a few seasoned veterans from the 1987 owl symposium. They included: Linda Anderson, Ron Bazin, Robert Berger, Dan Bulloch, Don Campbell, Sherry Dangerfield, Robert Jones, Amy Kearns, Rudolf Koes, Bill Koonz, Tracey Maconachie, Gordon McColm, Glen McMaster, Ted Muir, Robert Nero, Rhonda O’Grady, Margaret Simon, Rosemary Trachsel, and Robert Wheeldon.



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In addition to those committee members, the following persons also assisted with the preparations for, and running of this symposium: Robert Arabsky, Garth Ball, Dean Berezanski, François Blouin, Carolyn Curtis, Ward Christianson, Ken Donkersloot, Patsy Duncan, Gene Fortney, Kathy Fox, Maureen Frolick, Gloria Goulet, Judy Grandmont, Herta Gudauskas, Kelly Hamilton, George Holland, Curt Horning, Diane Hupalo, Stavros Iacovides, Koleen Janzen, Gerry Jones, Michelle Kating, Rudolf Koes, Jackie Krindle, Cindy Little, Kurt Mazur, Martine McCall, Robert McCall, Wendy Mendonca, Krista Morrow, Randy Morrow, Ted Muir, Jacques Nadon, Phil Ould, Richard Puttenham, Tanya Rusnak, Brad Safiniuk, Tim Sopuck, Gene Walz, Elizabeth Ward, Elaine Weiss, Gillian Weseen, and Sherry Wurtz.

Some of these people were part of an army of volunteers, coordinated by the indefatigable Sherry Dangerfield, that actually ran the event. The success of the symposium was a result of their hard work. Staff at the Delta Winnipeg Hotel, including Catering Manager Rob Roberts, went beyond the call of duty to assist with the event. Bill Koonz probably put in the longest days, ensuring that all was secure at the end of each day of the meeting. Jim Carson (courtesy of Manitoba Natural Resources), Patricia Duncan and Rudolf Koes kindly permitted the use of their drawings in the program. The Great Gray Owl logo, first used in the 1987 Owl Symposium, is from a sketch by Rudolf Koes.

Rudolf Koes, Bob Jones, and Ron Bazin were instrumental in coordinating and leading the field trips where symposium participants were able to experience an owl phenomenon known as a "winter owl invasion". Gerry Jones, Peter Taylor, and Mel Laurila and family kept us posted on the locations and numbers of owls near Winnipeg to help make final adjustments to the field trip routes. For many, the field trips provided their first view of Great Gray, Northern Hawk, and Snowy Owls, and in numbers which surprised even the most experienced owl biologists!

Since 1987, the Northern Forest Owl Symposium Research Award has been given almost annually to a university graduate student studying owls. In lieu of giving a Research Award in 1997, Bob Nero agreed to award three \$150.00 travel assistance grants to the following three symposium delegates: David Arsenault, Reno, Nevada (Mexican Spotted Owl); Paula Enriquez Rocha, Chiapas, Mexico (Tropical Owls); and Randy Lauff, Antigonish, Nova Scotia (Northern Hawk Owl). Other special symposium delegates receiving supporting travel funds provided by the organizing committee included: Heimo Mikkola, Gambia, West Africa; Katherine McKeever, Vineland Station, Ontario; Irina Meyushina, Moscow, Russian Federation; Erkki Korpimäki, Turku, Finland; and David Johnson, Olympia, Washington.

Events such as the owl art exhibit, the owl carving competition and show, and the owl specimen display took place thanks to the energy and talents of many, but were led by Rudolf Koes, Ted Muir, and Richard Puttenham, respectively. Heimo Mikkola, Stuart Houston, Katherine McKeever and Richard Clark provided both entertaining and meaningful addresses at our banquet. Brendan Carruthers and Ted Muir capably served as master of ceremonies for the opening ceremony and banquet, respectively. Finally, thanks are due to all those who came to the meeting, from guest speakers and presenters to artists and registered delegates. Your enthusiasm was the stimulus that kept us all going.

*James R. Duncan*

**EDITORS' COMMENTS AND ACKNOWLEDGMENTS**

It has been a privilege to edit these proceedings. The quality of the manuscripts received made this effort enjoyable and educational. We have taken our editorial roles seriously, and while focusing the majority of our energies on the technical and scientific aspects of the manuscripts, we have also been cognizant of the need for readability and consistency. Our editorial task was made much easier due to the efforts of Mary Peterson, Printing Specialist, and Barb Winters, Editorial Assistant, with the USDA Forest Service, North Central Forest Experiment Station, St. Paul, MN. Mary and Tom Nicholls provided authors with clear instructions for the preparation of manuscripts, set up an office at the Owl Symposium and met with almost all the authors, and ensured that work on the proceedings progressed in a timely and professional manner. Each manuscript published in this proceedings was critically peer-reviewed by either one or more reviewers, acknowledged in each paper, with expertise closely aligned to the subject matter. The papers and galley proofs were reviewed by symposium editors for technical accuracy, but the ultimate responsibility for the accuracy of each paper rests with the individual authors. We are also grateful to Bob Nero for checking over the galley proofs of all submitted papers.

Funding to cover the costs of printing the proceedings included the many donors and in-kind contributors listed above. In addition, the following individuals are to be thanked for their pivotal roles in securing financial support from their respective agencies: Erick Campbell, Bureau of Land Management, Portland, OR; Richard Buech, USDA Forest Service, North Central Forest Experiment Station, Research Work Unit NC-4351, Grand Rapids, MN; Kate Benkert and Tim Bodurtha, USDI Fish and Wildlife Service, Olympia, WA, and Kalispell, MT, respectively; Geoffrey Holroyd, Canadian Wildlife Service, Environment Canada, Edmonton, Alberta; Stephen Penland, The Wildlife Society-Washington Chapter, Olympia, WA; Caroline Caza, Wildlife Habitat Canada, Ontario, Canada; and Mark Fuller, Raptor Research Center, Boise State University, Boise, ID.

Clearly, much has happened in owl conservation since the 1987 symposium. In the proceedings that resulted from that meeting, Merlin Shoesmith asked the still relevant question "How have ... owls benefited from this symposium?" We would venture that the exchange of ideas and knowledge, renewed commitment, and identification of information gaps will affect owl conservation in a positive way. The opening addresses from Merlin Shoesmith, Brian Gillespie, and Michael Bradstreet provided insight into how owls fit into the ever changing approaches to conservation in general. Clearly, habitat and landscape level approaches to the conservation of the earth's resources represent a coming of age for humankind. But some level of species-specific information is necessary to assure our success. Richard Clark, in his closing remarks, provided us with future direction with a plea for more research on lesser-known owls and studies in parts of the world where information is lacking. Although these proceedings focus on Northern Hemispheric owls, we support owls and owl conservation worldwide and thus have included a paper on an owl species from the Southern Hemisphere. The next International Owl Symposium, wherever and whenever it may be, will be a welcome event celebrating the role of owls in their environments and in our lives.

*James R. Duncan*  
*David H. Johnson*  
*Thomas H. Nicholls*



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**About the Following Color Section:** The photographs used in the color section reflect the majority of the owl species for which presentations were made at the symposium. Two photographs of the Northern Saw-whet Owl, Queen Charlotte Island race (*Aegolius acadicus brooksi*) were included, as these are among the first ever published photographs of this owl. We thank all of the photographers who have so graciously submitted their slides for inclusion. Color section layout and design by David H. Johnson.



Barn Owl (*Tyto alba guttata*), Central European race. Burgundy, France. Photo by Philippe Perrot.



Barn Owl (*Tyto alba alba*), British and South European race. Burgundy, France. Photo by Philippe Perrot.



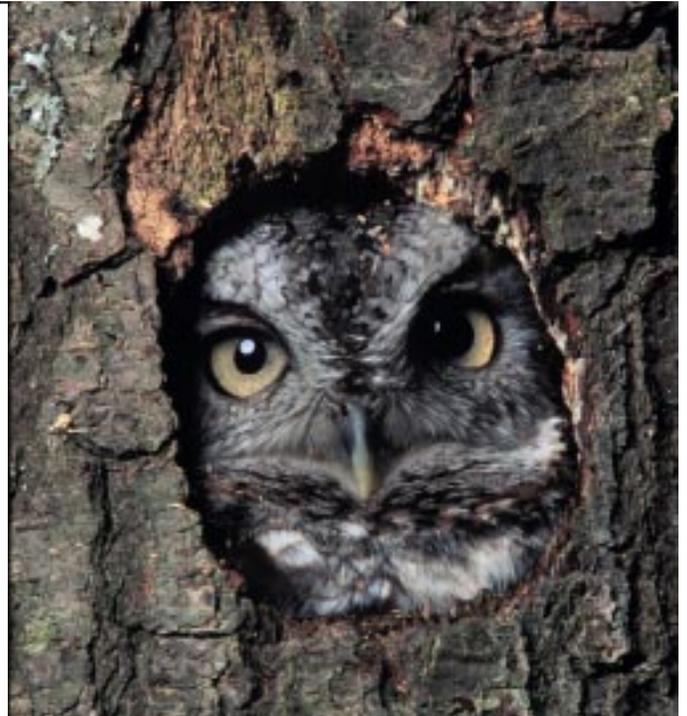
Barn Owl (*Tyto alba pratincola*), North American race. Photo by Lorraine Andrusiak.



Flammulated Owl (*Otus flammeolus*). Roosting female. Photo by Brian D. Linkhart.



Eastern Screech-owl (*Otus asio*), rufous morph. Photo compliments of Katherine McKeever, The Owl Foundation.



Eastern Screech-owl (*Otus asio*), gray morph. Photo by Mark Wilson (WILDSHOT, PO 220, Dunstable, MA 01827-0220, USA).



Western Screech-owl (*Otus kennicottii*). Photo in Idaho, USA, by Jim Belthoff.



Vermiculated Screech-owl (*Otus guatemalae*). Photo from La Selva Biological Station, Costa Rica, by José Luis Rangel Salazar.