



Current Citations



September 2020

*a quarterly review of waterfowl, wetland and conservation literature
selected by the Institute for Wetland and Waterfowl Research*

Volume 21, Number 3

Publications below are available by contacting Ian Glass at the IWWR Library (204-467-3276, i_glass@ducks.ca)

Legend:

DUC/DUI supported/staff research = *

Articles:

*Adde, A., M. Darveau, N. Barker, and S. Cumming. 2020. [Predicting spatiotemporal abundance of breeding waterfowl across Canada: A Bayesian hierarchical modelling approach](#). Diversity and Distributions 26:1248-1263.

Agha, M., C.B. Yackulic, M.K. Riley, B. Peterson, and B.D. Todd. 2020. [Brackish tidal marsh management and the ecology of a declining freshwater turtle](#). Environmental Management 66:644-653.

Ayayee, P.A., J. Taura, A.A. Roberto, C.B. Blackwood, and L.G. Leff. 2020. [Patterns of denitrification and methanogenesis rates from vernal ponds in a temperate forest driven by seasonal, microbial functional gene abundances, and soil chemistry](#). Wetlands 40:721-731.

Bansal, S., O.F. Johnson, J. Meier, and X. Zhu. 2020. [Vegetation affects timing and location of wetland methane emissions](#). JGR Biogeosciences 125:e2020JG005777.

Baumann, M.S., G.F. Fricano, K. Fedeli, C.E. Schlemme, M.C. Christman, and M. Vernon Carle. 2020. [Recovery of salt marsh invertebrates following habitat restoration: Implications for marsh restoration in the northern Gulf of Mexico](#). Estuaries and Coasts 43:1711-1721.

Benscoter, A.M., J.M. Beerens, and S.S. Romañach. 2020. [Coastal marsh bird habitat selection and responses to Hurricane Sandy](#). Wetlands 40:799-810.

Bienida, A., V. Daté, R. Andersen, F. Nwaishi, J. Price, M.S. Mahmood, and M. Strack. 2020. [Methane emissions from fens in Alberta's boreal region: Reference data for functional evaluation of restoration outcomes](#). Wetlands Ecology and Management 28:559-575.

Bolpagni, R. 2020. [Linking vegetation patterns, wetlands conservation, and ecosystem services provision: From publication to application](#). Aquatic Conservation: Marine and Freshwater Ecosystems 30:1734-1740.

Brazner, J. and L. Achenbach. 2020. [Do breeding bird communities or conservation value differ among forested wetland types or ecoregions in Nova Scotia?](#) Wetlands 40:811-823.

Bridgman, M.J., B.H. Lomax, and S. Sjögersten. 2020. [Impacts of elevated atmospheric CO₂ and plant species composition on methane emissions from subarctic wetlands](#). Wetlands 40:609-618.

Brown, L.N., J.A. Rosencranz, K.S. Willis, R.F. Ambrose, and G.M. MacDonald. 2020. [Multiple stressors influence salt marsh recovery after a spring fire at Mugu Lagoon, CA](#). *Wetlands* 40:757-769.

*Buderman, F.E., J.H. Devries, and D.N. Koons. 2020. [Changes in climate and land use interact to create an ecological trap in a migratory species](#). *Journal of Animal Ecology* 89:1961-1977.

Burdick, D.M., G.E. Moore, S.C. Adamowicz, G.M. Wilson, and C.R. Peter. 2020. [Mitigating the legacy effects of ditching in a New England salt marsh](#). *Estuaries and Coasts* 43:1672-1679.

Choi, R.T., K.H. Beard, K.C. Kelsey, A.J. Leffler, J.A. Schmutz, and J.M. Welker. 2020. [Early goose arrival increases soil nitrogen availability more than an advancing spring in coastal western Alaska](#). *Ecosystems* 23:1309-1324.

Churko, G., T. Walter, E. Szerencsits, and A. Gramlich. 2020. [Improving wetland connectivity through the promotion of wet arable land](#). *Wetlands Ecology and Management* 28:667-680.

Davenport, J.M., L. Fishback, and B.R. Hossack. 2020. [Effects of experimental warming and nutrient enrichment on wetland communities at the Arctic's edge](#). *Hydrobiologia* 847:3677-3690.

Dontis, E.E., K.R. Radabaugh, A.R. Chappel, C.E. Russo, and R.P. Moyer. 2020. [Carbon storage increases with site age as created salt marshes transition to mangrove forests in Tampa Bay, Florida \(USA\)](#). *Estuaries and Coasts* 43:1470-1488.

Doyle, S., D. Cabot, A. Walsh, R. Inger, S. Bearhop, and B.J. McMahon. 2020. [Temperature and precipitation at migratory grounds influence demographic trends of an Arctic-breeding bird](#). *Global Change Biology* 26:5447-5458.

Drexler, J.Z., M.J. Davis, I. Woo, and S. de la Cruz. 2020. [Carbon sources in the sediments of a restoring vs. historically unaltered salt marsh](#). *Estuaries and Coasts* 43:1345-1360.

Dupler, K., M. Guidugli-Cook, D.R. Brown, and S.C. Richter. 2020. [Rapid assessment of wetland condition reflects amphibian community composition](#). *Wetlands* 40:451-464.

*Dyson, M.E., S.M. Slattery, and B.C. Fedy. 2020. [Nest predators in the boreal forest](#). *Wildlife Society Bulletin* 44:631-639.

Ebbets, A.L., D.R. Lane, P. Dixon, T.A. Hollweg, M.T. Huisenga, and J. Gurevitch. 2020. [Using meta-analysis to develop evidence-based recovery trajectories of vegetation and soils in restored wetlands in the northern Gulf of Mexico](#). *Estuaries and Coasts* 43:1692-1710.

Fricano, G.F., M.S. Baumann, K. Fedeli, C.E. Schlemme, M. Vernon Carle, and M. Landry. 2020. [Modeling coastal marsh restoration benefits in the northern Gulf of Mexico](#). *Estuaries and Coasts* 43:1804-1820.

Gilbert, A.D., C.N. Jacques, J.D. Lancaster, A.P. Yetter, and H.M. Hagy. 2020. [Disturbance caused by aerial waterfowl surveys during the nonbreeding season](#). *Journal of Wildlife Management* 84:1063-1071.

- Goldberg, L., D. Lagomasino, N. Thomas, and T. Fatoyinbo. 2020. [Global declines in human-driven mangrove loss](#). *Global Change Biology* 26:5844-5855.
- Gross, M.C., J.D. Lancaster, J.W. Simpson, B.T. Shirkey, S.E. McClain, C.N. Jacques, J.B. Davis, and H.M. Hagy. 2020. [Energetic carrying capacity of submersed aquatic vegetation in semi-permanent wetland important to waterfowl in the upper Midwest](#). *Wetlands* 40:491-501.
- Growns, I., S. Lewis, D. Ryder, W. Tsoi, and B. Vincent. 2020. [Patterns of invertebrate emergence and succession in flooded wetland mesocosms](#). *Marine and Freshwater Research* 71:1373-1377.
- Hancock, M.H., H.J. Robson, T.D. Smith, A. Stephen, P. Byrne, A. MacLennan, D. Klein, C. Mitchell, L.R. Griffin, G. Hilton, H. Dobson, and A. Douse. 2020. [From research study to conservation partnership: Developing approaches to restoring common scoter populations](#). *Aquatic Conservation: Marine and Freshwater Ecosystems* 30:1770-1774.
- Harrison, A.M., A.J. Reisinger, M.J. Cooper, V.J. Brady, J.J.H. Ciborowski, K.E. O'Reilly, C.R. Ruetz III, D.A. Wilcox, and D.G. Uzarski. 2020. [A basin-wide survey of coastal wetlands of the Laurentian Great Lakes: Development and comparison of water quality indices](#). *Wetlands* 40:465-477.
- Henry, B.L., J.S. Wesner, and J.L. Kerby. 2020. [Cross-ecosystem effects of agricultural tile drainage, surface runoff, and selenium in the Prairie Pothole Region](#). *Wetlands* 40:527-538.
- Howard, R.J., P.S. Rafferty, and D.J. Johnson. 2020. [Plant community establishment in a coastal marsh restored using sediment additions](#). *Wetlands* 40:877-892.
- Humphreys, J.M., A. Mahjoor, K. Chinnners Reiss, A. Arias Uribe, and M.T. Brown. 2020. [A geostatistical model for estimating edge effects and cumulative human disturbance in wetlands and coastal waters](#). *International Journal of Geographic Information Science* 34:1508-1529.
- Keddy, P.A. and D. Campbell. 2020. [The Twin Limit Marsh Model: A non-equilibrium approach to predicting marsh vegetation on shorelines and in floodplains](#). *Wetlands* 40:667-680.
- Kelley, J.D. and H.L. Major. 2020. [Modeling spring migration patterns of scoters and loons in the Bay of Fundy](#). *Journal of Field Ornithology* 91:285-299.
- Li, X., N. Leonardi, and A.J. Plater. 2020. [Impact of barrier breaching on wetland ecosystems under the influence of storm surge, sea-level rise and freshwater discharge](#). *Wetlands* 40:771-785.
- Li, X., K.J. Minick, J. Luff, A. Noormets, G. Miao, B. Mitra, J.-C. Domec, G. Sun, S. McNulty, and J.S. King. 2020. [Effects of microtopography on absorptive and transport fine root biomass, necromass, production, mortality and decomposition in a coastal freshwater forested wetland, southeastern USA](#). *Ecosystems* 23:1294-1308.
- Link, W.A., J.R. Sauer, and D.K. Niven. 2020. [Model selection for the North American Breeding Bird Survey](#). *Ecological Applications* 30:e02137.

Lishawa, S.C., E.M. Dunton, D.R. Pearsall, A.M. Monks, K.B. Himmler, B.D. Carson, B. Loges, and D.A. Albert. 2020. [Wetland waterbird food resources increased by harvesting invasive cattails](#). Journal of Wildlife Management 84:1326-1337.

Liu, J., Y. Zhou, A. Valach, R. Shortt, K. Kasak, C. Rey-Sanchez, K.S. Hemes, D. Baldocchi, and D.Y.F. Lai. 2020. [Methane emissions reduce the radiative cooling effect of a subtropical estuarine mangrove wetland by half](#). Global Change Biology 26:4998-5016.

Mahdianpari, M., B. Brisco, J.E. Granger, F. Mohammadimanesh, B. Salehi, S. Banks, S. Homayouni, L. Bourgeau-Chavez, and Q. Weng. 2020. [The second generation Canadian wetland inventory map at 10 meters resolution using Google Earth Engine](#). Canadian Journal of Remote Sensing 46:360-375.

*Marty, J.R., J.B. Davis, R.M. Kaminski, M.G. Brasher, and S.A. Rush. 2020. [Gulf Coast Riceland seed biomass estimates for waterfowl habitat conservation](#). Journal of Wildlife Management 84:1315-1325.

Morris, J.T., J. Lynch, K.A. Renken, S. Stevens, M. Tyrrell, and H. Plaisted. 2020. [Tidal and hurricane impacts on saltmarshes in the northeastern coastal and barrier network: Theory and empirical results](#). Estuaries and Coasts 43:1658-1671.

*Nielsen, S.E., J.M. Dennett, and C.W. Bater. 2020. [Landscape patterns of rare vascular plants in the Lower Athabasca Region of Alberta, Canada](#). Forests 11:699.

Nummi, P. and S. Holopainen. 2020. [Restoring wetland biodiversity using research: Whole-community facilitation by beaver as framework](#). Aquatic Conservation: Marine and Freshwater Ecosystems 30:1798-1802.

Oke, T.A. and H.A. Hager. 2020. [Plant community dynamics and carbon sequestration in Sphagnum-dominated peatlands in the era of global change](#). Global Ecology and Biogeography 29:1610-1620.

Onufrak, A., M.A. Rúa, and K. Hossler. 2020. [The missing metric: An evaluation of fungal importance in wetland assessments](#). Wetlands 40:825-838.

Osland, M.J., R.H. Day, and T.C. Michot. 2020. [Frequency of extreme freeze events controls the distribution and structure of black mangroves \(*Avicennia germinans*\) near their northern range limit in coastal Louisiana](#). Diversity and Distributions 26:1366-1382.

Pan, H. 2020. [A feature sequence-based 3D convolutional method for wetland classification from multispectral images](#). Remote Sensing Letters 11:837-846.

Peters, R., M. Walther, C. Lovelock, J. Jiang, and U. Berger. 2020. [The interplay between vegetation and water in mangroves: New perspectives for mangrove stand modelling and ecological research](#). Wetlands Ecology and Management 28:697-712.

Rajib, A., H.E. Golden, C.R. Lane, and Q. Wu. 2020. [Surface depression and wetland water storage improves major river basin hydrologic predictions](#). Water Resources Research 56:e2019WR026561.

- Rippel, T.M., E.Q. Mooring, J. Tomasula, and G.M. Wimp. 2020. [Habitat edge effects decrease litter accumulation and increase litter decomposition in coastal salt marshes](#). *Landscape Ecology* 35:2179-2190.
- Schiebel, H.N., F. Peri, and R.F. Chen. 2020. [Dissolved organic matter export from surface sediments of a New England salt marsh](#). *Wetlands* 40:693-705.
- Scholer, M.N., M. Strimas-Mackey, and J. Jankowski. 2020. [A meta-analysis of global avian survival across species and latitude](#). *Ecology Letters* 23:1537-1549.
- Schook, D.M., A.K. Borkenhagen, P.A. McDaniel, J.I. Wagner, and D.J. Cooper. 2020. [Soils and hydrologic processes drive wet meadow formation and approaches to restoration, western USA](#). *Wetlands* 40:637-653.
- Scobie, C.A., J.G. Panopi, E.M. Bayne, J.F. Provencher, and H.G. Gilchrist. 2020. [No relationship between gastrointestinal parasite intensities or mercury burdens on fluctuating asymmetry in common eider \(*Somateria mollissima*\) mandibles](#). *Canadian Field Naturalist* 134:136-143.
- Scott, B., A.H. Baldwin, K. Ballantine, M. Palmer, and S. Yarwood. 2020. [The role of organic amendments in wetland restorations](#). *Restoration Ecology* 28:776-784.
- *Scrafford, M.A., B.R. Nobert, and M.S. Boyce. 2020. [Beaver \(*Castor canadensis*\) use of borrow pits in an industrial landscape in northwestern Alberta](#). *Journal of Environmental Management* 269:110800.
- Shirkey, B.T., M.D. Palumbo, and J.W. Simpson. 2020. [Land cover switching in autumn by female mallards in Ohio](#). *Journal of Wildlife Management* 84:968-978.
- Simioni, J.P.D., L.A. Guasselli, G.G. de Oliveira, L.F.C. Ruiz, and G. de Oliveira. 2020. [A comparison of data mining techniques and multi-sensor analysis for inland marshes delineation](#). *Wetlands Ecology and Management* 28:577-594.
- *Stralberg, D., D. Arseneault, J.L. Baltzer, Q.E. Barber, E.M. Bayne, Y. Boulanger, C.D. Brown, H.A. Cooke, K. Devito, J. Edwards, C.A. Estevo, N. Flynn, L.E. Frelich, E.H. Hogg, M. Johnston, T. Logan, S.M. Matsuoka, P. Moore, T.L. Morelli, J.L. Morissette, E.A. Nelson, H. Nenzén, S.E. Nielsen, M.-A. Parisien, J.H. Pedlar, D.T. Price, F.K.A. Schmiegelow, S.M. Slattery, O. Sonnetag, D.K. Thompson, and E. Whitman. 2020. [Climate-change refugia in boreal North America: What, where, and for how long?](#) *Frontiers in Ecology and Environment* 18:261-270.
- Strobl, K., C. Moning, and J. Kollmann. 2020. [Positive trends in plant, dragonfly, and butterfly diversity of rewetted montane peatlands](#). *Restoration Ecology* 28:796-806.
- Vernon Carle, M., K.G. Benson, and J.F. Reinhardt. 2020. [Quantifying the benefits of estuarine habitat restoration in the Gulf of Mexico: An introduction to the theme section](#). *Estuaries and Coasts* 43:1680-1691.

Villa, J.A., Y. Ju, T. Stephen, C. Rey-Sanchez, K.C. Wrighton, and G. Bohrer. 2020. [Plant-mediated methane transport in emergent and floating-leaved species of a temperate freshwater mineral-soil wetland](#). *Limnology and Oceanography* 65:1635-1650.

Volik, O., M. Elmes, R. Petrone, E. Kessel, A. Green, D. Cobbaert, and J. Price. 2020. [Wetlands in the Athabasca Oil Sands Region: The nexus between wetland hydrological function and resource extraction](#). *Environmental Reviews* 28:246-261.

Wallen, K.E., J.G. Spears, T.J. Linder, and D.C. Osborne. 2020. [Climate change beliefs among waterfowl hunters in Arkansas](#). *Human Dimensions of Wildlife* 25:498-501.

*Westwood, A.R., N.K. Barker, S. Grant, A.L. Amos, A.F. Camfield, K.L. Cooper, F.V. Dénes, F. Jean-Gagnon, L. McBlane, F.K.A. Schmiegelow, J.I. Simpson, S.M. Slattery, D.J.H. Sleep, S. Sliwa, J.V. Wells, and D.M. Whitaker. 2020. [Toward actionable, coproduced research on boreal birds focused on building respectful partnerships](#). *Avian Conservation and Ecology* 15:26.

Williams, R.T., K.A. Fryirs, and G.C. Hose. 2020. [The hydrological function of a large chain-of-ponds: A wetland system with intermittent surface flows](#). *Aquatic Sciences* 82:61.

Wu, J., S. Shah Mohioudin Gillani, and M. Wang. 2020. [The difference in light use efficiency between an abandoned peatland pasture and an adjacent boreal bog in western Newfoundland, Canada](#). *Wetlands* 40:733-743.

Yeates, A.G., J.B. Grace, J.H. Olker, G.R. Guntenspergen, D.R. Cahoon, S. Adamowicz, S.C. Anisfeld, N. Barrett, A. Benzecry, L. Blum, R.R. Christian, J. Grzyb, E. Kracauer Hartig, K. Hines Leo, S. Lerberg, J.C. Lynch, N. Maher, J.P. Megonigal, W. Reay, D. Siok, A. Starke, V. Turner, and S. Warren. 2020. [Hurricane Sandy effects on coastal marsh elevation change](#). *Estuaries and Coasts* 43:1640-1657.

Youngquist, M.B., C. Wiley, S.L. Eggert, A.W. D'Amato, B.J. Palik, and R.A. Slesak. 2020. [Foundation species loss affects leaf breakdown and aquatic invertebrate resource use in black ash wetlands](#). *Wetlands* 40:839-852.