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# WILDLIFE PROFESSIONAL

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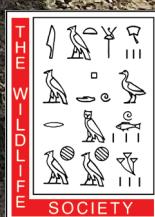
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# Training Waterfowl Conservationists of the Future

THE NORTH AMERICAN WATERFOWL PROFESSIONAL EDUCATION PLAN PROMOTES DIVERSITY IN NORTH AMERICAN WATERFOWL MANAGEMENT

By Kevin M. Ringelman and Diane Eggeman



Credit: Jim Ringelman

▲ Students at Louisiana State University get hands-on training in waterfowl science.

**T**he conservation of North American waterfowl is a premier example of successful international, science-based management of wildlife and their habitats. The new North American Waterfowl Professional Education Plan is an endeavor to help promote the continued professional foundation of that success.

In a recent assessment of continental bird species, waterfowl were one of the few avian taxa that have not experienced significant declines since

1970 (Rosenberg et al. 2019). Much of this success can be attributed to the long-term population and habitat conservation partnerships forged under the strategic guidance of the North American Waterfowl Management Plan (NAWMP). Over the past 35 years, NAWMP has allied national, state and provincial conservation agencies, non-governmental conservation organizations, university researchers, private corporations, diverse governmental entities and others to conserve tens of millions of acres of waterfowl and



wildlife habitat across the continent. These efforts have generated broad benefits to society, including improved water quality, stormwater retention, reduced flooding, sequestration of atmospheric carbon, diverse habitats for other wildlife, enabling pollination of flora and crops and the expansion of recreational opportunities.

These accomplishments rest solidly on the shoulders of dedicated waterfowl professionals and in turn, the university faculty who trained them as undergraduate and graduate students. However, many university faculty with an explicit research and training focus on waterfowl are approaching or have reached retirement age. As of 2013, university-based waterfowl programs had already declined by over 40% from the 1980s ([Kaminski 2013](#)) and we estimate about 25% of the roughly 55 active waterfowl faculty will retire in the next five to 10 years. The waterfowl management community is concerned about these declines and what they signify for the availability of educators who will train waterfowl scientists and conservation stewards of the future.

The 2018 Update of NAWMP recognized the key role of this educational foundation and explicitly identified the critical need to maintain and expand educational capacity to ensure the existence of an appropriately skilled workforce to meet future scientific and conservation challenges. Moreover, the 2018 Update of NAWMP encouraged engaging the public broadly to strengthen societal relevance and demonstrate the benefits of waterfowl habitat conservation. Consequently, the waterfowl management community—academia, agencies, NGOs and waterfowl enthusiasts—must recognize and promote values of an inclusive workforce that reflect an increasingly multicultural and diverse North American society and actively recruit professionals from historically underrepresented backgrounds.

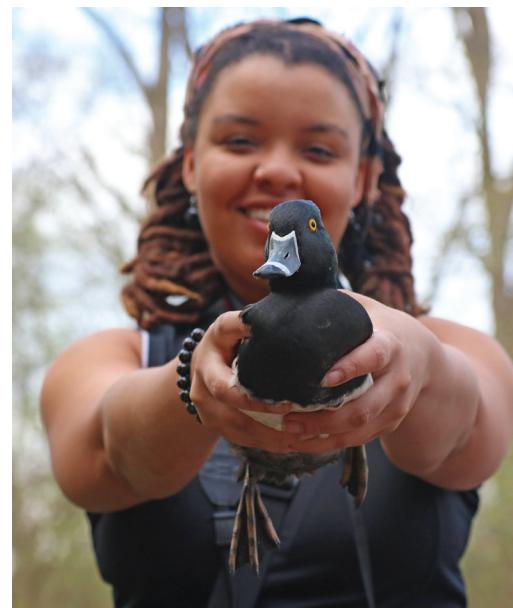
To help address these needs, a team of diverse professionals consisting of university faculty and representatives from agencies and NGOs has developed a new strategic initiative under NAWMP. The goal of this initiative, the North American Waterfowl Professional Education Plan, or NAWPEP, is to “engage and assist universities, colleges and all NAWMP partners with establishing, sustaining and enhancing academic and experiential programs in waterfowl science and management, in order that sufficient numbers of professionals

representing human diversity from across North America are supported, available and employed to sustain professional capacity and excellence of future waterfowl science and management.”

The education plan sets forth four objectives. The first two seek to quantify training capacity of existing waterfowl programs and future personnel needs (the number of individuals and specific skills) anticipated by agencies, NGOs and other conservation partners. We surveyed 42 waterfowl-centric faculty from the U.S. and Canada who trained students between 1980 and 2020. They indicated that they graduated fewer than one master’s or PhD student per year. Across all respondents, about 13 graduates per year found employment as a waterfowl or wetlands professional.

We also surveyed 81 agency and NGO representatives across the U.S., Canada and Mexico. They indicated that a minimum of 118 master’s or PhD graduates will be needed for waterfowl-focused positions by 2025. While these surveys clearly do not fully encompass either training capacity or employment needs, this assessment suggests that current training capacity has the capability to meet professional demand. The concern is that if pending faculty retirements result in permanent forfeiture of waterfowl-centric university positions, the losses may accumulate rapidly with an acute impact on the pipeline of future waterfowl and wetlands professionals.

The third objective focuses on efforts to train, recruit and hire an inclusively diverse group of North Americans working in waterfowl science and management. Much of this work will align with ongoing efforts of the broader wildlife management community to address the lack of human diversity in the profession, as recently highlighted in the *Wildlife Professional* ([November/December 2021](#)). We envisage that the legacy of conservation partnerships and institutional funding mechanisms under the NAWMP umbrella will produce new diversity initiatives. The North American Waterfowl Professional



Credit: Vitek Jirinec

▲ An undergraduate waterfowl student at Louisiana State University releases a banded ring-necked duck (*Aythya collaris*).



Credit: Kevin Ringelman

▲ First-time hunters participate in the Louisiana State University's collegiate hunting program.

The full North American Waterfowl Professional Education Plan, including objectives and action items, can be found on the NAWMP website, <https://nawmp.org/nawmp-update/north-american-waterfowl-professional-education-plan-2020-endorsed-and-released>.

The NAWPEP Steering Committee consists of professionals who meet one or more of these criteria: come from academia and are knowledgeable about the objectives; represent waterfowl endowed chairs; represent Canada, Mexico and the U.S.; contribute to the racial, ethnic and gender diversity of the committee; are involved in NAWMP implementation; are experienced with hiring in agencies and organizations; represent state, provincial, or federal agencies and NGO's engaged directly with waterfowl science and conservation. Original members volunteered or self-selected through informal discussions. Additional members

were added in subsequent months through invitation of the existing steering committee.

- ▶ Michael G. Brasher, Ducks Unlimited, Inc.
- ▶ Eduardo Carrera, Ducks Unlimited de México
- ▶ Pat Devers, U.S. Fish and Wildlife Service
- ▶ John Eadie, University of California, Davis
- ▶ Diane Eggeman, Ducks Unlimited, Inc.
- ▶ Christian Roy, Environment and Climate Change Canada
- ▶ Dave Howerter, Ducks Unlimited Canada
- ▶ Richard M. Kaminski, Clemson University
- ▶ J. Drew Lanham, Clemson University
- ▶ Shaun Oldenburger, Texas Parks and Wildlife Department
- ▶ Kevin M. Ringelman, Louisiana State University Agricultural Center
- ▶ Frank Rohwer, Delta Waterfowl Foundation
- ▶ Elisabeth Webb, USGS Missouri Cooperative Fish and Wildlife Research Unit



Education Plan stipulates that inclusion, diversity and engagement must be an intentionally sustained commitment that pervades the strategic objectives and implemented practices of conserving waterfowl and their habitats.

The fourth core objective emphasizes the need to promote and facilitate institutional educational capacity in waterfowl science and management. This can come in the form of new endowed chairs and professorships, student scholarships and fellowships and the expansion of opportunities for hands-on practical training not provided by university academic programs. North American waterfowl are an international resource, and the availability and targeting of these educational opportunities should reflect the diverse institutions, languages and cultures that contribute to the education of future waterfowl professionals. The NAWPEP also seeks to promote wetland-related recreation, including waterfowl hunting, through university education and partnerships with conservation allies, with a specific emphasis on promoting diversity among the participants.

There is a natural desire for individuals to train their replacements as they approach retirement from a

career of impassioned work in wildlife conservation. As members of the waterfowl science and management community, we believe there is an urgent need to address this issue strategically and at a continental scale to ensure sufficient professional capacity to meet the conservation challenges of the 21<sup>st</sup> century. Under the umbrella of NAWMP, which has operated to ensure abundant waterfowl populations over the past three decades, the NAWPEP is designed to serve as a model for sustaining, growing and diversifying the waterfowl and wetland conservation stewards of the future. ■



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