The CANADIAN FIELD-NATURALIST

A JOURNAL OF FIELD BIOLOGY AND ECOLOGY

Promoting the study and conservation of northern biodiversity since 1880



Volume 137, Number 4 • October-December 2023



The Ottawa Field-Naturalists' Club

FOUNDED 1863 (CURRENT INCORPORATION 1879)

Patron

Her Excellency the Right Honourable Mary Simon, C.C., C.M.M., C.O.M., O.Q., C.D., Governor General of Canada

The objectives of this Club shall be to promote the appreciation, preservation, and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse information on these fields as widely as possible; to support and cooperate with organizations engaged in preserving, maintaining, or restoring environments of high quality for living things.

Honorary Members

Charles D. Bird Bruce M. Di Labio Fenja Brodo Anthony J. Erskine Irwin M. Brodo J. Bruce Falls Daniel F. Brunton Robert G. Forsyth Michael D. Cadman Peter W. Hall Paul M. Catling

Christine Hanrahan Jeffery E. Harrison Ross A. Layberry Robert E. Lee John McNeill

Theodore Mosquin Robert W. Nero E. Franklin Pope Allan H. Reddoch and Joyce M. Reddoch

Fred Schueler and Aleta Karstad Dan Strickland John B. Theberge Sheila Thomson Kenneth Young

2023 Board of Directors

President: Jakob Mueller 1st Vice-President: Owen Clarkin 2nd Vice-President: vacant

Recording Secretary: Elizabeth Moore

Treasurer: Ann Mackenzie

Annie Bélair Kerri Keith Derek Dunnett Diane Lepage Edward Farnworth Morgan McAteer Catherine Hessian Janette Niwa

Gordon Robertson Ken Young Eleanor Zurbrigg

To communicate with the Club, address postal correspondence to: The Ottawa Field-Naturalists' Club, P.O. Box 35069, Westgate P.O., Ottawa, ON, K1Z 1A2, or e-mail: ofnc@ofnc.ca. For information on club activities, go to www.ofnc.ca.

The Canadian Field-Naturalist

The Canadian Field-Naturalist is published quarterly by The Ottawa Field-Naturalists' Club. Opinions and ideas expressed in this journal do not necessarily reflect those of The Ottawa Field-Naturalists' Club or any other agency.

Website: www.canadianfieldnaturalist.ca/index.php/cfn

Editor-in-Chief: Dr. Dwayne Lepitzki

Copy Editors: Sandra Garland and Dr. John Wilmshurst

Book Review Editor: Jessica Sims Subscription Manager: Eleanor Zurbrigg Assistant Editor: Dr. Amanda Martin

Lavout: Robert Forsyth

Online Journal Manager: Dr. Bill Halliday Author Charges Manager: Ken Young

Associate Editors

David C. Seburn Dr. Ron Brooks Dr. Graham Forbes Dr. Donald F. McAlpine Dr. Paul M. Catling Dr. Katriina Ilves Dr. Jeffrey H. Skevington Dr. Garth Mowat Dr. Jennifer R. Foote Thomas S. Jung Dr. Jeffery M. Saarela Dr. Douglas C. Tozer

Chair, Publications Committee: Dr. Jeffery M. Saarela

All manuscripts intended for publication—except Book Reviews—should be submitted through the online submission system at the CFN website: http://www.canadianfieldnaturalist.ca/index.php/cfn/user. Click the "New Submission" link on the right side of the webpage and follow the prompts. Authors must register for a cfn account at http://www.canadianfieldnaturalist. ca/index.php/cfn/user/register in order to submit a manuscript. Please contact the Online Journal Manager (info@canadianfield naturalist.ca) if you have any questions or issues with the online submission process. In only rare, exceptional circumstances will submissions other than online be considered and, in these cases, authors must contact the Editor-in-Chief (editor@canadian fieldnaturalist.ca) prior to submission. Instructions for Authors are found at https://www.canadianfieldnaturalist.ca/public/ journals/1/CFN-author-instructions20Sept2019.pdf.

The Thomas H. Manning fund, a special fund of the OFNC, established in 2000 from the bequest of northern biologist Thomas H. Manning (1911–1998), provides financial assistance for the publication of papers in the CFN by independent (noninstitutional) authors, with particular priority given to those addressing Arctic and boreal issues. Qualifying authors should make their application for assistance from the fund at the time of their initial submission.

Book-review correspondence, including arranging for delivery of review copies of books, should be sent to the Book Review Editor by e-mail: bookrevieweditor@canadianfieldnaturalist.ca.

Subscriptions and Membership: Subscription rates for individuals are \$40 (online only), \$50 (print only), or \$60 (print + online). Libraries and other institutions may subscribe for \$120 (online only or print only) or \$180 (print + online). All foreign print subscribers and members (including USA) must add \$10 to cover postage. The Ottawa Field-Naturalists' Club annual membership fee of \$40 (individual), \$45 (family), or \$20 (student) includes an online subscription to The Canadian Field-Naturalist. Members can receive printed issues of CFN for an additional \$30 per volume (four issues). For further details, see http://ofnc.ca/membership-and-donations. The club's regional journal, Trail & Landscape, covers the Ottawa District and regional Club events and field trips. It is mailed to all club members. It is available to libraries at \$40 per year. Subscriptions, applications for membership, notices of changes of address, and undeliverable copies should be sent to subscriptions@ canadianfieldnaturalist.ca or mailed to: The Ottawa Field-Naturalists' Club, P.O. Box 35069, Westgate P.O., Ottawa, ON, K1Z 1A2 Canada. Canada Post Publications Mail Agreement number 40012317. Return postage guaranteed.

COVER: A male Harlequin Duck (Histrionicus histrionicus) in the Rocky Mountains of Alberta. This small sea duck winters in coastal marine waters and breeds on fast-moving mountain streams in western North America. A 25-year roadside monitoring study in Banff National Park, Alberta has revealed a declining population trend. See Smith et al. (pages 358–366). Photo: Mark Bradley.

The CANADIAN FIELD-NATURALIST

Volume 137, Number 4 • 2023

Limited evidence for the influence of the physical structure and floristics of habitat on a boreal forest bird community JEFFREY P. ETHIER and DAVID R. WILSON	307
Description of a relict aspen parkland-associated grassland in the Peace River region of British Columbia, Canada NICHOLAS P. HAMILTON	327
Frullania stylifera (Frullaniaceae), a new addition to the liverwort flora of Canada Richard T. Caners	334
Retrospective comparison of the distribution and abundance of breeding Prairie Warbler (Setophaga discolor) along eastern Georgian Bay, Ontario, Canada Kevin C. Hannah, David Hope, Elyse Howat, Christoph NG, Rich Russell, Nora Spencer, and Russ Weeber	343
Branching Burreed (<i>Sparganium androcladum</i> (Engelmann) Morong; Typhaceae) rediscovered in Ontario, but conservation status unclear COLIN J. CHAPMAN-LAM and PAUL C. SOKOLOFF	351
Declining population of Harlequin Duck (<i>Histrionicus histrionicus</i>) on the Bow River, Alberta, Canada: 25 years of monitoring Cyndi M. Smith, Brenda Shepherd, Mark Bradley, and Shelley Humphries	358
Evolutionary isolation of Canadian terrestrial vertebrate species Emma Kominek, Olivia Cornies, Hannah McCurdy-Adams, and Arne Ø. Mooers	367
(continued inside back co	wer

Table of Contents (concluded)

Book Reviews	
BIOLOGY: Understanding Natural Selection	38
Entomology: Wasps: a Guide for Eastern North America: their Biology, Diversity, and Role as Beneficial Insects and Pollinators of Native Plants	384
HERPETOLOGY: Turtles of North America: an Illustrated Field Guide to the Turtles of the Continental United States and Canada	85
Ornithology: Field Guide to North American Flycatchers: Empidonax and Pewees—The Secret Perfume of Birds: Uncovering the Science of Avian Scent	380
OTHER: André Michaux in North America: Journals & Letters, 1785–1797	888
New Titles	(9 <u>(</u>
News and Comment	
Upcoming Meetings and Workshops Student Conference on Conservation Science (NY)—BeeCon—The Wildlife Society Annual Meeting—Joint Annual Meeting of the Entomological Societies of Quebec and Canada 2024— Entomology 2024	98
oriam for Honorary Ottawa Field Naturalists' Club member J. Bruce Falls	399
Editor's Report for Volume 136 (2022) 4	
Index 4	05