



20  
23



DUCKS UNLIMITED

SCIENCE  
PUBLICATIONS



## PEER-REVIEWED ARTICLES BY DUI STAFF

- Bansal, S., I.F. Creed, ... **E. Herbert**, ..., S. Yarwood, and X. Zhu. 2023. Practical guide to measuring wetland carbon pools and fluxes. [Wetlands 43:105](#).
- Brasher, M.G.**, M.W. Parr, B.C. Wilson, and R. Theel. 2023. Late-winter patterns of waterfowl habitat on Texas Prairie Wetlands Projects in the Texas Mid-Coast. *Bulletin of the Texas Ornithological Society* 55:107–118.
- Bouton, A.F., M.J. Anteau, E.J. Smith, H.M. Hagy, **J.D. Lancaster**, and C.N. Jacques. 2023. Lipid metabolites index habitat quality for canvasbacks on stopover areas during spring migration. [Ornithological Applications 126:duad058](#).
- Cavanah, S., S. Owens, **K. Kemink**, C. Riley, S. Kim, J. Lee, and S. Ellis-Felege. 2023. Birds of feather flock together: a longitudinal study of a social media outreach effort. [Biological Conservation 281:109999](#).
- Fern, R.R., M.D. Baron, A.E. England, J.C. Giese, K.J. Kraai, **J.D. Lancaster**, S.L. Oldenburger, J.C. Shipes, B.C. Wilson, and S.R. Wyckoff. 2023. The state of Texas wetlands: A review of current and future challenges. [Texas Water Journal 14:136–174](#).
- Kemink, K.M.**, S. Cavanah, S. Ellis-Felege, and C. Felege. 2023. “You come for the cause and stay for the people”: A grounded theory case study of mission internalization through a Ducks Unlimited event. [Journal of Leadership, Accountability, and Ethics 20\(4\)](#).
- Kemink, K.M.**, A. Diedrich, V.M. Adams, and R.L. Pressey. 2023. Exploring motives for participation in a perpetual easement program: going beyond financial incentives. [Biological Conservation 284:110193](#).
- Kemink, K.M.**, R.L. Pressey, V.M. Adams, S.K. Olimb, **A.M. Healey**, **B. Liu**, T. Frerichs, and **R. Renner**. 2023. Quantifying population-level conservation impacts for a perpetual conservation program on private land. [Journal of Environmental Management 345:118748](#).
- Kemink, K.M.**, R.L. Pressey, V.M. Adams, C. Nolte, S.K. Olimb, **A.M. Healey**, **B. Liu**, T. Frerichs, and **R. Renner**. 2023. Assessing prioritization measures for a private land conservation program in the U.S. Prairie Pothole Region. [Conservation Science and Practice, e12939](#).
- Liu, B.**, **K. Kemink**, **M. Sieges**, J. Smolinsky, D. Varner, and J. Buler. 2023. Relating weather radar data to migrating waterfowl abundance in the Rainwater Basin of Nebraska. [Journal of Wildlife Management 87:e22404](#).
- Mitchell, B.J.**, **C.V. Terry**, K.M. Ringelman, **K.M. Kemink**, M.J. Anteau, and A.K. Janke. 2023. Wetland occupancy by duck broods in cropland-dominated landscapes of the United States Prairie Pothole Region. [Journal of Wildlife Management 87:e22347](#).
- Moore, C.B., D.C. Osborne, R.J. Askren, L.G. Carlson, and **M.G. Brasher**. 2023. Distributional shifts of wintering midcontinent greater white-fronted geese. [Journal of Wildlife Management 87:e22401](#).
- Osorio, R.J., A. Linhoss, A. Skarke, **M.G. Brasher**, and **M. McFarland**. 2023. Assessment of marsh terrace designs for wave attenuation utilizing a wave model. [Dynamics of Atmospheres and Oceans 105:101429](#).
- Rischette, A.C.**, C.A. Duquette, T. Hovick, and B.A. Geaumont. 2023. Patch-burn grazing provides resources for upland-nesting ducks. [Avian Conservation and Ecology 18:13](#).
- Ury, E.A., P. Arrumugam, **E.R. Herbert**, P. Badiou, B. Page, and N.B. Basu. 2023. Source or sink? Meta-analysis reveals diverging controls of phosphorus retention and release in restored and constructed wetlands. [Environmental Research Letters 18:083002](#).

Veon, J.T., B.A. DeGregorio, L.W. Naylor, K.J. Reinecke, B.C. Dabbert, D.W. Demarest, **K.M. Hartke**, and D. G. Krementz. 2023. Body mass dynamics in wintering mallards (*Anas platyrhynchos*) in the Lower Mississippi Alluvial Valley. [Global Ecology and Conservation 41:e02368](#).

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Gallman, W.C., T. Arnold, E.S. Michel, and J.D. Stafford. 2023. Evaluation of fall-seeded cover crops for grassland nesting waterfowl in eastern South Dakota. [Wildlife Society Bulletin e1484](#).

Kucia, S.R., M.L. Schummer, J.W. Kusack, K.A. Hobson, and C.A. Nicolai. 2023. Natal origins of mallards harvested in the Atlantic Flyway of North America: Implications for conservation and management. [Avian Conservation & Ecology 18:10](#).

Teitelbaum, C.S., M.L. Casazza, F. McDue, S.E.W. De La Cruz, C.T. Overton, L.A. Hall, E.L. Matchett, J.T. Ackerman, J.D. Sullivan, A.M. Ramey, and D.J. Prosser. 2023. Waterfowl recently infected with low pathogenic avian influenza exhibit reduced local movement and delayed migration. [Ecosphere 14:e4432](#).

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## TECHNICAL PLANS, REPORTS, & BOOK CHAPTERS BY DUI STAFF

**Lancaster, J.D.**, T. Anderson, **M.G. Brasher**, W.C. Conway, S.J. DeMaso, J.A. Moon, K.M. Ringelman, and B.C. Wilson. 2023. Gulf Coast Joint Venture Mottled Duck Conservation Plan Update. Gulf Coast Joint Venture, Lafayette, Louisiana, USA. 75pp, + Appendices [GCJV Mottled Duck Conservation Plan Update](#)

Vermillion, W.G., and **J.D. Lancaster**. 2023. Habitat objectives for priority Gulf Coast Joint Venture shorebird species. Gulf Coast Joint Venture, Lafayette, Louisiana, USA. 10pp + Appendices. [GCJV Habitat objectives for priority shorebird species](#)



## POPULAR ARTICLES AUTHORED BY DUI STAFF

**Brasher, M.**, D. Smith, and **J. Coluccy**. 2023. DU special report. 2023 status of waterfowl. Ducks Unlimited Magazine, November/December:40–52.

**Coluccy, J.M.** 2023. Black Duck Joint Venture. Habitat Matters, 2023 Canadian North American Waterfowl Management Plan Report. September 2023:30–31.

**Pierce, A.** and A. Mini. 2023. Treasures in the timber. Ducks Unlimited Magazine, July/August:28–30.

- Warren, K. 2023. A closer look at cacklers. Ducks Unlimited Magazine January/February:32–34.
- Lancaster, J. and R. Askren. 2023. Balanced diets. Ducks Unlimited Magazine March/April:31–32.
- Yanuzzi, S. E., C. Beach, K. Kemink, A.M.V. Fournier, and S. Ellis-Felege. 2023. Fowl Women. The Wildlife Professional 17:40–43.



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- Bortolotti, L.E., R.B. Emery, P.D. Kowal, L.M. Armstrong, V.B. Harriman, H.V. Singer, M.J. Anteau, F.B. Baldwin, C. Meuckon, and D.A. Wrubleski. 2023. Migrating ducks and submersed aquatic vegetation respond positively after invasive common carp (*Cyprinus carpio*) exclusion from a freshwater coastal marsh. [Wetlands 43:25](#).
- Buderman, F.E., J.H. Devries, and D.N. Koons. 2023. A life-history spectrum of population responses to simultaneous change in climate and land use. [Journal of Animal Ecology 92:1267–1284](#).
- Devries, J.H., L.M. Armstrong, D.W. Howerter, and R.B. Emery. 2023. Waterfowl distribution and productivity in the Prairie Pothole Region of Canada: Tools for conservation planning. [Wildlife Monographs 211:e1074](#).
- Drever, M.C., T.J. Douglas, A.D. Domalik, E. Balke, D.C. Scott, M.S. Johnson, and D.B. Gurd. 2023. Water diversion structures and river discharge dictate salinity dynamics on tidal flats of the Fraser River Delta, British Columbia. [Estuarine, Coastal and Shelf Science 291:108436](#).
- Gutowsky, S.E., G.J. Robertson, M.L. Mallory, N.R. McLellan, and S.G. Gilliland. 2023. Redistribution of wintering American common eiders (*Somateria mollisima dresseri*). [Avian Conservation & Ecology 18:8](#).
- Johnstone, R.P.H., M.E. Dyson, S.M. Slattery, and B.C. Fedy. 2023. Multi-level habitat selection of boreal breeding mallards. [Journal of Wildlife Management 87:e22403](#).
- Johnstone, R.P.H., M.E. Dyson, S.M. Slattery, and B.C. Fedy. 2023. Multi-scale landscape effects on incubation behaviours in boreal nesting ducks. [Wildfowl 73:167–180](#).
- Page, B., P. Badiou, and O. Steele. 2023. Nutrient retention of newly restored wetlands receiving agricultural runoff in a temperate region of North America. [Ecological Engineering 195:107060](#).
- Paterson, J.E., L.E. Bortolotti, and L. Boychuk. 2023. A wetland permanence classification tool to support prairie wetland conservation and policy implementation. [Conservation Science and Practice 5:e12954](#).
- Ray, N.E., M.A. Holgerson, M. Rene Andersen, J. Bikše, L.E. Bortolotti, M. Futter, I. Kokorite, A. Law, C. McDonald, J.P. Mesman, M. Peacock, D.C. Richardson, J. Arsenault, S. Bansal, K. Cawley, M. Kuhn, A. Reza Shahabinia, and F. Smufer. 2023. Spatial and temporal variability in summertime dissolved carbon dioxide and methane in temperate ponds and shallow lakes. [Limnology and Oceanography 68:1530–1545](#).
- Spares, A., G. Robertson, M. Dadswell, A. Calvert, S. Gutowsky, D. Fifield, R. Vincent, N. McLellan, and M. Stokesbury. 2023. River- and sex-specific annual survival rates of mature anadromous Alewife (*Alosa pseudoharengus*). [Journal of Applied Ichthyology 2023:6376322](#).
- Thogmartin, W.E., J.H. Devries, D.J. Semmens, J.E. Diffendorfer, J.A. Dubovsky, J.J. Derbridge, and B.J. Mattsson. 2023. Potential economic consequences along migratory flyways from reductions in breeding habitat of migratory waterbirds. [Biological Conservation 285:110251](#).

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Zhao, Q., **J.H. Devries**, R.G. Clark, and M.D. Weegman. 2023. Causes and consequences of demography in continent-scale, full-annual-cycle population dynamics under global change. [Global Ecology and Conservation 43:e02461](#).



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Bogard, M.J., P.V.S.L. Gunawardana, C. Soued, H.J.K. Bogard, K.M. Smits, and L.B. Flanagan. 2023. Heterotrophic aquatic metabolism and sustained carbon dioxide emissions in a mineral-soil wetland restored with treated effluent. [Science of the Total Environment 884:163584](#).

Kiss, J., A. Bedard-Haughn, and P. Sorenson. 2023. Predictive mapping of wetland soil types in the Canadian Prairie Pothole Region using high-resolution digital elevation model terrain derivatives. [Canadian Journal of Soil Science 103:21-46](#).

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## TECHNICAL PLANS, REPORTS, & BOOK CHAPTERS BY DUC STAFF

Vest, J.L., D.A. Haukos, N.D. Niemuth, C.M. Setash, J.H. Gammonley, **J.H. Devries**, and D.K. Dahlgren. 2023. [Waterfowl and wetland birds](#). Pages 417–469 in L.B. McNew, D.K. Dahlgren, and J.L. Beck, editors. *Rangeland Wildlife Ecology and Conservation*, Springer, Cham, Switzerland.



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Bortolotti, L., and P. Kowal. 2023. Rebirth of Delta Marsh. Ducks Unlimited Magazine May/June.

**Jeke, N., L. Ross**, and B. Friesen-Pankratz. 2023. Green innovations making constructed stormwater facilities more accessible to smaller communities in Manitoba. [Environmental Science & Engineering Magazine November/December:12–14](#).



## PEER-REVIEWED ARTICLES FROM DU FELLOWSHIP SUPPORT

- Cunningham, S.A., T.L.J. Schafer, C.K. Wikle, J.A. VonBank, B.M. Ballard, L. Cao, S. Bearhop, A.D. Fox, G.M. Hilton, A.J. Walsh, L.R. Griffin, and M.D. Weegman. 2023. Time-varying effects of local weather on behavior and probability of breeding deferral in two Arctic-nesting goose populations. [Oecologia 201:369–383](#).
- Lavretsky, P., J.E. Mohl, P. Söderquist, R.H.S. Kraus, M.L. Schummer, and J.I. Brown. 2023. The meaning of wild: Genetic and adaptive consequences from large-scale releases of domestic mallards. [Communications Biology 6:819](#).
- Pearse, A.T., M.L. Szymanski, C.A. Anchor, M.J. Anteau, R.M. Murano, D.A. Brandt, and J.D. Stafford. 2023. Factors influencing autumn-winter movements of midcontinent mallards and consequences for harvest and habitat management. [Ecology and Evolution 2023:e10605](#)



## THESES & DISSERTATIONS FROM DU-SUPPORTED RESEARCH

- Fino, S.R. 2023. Relating predator community ecology and duck nest survival in eastern South Dakota. [Dissertation, South Dakota State University, Brookings, South Dakota, USA](#).
- Loken, Z. 2023. UAVs and deep neural networks: An alternative approach to monitoring waterfowl at site level. [Thesis, Louisiana State University, Baton Rouge, USA](#).
- Masto, N.M. 2023. Landscape and behavioral ecology of mallards during the nonbreeding season. Dissertation, Tennessee Technological University, Cookeville, USA.
- Setash, C.M. 2023. Breeding waterfowl productivity in a flood-irrigated agricultural landscape. [Dissertation, Colorado State University, Fort Collins, Colorado, USA](#).



## THREE COMPANIES WITH A SHARED MISSION:

Ducks Unlimited conserves, restores and manages wetlands  
and associated habitats for North America's waterfowl.  
These habitats also benefit other wildlife and people.