

PREFACE TO A SPECIAL ISSUE:
RECENT ADVANCES IN BAT RESEARCH IN NORTHWESTERN
CANADA AND ALASKA

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Until recently, bats were among the least studied terrestrial vertebrates in northwestern Canada and Alaska (Parker and others 1997; Jung and others 2006). Concern over the anticipated westward spread of white-nose syndrome (WNS), as well as other drivers (for example, landscape change, climate change), has resulted in a growing scientific and management interest in bats in this vast region (Blejwas and others 2014; Olson and others 2014; Wilson and others 2014), with recent studies producing interesting new findings (for example, Slough and Jung 2008; Boland and others 2009; Randall and others 2011). In particular, our knowledge of the diversity and distribution of species in northwestern Canada and Alaska has advanced significantly in recent years (see papers in this issue), and these data represent the necessary first step in baseline and environmental impact studies as well as conservation planning. Bats living at high latitudes face unique environmental conditions (such as short, bright summers), and several studies have begun to illuminate how the life history and ecology of bats in the far north are unique and where they may (or may not) differ with conspecifics at more southerly latitudes (for example, Talerico 2008; Reimer and others 2014). Unfortunately, much of the recent work has remained unpublished and unavailable to others with an interest in bats in the region. As such, our primary goal with this special issue is to bring to light recent advances in bat research in northwestern Canada and Alaska.

The impetus for this special issue arose from a symposium and workshop on “Bat Ecology in Alaska: Assessing the Risk of WNS”, organized by Karen Blejwas (Alaska Department of Fish

and Game) and Link Olson (University of Alaska Museum), and held in conjunction with the Alaska Chapter of The Wildlife Society’s 2012 annual conference in Anchorage, Alaska. The symposium marked the first gathering of bat researchers from Alaska and northwestern Canada (Fig. 1) and spawned the Northern Bat Working Group (NBWG), a network of like-minded scientists and enthusiasts recognizing, and striving to address, the need for better communication and coordination among bat researchers and managers. Karen Blejwas and Miranda Terwilliger (US National Park Service) were elected the group’s first Co-Chairs. Another outcome was the notion of a special journal issue to capture some of the recent advances in our knowledge of bats in the region.

The 13 papers that comprise this special issue are a combination of select presentations delivered at the 2012 symposium and others solicited from researchers we knew were producing interesting findings on bats in the region. (Our apologies to those we may have missed.) For the purpose of this special issue, our region of interest included Alaska, Yukon, Northwest Territories, and the northern portions ($\geq 54^\circ\text{N}$ latitude) of Alberta and British Columbia. This area spans several ecoregions, including the northern Pacific Coast and the expansive boreal forest of the interior. Much of the work presented in this issue advances our knowledge of the diversity and distribution of bats in the region. This is indicative of the expansiveness and remoteness of the region and the concomitant logistical challenges faced by bat biologists. Other works included in this special issue provide an



FIGURE 1. Participants in the 2012 special symposium and founding members of the Northern Bat Working Group (NBWG). Back row, L–R: Joanna Wilson (Northwest Territories Department of Environment and Natural Resources), Thomas Jung (Yukon Department of Environment), Kelly Walton (Alaska Natural Heritage Program), Link Olson (University of Alaska Museum), Doreen Parker McNeill (Alaska Department of Fish and Game [ADFG]), Paul Burger (US National Park Service [NPS]), David Tessler (ADFG), Rachel Shively (University of Alaska Fairbanks), Cori Lausen (Wildlife Conservation Society–Canada), Marilyn Myers (US Fish and Wildlife Service), and Jessica Ilse (US Forest Service). Front row, L–R: Karen Blejwas (ADFG), Miranda Terwilliger (NPS).

initial and tantalizing glimpse into the ecology and life history of bats at northern latitudes. These are truly pioneering efforts, and we suspect that this will become a primary research focus as the study of bats in the region advances.

We are most grateful to the Editor of *Northwestern Naturalist*, Robert Hoffman, for making this special issue possible, allowing us to be Guest Editors, and doing all the ‘heavy lifting’ as Copy Editor. Kathryn Ronnenberg, *Northwestern Naturalist* Editorial Assistant, also contributed substantially to the completion of this special issue. Karen Blejwas, Cori Lausen, and Joanna Wilson kindly served as an informal editorial board and provided thoughtful council throughout the development of this special issue. We thank the many reviewers that extended their expertise on bats to provide helpful and timely comments and recommendations on the manuscripts. Perrin Teal-Sullivan graciously created the cover art. Finally, we thank the authors of papers presented in this special issue for contributing their work to this collection.

It is our hope that this special issue will serve to further encourage work toward better understanding and conserving bats in the region.

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