

## The Wolves of Algonquin Park: A 12-year Ecological Study

By John B. Theberge and Mary T. Theberge. Department of Geography, University of Waterloo, Waterloo, Ontario N2L 3G1 Canada. 163 pages. Available from bkevans@fes.uwaterloo.ca. \$23.50 Canadian, \$20 U.S.

John and Mary Theberge, a husband and wife team, have put together information available on wolves and their prey in one of North America's great ecosystems. Research results from the twelve year period (1987-1999) was used as a core for the publication. Student projects were as follows: 1 Ph.D. thesis, 7 MSc. theses, 11 BSc. theses). Overall, scientific publication of 55 papers is impressive. In the end, it was the Theberges' that pulled the material together into this single monograph. For that they need to be congratulated.

The results of the study are also based on previous work begun in the 1960s. The Theberges reached back in time and reanalyzed and re-evaluated some of the data collected earlier. A major portion of the review centred on the taxonomic study of Wolves in the park. They concluded that these canids were larger than the Coyote-Wolf hybrids to the southwest, smaller than wolves to the northwest. It reinforced earlier conclusions of the existence of "Algonquin type", "tweed type" and "boreal type" Wolves. New is the interpretation that these Wolves are taxonomically connected to the Red Wolf taxon, once more common on the continent to the southeast. In the "canid soup of genetics" these are many theories and assertions. So far there have been no clear indications of the "ultimate" position. Maybe none will ever emerge that will satisfy everyone who is interested in the subject. The Theberges have presented a convincing case.

Other portions of the monograph are equally well presented. There is much in the way of natural history – basic insight into the ecology of the predator within the prey dynamics dictated by geographical and botanical (habitat) setting. In an age of computers, abstract

analysis and spurious mathematical modelling, this work stands out as a major contribution to science. It combines solid field work with a realistic quantitative assessment of the results, and I would recommend this as a case study for first-year graduate students who are contemplating a career in wildlife research. Beyond that, the study has had a real impact on conservation. In 2001, a total year-round Wolf killing ban in areas bordering Algonquin Park was announced by provincial authorities. Political responses were based on research results. It is a rare occurrence that this happens and it is a response to the well executed research. By any standard, that is a remarkable outcome to many years of dedicated work by scientists whose meticulous research and commitment to science were also coupled to a dedication to conservation and to bioethics. This is a scholarly monograph that likely will not be surpassed for many years to come.

At the outset the Theberges posed a series of questions that they wanted to find answers to. Likely some were listed after the fact, when intensive research results came in from the field work and data analysis. That too has strength. I cannot see much that has been left out. Appropriate photos and illustrations are found throughout the text. Some questions arose in my mind as to alternate explanations for some of the conclusions reached. Such results are inevitable and provide a useful basis for future scholars. This monograph is an exceptional document and has set a very high standard. I highly recommend it to anyone just starting field research on mammals, or for those veterans, who have spent much of their time in the pursuit of knowledge in the field of wildlife science.

LU CARBYN

137 Wolf Willow Crescent, Edmonton, Alberta T5T 1T1  
Canada

## BOTANY

### Flowers – How They Changed the World

By William C. Burger. 2006. Prometheus Books, 59 John Glen Drive, Amherst, New York. 14228-2197 USA. 337 pages. US \$23.00. Cloth.

Why are flowers important? They are not just for the viewing pleasure of humans, although they are spectacular – but why? This book will answer these questions. "Without the gift of flowers ... man might still be a nocturnal insectivore gnawing a roach in the dark." It is often true that the more we know about something the more we appreciate it and the more we enjoy it. A book that leads to enjoyment is worthwhile, but this book also provides a much needed perspective on the flowering plants at a time when the world faces a biodiversity crisis. It contributes to an improved

understanding of the natural world and a concern for the future. It is a very valuable contribution as well as a very enjoyable book that will appeal to anyone as a result of the friendly writing style.

William Burger, curator emeritus in the Department of Botany at Chicago's Field Museum, takes us on a journey to the discovery of how flowering plants have transformed the world. He begins with "What exactly is a flower?" which is a delightful and comprehensive introduction to flower morphology or what makes a flower a flower. Floral parts and their role are described in different kinds of flowers. It comes as a surprise to many people that the four bright white petals of a dogwood flower are not petals and the flower is actually an