Kim de Mutsert

Curriculum vitae

Department of Environmental Science and Policy
George Mason University
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EDUCATION

Ph.D. Oceanography and Coastal Sciences, 2010
Louisiana State University, Baton Rouge, LA

M.S. Biology (Aquatic Ecology and Ecotoxicology), 2003
University of Amsterdam, Amsterdam, the Netherlands

PROFESSIONAL APPOINTMENTS

2017-present Associate Director, Potomac Environmental Research and Education Center, George Mason University, Woodbridge, Virginia

2014-Present Assistant Professor, Department of Environmental Science and Policy, George Mason University, Fairfax, Virginia

2011 - 2014 Term Assistant Professor, Department of Environmental Science and Policy, George Mason University, Fairfax, Virginia

2010 - 2011 Postdoctoral researcher, Department of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, Louisiana. Advisor: Prof. James H. Cowan, Jr. Co-advisor: Prof. Carl J. Walters

PEER-REVIEWED PUBLICATIONS

Total number of citations: 400
h-index: 12

In review Erisman, B.E., Bolser, D.G., Ilich, A., Fraiser, K.E., Glaspie, C.N., Moreno, P., Dell'Apa, A., Yassin, M.S., Nepal, S., Tang, T., de Mutsert, K. and A. Sacco. A meta-analytical review of environmental and ecological factors influencing the abundance of red snapper (*Lutjanus campechanus*) in the U.S. Gulf of Mexico. Reviews in Fish Biology and Fisheries.

In review Dahood, A., De Mutsert, K. and G.M. Watters. Evaluating Marine Protected Area Scenarios using a Dynamic Food-web Model. Biological Conservation.

In review Kolker, A.S., Renfro, A., Brenner, J., Bargu, S., Chu, P.Y., Conover, J., **De Mutsert, K.**, Fitzpatrick, C., Greenhow, D.R., Justic, D., Montagna, P.A., Lohrenz, S.E., Proville, J., Rhode, R., Roberts, B.J., Peyronnin Snider, N., Taylor, C.M., Wade, T.L., Walker, N.D. and D.J. Wallace. The Central Role of the Mississippi River and Its Delta on the Oceanography, Ecology and Economy of the Gulf of Mexico: A Modern Synthesis. Oceanography.

2019 Adebola, T. and K. de Mutsert. Investigating Fishing Impacts in Nigerian Coastal Waters Using Marine Trophic Index Analyses. Marine and Coastal Fisheries 11, 287–294. https://doi.org/10.1002/mcf2.10077. Journal impact factor: 1.663.

2019 Dahood, A., Watters, G.M., and **K. de Mutsert**. Using sea-ice to calibrate a dynamic trophic model for the Western Antarctic Peninsula. PLoS ONE 14(4): e0214814. https://doi.org/10.1371/journal.pone.0214814. Journal impact factor: 2.766.

2019 Adebola, T. and **K. de Mutsert**. Spatial simulation of redistribution of fishing effort in Nigerian coastal waters using Ecospace. Ecosphere 10(3): 1-16. DOI: 10.1002/ecs2.2623. Journal impact factor: 2.671.

2019 Schlick, C. J. C. and **K. de Mutsert**. Growth of adult river herring that spawn in tributaries of the Potomac River in Northern Virginia. Fishery Bulletin 117(1-2): 59-69. Journal impact factor: 1.135.

2019 Adebola, T. and **K. de Mutsert**. Comparative network analyses for Nigerian coastal waters using two Ecopath models developed for the years 1985 and 2000. Fisheries Research 213: 33-41. https://doi.org/10.1016/j.fishres.2018.12.028. Journal impact factor: 1.903.

2019 Chagaris, D., Sagarese, S., Farmer, N., Mahmoudi, B., **De Mutsert, K.**, VanderKooy, S., Patterson, W. III, Kilgour, M., Schueller, A., Ahrens, R., and M. Lauretta. Management challenges are opportunities for fisheries ecosystem models in the Gulf of Mexico. Marine Policy https://doi.org/10.1016/j.marpol.2018.11.033. Journal impact factor: 2.610.

2018 Kolker, A., Dausman, A.M., Allison, M.A., Brown, G.L., Chu, P.Y., **De Mutsert, K.**, Fitzpatrick, C.E., Henkel, J.R., Justic, D., Kleiss, B.A., McCoy, E., Mesehle, E., and C.P. Richards. Rethinking the River. EOS 99, DOI: 10.1029/2018EO101169.

2017 **De Mutsert, K.,** Lewis, K.A., Milroy, S., Buszowski, J., and J. Steenbeek. Using ecosystem modeling to evaluate trade-offs in coastal management: effects of large-scale river diversions on fish and fisheries. Ecological Modelling 360:14-26. Journal impact factor: 2.363.

2017 **De Mutsert, K.,** Sills, A., Schlick, C.J.C., and R.C. Jones. Successes of restoration and its effects on the fish community in a freshwater tidal embayment of the Potomac River, USA. Water 9(6), 421; doi:10.3390/w9060421. Journal impact factor: 2.056.

2017 Gruss, A., Rose, K.A., Simons, J., Ainsworth, C.H., Babcock, E.A., Chagaris, D.D., **De Mutsert, K.**, Froeschke, J., Himchak, P., Kaplan, I.C., O'Farrell, H. and M.J. Zetina

Rejon. Recommendations for ecosystem modeling efforts aiming to inform ecosystem-based fisheries management and restoration projects. Marine and Coastal Fisheries, DOI: 10.1080/19425120.2017.1330786. Journal impact factor: 1.663. *AFS Best paper in this year award

2017 Arya, G., Tadayon, S., Sadighian, J., Jones, J., **De Mutsert, K.**, Huff, T.B., and G.D. Foster. Pharmaceutical chemicals, steroids and xenoestrogens in water, sediment and fish from the tidal freshwater Potomac River (Virginia, USA). Journal of Environmental Science and Health, Part A, 52:7, 686-696, DOI: 10.1080/10934529.2017.1312975. Journal impact factor: 1.561

2017 **De Mutsert, K.,** Steenbeek, J., Cowan, J.H. Jr., and V. Christensen. Using ecosystem modeling to determine hypoxia effects on fish and fisheries. Chapter 14 *In*: D. Justic, K.A. Rose, R.D. Hetland, and K. Fennel (eds). Modeling Coastal Hypoxia: Numerical Simulations of Patterns, Controls and Effects of Dissolved Oxygen Dynamics. Springer, New York

2016 Vasslides, J.M., **De Mutsert, K.**, Christensen, V., and H. Townsend. Using the Ecopath with Ecosim modeling approach to understand the effects of watershed-based management actions in coastal ecosystems. Coastal Management 45 (1):1-12. Published online: DOI: 10.1080/08920753.2017.1237241. Journal impact factor: 1.433

2016 Lewis, K.A., **De Mutsert, K.**, Steenbeek, J., Peele, H. Cowan, J.H. Jr., and J. Buszowski. Employing ecosystem models and Geographic Information Systems (GIS) to investigate the response of changing marsh edge on the historical biomass of estuarine nekton in Barataria Bay, Louisiana, USA. Ecological Modelling *331*: 129-141. doi:10.1016/j.ecolmodel.2016.01.017. Journal impact factor: 2.321

2016 **De Mutsert, K.**, Steenbeek, J., Lewis, K., Buszowski, J., Cowan, J.H. Jr., and V. Christensen. Exploring effects of hypoxia on fish and fisheries in the northern Gulf of Mexico using a dynamic spatially explicit ecosystem model. Ecological Modelling *331*: 142-150. doi:10.1016/j.ecolmodel.2015.10.013. Journal impact factor: 2.321

2014 Van der Ham, J.L. and **K. de Mutsert.** Abundance and size of Gulf shrimp in Louisiana's coastal estuaries following the *Deepwater Horizon* oil spill. PLOS ONE 9(10): e108884. doi:10.1371/journal.pone.0108884. Journal impact factor: 3.234

2014 Rose, K.A., Justic, D., Huang, H. and **K. de Mutsert**. Simulating fish movement responses and potential salinity stress to large-scale river diversions. Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science *6*(1): 43-61. Journal impact factor: 1.592

2012 **De Mutsert, K.** and J.H. Cowan, Jr. A Before-After-Control-Impact analysis of the effects of a Mississippi River freshwater diversion on estuarine nekton in Louisiana, USA. Estuaries and Coasts *35*: 1237-1248. Journal impact factor: 2.535

2012 **De Mutsert, K.**, Cowan, J.H. Jr. and C.J. Walters. Using Ecopath with Ecosim to explore nekton community response to freshwater diversion into a Louisiana estuary. Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem

Science *4*:104-116. Journal impact factor: 1.592

2009 Day Jr., J.W., Cable, J.E., Cowan J.H. Jr., DeLaune, R., **De Mutsert, K.**, Fry, B., Mashriqui, H., Justic, D., Kemp, P., Lane, R.R., Rick, J., Rick, S., Rozas, L.P., Snedden, G., Swenson, E., Twilley R.R., and B. Wissel. The impacts of pulsed reintroduction of river water on a Mississippi delta coastal basin. Journal of Coastal Research *54*, 225-243. Journal impact factor: 0.980

2008 **De Mutsert, K.**, Cowan J.H. Jr., Essington, T.E. and R.W. Hilborn. Reanalyses of Gulf of Mexico fisheries data: Landings can be misleading in assessments of fisheries and fisheries ecosystems. Proceedings of the National Academy of Sciences *105*, 2740-2744. Journal impact factor: 9.674

2007 Rivera-Monroy, V.H., **De Mutsert, K.**, Twilley, R.R., Casteneda-Moya, E., Romigh, M.M. and S.E. Davis, III.. Patterns of nutrient exchange in a riverine mangrove forest in the Shark River Estuary, Florida, USA. Hidrobiológica *17* (2), 169-178. Journal impact factor: 0.185

2005 Van der Grinten, E., Janssen, A.P.H.M., **De Mutsert, K.**, Barranguet, C. and W. Admiraal. Temperature- and light-dependent performance of the cyanobacterium *Leptolyngbya foveolarum* and the diatom *Nitzschia perminuta* in mixed biofilms. Hydrobiologia *548*, 267-278. Journal impact factor: 2.275

PEER-REVIEWED REPORTS

2016 **De Mutsert, K.**, Lewis, K.A., Buszowski, J., Steenbeek, J., and S. Milroy. *Delta Management Fish and Shellfish Ecosystem Model: Ecopath with Ecosim plus Ecospace (EwE) Model Description*. Final Report. pp. 74. Baton Rouge, Louisiana: Coastal Protection and Restoration Authority.

2015 **De Mutsert, K.**, Lewis, K.A., Buszowski, J., Steenbeek, J., and S. Milroy. *2017 Coastal Master Plan Modeling: C3-20-Ecopath with Ecosim.* Version I. (pp. 1-100). Baton Rouge, Louisiana: Coastal Protection and Restoration Authority. http://coastal.la.gov/wp-content/uploads/2016/01/Attachment-C3-20-EWE.pdf

RESEARCH FUNDING
Total funded to date (in PI and co-PI role): $5,499,974.00
As lead PI: $1,758,231.00

2019-2021 The National Academies of Sciences, Engineering and Medicine - Gulf Research Program Early-Career Research Fellowship. **K de Mutsert (recipient)**. $76,000.

2019 The Office of Student Scholarship, Creative Activities, and Research at George Mason University. PEREC Summer Team Impact Project: Aquatic communities as a bioindicators of disturbance in the Potomac River: Covering the range from bacteria to fish using molecular techniques and field observations. **K. de Mutsert (co-lead PI)** and A.E. Fowler (co-lead PI). $37,000.

2019-2020 Virginia Sea Grant. Assessment of fish passage use and success in facilitating movement of regionally vulnerable and invasive fish species in northern Virginia portion of the Potomac River. **K. de Mutsert (PI)** and Samantha Alexander. $5,000.

2018-2019 Louisiana Coastal Protection and Restoration Authority and the Water Institute of the Gulf. Mid-Barataria diversion simulations with the EwE ecosystem model. **K. de Mutsert (lead PI)**, K. Lewis, and J. Buszowski. $60,000.

2018-2019 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert** and A. Fowler. $99,157, GMU match: $30,553.

2018-2019 Alexandria Renew Enterprises**.** Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, B. Van Aken, A. Fowler, and R.A. McBride. $218,853.

2018 The Office of Student Scholarship, Creative Activities, and Research at George Mason University. PEREC Undergraduate Science and Outreach Summer Project: Assessment of ecosystem health in the tidal freshwater Potomac environment. **K. de Mutsert (co-lead PI)** and A.E. Fowler (co-lead PI). $57,000.

2017-2018 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), and **K. de Mutsert**. $70,213, GMU match: $29,662.

2017 – 2020 NOAA Restore Act Science Program. Ecosystem modeling to improve fisheries management in the Gulf of Mexico. D. Chagaris (lead PI), S. Sagarese, M. Lauretta, R. Ahrens, and **K. de Mutsert.** $851,838.

2017-2018 Alexandria Renew Enterprises**.** Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, R. b. Jonas, G.D. Foster, A. Fowler, and T.B. Huff. $167,481.

2017 The Patriot Green Fund at George Mason University. PEREC Undergraduate Science and Outreach Summer Project: Assessment of ecosystem health in the tidal freshwater Potomac environment. **K. de Mutsert (co-lead PI)** and A.E. Fowler (co-lead PI). $12,000 in supplemental support.

2017 Virginia Sea Grant. PEREC Undergraduate Science and Outreach Summer Project: Assessment of ecosystem health in the tidal freshwater Potomac environment. **K. de Mutsert (co-lead PI)** and A.E. Fowler (co-lead PI). $5,000 in supplemental support.

2017 The Office of Student Scholarship, Creative Activities, and Research at George Mason University. PEREC Undergraduate Science and Outreach Summer Project: Assessment of ecosystem health in the tidal freshwater Potomac environment. **K. de Mutsert (co-lead PI)** and A.E. Fowler (co-lead PI). $38,000.

2016-2020 NOAA National Centers for Coastal Ocean Science. NGOMEX 2016: User-driven tools to predict and assess effects of reduced nutrients and hypoxia on living resources in the Gulf of Mexico. **K. de Mutsert (lead PI),** K.A. Lewis, M.C. Campbell, S. Brandt, and C. Sellinger. $900,000.

2016-2017 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), and **K. de Mutsert**. $67,561, GMU match: $26,869.

2016-2017 Alexandria Renew Enterprises**.** Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, R. b. Jonas, T.B. Huff, and G.D. Foster. $149,509.

2015-2016 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert**. $60,763.

2015-2016 The Water Institute of the Gulf (WI), and the Coastal Protection and Restoration Authority (CPRA). Delta Management Ecosystem Modeling supplement. **K. de Mutsert (lead PI)**. $2,520.

2015-2017 The Water Institute of the Gulf (WI), and the Coastal Protection and Restoration Authority (CPRA). 2017 Coastal Master Plan Model Development and Application. **K. de Mutsert (lead PI)**, Kristy Lewis. $131,759.

2015-2016 Alexandria Renew Enterprises**.** Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, R. Jonas, and T. Huff. $132,216.

2014-2016 The Water Institute of the Gulf (WI), and the Coastal Protection and Restoration Authority (CPRA). Delta Management Ecosystem Modeling. **K. de Mutsert (lead PI)**, Kristy Lewis, Scott Milroy. $194,613.

2013-2016 Environmental Defense Fund. Changing Course: Navigating the future of the Lower Mississippi River Delta. **K. de Mutsert** (contractor). $13,000.

2014-2015 The Water Institute of the Gulf (WI), and the Coastal Protection and Restoration Authority (CPRA). Simulating coastal restoration impacts on fish and shellfish communities in Louisiana. **K. de Mutsert (lead PI)**, Kristy Lewis, Scott Milroy. $258,182.

2014-2015 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert**. $60,764.

2014-2015 Alexandria Renew Enterprises**.** Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, and G. Foster. $103,080.

2013-2014 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert**. $56,447.

2013-2014 Alexandria Renew Enterprises**.** An Ecological Study of Hunting Creek. R.C. Jones (lead PI), **K. de Mutsert**, and G. Foster. $102,133.

2012-2013 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert**. $55,543.

2011-2012 Fairfax County, VA**.** An Ecological Study of Gunston Cove. R.C. Jones (lead PI), **K. de Mutsert**. $50,852.

2010-2011 Louisiana Sea Grant. Effects of the *Deepwater Horizon* oil spill on growth and mortality of *Farfantepenaeus aztecus* (Ives, 1891) and *Callinectes sapidus* (Rathbun,

1896) in an affected Louisiana estuary. **K. de Mutsert (lead PI)**, J.L. van der Ham. $10,000.

2010-2011 United States Army Corps of Engineers. Integration of Adaptive Hydraulics model and Ecopath with Ecosim. **K. de Mutsert (lead PI)**, J.H. Cowan, Jr. $34,157.

2009-2013 NOAA National Centers for Coastal Ocean Science. The effects and impacts of hypoxia on production potential of ecologically and commercially important living resources in the Northern Gulf of Mexico. M. Roman (lead PI), D. Mason (lead PI), J. Pierson, S. Brandt, J.H. Cowan, S. Sable, A. Adamack, F. Sutter, and **K. de Mutsert**. $1,464,820.

CONFERENCE PROCEEDINGS AND EXTENDED ABSTRACTS

2018 **De Mutsert, K**. and S. Brandt. Impacts of Hypoxia on Fishes and Food Webs in Freshwater, Coastal and Oceanic Ecosystems: A Global Perspective. Fisheries 43 (12): 599-600. DOI: 10.1002/fsh.10195

2014 Adebola, T.M., and **K. de Mutsert**. Reducing Anthropogenic Impacts on Nigerian Coastal Fisheries Resources. Page 15 *in* Fisheries Centre Research Reports *22*(3). University of British Columbia, Vancouver, Canada.

2014 Lewis, K.A., **De Mutsert, K**., Steenbeek, J., Buszowski, J., and J.H. Cowan Jr. Using Ecopath with Ecosim and Ecospace to model the response of estuarine nekton to multiple habitat restoration scenarios in Barataria Bay, Louisiana, USA. Page 192 *in* Fisheries Centre Research Reports *22*(3). University of British Columbia, Vancouver, Canada.

2009 **De Mutsert, K.**, Walters, C.J., Roth, B. and J.H. Cowan Jr.. Using Ecopath with Ecosim to explore nekton community responses to freshwater input from a Mississippi river diversion in a Louisiana wetland. Page 141 *in* Fisheries Centre Research reports *17* (3). University of British Columbia, Vancouver, Canada.

2008 **De Mutsert, K.** and J.H. Cowan, Jr. Catch data can be misleading when assessing the state of fisheries and fisheries ecosystems: a Gulf of Mexico case study revisited. Proceedings of the Gulf and Caribbean Fisheries Institute *60*: 363-367.

OTHER PUBLICATIONS AND TECHNICAL REPORTS

2019 Jones, R. C., **De Mutsert, K.** and A. Fowler. An Ecological Study of Gunston Cove - 2018. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2019 Jones, R. C., **De Mutsert, K,** and A. Fowler. An Ecological Study of Hunting Creek - 2018. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2019 Rose, K., Ainsworth, C., Brady, D., **De Mutsert, K.**, Lewis, K A., and S. Sable. Description of the Barataria Bay food web structure and energetics from the EwE and CASM ecosystem models. Final report prepared for the Louisiana Trustee Implementation Group. Coastal Protection and Restoration Authority, Baton Rouge, La.

2018 Kolker, A.S., Bargu, S., Brenner, J., Chu, P.Y., Conover, J., **De Mutsert, K**., Fitzpatrick, C., Greenhow, D.R., Justic, D., Lohrenz, S.E., Montagna, P.A., Snider Peyronnin, N., Proville, J., Renfro, A., Rhode, R., Roberts, B.J., Taylor, C.M., Wade, T.L., Walker, N.D. and D.J. Wallace. Research Gaps in the Understanding of the Impacts of the Mississippi River and its Delta on the Gulf of Mexico. White paper 2 of the NOAA RESTORE Act Science Program project: Mississippi River/Gulf of Mexico Interactions. 34 pp. New Orleans, LA.

2018 Kolker, A.S., Bargu, S., Brenner, J., Chu, P.Y., Conover, J., **De Mutsert, K**., Fitzpatrick, C., Greenhow, D.R., Justic, D., Lohrenz, S.E., Montagna, P.A., Snider Peyronnin, N., Proville, J., Renfro, A., Rhode, R., Roberts, B.J., Taylor, C.M., Wade, T.L., Walker, N.D. and D.J. Wallace. The Impacts of the Mississippi River and its Delta on the Oceanography, Ecology and Economy of the Gulf of Mexico Large Marine Ecosystem. White paper 1 of the NOAA RESTORE Act Science Program project: Mississippi River/Gulf of Mexico Interactions. 42 pp. New Orleans, LA.

2018 Jones, R. C., **De Mutsert, K.** and A. Fowler. An Ecological Study of Gunston Cove - 2017. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2018 Jones, R. C., **De Mutsert, K,** and A. Fowler. An Ecological Study of Hunting Creek - 2017. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2017 Walker, N. J., L. Lee, K. Rootes-Murdy, C. Dolloff, V. Prasad, **K. de Mutsert** and A. A. Aguirre. Stock assessment, prioritization of habitat, conservation priorities, and cultural significance of the American eel (*Anguilla rostrata*) in the Chesapeake Bay Watershed. FISH Magazine. Hull, UK, Institute of Fisheries Management**:** 3.

2017 Chagaris, D., Sagarese, S. Lauretta, M., **De Mutsert, K.** and R. Ahrens. Ecosystem modeling for fisheries management in the Gulf of Mexico. Scoping Workshop Report. St. Petersburg, Fl.

2017 Jones, R. C., **De Mutsert, K.** and A. Fowler. An Ecological Study of Gunston Cove - 2016. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2017 Jones, R. C., **De Mutsert, K,** Huff, T. G. Foster and R. Jonas. An Ecological Study of Hunting Creek - 2016. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2016 Jones, R. C., and **K. de Mutsert**. An Ecological Study of Gunston Cove - 2015. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2016 Jones, R. C., **De Mutsert, K,** Huff, T. and R. Jonas. An Ecological Study of Hunting Creek - 2015. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2015 **De Mutsert, K.**, Lewis, K.A., Buszowski, J., Steenbeek, J., and S. Milroy. *Louisiana Coastal Area Delta Management Ecosystem Modeling: Ecopath with Ecosim plus Ecospace (EwE) Model Description*. Report 1. pp. 111. Baton Rouge, Louisiana: Coastal Protection and Restoration Authority.

2015 Jones, R. C., and **K. de Mutsert**. An Ecological Study of Gunston Cove - 2014. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2015 Jones, R. C., **De Mutsert, K.,** and G. Foster. An Ecological Study of Hunting Creek - 2014. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2014 **De Mutsert, K.**, Lewis, K.A., Steenbeek, J., Buszowski, J., Milroy, S., and J.H. Cowan Jr. *2017 Coastal Master Plan: Community Modeling Justification. Ecosystem Outcomes (4.5)*. pp. 52. Prepared for the Louisiana Coastal Protection and Restoration Authority. Baton Rouge, Louisiana.

2014 Jones, R. C., and **K. de Mutsert**. An Ecological Study of Gunston Cove - 2013. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2014 Jones, R. C., **De Mutsert, K.,** and G. Foster. An Ecological Study of Hunting Creek - 2013. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2013 **De Mutsert, K.** A Review of Estuarine Ecology, J.W. Day Jr., B.C. Crump, W.M. Kemp, A. Yanez-Arancibia (Eds.), 2nd ed. Ecological Engineering *60*, 344.

2013 Jones, R. C., and **K. de Mutsert**. An Ecological Study of Gunston Cove - 2012. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA.

2012 Jones, R. C., and **K. de Mutsert**. An Ecological Study of Gunston Cove - 2011. Final Report. Potomac Environmental Research and Education Center, Fairfax, VA. http://hdl.handle.net/1920/7985.

2010 **De Mutsert, K.** The effects of a freshwater diversion on nekton species biomass distributions, food web pathways, and community structure in a Louisiana estuary. Dissertation in Oceanography and Coastal Sciences (Baton Rouge, Louisiana State University), pp. 199.

2006 Rivera-Monroy, V. H., Twilley, R.R., Casteneda-Moya, E., **De Mutsert, K.,** and C. Jesh. Identifying Performance Criteria for Mangrove Forests Using Conceptual and Simulation Models of Restoration and Rehabilitation. Final report, South Florida Water Management District.

2003 **De Mutsert, K.** A historic overview of aquatic plants in the Vecht lakes: The influence of eutrophication in shallow lakes. Final report, Amsterdam Municipal Waterworks.

INVITED PRESENTATIONS

2019 **De Mutsert, K.** River herring monitoring in Potomac River tributaries. River Herring Workshop, Smithsonian Environmental Research Center, Annapolis, MD.

2018 **De Mutsert, K**. Successes of restoration and its effects on the fish community in a freshwater tidal embayment of the Potomac River, USA. Seminar at the Maryland Department of the Environment. Nov 7, 2018, Baltimore, MD.

2018 **De Mutsert, K**. User-driven tools to predict and assess effects of reduced nutrients and hypoxia on living resources. Fisheries Monitoring Workgroup workshop. May 16, 2018, Stennis Space Center, MS.

2018 **De Mutsert, K**. Finding beauty in an urban estuary. Invited Speaker at Porto Vecchio Community (outreach). Alexandria, VA.

2018 **De Mutsert, K**. Using ecosystem modeling to evaluate trade-offs in coastal management: effects of large-scale river diversions on fish and fisheries. Keynote speaker at the third workshop of the Network of Experts for ReDeveloping Models of the European Marine Environment (MEME): Innovative modelling in support of Marine Strategy Framework Directive (MSFD) implementation. European Commission Joint Research Centre. Brussels, Belgium.

2018 **De Mutsert, K**. Finding beauty in an urban estuary. Keynote speaker at the 70th anniversary of the Atlantic Estuarine Research Society (AERS) meeting. Rehoboth Beach, DE.

2018 **De Mutsert, K**. Fish studies in the Potomac River watershed. Tidal Potomac River Research Symposium. George Mason University, Fairfax, VA.

2017 **De Mutsert, K.**, Jones, R.C., Foster, G., Huff, T, and R. Jonas. An Ecological study of Hunting Creek. Invited seminar for the Friends of Dyke Marsh (outreach). Alexandria, VA.

2017 **De Mutsert, K.** Modeling a coastal environment with human elements. Keynote speaker at CSDMS annual meeting 2017: Modeling Coupled Earth and Human Systems – The Dynamic Duo. Boulder, Colorado, USA.

2017 **De Mutsert, K**. Fish community response to water quality improvements in Gunston Cove, a tidal freshwater embayment of the Potomac River. Fairfax County's Environmental Quality Advisory Council meeting. Fairfax, VA.

2016 **De Mutsert, K.**, Lewis, K.A., Buszowski, J., Steenbeek, J., and S. Milroy. A spatial fish and shellfish model used in delta management decisions. Ecosystem Modeling Workshop. Tampa, FL.

2016 **De Mutsert, K.** Fish research in Potomac River tributaries. 2nd Annual Mason Water Research Symposium. Fairfax, VA.

2015 **De Mutsert, K.,** Lewis, K., Buszowski, J., Steenbeek, J., Milroy, S. and D. Lindquist. 2017 Coastal Master Plan: Simulating effects on fish and shellfish. CERF 2015. Portland, Oregon.

2015 **De Mutsert, K.** The Fish Community of Gunston Cove. Environmental Monitoring Branch monthly meeting, Fairfax County Department of Public Works & Environmental Services. Lorton, Virginia.

2014 **De Mutsert, K**. What's trending in the Gulf of Mexico? Landings can be misleading when assessing the state of fisheries and fisheries ecosystems. The 144th annual AFS meeting. Quebec City, Canada.

2014 **De Mutsert, K**. Using ecosystem models to simulate effects of environmental factors on fish and fisheries. The 5th Annual NOAA/NGI Gulf Hypoxia Research Coordination Workshop: Advancing Ecological Modeling for Diversions and Hypoxia in the Northern Gulf of Mexico. Stennis Space Center, Mississippi.

2014 **De Mutsert, K**. Effects of freshwater inflow on fish and shrimp in the receiving basin of a river diversion. State of the Coast 2014 meeting. New Orleans, Louisiana.

2013 **De Mutsert, K**. Successes of restoration in Gunston Cove, an embayment of the tidal freshwater Potomac River. Occoquan River Communities meeting. Woodbridge, VA.

2013 **De Mutsert, K.** Including Hypoxia in Ecospace. Forum for Gulf of Mexico Hypoxia Research Coordination and Advancement. Stennis Space Center, Mississippi.

2012 **De Mutsert, K**. Using Ecospace to model effects of hypoxia on the biomass of living marine resources in the Northern Gulf of Mexico. OneNOAA Science Seminar number 1612. NOAA HQ campus, Silver Spring, Maryland.

2012 **De Mutsert, K**. Using Ecospace to model effects of hypoxia on the biomass of living marine resources in the Northern Gulf of Mexico. Dept. of Environmental Science and Policy Seminar Series, George Mason University. Fairfax, Virginia.

2012 **De Mutsert, K**. Using Ecopath with Ecosim to explore nekton community response to freshwater diversion into a Louisiana estuary. Barnegat Bay Partnership Ecosystem Modeling Workshop, Toms River, New Jersey.

2011 **De Mutsert, K**. Estuarine fish community response to freshwater diversion in Louisiana. UMCES Horn Point Laboratory, Cambridge, Maryland.

2011 **De Mutsert, K**. An introduction to Ecopath with Ecosim. Guest lecture for course in Coastal Ecosystem Modeling. Louisiana State University, Baton Rouge, Louisiana.

2010 **De Mutsert, K.** and J.L. van der Ham. Effects of the *Deepwater Horizon* oil spill on growth and mortality of brown shrimp in an affected Louisiana estuary. School of

the Coast and Environment Seminar Series, Louisiana State University, Baton Rouge, Louisiana.

2010 **De Mutsert, K.** and J.H. Cowan. The effects of a freshwater diversion on nekton species biomass distributions, food web pathways, and community structure in a Louisiana estuary. Louisiana Coastal Area Science Board meeting: Ecological and Social Responses of Coastal Fisheries to River Diversions. New Orleans, Louisiana.

2010 **De Mutsert, K**. Using Ecopath with Ecosim and Ecospace to explore nekton community responses to alterations in Louisiana estuaries. Donaldsonville to the Gulf Science & Engineering Review Panel. New Orleans, Louisiana.

2009 **De Mutsert, K**. Careers in Marine Science. Guest lecture for course in Profession of Biology. Southeastern Louisiana University. Hammond, Louisiana.

2008 **De Mutsert, K**. Using the DIDSON. Guest lecture for course in Theoretical Bioacoustics. Louisiana State University. Baton Rouge, Louisiana.

CONFERENCE PRESENTATIONS (FIRST AUTHOR ONLY)

2018 **De Mutsert, K.**, Laurent, A., Glaspie, C., Van Plantinga, A., Brandt, S., and Buszowski, J. Using a coupled ecosystem modeling approach to evaluate effects of reductions in nutrients and hypoxia on living marine resources. AFS 2018. Atlantic City, NJ.

2018 **De Mutsert, K**., Lewis, K., Milroy, S., Buszowski, J., and Steenbeek, J. Using ecosystem modeling to evaluate trade-offs in coastal management: effects of large-scale river diversions on fish and fisheries. State of the Coast 2018. New Orleans, LA.

2017 **De Mutsert, K.**, Van Plantinga, A., Brandt, S., Lewis, K., Laurent, A., Steenbeek, J., and Buszowski, J. Simulating hypoxia and nutrient reduction effects on the northern Gulf of Mexico fishery ecosystem. CERF 2017. Providence, RI.

2017 **De Mutsert, K.**, Brandt, S., Van Plantinga, A., Lewis, K., Laurent, A., Steenbeek, J., and Buszowski, J. Assessing effects of reduced nutrients and hypoxia on living resources in the Gulf of Mexico using a coupled ecosystem modeling approach. AFS 2017. Tampa, Florida.

2017 **De Mutsert, K.**, Brandt, S., Campbell, M., Lewis, K., Laurent, A., Sellinger, C., Steenbeek, J., Buszowski, J., Cowan, J.H., and V. Christensen. Assessing effects of reduced nutrients and hypoxia on living resources in the Gulf of Mexico using a coupled ecosystem modeling approach. ASLO 2017: Mountains to the sea. Honolulu, Hawai`i.

2017 **De Mutsert, K.** Hypoxia effects on fish and fisheries: Use of models: Ecospace. 2017 Gulf of Mexico oil spill and ecosystem science conference. New Orleans, Louisiana.

2016 **De Mutsert, K.**, Lewis, K.A., Buszowski, J., Steenbeek, J. & Milroy, S. A spatial fish and shellfish model used in delta management decisions. International Society of Ecological Modelling Conference. Baltimore, MD.

2016 **De Mutsert, K.** Long-term monitoring of fishes in freshwater tidal tributaries of the Potomac River: Witnessing declines, improvements, and regime shifts. 2016 AFS Tidewater Meeting. Edgewater, Maryland.

2014 **De Mutsert, K**. Using large datasets to determine effects of a freshwater diversion on nekton in a Louisiana estuary. Atlantic Estuarine Research Society (AERS) Spring 2014 meeting. Ocean City, Maryland.

2013 **De Mutsert, K.** and J.H. Cowan, Jr. Mississippi River Inflow Provides Trophic Subsidy to the Foodweb of a Louisiana Estuary: New Insights Using Sulfur Isotopes and Energy Density of Nekton. 22nd Biennial Conference of the Coastal and Estuarine Research Federation. San Diego, California.

2013 **De Mutsert, K** and R.C. Jones. Successes of restoration in Gunston Cove, an embayment of the tidal freshwater Potomac River. Atlantic Estuarine Research Society Spring 2013 Meeting. Williamsburg, Virginia. Poster.

2013 **De Mutsert, K,** Steenbeek, J., Walters, C.J. and J.H. Cowan, Jr. Using Ecospace to simulate effects of hypoxia on living marine resources in the northern Gulf of Mexico. ASLO Aquatic Sciences meeting. New Orleans, Louisiana.

2012 **De Mutsert, K** and R.C. Jones. Successes of restoration in Gunston Cove, an embayment of the tidal freshwater Potomac River. 9th INTECOL International Wetlands Conference: Wetlands in a complex world. Orlando, Florida. Poster.

2011 **De Mutsert, K** and J.L van der Ham. Changes in size and abundance of white shrimp in Louisiana estuaries following the *Deepwater Horizon* oil spill. 21st Biennial Conference of the Coastal and Estuarine Research Federation. Daytona Beach, Florida.

2011 **De Mutsert, K**, Cowan, J.H. Jr. and C.J. Walters. An Ecopath model of the Northern Gulf of Mexico with an added function to facilitate simulations of fisheries species response to hypoxia. ASLO 2011, Aquatic Sciences Meeting. San Juan, Puerto Rico.

2010 **De Mutsert, K.** and J.L van der Ham. Effects of the *Deepwater Horizon* oil spill on growth and mortality of brown shrimp in an affected Louisiana estuary. Kim de Mutsert and Joris van der Ham. JSOST Deepwater Horizon Oil Spill Principal Investigator Conference. St. Petersburg, Florida. Poster.

2009 **De Mutsert, K.** and J.H. Cowan, Jr. A Before-After-Control-Impact analysis to study the effects of a Mississippi River freshwater diversion on estuarine nekton in Louisiana, USA. Connecting Wetland Communities: Graduate Student symposium of the Student Wetland Society at LSU. Baton Rouge, Louisiana.

2009 **De Mutsert, K.** and J.H. Cowan, Jr. A Before-After-Control-Impact analysis to study the effects of a Mississippi River freshwater diversion on estuarine nekton in Louisiana, USA. 30th Annual Society of Wetland Scientists meeting. Madison, Wisconsin.

2009 **De Mutsert, K.**, Walters, C.J., Roth B. and J.H. Cowan, Jr. Using Ecopath with Ecosim to explore nekton community responses to freshwater input from a Mississippi River diversion in a Louisiana wetland. Ecopath 25 years: conference and workshops. Vancouver, Canada.

2009 **De Mutsert, K.**, Walters, C.J., Roth B. and J.H. Cowan, Jr. Using Ecopath with Ecosim to explore nekton community responses to freshwater input from a Mississippi River diversion in a Louisiana wetland. The 2009 Southern Division of the American Fisheries Society Meeting. New Orleans, Louisiana.

2008 **De Mutsert, K.**, Walters, C.J., Roth B. and J.H. Cowan, Jr. Using Ecopath with Ecosim to explore nekton community responses to freshwater input from a Mississippi River diversion in a Louisiana wetland. The 8th INTECOL International Wetlands Conference. Cuiaba, Brazil.

2008 **De Mutsert, K.** and J.H. Cowan, Jr. Catch data can be misleading when assessing the state of fisheries and fisheries ecosystems: A Gulf of Mexico case study revisited. 9th annual Graduate Student Symposium. Cocodrie, Louisiana.

2008 **De Mutsert, K.** and J.H. Cowan, Jr. Catch data can be misleading when assessing the state of fisheries and fisheries ecosystems: A Gulf of Mexico case study revisited. The 29th annual meeting of the Louisiana Chapter of the American Fisheries Society: "Louisiana's Fisheries: Poised for Changes". Baton Rouge, Louisiana.

2007 **De Mutsert, K.** and J.H. Cowan, Jr. Catch data can be misleading when assessing the state of fisheries and fisheries ecosystems: a Gulf of Mexico case study revisited. The 60th Annual Gulf and Caribbean Fisheries Institute meeting, Punta Cana, Dominican Republic.

2007 **De Mutsert, K.**, Cowan, J.H. Jr., Boswell, K.M. and R. Lachica. Is the Ecological baseline in Louisiana Estuaries Changing? Re-evaluating Pauly's Index in Breton Sound, Louisiana, USA using 40 years of fisheries independent data. The 28th annual meeting of the Louisiana Chapter of the American Fisheries Society: "Recipes for recovery". Thibodaux, Louisiana. Poster.

2006 **De Mutsert, K.**, Cowan, J.H. Jr., Boswell, K.M. and R. Lachica. Is the Ecological baseline in Louisiana Estuaries Changing? Re-evaluating Pauly's Index in Breton Sound, Louisiana, USA using 40 years of fisheries independent data. The 3rd National Conference on Coastal and Estuarine Habitat Restoration. New Orleans, Louisiana. Poster.

2005 **De Mutsert, K.**, Rivera-Monroy, V.H., Twilley, R.R., Romigh, M. M. Davis, S. and E. Casteneda. Flux of organic and inorganic nutrients in a fringe mangrove forest in the Shark River estuary, Florida, USA. The 2005 Florida Coastal Everglades LTER All Scientists meeting. Miami, Florida. Poster.

2005 **De Mutsert, K.**, Rivera-Monroy, V.H., Twilley, R.R., Romigh, M. M. Davis, S. and E. Casteneda-Moya. Flux of organic and inorganic nutrients in a fringe mangrove forest in the Shark River estuary, Florida, USA. The 9th International Symposium for Biogeochemistry in Wetlands. Baton Rouge, Louisiana. Poster.

2004 **De Mutsert, K.**, Rivera-Monroy, V.H., Twilley, R.R., Romigh, M. M. Davis, S. and E. Casteneda-Moya. Flux of organic and inorganic nutrients in a fringe mangrove forest in the Shark River estuary, Florida, USA. The 7th INTECOL International Wetlands Conference. Utrecht, the Netherlands. Poster.

2004 **De Mutsert, K.**, Twilley, R.R., Rivera-Monroy, V.H., Casteneda-Moya, E. and C. Coronado-Molina. Forest structure and productivity of mangrove forests in the Everglades, Florida. FCE-LTER ASM meeting, Miami, Florida. Poster.

2002 **De Mutsert, K.** and P. Chow-Fraser. Zoobenthos as an indicator of wetland quality for Great Lakes coastal marshes. IAGLR conference, Winnipeg, Canada.

CONFERENCE AND WORKSHOP ORGANIZATION

2019 **De Mutsert, K.** Program chair and organizing committee member. EwE 35 years conference – Making Ecosystem-based Management operational. December 2019, St. Petersburg, FL.

2019 **De Mutsert, K.** (Lead convener) and S. Brandt. Session: "Impacts of coastal hypoxia on fishes and food webs and ecosystems". CERF 2019 25th Biennial Conference. Mobile, AL.

2019 **De Mutsert, K** (Organizer). NGOMEX Advisory Panel Workshop 2: "Hypoxia effects on fish and fisheries: tools introduction and training". June 24-25, 2019. Rosenstiel School of marine and Atmospheric Science, Miami, Florida.

2019 **De Mutsert, K.** Host and program chair: AERS spring 2019 meeting "From the head of the tide to the edge of the shelf". Potomac Science Center, Woodbridge, VA.

2018 **De Mutsert, K.** (Lead convener) and S. Brandt. Symposium: "Impacts of hypoxia on fishes and food webs in freshwater, coastal and oceanic ecosystems: a global perspective". The 148th Annual Meeting of the American Fisheries Society. Atlantic City, NJ.

2017 **De Mutsert, K.** (Lead convener), Brandt, S. Roman, M. Targett, T., Breitburg, D. and K. Rose. Session: "Ecological and Fisheries Impacts of Hypoxia on Coastal Ecosystems". CERF 2017 24th Biennial Conference. Providence, RI.

2017 **De Mutsert, K** (Organizer)**.** Clinic: "Introduction to Ecopath with Ecosim". CSDMS annual meeting 2017: Modeling Coupled Earth and Human Systems – The Dynamic Duo. Boulder, Colorado, USA.

2017 **De Mutsert, K** (Organizer). Workshop: "Hypoxia effects on fish and fisheries". The 2017 Gulf of Mexico oil spill and ecosystem science conference. New Orleans, Louisiana.

2016 Harris, L. Testa, J, Shenk, G., and **K. de Mutsert** (Chairs). Session "Ecological modelling and environmental management". The International Society for Ecological Modelling Global Conference 2016. Towson, MD.

2008 **De Mutsert**, **K.,** Zapp-Sluis, M, Simonsen, K., Spaziani, A. and G. Gelpi (organizers). The 9th Annual Graduate Student Symposium. LUMCON, LA.

AWARDS AND HONORS

2019 The National Academies of Sciences, Engineering and Medicine - Gulf Research Program Early-Career Research Fellowship.

2017 *Selected Participant* Open Science for Synthesis: Gulf Research Program, National Academy of Sciences, Engineering and Medicine. All expenses paid for three-week training at the National Center for Ecological Analysis and Synthesis (NCEAS) in Santa Barbara.

2010 Outstanding Dissertation Award, School of the Coast and Environment, Louisiana State University

2008-09 Travel Awards, Department of Oceanography and Coastal Sciences, Louisiana State University

2008-09 Travel Awards, Louisiana State University Graduate Student Association

2007 1st Poster Award, Louisiana Chapter of the American Fisheries Society

2004,05, 06 Travel Awards, Florida Coastal Everglades Long Term Ecological Research (FCE-LTER)

2005 Travel Award, Estuarine Research Federation

2005 1st Poster Award, FCE-LTER All Scientists Meeting

2004-07 Graduate School Tuition Award, Louisiana State University

STUDENT ADVISING

Major Professor
Current students:
Sara Marriott (PhD). Fall 2018-present
Peter Jacobs (PhD). Summer 2015-present

Samantha Alexander (accelerated MS). Spring 2018-present
Jessie Melton (MS). Fall 2016-present
Casey Pehrson (MS). Summer 2015-present

Past students:

Treda Grayson-Smith (PhD). Graduated Spring 2019
Adrian Dahood (PhD). Graduated Fall 2017
Tunde Adebola (PhD). Graduated Summer 2017
CJ Schlick (PhD). Graduated Summer 2016

Christopher Bodner (MS). Graduated Spring 2019
Amanda Sills (MS). Graduated Fall 2015
Peter Jacobs (MS). Graduated Spring 2015

Committee Member
Current students:
Samantha Oester (PhD). Summer 2013-present

Steven Chan (MS). Fall 2017-present

Past students:
Nick Walker (PhD). Graduated 2019
Stacey McCormack (PhD). University of Tasmania. Graduated 2019
Paul Razafinjato (PhD). Graduated 2018
Alicia Korol (PhD). Graduated 2017
Antonio Castro (PhD). Graduated 2016
Golala Arya (PhD). Graduated 2015
Kristy Lewis (PhD), Louisiana State University. Graduated 2014

Elizabeth Tedder (MS). Graduated 2017
Katie Layman (MS). Graduated 2016
Erin Stockschlaeder (MS). Graduated 2015
Julie Sepanik (MS). Graduated 2015
Seamus Riley (MS). Graduated 2015

TEACHING

Estuarine and Coastal Ecology (Graduate Lecture, annual, 2012-present)
Estuarine and Coastal Ecology Lab (Graduate Field Course, bi-annual, 2012-present)
Controversy in Fisheries Science (Graduate Seminar, bi-annual, 2012-present)
The Diversity of Fishes (Graduate/Undergraduate Lecture, bi-annual, 2014-present)
Freshwater Ecosystems (Undergraduate Lecture, annual, 2011-present)
Freshwater Ecosystems Lab (Undergraduate Laboratory, annual, 2011-present)

Curriculum development
- Developed the concentration Aquatic Ecology within the MS degree in Environmental Science and Policy (ESP)
- Added the courses 'Estuarine and Coastal Ecology Lab', 'Controversy in Fisheries Science', and 'The Diversity of Fishes' to the curriculum of students in the ESP and Biology departments.

EMPLOYEE SUPERVISING

Non-student employees
Full time

Dr. Alex Van Plantinga, Postdoctoral Research Fellow. Spring 2017 – Spring 2018
Dr. Kristy Lewis, Postdoctoral Research Fellow. Spring 2014 - Fall 2016

Part-time
Tanya Ramseyer, lab technician. Summer 2018-Spring 2019
Dr. Cassandra Glaspie, Postdoctoral Research Fellow. Spring 2018-Summer 2018
Rachel Kelmartin, lab technician. Spring 2017-present
Dr. C.J. Schlick, field and lab manager. Summer 2016-present
Amanda Sills, field and lab technician. Spring 2016-Fall 2016
Katie Saalbach. field and lab technician. Spring 2016-Fall 2016
Beverly Bachmann, field and lab technician. Spring 2015-present
Dr. Joris van der Ham, Research Associate. Spring 2012-Summer 2017

Graduate Research Assistants and Student workers
Sara Marriott. Fall 2018-present
Sammie Alexander. Spring 2018-present
Jessie Melton. Fall 2016-Summer 2019
Peter Jacobs. Fall 2015-Fall 2017
Kristen Reck. Fall 2014-Summer 2015
Casey Pehrson. Summer 2014-Summer 2017
Adrian Dahood. Spring 2014-Fall 2017
Tunde Adebola. Spring 2013-Summer 2017
CJ Schlick. Spring 2013-Summer 2016
Amanda Sills. Fall 2012-Fall 2015
Beverly Bachmann. Spring 2012-Fall 2014
Christopher Ruck. Spring 2012-Fall 2012

SYNERGISTIC ACTIVITIES

College of Science Research Advisory Council. Member of this council at George Mason University, which has the goal to come up with a vision of research for the college, identify areas of growth, improve operations and find ways of enhancing the college's research culture. 5 meetings per year. 2019-present.
Chesapeake Community Modeling Program (CCMP). Member of the Steering Committee. Monthly conference calls. Main charge organizing the bi-annual Chesapeake Research Symposium. 2019-present.
Atlantic Estuarine Research Society (AERS). Meeting Host 2019, Member-at-large on the Executive Committee 2018-present.
Center for Independent Experts. Peer reviewer Endangered Species Act (ESA) Status Review and Extinction Assessment. 2018.
Search Committee work. Served on two faculty search committees in 2017 and 2019, served on two post-doc search committees 2015 and 2017, served on three administrative staff search committees 2014, 2016 and 2018.
Ecological Modelling. Subject Editor, fisheries modeling 2017-2019. Editorial Board member 2017-present.
Potomac Environmental Research and Education Center. Associate Director. 2017-present. Faculty Fellow 2011-2017.
North American Journal of Fisheries Management. Associate Editor, 2017-present.

Chair Advisory Committee. Department of Environmental Science and Policy, George Mason University. Fall 2016-present.
Community Surface Dynamics Modeling System (CSDMS). CSDMS executive committee member and co-chair with Brian Fath of the Ecosystem Dynamics Focus Research Group. NSF funded community of modeling experts promoting model and data sharing. 2016-present.
NOAA RESTORE Act Science Program. Working group participant on the Ecosystem Modeling in the Gulf of Mexico project. 2016-2018.
NOAA RESTORE Act Science Program. Working group participant on the Mississippi River/Gulf of Mexico Interactions project. 2016-2018.
Virginia Alosa Task Force. Member 2016-present.
Library Liaison. Department of Environmental Science and Policy, George Mason University. Fall 2014-present.
Ecopath Research and Development Consortium. Executive Board Member, Fall 2014-present. Member of the Training Working group, 2012-present.
College of Science Executive Council. Council member, George Mason University, Fall 2014-present.
River Herring Technical Expert Working Group. Member of general group, and of the habitat and the stock status sub-groups. Group established by NOAA Fisheries (NMFS) and the Atlantic States Marine Fisheries Commission (ASMFC) in a coastwide effort to conserve river herring and address data gaps. 2014-present.
Changing Course: The Lower Mississippi River Delta Design Initiative. Member of the Technical Team. Environmental Defense Fund initiative to develop innovative and implementable visions for a self-sustaining Delta landscape. Other panel members: Clinton Willson (Chair), Jaye Cable, John Day, Bob Gramling, Paul Kemp, James Morris, William Nuttle and Gary Shaffer. 2013-2015.
Expert panel on water quality and aquatic species in the Chesapeake Bay. Panel member. EPA initiative to guide development of TMDL studies. Other panelists: Walter Boynton, Denise Breitburg, Robert Diaz, Ed Houde, W. Michael Kemp, and Elizabeth North. January 2013.
Occoquan River Festival. Planning Committee Member. Annual 2013-2018. Extension PEREC activities in local community. Occoquan, VA.
Chesapeake Bay Bowl. Guest Speaker. Organized by the Consortium for Ocean Leadership at George Mason University. High school competition as extension activity; increases awareness and interest in Aquatic Sciences and in George Mason University among high school students.
Sally Ride Festival. Workshop and booth organizer. Extension activity geared towards getting women interested in STEM. George Mason University, Sept, 2011.
Louisiana State University chapter of the National Council for Science and the Environment EnvironMentors program. Served as EnvironMentor (extension activity mentoring underserved high school students). September 2010-May 2011.
Louisiana Sea Grant Ocean Commotion. Booth organizer. Extension activity geared toward K-12 students. 2006-2011.
The School of the Coast and Environment Seminar Series. Student Seminar Chair. 2006-2007

JOURNAL AND PROPOSAL REVIEWS

Ecology; AMBIO; Water; North American Journal of Fisheries Management; BioScience; PLOS ONE; Marine Ecological Progress Series; OIKOS; NOAA CSCOR Coastal Hypoxia Research Program; Ecological Modelling; Hydrobiologia; Gulf Coast Ecosystem Restoration Council; Limnology and Oceanography; Canadian Journal of Fisheries and Aquatic Sciences; Fisheries; Chinese Journal of Oceanology and Limnology; River Research and Applications; Oregon Sea Grant; Conservation

Biology; Hudson River Foundation; Environmental Studies and Sciences; ICES Journal of Marine Science; Estuaries and Coasts; Fisheries Research; Aquatic Biology; Marine and Coastal Fisheries; African Journal of Biotechnology.

PROFESSIONAL MEMBERSHIPS

2014-present: Member of the AFS Tidewater Chapter
2012-present: Member of Atlantic Estuarine Research Society
2012-present: Member of Ecopath Research and Development Consortium
2010-present: Member of the Association for the Sciences of Limnology and Oceanography
2007-present: Member of the American Fisheries Society
2005-present: Member of the Coastal and Estuarine Research Federation
2009-2013: Member of the Society of Wetland Scientists
2009-2011: Member of Student Wetland Scientists, the official student chapter of the Society of Wetland Scientists at Louisiana State University
2007-2011: Member of the Louisiana Chapter of the American Fisheries Society
2004-2011: Member of the Coast & Environment Graduate Organization