BUREAU OF RECLAMATION

Invasive Mussel Literature Resource

Science and Technology Program
Research and Development Office
Final Report No. ST-2021-19138-01
EcoLab-FA993-2021-03

U.S. Department of the Interior

April 2021

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
10-09-2021	Research	2019-2021

4. TITLE AND SUBTITLE

Invasive Mussel Literature Resource

5a. CONTRACT NUMBER
RY.15412019.EN19138 / FA993

5b. GRANT NUMBER

5c. PROGRAM ELEMENT NUMBER
1541 (S&T)

6. AUTHOR(S)

Yale Passamaneck, Ph.D., Biologist

5d. PROJECT NUMBER
Final Report ST-2021-19138-01

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Ecological Research Laboratory
Hydraulic Investigations and Laboratory Services (85-68560)
Technical Service Center
Bureau of Reclamation
U.S. Department of the Interior
Denver Federal Center PO Box 25007, Denver, CO 80225-0007

8. PERFORMING ORGANIZATION REPORT NUMBER

EcoLab-FA993-2021-03

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Science and Technology Program
Research and Development Office
Bureau of Reclamation
U.S. Department of the Interior
Denver Federal Center
PO Box 25007, Denver, CO 80225-0007

10. SPONSOR/MONITOR'S ACRONYM(S)
Reclamation

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
Final Report ST-2021-19138-01

12. DISTRIBUTION/AVAILABILITY STATEMENT

Final Report may be downloaded from https://www.usbr.gov/research/projects/index.html

13. SUPPLEMENTARY NOTES

14. ABSTRACT

The literature resource for invasive mussels was increased to include 658 references. Literature was collected from a wide variety of sources, including peer-reviewed publications, reports, theses, conference papers, presentations, and other documents. These items were organized in a searchable literature database, including attachment of source documents whenever available. This collection allows for rapid identification of relevant works, citation in reports and documents, and generation of bibliographies.

15. SUBJECT TERMS
Invasive mussels, dreissenid mussel, quagga mussel, zebra mussel

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	THIS PAGE			Yale Passamaneck
U	U	U		57	19b. TELEPHONE NUMBER *(Include area code)* 303-445-2480

Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Disclaimer

Information in this report may not be used for advertising or promotional purposes. The data and findings should not be construed as an endorsement of any product or firm by the Bureau of Reclamation, Department of Interior, or Federal Government. The products evaluated in the report were evaluated for purposes specific to the Bureau of Reclamation mission. Reclamation gives no warranties or guarantees, expressed or implied, for the products evaluated in this report, including merchantability or fitness for a particular purpose.

Acknowledgements

The Science and Technology Program, Bureau of Reclamation, sponsored this research.

Invasive Mussel Literature Resource

Final Report No. ST-2021-19138-01

prepared by

Technical Service Center
Hydraulic Investigations and Laboratory Services Group, 86-68560
Ecological Research Laboratory
Yale J. Passamaneck, Ph.D.

Peer Review

Bureau of Reclamation
Research and Development Office
Science and Technology Program

Final Report ST-2021-19138-01

Invasive Mussel Literature Resource

YALE PASSAMANECK

Digitally signed by YALE PASSAMANECK
Date: 2021.09.20 13:45:03 -06'00'

Prepared by: Yale Passamaneck
Biologist, Ecological Research Laboratory, Hydraulic Investigations and Laboratory Services Group, 86-68560

SHERRI PUCHERELLI

Digitally signed by SHERRI PUCHERELLI
Date: 2021.09.20 15:01:17 -06'00'

Peer Review by: Sherri Pucherelli
Biologist, Ecological Research Laboratory, Hydraulic Investigations and Laboratory Services Group, 86-68560

"This information is distributed solely for the purpose of pre-dissemination peer review under applicable information quality guidelines. It has not been formally disseminated by the Bureau of Reclamation. It does not represent and should not be construed to represent Reclamation's determination or policy."

Acronyms and Abbreviations

Reclamation Bureau of Reclamation

Contents

Executive Summary

A large and growing body of literature has been generated regarding invasive dreissenid (quagga and zebra) mussels since they were first detected in the Great Lakes over 30 years ago. Given the impact of invasive mussels in the Lower Colorado River, and the continuing threat of their introduction and spread in other regions, access to relevant scientific results and other literature is critical for Reclamation operations and planning. Assessment of previous work on dreissenids can highlight what has, and has not, already been learned, and can help to avoid potentially costly duplication of effort. Because literature on invasive mussels is dispersed, much of it in reports, theses, presentations, and other documents outside the peer-reviewed literature, relevant information may escape the attention of Reclamation researchers and managers. A previous project funded by Reclamation's Science and Technology Program aggregated a wide variety of invasive mussel literature into a central repository where it was organized and made accessible. The current project has built upon this previous effort, surveying and incorporating newly published or available literature to maintain the relevance and utility of this resource.

Main Report

Methods

Literature on dreissenid mussel control was drawn from a wide variety of sources, including search engines, literature databases, and professional social networking tools, such as Google Scholar (scholar.google.com), CiteSeerX (citeseer.ist.psu.edu), and ResearchGate (www.researchgate.net). Reports and theses were also obtained from institutional and academic websites, and online databases. Because a substantial portion of the research on mussel control has not been published in peer-reviewed journals or books, this study also incorporated technical reports, theses, conference proceedings, and presentations, to provide the broadest possible survey of relevant work.

This study focused on literature for which full-text PDFs, and other source documents, could be obtained, so that methods and results could be directly evaluated. All literature was organized using the open-source reference management software Zotero (www.zotero.org). Each reference was added to the Zotero library as a separate item. Items were annotated with source data to facilitate citation and generation of bibliographies. Relevant keyword tags were added to each item to aid in identification of items of interest based on subject area. PDFs or other source documents were attached to each item as available.

For Reclamation operations, the quagga mussel (*Dreissena rostriformis bugensis*) is the primary species of concern. However, the majority of literature to date has focused on the zebra mussel (*Dreissena polymorpha*), due to its earlier appearance in North America and its broader geographic spread in the United States. Therefore, literature on both species was collected and included in the Zotero library.

Results, Conclusions and Future Prospects

In this project the Zotero library for invasive mussel literature has been increased from 390 entries from the previous project (documented in Final Report ST-2018-1868-01; www.usbr.gov/research/projects/detail.cfm?id=1868) to a total of 658 entries in the current project. Topics covered by literature in this collection include the introduction and spread of zebra and quagga mussels, physiology, habitat suitability, economic and ecological impacts, detection and monitoring methods, molecular biology and genomics, response strategies following initial detection of mussels, control techniques, and ecotoxicology.

The Zotero library generated for this project is searchable, allowing identification of literature relevant to topics of interest. Identification of relevant items is further aided by the inclusion of 271 unique tags, which can be used to rapidly identify items of interest related to a given topic. PDFs and other source documents are attached to nearly all references included in the library. The generated library and associated document files have been exported into a variety of library file

formats, including BibTex, EndNote XML, RIS, Zotero RDF. These exported libraries allow importation into reference management software programs including Mendeley (www.mendeley.com), Zotero (www.zotero.org), ReadCube (www.readcube.com), and EndNote (endnote.com), among others. All these programs support direct citation of references and generation of bibliographies within Microsoft Word, greatly simplifying the inclusion of references within reports, manuscripts, and other documents.

All reference included in the literature library are listed in the References section below. This final report and the exported reference libraries have been added to the Reclamation Information Sharing Environment (RISE; data.usbr.gov) under Catalog ID 4511. Project data have also been added to the Technical Service Center's Science and Technology shared drive folder (Z:\DO\TSC\Jobs\DO_NonFeature\Science and Technology).

It is expected that the reference library generated in this project will continue to be a valuable resource for Bureau of Reclamation researchers and managers interested in variety of topics regarding invasive dreissenid mussels. Maintaining and updating this resource will be important to ensuring its ongoing utility for researcher and managers. Looking forward, the Ecological Research Laboratory plans to continue development of this literature library as a regular part of ongoing operations in invasive mussel early detection, monitoring, and control.

References

100th Meridian. (2008). *Summary of attempted control measures for zebra quagga mussels in open water*. 100th Meridian.

Abbott, C., Coulson, M., Gagné, N., Lacoursière, A., Bajno, R., Dietrich, C., & May-McNally, S. (2021). *Guidance on the use of targeted environmental DNA (eDNA) analysis for the management of aquatic invasive species and species at risk* (Research Document No. 2021/019; p. 46). Fisheries and Oceans Canada.

Ackerman, J. D. (1999). Effect of velocity on the filter feeding of dreissenid mussels (*Dreissena polymorpha* and *Dreissena bugensis*): Implications for trophic dynamics. *Canadian Journal of Fisheries and Aquatic Sciences*, *56*(9), 1551–1561.

Ackerman, J. D., Cottrell, C. M., Ethier, C. R., Allen, D. G., & Spelt, J. K. (1996). Attachment strength of zebra mussels on natural, polymeric, and metallic materials. *Journal of Environmental Engineering*, *122*(2), 141–148. https://doi.org/10.1061/(ASCE)0733-9372(1996)122:2(141)

Ackerman, J. D., Ethier, C. R., Spelt, J. K., Allen, D. G., & Cottrell, C. M. (1995). A wall jet to measure the attachment strength of zebra mussels. *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(1), 126–135. https://doi.org/10.1139/f95-012

Ackerman, J. D., Sim, B., Nichols, S. J., & Claudi, R. (1994). A review of the early life history of zebra mussels (*Dreissena polymorpha*): Comparisons with marine bivalves. *Canadian Journal of Zoology*, *72*(7), 1169–1179. https://doi.org/10.1139/z94-157

Adams, J. (2012). *Aquatic invasive species in Oregon: The search for a viable model for mandatory roadside inspections*. Legal and Regulatory Efforts to Minimize Expansion of Invasive Mussels through Watercraft Movements, Phoenix, AZ.

Afanasyev, S., Shcherbak, S., Gusak, P., Ross, S., & Gromova, J. (2005). Technology for eliminating *Dreissena* biofouling in hydrofacilities. *Water Quality Research Journal of Canada*, *6*(Suppl.), 142–148.

Aksu, S., Yildiz, D., & Gungor, A. P. (2017). *The zebra mussel in Turkey*. Hydropolitics Association of Turkey.

Alan Plummer Associates, Inc. (2013). *Zebra mussel resource document*. U.S. Army Corps of Engineers.

Albright, M. F. (2017). *Field evaluation of EarthTec® ZM for zebra mussel (*Dreissena polymorpha*) control.* State University of New York Oneonta.

Aldridge, D. C., Elliott, P., & Moggridge, G. D. (2006). Microencapsulated BioBullets for the control of biofouling zebra mussels. *Environmental Science & Technology*, *40*(3), 975–979. https://doi.org/10.1021/es050614+

Allen, Y. C., Thompson, B. A., & Ramcharan, C. W. (1999). Growth and mortality rates of the zebra mussel, *Dreissena polymorpha*, in the Lower Mississippi River. *Canadian Journal of Fisheries and Aquatic Sciences*, *56*(5), 748–759.

Alonzo-Moya, C., Lake-Thompson, I., Hurtado, A., & Hofmann, R. (2021). Impact of temperature on chlorination strategies for mussel control at water treatment plants. *Journal of Water Supply: Research and Technology-Aqua*, *70*(4), 537–549. https://doi.org/10.2166/aqua.2021.124

Amberg, J. (2019). Environmental DNA as a tool to help inform zebra mussel, *Dreissena polymorpha*, management in inland lakes. *Management of Biological Invasions*, *10*(1), 96–110. https://doi.org/10.3391/mbi.2019.10.1.06

Anderson, K. B. (1976). Effects of potassium on adult Asiatic clams, *Corbicula manilensis. Biological Notes; No. 098*.

Anderson, M. A. (2010). *Risk assessment and response plan for zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*) in Lake Elsinore and Canyon Lake*. Lake Elsinore & San Jacinto Watersheds Authority. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.617.480&rep=rep1&type=pdf

Anderson, M. A., & Taylor, W. D. (2011). Quantifying quagga mussel veliger abundance and distribution in Copper Basin Reservoir (California) using acoustic backscatter. *Water Research*, *45*(17), 5419–5427. https://doi.org/10.1016/j.watres.2011.08.018

André, C., Bibeault, J. F., & Gagné, F. (2021). Identifying physiological traits of species resilience against environmental stress in freshwater mussels. *Ecotoxicology*. https://doi.org/10.1007/s10646-021-02457-8

Andre, N. R. S. (2020). *A lake divided: Regional shifts in trophic niche structure of Lake Powell fishes corresponding to the invasion of quagga mussels* [M.S. Thesis]. Brigham Young University.

Angarano, M.-B. (2007). *Efficacy of selected natural and synthetic novel organic compounds in prevention of zebra mussel (*Dreissena polymorpha*) macrofouling by byssal attachment inhibition* [Ph.D. Thesis]. The University of Texas at Arlington.

Aquatic Nuisance Species Task Force. (2008). *Quagga and zebra mussel control strategies workshop* [Workshop report]. Aquatic Nuisance Species Task Force.

Ardura, A., Zaiko, A., Borrell, Y. J., Samuiloviene, A., & Garcia-Vazquez, E. (2017). Novel tools for early detection of a global aquatic invasive, the zebra mussel *Dreissena polymorpha*. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *27*(1), 165–176.

Arnott, D. L., & Vanni, M. J. (1996). Nitrogen and phosphorus recycling by the zebra mussel (*Dreissena polymorpha*) in the western basin of Lake Erie. *Canadian Journal of Fisheries and Aquatic Sciences*, *53*(3), 646–659.

Arterburn, H. (2020). *Population and reproductive dynamics of zebra mussels (*Dreissena polymorpha*) in Texas reservoirs: Predicting the sustanability of zebra mussel populations in warmer waters* [Ph.D. Thesis]. The University of Texas at Arlington.

Babinec, J. (2003). Copper ion treatment for zebra mussel mitigation in house service water systems. *PowerPlant Chemistry*, *5*(9), 539–547.

Bai, X., & Acharya, K. (2019). Uptake of endocrine-disrupting chemicals by quagga mussels (*Dreissena bugensis*) in an urban-impacted aquatic ecosystem. *Environmental Science and Pollution Research*, *26*(1), 250–258. https://doi.org/10.1007/s11356-018-3320-4

Baker, S. M., & Hornbach, D. J. (1997). Acute physiological effects of zebra mussel (*Dreissena polymorpha*) infestation on two unionid mussels, *Actiononaias ligamentina* and *Amblema plicata*. *Canadian Journal of Fisheries and Aquatic Sciences*, *54*(3), 512–519.

Baldwin, A. K., Spanjer, A. R., Rosen, M. R., & Thom, T. (2020). Microplastics in Lake Mead National Recreation Area, USA: Occurrence and biological uptake. *PLOS ONE*, *15*(5), e0228896. https://doi.org/10.1371/journal.pone.0228896

Baldwin, B. S., Mayer, M. S., Dayton, J., Pau, N., Mendilla, J., Sullivan, M., Moore, A., Ma, A., & Mills, E. L. (2002). Comparative growth and feeding in zebra and quagga mussels (*Dreissena polymorpha* and *Dreissena bugensis*): Implications for North American lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *59*(4), 680–694.

Baldwin, B. S., Pooley, A. S., Lutz, R. A., Hu, Y.-P., Conn, D. B., & Kennedy, V. S. (1994). Identification of larval and postlarval zebra mussels and co-occurring bivalves in freshwater and estuarine habitats using shell morphology. *Proceedings of the Fourth International Zebra Mussel Conference.*, 479–488.

Barbour, M. T., Wise, J. K., & Luoma, J. A. (2018). *A bioassay assessment of a zebra mussel (*Dreissena polymorpha*) eradication treatment* (Open-File Report No. 2018–1138; Open-File Report). U.S. Geological Survey.

Barenberg, A., & Moffitt, C. M. (2017). Toxicity of aqueous alkaline solutions to New Zealand mudsnails, asian clams, and quagga mussels. *Journal of Fish and Wildlife Management*, *9*(1), 14–24.

Barjhoux, I., Rioult, D., Geffard, A., & Palos Ladeiro, M. (2020). A new protocol for the simultaneous flow cytometric analysis of cytotoxicity and immunotoxicity on zebra mussel (*Dreissena polymorpha*) hemocytes. *Fish & Shellfish Immunology*, *98*, 224–235. https://doi.org/10.1016/j.fsi.2019.12.092

Barnes, M., & Patiño, R. (2020). Predicting suitable habitat for dreissenid mussel invasion in Texas based on climatic and lake physical characteristics. *Management of Biological Invasions*, *11*(1), 63–79. https://doi.org/10.3391/mbi.2020.11.1.05

Bartrand, T. A. (1997). *Experimental investigation of a vacuum apparatus for zebra mussel control in closed conduits* [M.S. Thesis]. Ohio University.

Bartsch, M. R., Bartsch, L. A., & Gutreuter, S. (2005). Strong effects of predation by fishes on an invasive macroinvertebrate in a large floodplain river. *Journal of the North American Benthological Society*, *24*(1), 168–177. https://doi.org/10.1899/0887-3593(2005)024<0168:SEOPBF>2.0.CO;2

Bashnin, T., Verhaert, V., De Jonge, M., Vanhaecke, L., Teuchies, J., & Bervoets, L. (2019). Relationship between pesticide accumulation in transplanted zebra mussel (*Dreissena polymorpha*) and community structure of aquatic macroinvertebrates. *Environmental Pollution*, *252*, 591–598. https://doi.org/10.1016/j.envpol.2019.05.140

Baumgarten, B. A., & Tordonato, D. S. (2011). *Investigation of molybdenum disulfide and tungsten disulfide as additives to coatings for foul release systems* (Technical Memorandum MERL-2011-37). US Bureau of Reclamation.

Bayba, S. C. (2020). Dreissena *in the great lakes: Benthic community impacts and facilitation* [M.A. Thesis]. State University of New York College at Buffalo - Buffalo State College.

Beason, E. (2021). *Impacts of zebra mussels on Texas unionid mussels* [M.S. Thesis]. Texas State University.

Beaver, J. R., Kirsch, J. E., Tausz, C. E., Samples, E. E., Renicker, T. R., Scotese, K. C., McMaster, H. A., Blasius-Wert, B. J., Zimba, P. V., & Casamatta, D. A. (2018). Long-term trends in seasonal plankton dynamics in Lake Mead (Nevada-Arizona, USA) and implications for climate change. *Hydrobiologia*, *822*(1), 85–109. https://doi.org/10.1007/s10750-018-3638-4

Beeton, A. M. (1997). *Impact of non-indigenous species on the ecosystem of the Laurentian Great Lakes*. 9.

Bender, M. D. (2010). *Zebra and quagga mussel scoping to incorporate mussels in flow and water quality models* (Research Scoping Report Project ID 2320). US Bureau of Reclamtion.

Berkman, P. A., Garton, D. W., Haltuch, M. A., Kennedy, G. W., & Febo, L. R. (2000). Habitat shift in invading species: Zebra and quagga mussel population characteristics on shallow soft substrates. *Biological Invasions*, *2*(1), 1–6.

Bighiu, M. A., Norman Haldén, A., Goedkoop, W., & Ottoson, J. (2019). Assessing microbial contamination and antibiotic resistant bacteria using zebra mussels (*Dreissena polymorpha*). *Science of The Total Environment*, *650*, 2141–2149. https://doi.org/10.1016/j.scitotenv.2018.09.314

Bilandžija, H., Morton, B., Podnar, M., & Ćetković, H. (2013). Evolutionary history of relict Congeria (Bivalvia: Dreissenidae): unearthing the subterranean biodiversity of the Dinaric Karst. *Frontiers in Zoology*, *10*(1), 5. https://doi.org/10.1186/1742-9994-10-5

Biles, C. (2017). *Zebra mussel (*Dreissena polymorpha*) population dynamics at Sooner Lake, OK* [M.S. Thesis]. East Central University.

BioBullets Ltd. (2011). *BioBullets for the control of mussel fouling in Spanish irrigation systems*.

Blackman, R., Benucci, M., Donnelly, R., Hänfling, B., Harper, L., Sellers, G., & Handley, L. (2020). Simple, sensitive and species-specific assays for detecting quagga and zebra mussels (*Dreissena rostriformis bugensis* and *D. polymorpha*) using environmental DNA. *Management of Biological Invasions*, *11*(2), 218–236. https://doi.org/10.3391/mbi.2020.11.2.04

Blackman, R. C., Ling, K. K. S., Harper, L. R., Shum, P., Hänfling, B., & Lawson-Handley, L. (2020). Targeted and passive environmental DNA approaches outperform established methods for

detection of quagga mussels, *Dreissena rostriformis bugensis* in flowing water. *Ecology and Evolution*, *10*(23), 13248–13259. https://doi.org/10.1002/ece3.6921

Bloodsworth, K. (2015). *Treatments to eradicate zebra mussels in Christmas Lake*. Pacific Northwest Economic Region- 25th Annual Summit.

Boegehold, A. G., Johnson, N. S., & Kashian, D. R. (2019). Dreissenid (quagga and zebra mussel) veligers are adversely affected by bloom forming cyanobacteria. *Ecotoxicology and Environmental Safety*, *182*, 109426. https://doi.org/10.1016/j.ecoenv.2019.109426

Boegehold, A. G., Johnson, N. S., Ram, J. L., & Kashian, D. R. (2018). Cyanobacteria reduce quagga mussel (*Dreissena rostriformis bugensis*) spawning and fertilization success. *Freshwater Science*, *37*(3), 510–518. https://doi.org/10.1086/698353

Boegehold, A. G., & Kashian, D. R. (2021). Stress tolerance of two freshwater invaders exposed to Microcystis aeruginosa and microcystin-LR. *Hydrobiologia*, *848*(9), 2369–2382. https://doi.org/10.1007/s10750-020-04511-8

Boelman, S. F., Neilson, F. M., Dardeau, E. A., & Cross, T. (1997). *Zebra mussel (*Dreissena polymorpha*) control handbook for facility operators, first edition* (Miscellaneous Paper EL-97-1). U.S. Army Corps of Engineers.

Bollens, S. M., Harrison, J. A., Kramer, M. G., Rollwagen-Bollens, G., Counihan, T. D., Robb-Chavez, S. B., & Nolan, S. T. (2021). Calcium concentrations in the lower Columbia River, USA, are generally sufficient to support invasive bivalve spread. *River Research and Applications*, *37*(6), 889–894. https://doi.org/10.1002/rra.3804

Borcherding, J., & Jantz, B. (1997). Valve movement response of the mussel *Dreissena polymorpha* – the influence of pH and turbidity on the acute toxicity of pentachlorophenol under laboratory and field conditions. *Ecotoxicology*, *6*, 153–165.

Bossenbroek, J. M., Johnson, L. E., Peters, B., & Lodge, D. M. (2007). Forecasting the expansion of zebra mussels in the United States. *Conservation Biology*, *21*(3), 800–810.

Bossenbroek, J. M., Kraft, C. E., & Nekola, J. C. (2001). Prediction of long-distance dispersal using gravity models: Zebra mussel invasion of inland lakes. *Ecological Applications*, *11*(6), 1778–1788. https://doi.org/10.1890/1051-0761(2001)011[1778:POLDDU]2.0.CO;2

Bowers, R. W., & Szalay, F. A. (2007). Fish predation of zebra mussels attached to *Quadrula quadrula* (Bivalvia: Unionidae) and benthic molluscs in a Great Lakes coastal wetland. *Wetlands*, *27*(1), 203–208. https://doi.org/10.1672/0277-5212(2007)27[203:FPOZMA]2.0.CO;2

Bowling, T. H. (2013). Assessing the viability of zebra and quagga mussels: Legal and enforcement challenges. *The Arizona Journal of Environmental Law & Policy*, *3*(2), 125–140.

Boyd, D. (2016). *Mussel-Related impacts and costs at Hoover, Davis, and Parker Dams (Lower Colorado Dams Office Facilities)* (Final Report ST-2016-1608). US Bureau of Reclamation.

Bradbeer, S., Renals, T., Quinn, C., Warren, D., Pile, B., Hills, K., & Dunn, A. (2021). The effectiveness of hot water pressurized spray in field conditions to slow the spread of invasive alien species. *Management of Biological Invasions*, *12*(1), 125–147. https://doi.org/10.3391/mbi.2021.12.1.09

Brady, T. J., Van Benschoten, J. E., & Jensen, J. N. (1996). Chlorination effectiveness for zebra and quagga mussels. *Journal-American Water Works Association*, *88*(1), 107–110.

Brian, J. I., & Aldridge, D. C. (2019). Endosymbionts: An overlooked threat in the conservation of freshwater mussels? *Biological Conservation*, *237*, 155–165. https://doi.org/10.1016/j.biocon.2019.06.037

Britton, D. K., Brown, E., Heimowitz, P., Morse, J., Norton, D., Pitman, B., Ryce, E., Smith, R., Williams, E., & Volkoff, M. (2010). *Quagga-zebra mussel action plan for Western U.S. waters*. Aquatic Nuisance Species Task Force.

Britton, D. K., & Dingman, S. (2011). Use of quaternary ammonium to control the spread of aquatic invasive species by wildland fire equipment. *Aquatic Invasions*, *6*(2), 169–173. https://doi.org/10.3391/ai.2011.6.2.06

Broderick, S., & Hosler, D. (2012). *Biological suitability of Rye Patch Reservoir for dreissenid mussel infestation* (Technical Memorandum No. 86-68220-13–02). US Bureau of Reclamtion.

Brown, L., & Vasseur, L. (2020). An analysis of aquatic invasive species management in the Niagara region of Ontario, Canada: Establishment of a database to improve knowledge sharing. *Management of Biological Invasions*, *11*(3), 588–606. https://doi.org/10.3391/mbi.2020.11.3.16

Building Consensus in the West. (2014). *Building Consensus in the West—A multi-state vision for watercraft inspection programs.* [Meeting report].

Bulté, G., & Blouin-Demers, G. (2008). Northern map turtles (*Graptemys geographica*) derive energy from the pelagic pathway through predation on zebra mussels (*Dreissena polymorpha*). *Freshwater Biology*, *53*(3), 497–508. https://doi.org/10.1111/j.1365-2427.2007.01915.x

Bunnell, D. B., Barbiero, R. P., Ludsin, S. A., Madenjian, C. P., Warren, G. J., Dolan, D. M., Brenden, T. O., Briland, R., Gorman, O. T., & He, J. X. (2013). Changing ecosystem dynamics in the Laurentian Great Lakes: Bottom-up and top-down regulation. *BioScience*, *64*(1), 26–39.

Bunnell, D. B., Madenjian, C. P., Holuszko, J. D., Adams, J. V., & French III, J. R. (2009). Expansion of *Dreissena* into offshore waters of Lake Michigan and potential impacts on fish populations. *Journal of Great Lakes Research*, *35*(1), 74–80.

Burlakova, L. E., Tulumello, B. L., Karatayev, E. Y., Krebs, R. A., Schloesser, D. W., Paterson, W. L., Griffith, T. A., Scott, M. W., Crail, T., & Zanatta, D. T. (2014). Competitive replacement of invasive congeners may relax impact on native species: Interactions among zebra, quagga, and native unionid mussels. *PLOS ONE*, *9*(12), e114926.

Butts, D. (2016). *Zebra mussel eradication- Lake Winnipeg harbours.* International Conference on Aquatic Invasive Species, 19th Conference.

Byrne, R. A., & Mcmahon, R. F. (1994). Behavioral and physiological responses to emersion in freshwater bivalves. *American Zoologist*, *34*(2), 194–204. https://doi.org/10.1093/icb/34.2.194

Calcino, A., Baranyi, C., & Wanninger, A. (2020). *Heteroplasmy and repeat expansion in the plant-like mitochondrial genome of a bivalve mollusc* [Preprint]. Genomics. https://doi.org/10.1101/2020.09.23.310516

Calcino, A. D., de Oliveira, A. L., Simakov, O., Schwaha, T., Zieger, E., Wollesen, T., & Wanninger, A. (2019). The quagga mussel genome and the evolution of freshwater tolerance. *DNA Research*, *26*(5), 411–422. https://doi.org/10.1093/dnares/dsz019

California Sea Grant Program. (2012). *Quagga and zebra mussel eradication and control workshop* [Workshop report]. California Sea Grant Program and the University of California Cooperative Extension.

Campbell, L. M., Thacker, R., Barton, D., Muir, D. C., Greenwood, D., & Hecky, R. E. (2009). Re-engineering the eastern Lake Erie littoral food web: The trophic function of non-indigenous Ponto-Caspian species. *Journal of Great Lakes Research*, *35*(2), 224–231.

Campbell, T., Verboomen, T., Montz, G., & Seilheimer, T. (2016). Volume and contents of residual water in recreational watercraft ballast systems. *Management of Biological Invasions*, *7*.

Caraco, N. F., Cole, J. J., Findlay, S. E., Fischer, D. T., Lampman, G. G., Pace, M. L., & Strayer, D. L. (2000). Dissolved oxygen declines in the Hudson River associated with the invasion of the zebra mussel (*Dreissena polymorpha*). *Environmentla Science and Technology*, *34*, 1204–1210.

Carlsson, N. O., Bustamante, H., Strayer, D. L., & Pace, M. L. (2011). Biotic resistance on the increase: Native predators structure invasive zebra mussel populations. *Freshwater Biology*, *56*(8), 1630–1637.

Carmon, J., Keele, J., Pucherelli, S. F., & Hosler, D. (2014). *PCR detection of quagga mussel intracellular DNA and dissolved DNA* (Technical Memorandum No. 86-68220-14–12). US Bureau of Reclamtion.

Carrillo, C. C., Altman, S., Swannack, T. M., Keele, J., Pucherelli, S., Passamaneck, Y., & Murphy, A. (2020). *Using constrained gravity models at large spatial scales to simulate invasive species colonization* (Final Report ST-2020-8110-01; p. 33). Bureau of Reclamation.

Carvalho, J., Garrido-Maestu, A., Azinheiro, S., Fuciños, P., Barros-Velázquez, J., De Miguel, R. J., Gros, V., & Prado, M. (2021). Faster monitoring of the invasive alien species (IAS) *Dreissena polymorpha* in river basins through isothermal amplification. *Scientific Reports*, *11*(1). https://doi.org/10.1038/s41598-021-89574-w

Catita, D., Gama, M., Azedo, R., Banha, F., Pinto, J., Ilhéu, A., & Anastácio, P. (2020). Detection and possible elimination of the first recorded population of the zebra mussel (*Dreissena polymorpha*) in Portugal from a reservoir. *Management of Biological Invasions*, *11*(3), 406–414. https://doi.org/10.3391/mbi.2020.11.3.04

Cha, Y., Stow, C. A., & Bernhardt, E. S. (2013). Impacts of dreissenid mussel invasions on chlorophyll and total phosphorus in 25 lakes in the USA. *Freshwater Biology*, *58*(1), 192–206. https://doi.org/10.1111/fwb.12050

Chakraborti, R. K., Madon, S., & Kaur, J. (2016). Costs for controlling dreissenid mussels affecting drinking water infrastructure: Case studies. *Journal - American Water Works Association*, *108*(8), E442–E453. https://doi.org/10.5942/jawwa.2016.108.0104

Chakraborti, R., Madon, S., Kaur, J., & Gabel, D. (2013). Management and control of dreissenid mussels in water infrastructure facilities of the Southwestern United States. In T. Nalepa & D. Schloesser, *Quagga and Zebra Mussels* (pp. 215–242). CRC Press. https://doi.org/10.1201/b15437-20

Chandra, S., Wittmann, M., Caires, A., Kolosovich, A., Schladow, G., Moore, J., & Thayer, T. (2009). *Quagga Mussel Risk Assessment—An experiment test of quagga mussel survival and reproductive status using Lake Tahoe water with a prediction of invasion into Western water bodies*. Tahoe Regional Planning Agency.

Chase, M. E., & Bailey, R. C. (1999). The ecology of the zebra mussel (*Dreissena polymorpha*) in the lower Great Lakes of North America: I. Population dynamics and growth. *Journal of Great Lakes Research*, *25*(1), 107–121.

Chen, D., Gerstenberger, S., Ann Mueting, S., Hing Wong, W., Gerstenberger, S. L., & Mueting, S. A. (2011). Environmental factors affecting settlement of quagga mussel (*Dreissena rostriformis bugensis*) veligers in Lake Mead, Nevada-Arizona, USA. *Aquatic Invasions*, *6*(2), 149–156. https://doi.org/10.3391/ai.2011.6.2.04

Choi, W. J., Gerstenberger, S., McMahon, R., & Wong, W. H. (2013). Estimating survival rates of quagga mussel (*Dreissena rostriformis bugensis*) veliger larvae under summer and autumn temperature regimes in residual water of trailered watercraft at Lake Mead, USA. *Management of Biological Invasions*, *4*(1), 61–69. https://doi.org/10.3391/mbi.2013.4.1.08

Chordas, S. W. (2000). *Investigations into acute potassium intoxication in the introduced freshwater bivalves* Dreissena polymorpha *and* Corbicula fluminea [Ph.D. Thesis]. The Ohio State University.

Churchill, C. J. (2013). *Population dynamics of zebra mussels (*Dreissena polymorpha*) in a North Texas reservoir: Implications for invasions in the Southern United States* [Ph.D. Thesis]. University of North Texas.

Churchill, C. J., & Quigley, D. P. (2018). Downstream dispersal of zebra mussels (*Dreissena polymorpha*) under different flow conditions in a coupled lake-stream ecosystem. *Biological Invasions*, *20*(5), 1113–1127.

Claudi, R., Eng, T. P. P., Mastisky, S., & Coffey, H. (2014). *Efficacy of copper based algaecides for control of quagga and zebra mussels* (pp. 1–58). RTN Consulting. http://www.rntconsulting.net/Publications/Articles/RNT2014AlgaecideMusselMortality.pdf

Claudi, R., Graves, A., Taraborelli, A. C., Prescott, R., & Mastitsky, S. (2012). Impact of pH on survival and settlement of dreissenid mussels. *Aquatic Invasions*, *7*(1), 21–28. https://doi.org/10.3391/ai.2012.7.1.003

Claudi, R., & Prescott, K. (2011). *Examination of calcium and pH as predictors of dreissenid mussel survival in the California State Water Project*. Prepared for the California Department of Water Resources, Division of Operations and Maintenance, Aquatic Nuisance Species Program.

Claudi, R., & Prescott, T. (2007a). *Assessment of the potential impact of quagga mussels on Davis Dam and Parker Dam and recommendations for monitoring and control* [Facility Assessment]. US Bureau of Reclamation.

Claudi, R., & Prescott, T. (2007b). *Assessment of the potential impact of quagga mussels on Hoover Dam and recommendations for monitoring and control* [Facility Assessment]. US Bureau of Reclamation.

Claudi, R., & Prescott, T. (2009). *Assessment of the potential impact of invasive mussels on water and power system facilities and structures and recommendations for control-Pueblo Reservoir, Fryingpan-Arkansas Project* [Facility Assessment]. US Bureau of Reclamation.

Claudi, R., Prescott, T., Mastitsky, S., Evans, D., & Taraborelli, A. (2012). *Evaluating low pH for control of zebra mussels* (p. 32). California Department of Water Resources.

Claxton, W. T., & Boulding, E. G. (1998). A new molecular technique for identifying field collections of zebra mussel (*Dreissena polymorpha*) and quagga mussel (*Dreissena bugensis*) veliger larvae applied to eastern Lake Erie, Lake Ontario, and Lake Simcoe. *Canadian Journal of Zoology*, *76*(1), 194–198.

Claxton, W. T., Martel, A., Dermott, R. M., & Boulding, E. G. (1997). Discrimination of field-collected juveniles of two introduced dreissenids (*Dreissena polymorpha* and *Dreissena bugensis*) using mitochondrial DNA and shell morphology. *Canadian Journal of Fisheries and Aquatic Sciences*, *54*(6), 1280–1288.

Claxton, W. T., Wilson, A. B., Mackie, G. L., & Boulding, E. G. (1998). A genetic and morphological comparison of shallow-and deep-water populations of the introduced dreissenid bivalve *Dreissena bugensis*. *Canadian Journal of Zoology*, *76*(7), 1269–1276.

Clifton, E., & Albright, M. (2015). *Preventing zebra mussel (*Dreissena polymorpha*) veliger attachment using potassium permanganate*. State University of New York Oneonta.

Cohen, A. (2009). *Managing the exotic mussels* Dreissena polymorpha*,* Dreissena bugensis*,* Limnoperna fortunei *and* Mytilopsis leucophaeata *in SFPUC's Reservoirs* (pp. 1–236) [Final Report]. East Bay Municipal Utility District. http://bioinvasions.org/wp-content/uploads/2009-Fouling-Bivalves-Report-for-SFPUC.pdf

Cohen, A. N. (2005). *A review of zebra mussels' environmental requirements* (p. 33). California Department of Water Resources.

Cohen, A. N. (2007). *Potential distribution of zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*) in California* [Phase 1 Report]. California Department of Fish and Game. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.573.1363&rep=rep1&type=pdf

Cohen, A. N., Moll, R., Carlton, J. T., O'Neill, C. R., Anderson, L., & Moyle, P. B. (2007). *California's response to the zebra / quagga mussel invasion in the West* [Recommendations of the California Science Advisory Panel]. California Incident Command.

Cohen, A. N., & Weinstein, A. (2001). *Zebra Mussel's Calcium Threshold and Implications for its Potential Distribution in North America* (p. 47). San Francisco Estuary Institute.

Collas, F., Arends, E., Buuts, M., & Leuven, R. (2021). Effect of airflow on overland transport potential of the invasive quagga mussel (*Dreissena bugensis*). *Management of Biological Invasions*, *12*(1), 165–177. https://doi.org/10.3391/mbi.2021.12.1.11

Collas, F. P. L., Karatayev, A. Y., Burlakova, L. E., & Leuven, R. S. E. W. (2018). Detachment rates of dreissenid mussels after boat hull-mediated overland dispersal. *Hydrobiologia*, *810*(1), 77–84. https://doi.org/10.1007/s10750-016-3072-4

Comeau, S., Rainville, S., Baldwin, W., Austin, E., Gerstenberger, S., Cross, C., & Wong, W. H. (2011). Susceptibility of quagga mussels (*Dreissena rostriformis bugensis*) to hot-water sprays as a means of watercraft decontamination. *Biofouling*, *27*(3), 267–274. https://doi.org/10.1080/08927014.2011.564275

Conn, D. B., Ricciardi, A., Babapulle, M. N., Klein, K. A., & Rosen, D. A. (1996). *Chaetogaster limnaei* (Annelida: Oligochaeta) as a parasite of the zebra mussel *Dreissena polymorpha*, and the quagga mussel *Dreissena bugensis* (Mollusca: Bivalvia). *Parasitology Research*, *82*(1), 1–7. https://doi.org/10.1007/s004360050058

Connelly, N. A., O'Neill, C. R., Knuth, B. A., & Brown, T. L. (2007). Economic impacts of zebra mussels on drinking water treatment and electric power generation facilities. *Environmental Management*, *40*(1), 105–112.

Cope, W. G., Bartsch, M. R., & Marking, L. L. (1997). Efficacy of candidate chemicals for preventing attachment of zebra mussels (*Dreissena polymorpha*). *Environmental Toxicology and Chemistry: An International Journal*, *16*(9), 1930–1934.

Costa, R., Aldridge, D. C., & Moggridge, G. D. (2008). Seasonal variation of zebra mussel susceptibility to molluscicidal agents. *Journal of Applied Ecology*, *45*(6), 1712–1721. https://doi.org/10.1111/j.1365-2664.2008.01555.x

Costa, R., Aldridge, D. C., & Moggridge, G. D. (2011). Preparation and evaluation of biocide-loaded particles to control the biofouling zebra mussel, *Dreissena polymorpha*. *Chemical Engineering Research and Design*, *89*(11), 2322–2329.

Costa, R., Elliott, P., Saraiva, P. M., Aldridge, D., & Moggridge, G. D. (2008). Development of sustainable solutions for zebra mussel control through chemical product engineering. *Chinese Journal of Chemical Engineering*, *16*(3), 435–440. https://doi.org/10.1016/S1004-9541(08)60101-9

Costa, R., Moggridge, G. D., & Aldridge, D. C. (2012). Improved mussel control through microencapsulated BioBullets. In S. Rajagopal, H. A. Jenner, & V. P. Venugopalan (Eds.), *Operational and Environmental Consequences of Large Industrial Cooling Water Systems* (pp. 273–286). Springer US. https://doi.org/10.1007/978-1-4614-1698-2_11

Costello, D. M., Brown, L. M., & Lamberti, G. A. (2009). Acute toxic effects of ionic liquids on zebra mussel (*Dreissena polymorpha*) survival and feeding. *Green Chemistry*, *11*(4), 548–553. https://doi.org/10.1039/b822347e

Cotten, E. (2021). *Describing the gut microbiome of two freshwater mussel species within the Tennessee River Basin* [Honors Thesis]. The University of Mississippi.

Coughlan, N. E., Bradbeer, S. J., Cuthbert, R. N., Cunningham, E. M., Crane, K., Potts, S., Caffrey, J. M., Lucy, F. E., Dunn, A. M., Davis, E., Renals, T., Quinn, C., & Dick, J. T. A. (2020). Better off dead: Assessment of aquatic disinfectants and thermal shock treatments to prevent the spread of invasive freshwater bivalves. *Wetlands Ecology and Management*, *28*(2), 285–295. https://doi.org/10.1007/s11273-020-09713-4

Coughlan, N. E., Cunningham, E. M., Potts, S., McSweeney, D., Healey, E., Dick, J. T. A., Vong, G. Y. W., Crane, K., Caffrey, J. M., Lucy, F. E., Davis, E., & Cuthbert, R. N. (2020). Steam and flame applications as novel methods of population control for invasive asian clam (*Corbicula fluminea*) and zebra mussel (*Dreissena polymorpha*). *Environmental Management*, *66*(4), 654–663. https://doi.org/10.1007/s00267-020-01325-1

Coughlan, N. E., Stevens, A. L., Kelly, T. C., Dick, J. T. A., & Jansen, M. A. K. (2017). Zoochorous dispersal of freshwater bivalves: An overlooked vector in biological invasions? *Knowledge & Management of Aquatic Ecosystems*, *418*, 42. https://doi.org/10.1051/kmae/2017037

Counihan, T. D., & Bollens, S. M. (2017). Early detection monitoring for larval dreissenid mussels: How much plankton sampling is enough? *Environmental Monitoring and Assessment*, *189*(3), 98. https://doi.org/10.1007/s10661-016-5737-x

Coyle, B. P., Lord, P. H., Wong, W. H., & Albright, M. F. (2014). *Potassium permanganates effect on zebra mussel adults and veligers*. State University of New York Oneonta.

Crane, K., Coughlan, N. E., Cuthbert, R. N., Dick, J. T. A., Kregting, L., Ricciardi, A., MacIsaac, H. J., & Reid, N. (2020). Friends of mine: An invasive freshwater mussel facilitates growth of invasive macrophytes and mediates their competitive interactions. *Freshwater Biology*, *65*(6), 1063–1072. https://doi.org/10.1111/fwb.13489

Crank, K. M., & Barnes, M. E. (2017). Zebra mussel veliger chemical control treatments do not impact rainbow trout eyed egg survival. *International Journal of Innovative Studies in Aquatic Biology and Fisheries*, *3*(2). https://doi.org/10.20431/2454-7670.0302003

Cross, C. L., Wong, W. H., & Che, T. (2011). Estimating carrying capacity of quagga mussels (*Dreissena rostriformis bugensis*) in a natural system: A case study of the Boulder Basin of Lake Mead, Nevada- Arizona. *ResearchGate*, *6*(2). https://doi.org/10.3391/ai.2011.6.2.03

Culver, C., Lahr, H., Johnson, L., & Cassell, J. (2013). *Quagga and zebra mussel eradication and control tactics* (California Sea Grant College Program Report No. T--076/UCCE--SD Technical Report No. 2013--1). California Sea Grant College Program.

Czerniawski, R., & Krepski, T. (2021). Does lake eutrophication support biological invasions in rivers? A study on *Dreissena polymorpha* (Bivalvia) in lake–river ecotones. *Ecology and Evolution*. https://doi.org/10.1002/ece3.8013

Dahlstrom Davidson, A., Tucker, A., Chadderton, L., & Weibert, C. (2021). Development of a surveillance species list to inform aquatic invasive species management in the Laurentian Great Lakes. *Management of Biological Invasions*, *12*(2), 272–293. https://doi.org/10.3391/mbi.2021.12.2.05

David, K. A., Davis, B. M., & Hunter, R. D. (2009). Lake St. Clair zooplankton: Evidence for post-*Dreissena* changes. *Journal of Freshwater Ecology*, *24*(2), 199–209. https://doi.org/10.1080/02705060.2009.9664284

Davis, C. J., Ruhmann, E. K., Acharya, K., Chandra, S., & Jerde, C. L. (2015). Successful survival, growth, and reproductive potential of quagga mussels in low calcium lake water: Is there uncertainty of establishment risk? *PeerJ*, *3*, e1276. https://doi.org/10.7717/peerj.1276

Davis, E. A. (2016). *Determining effective decontamination methods for watercraft exposed to zebra mussels,* Dreissena polymorpha *(Pallas 1776), that do not use hot water with high pressure spray* (Occasional Paper No. 52; p. 85). State University of New York Oneonta.

Davis, E. A., Wong, W. H., & Harman, W. N. (2015). Comparison of three sodium chloride chemical treatments for adult zebra mussel decontamination. *Journal of Shellfish Research*, *34*(3), 1029–1036.

Davis, E. A., Wong, W. H., & Harman, W. N. (2016). Livewell flushing to remove zebra mussel (*Driessena polymorpha*) veligers. *Management of Biological Invasions*, *7*(4), 399–403.

Davis, E. A., Wong, W. H., & Harman, W. N. (2018). Toxicity of Potassium Chloride Compared to Sodium Chloride for Zebra Mussel Decontamination. *Journal of Aquatic Animal Health*, *30*(1), 3–12. https://doi.org/10.1002/aah.10013

Davis, E., Wong, W. H., & Harman, W. (2015). Distilled white vinegar (5% acetic acid) as a potential decontamination method for adult zebra mussels. *Management of Biological Invasions*, *6*(4), 423–428. https://doi.org/10.3391/mbi.2015.6.4.10

De Lafontaine, Y., Costan, G., & Delisle, F. (2002). Testing a new anti-zebra mussel coating with a multi-plate sampler: Confounding factors and other fuzzy features. *Biofouling*, *18*(1), 1–12.

De Lafontaine, Y., & Veillette, J. (2016). Antifouling effectiveness and potential toxicological risk of an elastomer-based coating against zebra mussels. *Environment and Natural Resources Research*, *6*, 125. https://doi.org/10.5539/enrr.v6n4p125

The silent invasion: Finding solutions to minimize the impacts of invasive quagga mussels on water rates, water infrastructure and the environment, U.S. House of Representatives (2008) (testimony of R. De Leon).

De Ventura, L., Kopp, K., Seppälä, K., & Jokela, J. (2017). Tracing the quagga mussel invasion along the Rhine river system using eDNA markers: Early detection and surveillance of invasive zebra and quagga mussels. *Management*, *8*(1), 101–112.

De Ventura, L., Sarpe, D., Kopp, K., & Jokela, J. (2016). Variability in phenotypic tolerance to low oxygen in invasive populations of quagga and zebra mussels. *Aquat. Invasions*, *11*, 267–276.

De Ventura, L., Weissert, N., Tobias, R., Kopp, K., & Jokela, J. (2017). Identifying target factors for interventions to increase boat cleaning in order to prevent spread of invasive species. *Management of Biological Invasions*, *8*(1), 71–84.

DeBruyckere, L. (2019). *Dreissenid Mussel Rapid Response in the Columbia River Basin: Recommended Practices to Facilitate Endangered Species Act Section 7 Compliance*. U.S. Fish and Wildlife Service and Pacific States Marine Fisheries Commission.

Delmott, S., & Edds, D. (2014). Zebra mussel maturation and seasonal gametogenesis in Marion Reservoir, Kansas, USA. *BioInvasions Records*, *3*(4), 247–260. https://doi.org/10.3391/bir.2014.3.4.06

Delrose, P. K. (2012). *Evaluation of the Tagelus® TA 100D sand filter for removing quagga mussel veligers (*Dreissena rostriformis bugensis*) from lake water and the effectiveness of the SafeGUARD ultraviolet radiation system as a biocide against veligers* [M.P.H. Thesis]. University of Nevada, Las Vegas.

Denver III Meeting. (2016). *Building Consensus in the West—A multi-state vision for watercraft inspection programs*. [Meeting Report].

Dept. of Biology, Universitat de Girona, Spain, Peñarrubia, L., Viñas, J., Dept. of Biology, Universitat de Girona, Spain, Sanz, N., Dept. of Biology, Universitat de Girona, Spain, Smith, B. L., Dept. of Natural Sciences, Brigham Young University, Hawaii, USA, Alvarado Bremer, J. R., Dept. of Wildlife and Fisheries Sciences, Texas A&M University, USA, Pla, C., Dept. of Biology, Universitat de Girona, Spain, Vidal, O., & Dept. of Biology, Universitat de Girona, Spain. (2019). SNP identification and validation in two invasive species: Zebra mussel (*Dreissena polymorpha*) and Asian clam (*Corbicula fluminea*). *Animal Biodiversity and Conservation*, *42*(1), 65–68. https://doi.org/10.32800/abc.2019.42.0065

Dermott, R., Munawar, M., Bonnell, R., Carou, S., Niblock, H., Nalepa, T. F., & Messick, G. (2005). *Preliminary investigations for causes of the disappearance of Diporeia spp. From Lake Ontario*.

DeShon, D. L., Wong, W. H., Farmer, D., & Jensen, A. J. (2016). The ability of scent detection canines to detect the presence of quagga mussel (*Dreissena rostriformis bugensis*) veligers. *Management*, *7*(4), 419–428.

DFO. (2014). *Lake Winnipeg zebra mussel treatment* (No. 2014/031; DFO Can. Sci. Advis. Sec. Sci. Resp., pp. 1–12). Canadian Science Advisory Secretariat.

D'Hont, A., Gittenberger, A., Hendriks, A. J., & Leuven, R. S. E. W. (2021a). Dreissenids' breaking loose: Differential attachment as a possible driver of the dominance shift between two invasive mussel species. *Biological Invasions*, *23*(7), 2125–2141. https://doi.org/10.1007/s10530-021-02492-w

D'Hont, A., Gittenberger, A., Hendriks, J., & Leuven, R. (2018). Drivers of dominance shifts between invasive Ponto-Caspian dreissenids *Dreissena polymorpha* (Pallas, 1771) and *Dreissena rostriformis bugensis* (Andrusov, 1897). *Aquatic Invasions*, *13*(4), 449–462. https://doi.org/10.3391/ai.2018.13.4.03

D'Hont, A., Gittenberger, A., Hendriks, J., & Leuven, R. (2021b). Dreissenids' need for speed: Mobility as a driver of the dominance shift between two invasive Ponto-Caspian mussel species. *Aquatic Invasions*, *16*(1), 113–128. https://doi.org/10.3391/ai.2021.16.1.08

Diers, J. A., Bowling, J. J., Duke, S. O., Wahyuono, S., Kelly, M., & Hamann, M. T. (2006). Zebra mussel antifouling activity of the marine natural product aaptamine and analogs. *Marine Biotechnology (New York, N.Y.)*, *8*(4), 366–372. https://doi.org/10.1007/s10126-005-6055-4

Dietz, T. H., Wilcox, S. J., Byrne, R. A., Lynn, J. W., & Silverman, H. (1996). Osmotic and ionic regulation of North American zebra mussels (*Dreissena polymorpha*). *American Zoologist*, *36*(3), 364–372.

Diggins, T. P. (2001). A seasonal comparison of suspended sediment filtration by quagga (*Dreissena bugensis*) and zebra (*D. polymorpha*) mussels. *Journal of Great Lakes Research*, *27*(4), 457–466.

Diggins, T. P., Weimer, M., Stewart, K. M., Baier, R. E., Meyer, A. E., Forsberg, R. F., & Goehle, M. A. (2004). Epiphytic Refugium: Are Two Species of Invading Freshwater Bivalves Partitioning Spatial Resources? *Biological Invasions*, *6*(1), 83–88. https://doi.org/10.1023/B:BINV.0000010124.00582.d3

DiVittorio, J., Grodowitz, M., Snow, J., & Manross, T. (2012). *Inspection and cleaning manual for equipment and vehicles to prevent the spread of invasive species* (Technical Memorandum No. 86-68220-07–05). US Bureau of Reclamation. https://trid.trb.org/view.aspx?id=1238462

Donskoy, D. M. (1996). *The use of acoustic, vibrational, and hydrodynamic techniques to control zebra mussel infestation* (Technical Report SIT-DL-96-9-2736). New Jersey Marine Sciences Consortium.

Donskoy, D. M., Ludyanskiy, M., & Wright, D. A. (1996). Effects of sound and ultrasound on zebra mussels. *The Journal of the Acoustical Society of America*, *99*, 2577–2603. https://doi.org/10.1121/1.415087

Dormon, J. M., Cottrell, C. M., Allen, D. G., Ackerman, J. D., & Spelt, J. K. (1996). Copper and copper-nickel alloys as zebra mussel antifoulants. *Journal of Environmental Engineering*, *122*(4), 276–283.

Drake, J. M., & Bossenbroek, J. M. (2004). The potential distribution of zebra mussels in the United States. *BioScience*, *54*(10), 931. https://doi.org/10.1641/0006-3568(2004)054[0931:TPDOZM]2.0.CO;2

Dupuy, B. (2015, October 24). State halts zebra mussel project in west metro after major setback. *StarTribune*. http://www.startribune.com/state-halts-zebra-mussel-project-at-christmas-lake-citing-failure-of-chemical-treatments/336433731/

Durán, C., Lanao, M., Anadón, A., & Touyá, V. (2010). Management strategies for the zebra mussel invasion in the Ebro basin. *Aquatic Invasions*, *5*(3), 309–316. https://doi.org/10.3391/ai.2010.5.3.09

Early, T. A., & Glonek, T. (1999). Zebra mussel destruction by a Lake Michigan sponge: Populations, in vivo ^{31}P nuclear magnetic resonance, and phospholipid profiling. *Environmental Science & Technology*, *33*(12), 1957–1962.

Ecker, J. K., Raben, R., & Simpson, G. (2020). Use of GIS to Determine Potential Sources of Aquatic Invasive Species Invasions into Western South Dakota Reservoirs. *Natural Resources*, *11*(02), 39–45. https://doi.org/10.4236/nr.2020.112003

Edwards, W. J., Babcock-Jackson, L., & Culver, D. A. (2000). Prevention of the spread of zebra mussels during fish hatchery and aquaculture activities. *North American Journal of Aquaculture*, *62*(3), 229–236.

Edwards, W. J., Babcock-Jackson, L., & Culver, D. A. (2002). Field testing of protocols to prevent the spread of zebra mussels *Dreissena polymorpha* during fish hatchery and aquaculture activities. *North American Journal of Aquaculture*, *64*(3), 220–223.

Eisler, R. (1998). *Copper hazards to fish, wildlife, and invertebrates: A synoptic review.* (Technical Report USGS/BRD/BSR-199 7-0002; Biological Science Report). U.S. Geological Survey.

Ejsmont-Karabin, J., & Karpowicz, M. (2019). Epizoic rotifers on *Dreissena polymorpha* in relation to biotic factors. *Hydrobiologia*, *828*(1), 137–145. https://doi.org/10.1007/s10750-018-3808-4

Emerson, R. L. (2015). *Zebra mussel eradication project for San Justo Reservoir, Hollister Conduit, and San Benito County water distribution system* (Draft Finding of No Significant Impact FONSI-09-010). US Bureau of Reclamation.

Fahnenstiel, G., Nalepa, T., Pothoven, S., Carrick, H., & Scavia, D. (2010). Lake Michigan lower food web: Long-term observations and *Dreissena* impact. *Journal of Great Lakes Research*, *36*, 1–4.

Fears, C. D., & Mackie, G. L. (1997). Use of low level electric current (AC) to prevent settlement of zebra/quagga mussels on concrete and steel panels at Nanticoke TGS. In F. M. D'Itri (Ed.), *Zebra mussels and aquatic nuisance species* (pp. 407–416). Ann Arbor Press, Inc.

Fears, C., & Mackie, G. L. (1995). Efficacy of low level electric current (AC) for controlling quagga mussles in the Welland Canal. *Proceedings of The Fifth International Zebra Mussel and Other Aquatic Nuisance Organisms Conference*, 407–416. http://www.osti.gov/scitech/biblio/146952

Feist, S. M., & Lance, R. F. (2021). Advanced molecular-based surveillance of quagga and zebra mussels: A review of environmental DNA/RNA (eDNA/eRNA) studies and considerations for future directions. *NeoBiota*, *66*, 117–159. https://doi.org/10.3897/neobiota.66.60751

Feng, X., Liang, Y., Gallardo, B., & Papeş, M. (2020). Physiology in ecological niche modeling: Using zebra mussel's upper thermal tolerance to refine model predictions through Bayesian analysis. *Ecography*, *43*(2), 270–282. https://doi.org/10.1111/ecog.04627

Feng, X., & Papeş, M. (2017). Physiological limits in an ecological niche modeling framework: A case study of water temperature and salinity constraints of freshwater bivalves invasive in USA. *Ecological Modelling*, *346*, 48–57. https://doi.org/10.1016/j.ecolmodel.2016.11.008

Feniova, I. (2020). Effects of zebra mussels (*Dreissena polymorpha*) on phytoplankton community structure under eutrophic conditions. *Aquatic Invasions*, *15*(3), 435–454. https://doi.org/10.3391/ai.2020.15.3.05

Fera, S. A., Rennie, M. D., & Dunlop, E. S. (2017). Broad shifts in the resource use of a commercially harvested fish following the invasion of dreissenid mussels. *Ecology*, *98*(6), 1681–1692.

Ferguson, J. M., McCartney, M. A., Blinick, N. S., Schroeder, L., & Fieberg, J. (2019). Using distance sampling to estimate densities of Zebra Mussels (*Dreissena polymorpha*) in early-stage invasions. *Freshwater Science*, *38*(4), 856–868. https://doi.org/10.1086/706105

Fernald, R. T., & Watson, B. T. (n.d.). *Millbrook Quarry zebra mussel eradication*. Virginia Department of Game and Inland Fisheries. https://cdn.cloud1.cemah.net/wp-content/uploads/sites/36/2016/11/Millbrook-Quarry-Treatment-Virginia-Department-of-Game-and-Inland-Fisheries.pdf

Fernald, R. T., & Watson, B. T. (2005). *Millbrook Quarry zebra mussel eradication—Final Environmental Assessment* [Final Environmental Assessment]. U.S. Fish and Wildlife Service. https://cdn.cloud1.cemah.net/wp-content/uploads/sites/36/2016/11/Millbrook-Quarry-Treatment-Virginia-Department-of-Game-and-Inland-Fisheries.pdf

Fernald, R., & Watson, B. (2013). Eradication of zebra mussels (*Dreissena polymorpha*) from Millbrook Quarry, Virginia: Rapid response in the real world. In T. Nalepa & D. Schloesser (Eds.), *Quagga and Zebra Mussels* (pp. 195–214). CRC Press. https://doi.org/10.1201/b15437-19

Fischer, S. M., Beck, M., Herborg, L.-M., & Lewis, M. A. (2020). A hybrid gravity and route choice model to assess vector traffic in large-scale road networks. *Royal Society Open Science*, *7*(5), 191858. https://doi.org/10.1098/rsos.191858

Fisher, S. W. (1994). *Status of potassium for use in zebra mussel control: Summary of data* (OHSU-TS-051). Ohio Sea Grant.

Fisher, S. W., Dabrowska, H., Waller, D. L., Babcock-Jackson, L., & Zhang, X. (1994). Sensitivity of zebra mussel (*Dreissena polymorpha*) life stages to candidate molluscicides. *Journal of Shellfish Research*, *13*(2), 373–377.

Fisher, S. W., Hwang, H., Atanasoff, M., & Landrum, P. F. (1999). Lethal body residues for pentachlorophenol in zebra mussels (*Dreissena polymorpha*) under varying conditions of temperature and pH. *Ecotoxicology and Environmental Safety*, *43*(3), 274–283. https://doi.org/10.1006/eesa.1999.1789

Fisher, S. W., Stromberg, P., Bruner, K. A., & Boulet, L. D. (1991). Molluscicidal activity of potassium to the zebra mussel, *Dreissena polymorphia*: Toxicity and mode of action. *Aquatic Toxicology*, *20*(4), 219–234.

FishPro. (2005). *Feasibility study to limit the spread of zebra mussels from Ossainnamakee Lake* [Consultant's Report]. Minnesota Department of Natural Resources.

Fong, P. P., Kyozuka, K., Duncan, J., Rynkowski, S., Mekasha, D., & Ram, J. L. (1995). The effect of salinity and temperature on spawning and fertilization in the zebra mussel *Dreissena polymorpha* (Pallas) from North America. *The Biological Bulletin*, *189*(3), 320–329. https://doi.org/10.2307/1542149

Fredricks, K. T., Hubert, T. D., Amberg, J. J., Cupp, A. R., & Dawson, V. K. (2021). Chemical Controls for an Integrated Pest Management Program. *North American Journal of Fisheries Management*, *41*(2), 289–300. https://doi.org/10.1002/nafm.10339

Frischer, M. E., Nierzwicki-Bauer, S. A., Parsons, R. H., Vathanodorn, K., & Waitkus, K. R. (2000). Interactions between zebra mussels (*Dreissena polymorpha*) and microbial communities. *Canadian Journal of Fisheries and Aquatic Sciences*, *57*(3), 591–599.

Gaarder, N. (2016, June 4). Zebra mussel larvae have been found again in Zorinsky Lake. *Omaha World-Herald*. https://www.omaha.com/news/metro/zebra-mussel-larvae-have-been-found-again-in-zorinsky-lake/article_333f2c46-3f08-11e6-975e-0b1ca96bf0e6.html

Gagné, F., Auclair, J., Turcotte, P., Gagnon, C., Peyrot, C., & Wilkinson, K. (2019). The influence of surface waters on the bioavailability and toxicity of zinc oxide nanoparticles in freshwater mussels. *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology*, *219*, 1–11. https://doi.org/10.1016/j.cbpc.2019.01.005

Gaino, T. L. E. (2005). Competition between the freshwater sponge *Ephydatia fluviatilis* and the zebra mussel *Dreissena polymorpha* in Lake Trasimeno (central Italy). *Italian Journal of Zoology*, *72*(1), 27–32.

Géba, E., Aubert, D., Durand, L., Escotte, S., La Carbona, S., Cazeaux, C., Bonnard, I., Bastien, F., Palos Ladeiro, M., Dubey, J. P., Villena, I., Geffard, A., & Bigot-Clivot, A. (2020). Use of the bivalve *Dreissena polymorpha* as a biomonitoring tool to reflect the protozoan load in freshwater bodies. *Water Research*, *170*, 115297. https://doi.org/10.1016/j.watres.2019.115297

Geda, S. R., Lujan, N. K., Perkins, M., Abernethy, E., Sabaj, M. H., & Gangloff, M. (2018). Multilocus phylogeny of the zebra mussel family Dreissenidae (Mollusca: Bivalvia) reveals a fourth Neotropical genus sister to all other genera. *Molecular Phylogenetics and Evolution*, *127*, 1020–1033.

Genco, M., & Wong, D. (2014). *The effects of Earth Tec®, a molluscicide, on zebra mussel (*Dreissena polymorpha*) mortality*. State University of New York Oneonta.

Gervais, J. A., Kovach, R., Sepulveda, A., Al-Chokhachy, R., Joseph Giersch, J., & Muhlfeld, C. C. (2020). Climate-induced expansions of invasive species in the Pacific Northwest, North America: A synthesis of observations and projections. *Biological Invasions*, *22*(7), 2163–2183. https://doi.org/10.1007/s10530-020-02244-2

Giffin, N. (2013). Privacy issues surrounding the tracking and sharing of boat movement information as part of invasive species prevention programs. *The Arizona Journal of Environmental Law & Policy*, *3*(2), 141–156.

Gill, P. H. (1993). *Method for controlling zebra mussels in ship ballast tanks* (United States Patent No. US5192451A). https://patents.google.com/patent/US5192451/en

Gingera, T. D., Bajno, R., Docker, M. F., & Reist, J. D. (2017). Environmental DNA as a detection tool for zebra mussels *Dreissena polymorpha* (Pallas, 1771) at the forefront of an invasion event in Lake Winnipeg, Manitoba, Canada. *Management of Biological Invasions*, *8*(3), 287–300.

Ginn, B. K., Bolton, R., Coulombe, D., Fleischaker, T., & Yerex, G. (2018). Quantifying a shift in benthic dominance from zebra (*Dreissena polymorpha*) to quagga (*Dreissena rostriformis bugensis*) mussels in a large, inland lake. *Journal of Great Lakes Research*, *44*(2), 271–282.

Glomski, L. M. (2015). *Zebra Mussel Chemical Control Guide Version 2.0* (Final Report ERDC/EL TR-15-9; p. 108). U.S. Army Corps of Engineers.

Gnatyshyna, L., Khoma, V., Horyn, O., Ozoliņš, D., Skuja, A., Kokorite, I., Rodinov, V., Martyniuk, V., Spriņģe, G., & Stoliar, O. (2020). Multi-marker study of *Dreissena polymorpha* populations from hydropower plant reservoir and natural lake in Latvia. *Turkish Journal of Fisheries and Aquatic Sciences*, *20*(6). https://doi.org/10.4194/1303-2712-v20_6_01

Gomes, C., Mendes, T., Borges, R., Guarneri, I., Marchi, I., Guilhermino, L., Vasconcelos, V., Riccardi, N., & Antunes, A. (2020). The genetic diversity of two invasive sympatric bivalves (*Corbicula fluminea* and *Dreissena polymorpha*) from Lakes Garda and Maggiore, Northern Italy. *Journal of Great Lakes Research*, *46*(1), 225–229. https://doi.org/10.1016/j.jglr.2019.11.006

Goñi, P., Benito, M., LaPlante, D., Fernández, M. T., Sánchez, E., Chueca, P., Miguel, N., Mosteo, R., Ormad, M. P., & Rubio, E. (2020). Identification of free-living amoebas and amoeba-resistant bacteria accumulated in *Dreissena polymorpha*. *Environmental Microbiology*, *22*(8), 3315–3324. https://doi.org/10.1111/1462-2920.15093

Gopalakrishnan, K. K., & Kashian, D. R. (2020). Identification of Optimal Calcium and Temperature Conditions for Quagga Mussel Filtration Rates as a Potential Predictor of Invasion. *Environmental Toxicology and Chemistry*, *39*(2), 410–418. https://doi.org/10.1002/etc.4624

Grazio, J. L., & Montz, G. (2002). *Winter lake drawdown as a strategy for zebra mussel (*Dreissena polymorpha*) control: Results of pilot studies in Minnesota and Pennsylvania* (p. 15).

Green, S. J., & Grosholz, E. D. (2021). Functional eradication as a framework for invasive species control. *Frontiers in Ecology and the Environment*, *19*(2), 98–107. https://doi.org/10.1002/fee.2277

Greene, M. (2021a). An estimated 300 trillion invasive mussels blanket Lake Michigan. Eradication may be impossible, but small-scale removal efforts could be the answer. *Chicago Tribune*.

Greene, M. (2021b). Scientists study the genetics of invasive mussels seeking ways to turn off genes that allow them to spread and survive. *Chicago Tribune*.

Gregory, T. R. (2003). Genome size estimates for two important freshwater molluscs, the zebra mussel (*Dreissena polymorpha*) and the schistosomiasis vector snail (*Biomphalaria glabrata*). *Genome*, *46*(5), 841–844.

Gross, A. C. (1994). Experience with non-fouling coatings for mussel control. *Proceedings of The Fourth International Zebra Mussel Conference*, 207–218.

Grutters, B. M. C., Verhofstad, M. J. J. M., van der Velde, G., Rajagopal, S., & Leuven, R. S. E. W. (2012). A comparative study of byssogenesis on zebra and quagga mussels: The effects of water temperature, salinity and light–dark cycle. *Biofouling*, *28*(2), 121–129. https://doi.org/10.1080/08927014.2012.654779

Guidi, P., Bernardeschi, M., Palumbo, M., Genovese, M., Scarcelli, V., Fiorati, A., Riva, L., Punta, C., Corsi, I., & Frenzilli, G. (2020). Suitability of a cellulose-based nanomaterial for the remediation of heavy metal contaminated freshwaters: A case-study showing the recovery of cadmium induced DNA integrity loss, cell proliferation increase, nuclear morphology and chromosomal alterations on *Dreissena polymorpha*. *Nanomaterials*, *10*(9), 1837. https://doi.org/10.3390/nano10091837

Haag, W. R., Berg, D. J., Garton, D. W., & Farris, J. L. (1993). Reduced survival and fitness in native bivalves in response to fouling by the introduced zebra mussel (*Dreissena polymorpha*) in western Lake Erie. *Canadian Journal of Fisheries and Aquatic Sciences*, *50*(1), 13–19.

Hallidayschult, T., Beyer, J., & Hambright, D. (2021). Spatial variation in propagule pressure and establishment of zebra mussels (*Dreissena polymorpha*) within a subtropical reservoir. *Aquatic Invasions*, *16*(1), 94–112. https://doi.org/10.3391/ai.2021.16.1.07

Hamilton, D. J., Ankney, C. D., & Bailey, R. C. (1994). Predation of zebra mussels by diving ducks: An exclosure study. *Ecology*, *75*(2), 521–531. https://doi.org/10.2307/1939555

Hammond, D. (2016). *EarthTec QZ: Control of dreissenid mussels with a more rational use of copper*. https://earthtecqz.com/wp-content/uploads/2017/02/EarthTec-QZ-case-study-2016-Eradication-of-zebra-mussels-from-a-lake.pdf

Hammond, D., & Ferris, G. (2019). Low doses of EarthTec QZ ionic copper used in effort to eradicate quagga mussels from an entire Pennsylvania lake. *Management of Biological Invasions*, *10*(3), 500–516. https://doi.org/10.3391/mbi.2019.10.3.07

Hanna, L. (2010). *ISI Cylindrical Screen Performance* (Technical Memorandum PAP-1016). US Bureau of Reclamation.

Hansen, G. J. A., Ahrenstorff, T. D., Bethke, B. J., Dumke, J. D., Hirsch, J., Kovalenko, K. E., LeDuc, J. F., Maki, R. P., Rantala, H. M., & Wagner, T. (2020). Walleye growth declines following zebra mussel and Bythotrephes invasion. *Biological Invasions*, *22*(4), 1481–1495. https://doi.org/10.1007/s10530-020-02198-5

Haque, N., Cho, D., Lee, J. M., Lee, D. S., & Kwon, S. (2014). Proactive approach for biofouling control: Consequence of chlorine on the veliger larvae of *Mytilus edulis* under laboratory condition. *Environmental Engineering Research*, *19*(4), 375–380. https://doi.org/10.4491/eer.2014.063

Hargrave, J., & Jensen, D. (2012). *Assessment of the water quality conditions at Ed Zorinsky Reservoir and the zebra mussel (*Dreissena polymorpha*) population emerged after the drawdown of the reservoir and management implications for the district's Papillion and Salt Creek Reservoirs* (Technical Report CENWO-ED-HA/WQSS/Zorinsky/2012). U.S. Army Corps of Engineers. http://www.dtic.mil/docs/citations/ADA581189

Harrison, A. B., Heinz, S. D., & Slack, W. T. (2021). *The costly impact of zebra and quagga mussels in United States waterways: Hydropower, navigation, and other industries* (p. 10). U.S. Army Corps of Engineers.

Hasler, C. T., Leathers, J., Ducharme, A., & Casson, N. J. (2019). Biological effects of water velocity and other hydrodynamic characteristics of flow on dreissenid mussels. *Hydrobiologia*, *837*(1), 1–14. https://doi.org/10.1007/s10750-019-03976-6

Haubrock, P. J., Cuthberg, R. N., Ricciardi, A., Diagne, C., & Courchamp, F. (2021). *Massive economic costs of invasive bivalves in freshwater ecosystems* [Preprint]. https://doi.org/10.21203/rs.3.rs-389696/v1

Hay, K., MacAllister, I., Wilson, R., & Brake, A. (2020). *Incidence of zebra mussel on U.S. Army Corps of Engineers structures*. Engineer Research and Development Center (U.S.). https://doi.org/10.21079/11681/35273

Hebert, P. D., Muncaster, B. W., & Mackie, G. L. (1989). Ecological and genetic studies on *Dreissena polymorpha* (Pallas): A new mollusc in the Great Lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *46*(9), 1587–1591.

Hebert, P. D., Wilson, C. C., Murdoch, M. H., & Lazar, R. (1991). Demography and ecological impacts of the invading mollusc *Dreissena polymorpha*. *Canadian Journal of Zoology*, *69*(2), 405–409.

Heimowitz, P., & Phillips, S. (2014). *Columbia River Basin interagency invasive species response plan: Zebra mussels and other dreissenid species*. 100th Meridian Initiative Columbia River Basin Team.

Heiner, B. (2013). *Integration of high-pressure jets & automated trashrack cleaners for mussel removal* (Technical Memorandum PAP-1080). US Bureau of Reclamation.

Hetherington, A. L., Rudstam, L. G., Schneider, R. L., Holeck, K. T., Hotaling, C. W., Cooper, J. E., & Jackson, J. R. (2019). Invader invaded: Population dynamics of zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena rostriformis bugensis*) in polymictic Oneida Lake, NY, USA (1992–2013). *Biological Invasions*, *21*(5), 1529–1544. https://doi.org/10.1007/s10530-019-01914-0

Higgins, S. N., & Zanden, M. V. (2010). What a difference a species makes: A meta–analysis of dreissenid mussel impacts on freshwater ecosystems. *Ecological Monographs*, *80*(2), 179–196.

Hillard, S., Huysman, N., & Barnes, M. E. (2019). Impacts of zebra mussel veliger control treatments on the survival of water-hardened landlocked fall chinook salmon eggs. *Natural Resources*, *10*(04), 115–120. https://doi.org/10.4236/nr.2019.104008

Hincks, S. S., & Mackie, G. L. (1997). Effects of pH, calcium, alkalinity, hardness, and chlorophyll on the survival, growth, and reproductive success of zebra mussel (*Dreissena polymorpha*) in Ontario lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *54*(9), 2049–2057.

Hoellein, T., Rovegno, C., Uhrin, A. V., Johnson, E., & Herring, C. (2021). Microplastics in invasive freshwater mussels (*Dreissena* sp.): Spatiotemporal variation and occurrence with chemical contaminants. *Frontiers in Marine Science*, *8*. https://doi.org/10.3389/fmars.2021.690401

Hofius, J., Mandella, C., & Rackl, S. M. (2015). Evaluation of watercraft quagga mussel decontamination in saltwater. *Management of Biological Invasions*, *6*(3), 277–286. https://doi.org/10.3391/mbi.2015.6.3.06

Holdren, C. (2013). *Factors affecting the spread of dreissenid mussels in western reservoirs*.

Holland, R. E., Johengen, T. H., & Beeton, A. M. (1995). Trends in nutrient concentrations in Hatchery Bay, western Lake Erie, before and after *Dreissena polymorpha*. *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(6), 1202–1209.

Horvath, T. G., Martin, K. M., & Lamberti, G. A. (1999). Effect of zebra mussels, *Dreissena polymorpha*, on macroinvertebrates in a lake-outlet stream. *The American Midland Naturalist*, *142*(2), 340–347.

Hosler, D. (2013). *Improving accuracy in the detection of dreissenid mussel larvae* (Technical Memorandum No. 86-68220-13–10). US Bureau of Reclamtion.

Hosler, D. M. (2011). Early detection of dreissenid species: Zebra/Quagga mussels in water systems. *Aquatic Invasions*, *6*(2), 217–222. https://doi.org/10.3391/ai.2011.6.2.10

Hraoui, G., Bettinazzi, S., Gendron, A. D., Boisclair, D., & Breton, S. (2020). Mitochondrial thermo-sensitivity in invasive and native freshwater mussels. *Journal of Experimental Biology*. https://doi.org/10.1242/jeb.215921

Hurtado, A., Alonzo-Moya, C., & Hofmann, R. (2021). Effectiveness of peracetic acid and EarthTec QZ for controlling zebra and quagga mussels in drinking water treatment plants on Lake Ontario. *Journal of Water Supply: Research and Technology-Aqua*, *70*(1), 99–112. https://doi.org/10.2166/aqua.2020.086

Idaho Aquatic Neuisance Species Taskforce. (2009). *Estimated economic impact of mussel-introduction to Idaho*. Idaho Aquatic Neuisance Species Taskforce. http://www.aquaticnuisance.org/wordpress/wp-content/uploads/2009/01/Estimated-Economic-Impact-of-Mussel-Introduction-to-Idaho-Final.pdf

IEAB. (2013). *Invasive mussels update: Economic risk of zebra and quagga mussels in the Columbia River Basin* (p. 45). Independent Economic Analysis Board.

Imlay, M. J. (1973). Effects of potassium on survival and distribution of freshwater mussels. *Malacologia*, *12*(1), 97–113.

Iwanyckyj, E., Albright, M., & Stich, D. (2017). *Effectiveness of molluscicide EarthTec® QZ on adult and veliger zebra mussel (*Dreissena polymorpha*) mortality*. State University of New York Oneonta.

J., A., P., T., C., G., C., P., Kj, W., & F, G. (2019). Comparative toxicity of copper oxide nanoparticles and dissolved copper to freshwater mussels. *International Journal of Zoological Investigations*, *06*(01), 135–147. https://doi.org/10.33745/ijzi.2020.v06i01.011

Janusz, L. (2016). *Zebra mussel control in Lake Winnipeg*. Invasive Mussel Collaborative.

Jernelöv, A. (2017). Zebra mussels in Western Europe and North America. In *The Long-Term Fate of Invasive Species* (pp. 11–30). Springer.

Johansson, M. L., Lavigne, S. Y., Ramcharan, C. W., Heath, D. D., & MacIsaac, H. J. (2020). Detecting a spreading non-indigenous species using multiple methodologies. *Lake and Reservoir Management*, *36*(4), 432–443. https://doi.org/10.1080/10402381.2020.1797957

Johnson, A. M., Rochelle, P. A., De Leon, R., & Kelly, K. L. (2015). *Monoclonal antibodies for improved detection of quagga mussel larvae* (Final Report ST-2014-9640-01). US Bureau of Reclamation.

Johnson, L. E. (1995). Enhanced early detection and enumeration of zebra mussel (*Dreissena* spp.) veligers using cross-polarized light microscopy. *Hydrobiologia*, *312*(2), 139–146. https://doi.org/10.1007/BF00020769

Johnson, L. E., & Carlton, J. T. (1996). Post-establishment spread in large-scale invasions: Dispersal mechanisms of the zebra mussel *Dreissena polymorpha*. *Ecology*, *77*(6), 1686–1690.

Johnson, L. E., & Padilla, D. K. (1996). Geographic spread of exotic species: Ecological lessons and opportunities from the invasion of the zebra mussel *Dreissena polymorpha*. *Biological Conservation*, *78*(1–2), 23–33.

Johnson, L. E., Ricciardi, A., & Carlton, J. T. (2001). Overland dispersal of aquatic invasive species: A risk assessment of transient recreational boating. *Ecological Applications*, *11*(6), 1789–1799. https://doi.org/10.1890/1051-0761(2001)011[1789:ODOAIS]2.0.CO;2

Johnson, P., & McMahon, R. (1998). Effects of temperature and chronic hypoxia on survivorship of the zebra mussel (*Dreissena polymorpha*) and Asian clam (*Corbicula fluminea*). *Canadian Journal of Fisheries and Aquatic Sciences*, *55*, 1564–1572. https://doi.org/10.1139/cjfas-55-7-1564

Johnson, P. T., Olden, J. D., & Zanden, M. J. V. (2008). Dam invaders: Impoundments facilitate biological invasions into freshwaters. *Frontiers in Ecology and the Environment*, *6*(7), 357–363. https://doi.org/10.1890/070156

Jones, L. A., & Ricciardi, A. (2005). Influence of physicochemical factors on the distribution and biomass of invasive mussels (*Dreissena polymorpha* and *Dreissena bugensis*) in the St. Lawrence River. *Canadian Journal of Fisheries and Aquatic Sciences*, *62*(9), 1953–1962.

Jones, T., & Montz, G. (2020). Population increase and associated effects of zebra mussels *Dreissena polymorpha* in Lake Mille Lacs, Minnesota, U.S.A. *BioInvasions Records*, *9*(4), 772–792. https://doi.org/10.3391/bir.2020.9.4.12

Jones-Meehan, J., Cella, J., A. Montemarano, J., Swain, G., & Wiebe, D. (1999). *Advanced nontoxic fouling release coatings* (NRL/PU/6110--99-388; p. 48). Naval Research Laboratory.

Juhel, G., Culloty, S. C., O'Riordan, R. M., O'Connor, J., De Faoite, L., & McNamara, R. (2003). A histological study of the gametogenic cycle of the freshwater mussel *Dreissena polymorpha* (pallas, 1771) in Lough Derg, Ireland. *Journal of Molluscan Studies*, *69*(4), 365–374. https://doi.org/10.1093/mollus/69.4.365

Kappel, M. (2012). Dreissena rostiformis bugensis*: Desiccation of adult quagga mussels found in Lake Mead as a preventive measure against overland dispersal in the western United States* [M.P.H. Thesis, University of Nevada, Las Vegas]. http://digitalscholarship.unlv.edu/thesesdissertations/1744

Karatayev, A. Y., Burlakova, L. E., Mastitsky, S. E., Padilla, D. K., & Mills, E. L. (2011). Contrasting rates of spread of two congeners, *Dreissena polymorpha* and *Dreissena rostriformis bugensis*, at different spatial scales. *Journal of Shellfish Research*, *30*(3), 923–931. https://doi.org/10.2983/035.030.0334

Karatayev, A. Y., Burlakova, L. E., Mehler, K., Barbiero, R. P., Hinchey, E. K., Collingsworth, P. D., Kovalenko, K. E., & Warren, G. (2018). Life after *Dreissena*: The decline of exotic suspension feeder

may have significant impacts on lake ecosystems. *Journal of Great Lakes Research*, *44*(4), 650–659. https://doi.org/10.1016/j.jglr.2018.05.010

Karatayev, A. Y., Burlakova, L. E., Mehler, K., Bocaniov, S. A., Collingsworth, P. D., Warren, G., Kraus, R. T., & Hinchey, E. K. (2018). Biomonitoring using invasive species in a large lake: *Dreissena distribution* maps hypoxic zones. *Journal of Great Lakes Research*, *44*(4), 639–649.

Karatayev, A. Y., Burlakova, L. E., Mehler, K., Hinchey, E. K., Wick, M., Bakowska, M., & Mrozinska, N. (2021). Rapid assessment of *Dreissena* population in Lake Erie using underwater videography. *Hydrobiologia*, *848*(9), 2421–2436. https://doi.org/10.1007/s10750-020-04481-x

Karatayev, A. Y., Burlakova, L. E., Molloy, D. P., & Mastitsky, S. E. (2007). *Dreissena polymorpha* and *Conchophthirus acuminatus*: What can we learn from host-commensal relationships. *Journal of Shellfish Research*, *26*(4), 1153–1160. https://doi.org/10.2983/0730-8000(2007)26[1153:DPACAW]2.0.CO;2

Karatayev, A. Y., Burlakova, L. E., Molloy, D. P., Volkova, L. K., & Volosyuk, V. V. (2002). Field and laboratory studies of *Ophryoglena* sp. (Ciliata: Ophryoglenidae) infection in zebra mussels, *Dreissena polymorpha* (Bivalvia: Dreissenidae). *Journal of Invertebrate Pathology*, *79*(2), 80–85. https://doi.org/10.1016/S0022-2011(02)00021-6

Karatayev, A. Y., Burlakova, L. E., & Padilla, D. K. (1997). The effects of *Dreissena polymorpha* (Pallas) invasion on aquatic communities in eastern Europe. *Journal of Shellfish Research*, *16*, 187–203.

Karatayev, A. Y., Burlakova, L. E., & Padilla, D. K. (2006). Growth rate and longevity of *Dreissena polymorpha* (Pallas): A review and recommendations for future study. *Journal of Shellfish Research*, *25*(1), 23–32.

Karatayev, A. Y., Burlakova, L. E., & Padilla, D. K. (2015). Zebra versus quagga mussels: A review of their spread, population dynamics, and ecosystem impacts. *Hydrobiologia*, *746*(1), 97–112. https://doi.org/10.1007/s10750-014-1901-x

Karatayev, A. Y., Karatayev, V. A., Burlakova, L. E., Mehler, K., Rowe, M. D., Elgin, A. K., & Nalepa, T. F. (2021). Lake morphometry determines *Dreissena* invasion dynamics. *Biological Invasions*, *23*(8), 2489–2514. https://doi.org/10.1007/s10530-021-02518-3

Karatayev, A. Y., Mastitsky, S. E., Burlakova, L. E., Molloy, D. P., & Vezhnovets, G. G. (2003). Seasonal dynamics of endosymbiotic ciliates and nematodes in *Dreissena polymorpha*. *Journal of Invertebrate Pathology*, *83*(1), 73–82. https://doi.org/10.1016/S0022-2011(03)00043-0

Karp, C., & Thomas, R. (2014). *Summary of laboratory and field experiments to evaluate predation of quagga mussel by redear sunfish and bluegill* (Research Report No. 2014-01–9508). US Bureau of Reclamation.

Keele, J., Carmon, J., & Hosler, D. (2014). *Optimization of early detection of invasive mussels with polymerase chain reaction* (Technical Memorandum No. 86-68220-14–13). US Bureau of Reclamation.

Kennedy, A. J., Millward, R. N., Steevens, J. A., Lynn, J. W., & Perry, K. D. (2006). Relative sensitivity of zebra mussel (*Dreissena polymorpha*) life-stages to two copper sources. *Journal of Great Lakes Research*, *32*(3), 596–606.

Keretz, K. R., Kraus, R. T., & Schmitt, J. D. (2021). Improved methods for understanding the role of predation on dreissenid population dynamics. *Environmental Biology of Fishes*, *104*(5), 629–633. https://doi.org/10.1007/s10641-021-01054-2

Khetsuriani, E. D., Bondarenko, V. L., Ilyasov, A. I., & Semenova, E. A. (2019). The results of the research on the pipelines protection from *Dreissena* on the water intake technological complexes of multi-purpose water supply systems for urban farms. *IOP Conference Series: Materials Science and Engineering*, *698*, 055041. https://doi.org/10.1088/1757-899X/698/5/055041

Kilgour, B. W., & Baker, M. A. (1994). Effects of season, stock, and laboratory protocols on survival of zebra mussels (*Dreissena polymorpha*) in bioassays. *Archives of Environmental Contamination and Toxicology*, *27*(1). https://doi.org/10.1007/BF00203884

Kimmins, K. M. (2020). *Freshwater mussel adhesion: Interfacial structures & antifouling surfaces* [M.A.S. Thesis]. University of Toronto.

Kirk, J. P., Killgore, K. J., & Sanders, L. G. (2001). *Potential of North American molluscivorous fish to control dreissenid mussels* (Zebra Musset Research Program). U.S. Army Corps of Engineers.

Klerks, P. L., & Fraleigh, P. C. (1991). Controlling adult zebra mussels with oxidants. *Journal / American Water Works Association*, *83*(12), 92–100.

Klimova, Y. S., Chuiko, G. M., Gapeeva, M. V., Pesnya, D. S., & Ivanova, E. I. (2019). The use of oxidative stress parameters of bivalve mollusks *Dreissena polymorpha* (Pallas, 1771) as biomarkers for ecotoxicological assessment of environment. *Inland Water Biology*, *12*(S2), 88–95. https://doi.org/10.1134/S1995082919060063

Klinkenbuß, D., Metz, O., Reichert, J., Hauffe, T., Neubauer, T. A., Wesselingh, F. P., & Wilke, T. (2020). Performance of 3D morphological methods in the machine learning assisted classification of closely related fossil bivalve species of the genus *Dreissena*. *Malacologia*, *63*(1), 95. https://doi.org/10.4002/040.063.0109

Knight, J. C., O'Malley, B. P., & Stockwell, J. D. (2018). Lake Champlain offshore benthic invertebrate community before and after zebra mussel invasion. *Journal of Great Lakes Research*, *44*(2), 283–288.

Knoll, L. B., Sarnelle, O., Hamilton, S. K., Kissman, C. E., Wilson, A. E., Rose, J. B., & Morgan, M. R. (2008). Invasive zebra mussels (*Dreissena polymorpha*) increase cyanobacterial toxin concentrations in low-nutrient lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *65*(3), 448–455.

Kobak, J. (2004). Recruitment and small-scale spatial distribution of *Dreissena polymorpha* (Bivalvia) on artificial materials. *Archiv Für Hydrobiologie*, *160*(1), 25–44.

Kobak, J., & Januszewska, M. (2006). Impact of substratum type on attachment and survival of *Dreissena polymorpha* (Bivalvia). *Folia Malacologica*, *14*(2).

Kobak, J., Klosowska-Mikulan, E., & Wisniewski, R. (2002). Impact of copper substrate on survival, mobility and attachment strength of adult *Dreissena polymorpha* (Pall.). *Folia Malacologica*, *10*(2).

Kondo, E., Cotter, P., & Otts, S. S. (2013). Are state watercraft inspections constitutionally permissible searches? *The Arizona Journal of Environmental Law & Policy*, *3*(2).

Kostin, V., Orlov, S., Kochetkov, V., & Sokolova, N. (2020). Investigation of the resistance of protective coatings to fouling by the mollusk *Dreissena polymorpha*. *IOP Conference Series: Materials Science and Engineering*, *971*, 032023. https://doi.org/10.1088/1757-899X/971/3/032023

Kowalewski, J., Colbert, M., & Patrick, P. (1991). *Control of zebra mussel attachment using acoustical means* (Technical Report OH/RD-91-76-K; MICROLOG-92-01988). Ontario Hydro. https://www.osti.gov/etdeweb/biblio/5247648

Kozarek, J. L., Hondzo, M., Kjelland, M. E., Piercy, C. D., & Swannack, T. M. (2018). Effects of turbulence exposure on zebra mussel (*Dreissena polymorpha*) larval survival. *Aquatic Sciences*, *80*(1). https://doi.org/10.1007/s00027-017-0563-y

Kraak, M. H., Lavy, D., Schoon, H., Toussaint, M., Peeters, W. H., & van Straalen, N. M. (1994). Ecotoxicity of mixtures of metals to the zebra mussel *Dreissena polymorpha*. *Environmental Toxicology and Chemistry*, *13*(1), 109–114.

Kraak, M. H. S., FernandezalC, A., de Voogtd, P., & Admiraal, W. A. (1997). Short-term and chronic exposure of the zebra mussel (<i>Dreissena polymorpha<i/>) to acridine: Effects and metabolism. *Aquatic Toxicology*, *37*, 9–20.

Kraak, M. H. S., Toussaint, M., Lavy, D., & Davids, C. (1994). Short-term effects of metals on the filtration rate of the zebra mussel *Dreissena polymorpha*. *Environmental Pollution*, *84*(2), 139–143. https://doi.org/10.1016/0269-7491(94)90096-5

Kraak, M. H. S., Wijnands, P., Govers, H. A. J., Admiraal, W., & de Voogt, P. (1997). Structural-based differences in ecotoxicity of benzoquinoline isomers to the zebra mussel (*Dreissena polymorpha*). *Environmental Toxicology and Chemistry*, *16*(10), 2158. https://doi.org/10.1897/1551-5028(1997)016<2158:SBDIEO>2.3.CO;2

Kraak, M. H. S., Wink, Y. A., Stuijfzand, S. C., Buckert-de Jong, M. C., de Groot, C. J., & Admiraal, W. (1994). Chronic ecotoxicity of Zn and Pb to the zebra mussel *Dreissena polymorpha*. *Aquatic Toxicology*, *30*(1), 77–89. https://doi.org/10.1016/0166-445X(94)90007-8

Kraft, C. E., & Johnson, L. E. (2000). Regional differences in rates and patterns of North American inland lake invasions by zebra mussels (*Dreissena polymorpha*). *Canadian Journal of Fisheries and Aquatic Sciences*, *57*(5), 993–1001.

Kubitschek, J., & Pucherelli, S. (2017). *Centrifugal separator evaluation for mussel shell debris removal and settlement reduction* (Final Report ST-2017-8169-01). US Bureau of Reclamation.

Kubitschek, J., Pucherelli, S. F., Spidell, M., & Williams, P. (2017). *Pulsed pressure technology development and testing for invasive mussel control* (ST-2017-1612-01). US Bureau of Reclamation.

Lake-Thompson, I., & Hofmann, R. (2019). Effectiveness of a copper based molluscicide for controlling *Dreissena* adults. *Environmental Science: Water Research & Technology*, *5*(4), 693–703. https://doi.org/10.1039/C8EW00890F

Laruelle, F., Molloy, D., Fokin, S., & Ovcharenko, M. (1999). Histological analysis of mantle-cavity ciliates in *Dreissena polymorpha*: Their location, symbiotic relationship, and distinguishing morphological characteristics. *Journal of Shellfish Research*, *18*, 251–257.

Laruelle, F., Molloy, D. P., & Roitman, V. A. (2002). Histological analysis of trematodes in *Dreissena polymorpha*: Their location, pathogenicity, and distinguishing morphological characteristics. *Journal of Parasitology*, *88*(5), 856–863.

Latuszek, M. (2013). *An investigation into the effectiveness of zebra mussel control methods*. University of Wisconsin-Madison.

Lau, T. (2018). *The potential for quagga mussel survival in Canyon Lake* [M.S. Thesis, Arizona State University]. https://search.proquest.com/openview/bb31101c24dfadb1c20f26ab9f82948d/1?pq-origsite=gscholar&cbl=18750&diss=y

Lauer, T. E., & McComish, T. S. (2001). Impact of zebra mussels (*Dreissena polymorpha*) on fingernail clams (Sphaeriidae) in extreme Southern Lake Michigan. *Journal of Great Lakes Research*, *27*(2), 230–238. https://doi.org/10.1016/S0380-1330(01)70636-3

Lauer, T. E., & Spacie, A. (2000). The effects of sponge (Porifera) biofouling on zebra mussel (*Dreissena polymorpha*) fitness: Reduction of glycogen, tissue loss, and mortality. *Journal of Freshwater Ecology*, *15*(1), 83–92.

Lauer, T. E., & Spacie, A. (2004). Space as a limiting resource in freshwater systems: Competition between zebra mussels (*Dreissena polymorpha*) and freshwater sponges (Porifera). *Hydrobiologia*, *517*(1–3), 137–145.

Le Guernic, A., Palos Ladeiro, M., Boudaud, N., Do Nascimento, J., Gantzer, C., Inglard, J.-C., Mouchel, J.-M., Pochet, C., Moulin, L., Rocher, V., Waldman, P., Wurtzer, S., & Geffard, A. (2021). *First evidence of SARS-CoV-2 genome detection in zebra mussel (* Dreissena polymorpha *)* [Preprint]. https://doi.org/10.1101/2021.05.28.446136

Lee, P. O., McLellan, S. L., Graham, L. E., & Young, E. B. (2015). Invasive dreissenid mussels and benthic algae in Lake Michigan: Characterizing effects on sediment bacterial communities. *FEMS Microbiology Ecology*, *91*(1), 1–12.

Lei, J., Payne, B. S., & Wang, S. Y. (1996). *Filtration dynamics of the zebra mussel,* Dreissena polymorpha. *53*, 9.

Lepoutre, A., Id, N., Milliote, Bonnard, M., Palos Ladeiro, M., Rioult, D., Bonnard, I., Bastien, F., Faassen, E., Geffard, A., & Lance, E. (2018). Genotoxic and cytotoxic effects on the immune cells of the freshwater bivalve *Dreissena polymorpha* exposed to the environmental neurotoxin BMAA. *Toxins*, *10*. https://doi.org/10.3390/toxins10030106

Leprêtre, M., Almunia, C., Armengaud, J., Le Guernic, A., Salvador, A., Geffard, A., & Palos-Ladeiro, M. (2020). Identification of immune-related proteins of *Dreissena polymorpha* hemocytes and plasma involved in host-microbe interactions by differential proteomics. *Scientific Reports*, *10*(1). https://doi.org/10.1038/s41598-020-63321-z

Leprêtre, M., Almunia, C., Armengaud, J., Salvador, A., Geffard, A., & Palos-Ladeiro, M. (2019). The immune system of the freshwater zebra mussel, *Dreissena polymorpha*, decrypted by proteogenomics of hemocytes and plasma compartments. *Journal of Proteomics*, *202*, 103366. https://doi.org/10.1016/j.jprot.2019.04.016

Leung, B., Bossenbroek, J. M., & Lodge, D. M. (2006). Boats, Pathways, and Aquatic Biological Invasions: Estimating Dispersal Potential with Gravity Models. *Biological Invasions*, *8*(2), 241–254. https://doi.org/10.1007/s10530-004-5573-8

Leuven, R., Collas, F., Koopman, K. R., Matthews, J., & van der Velde, G. (2014). Mass mortality of invasive zebra and quagga mussels by desiccation during severe winter conditions. *Aquatic Invasions*, *9*(3), 243–252. https://doi.org/10.3391/ai.2014.9.3.02

Li, J., Ianaiev, V., Huff, A., Zalusky, J., Ozersky, T., & Katsev, S. (2021). Benthic invaders control the phosphorus cycle in the world's largest freshwater ecosystem. *Proceedings of the National Academy of Sciences*, *118*(6), e2008223118. https://doi.org/10.1073/pnas.2008223118

Li, K. (Xiao T. (2019). *Understanding freshwater mussel adhesion through recombinant synthesis of Dresseina bugensis foot protein 7* [M.A.S. Thesis]. University of Toronto.

Lin, P., & Guo, L. (2016). Do invasive quagga mussels alter CO2 dynamics in the Laurentian Great Lakes? *Scientific Reports*, *6*. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5171849/

Lindeman, P. (2006). Zebra and quagga mussels (*Dreissena* spp.) and other prey of a Lake Erie population of common map turtles (Emydidae: *Graptemys geographica*). *Copeia*, *2006*. https://doi.org/10.1643/0045-8511(2006)6[268:ZAQMDS]2.0.CO;2

Linder, K. (2021). *Filtering out the effects of zebra mussels: Climate, land use, and water clarity in Minnesota lakes* [Senior Thesis]. Scripps College.

Link, C. (2014). *Demonstration of biweekly Zequanox treatments to control invasive mussel populations at Hoover Dam*. Marrone Bio Innovations, Inc. https://www.google.com/search?q=Potential+Distribution+of+Zebra+Mussels+(Dreissena+polymorpha)+and+Quagga+Mussels+(Dreissena+bugensis)+in+California+Phase+1+Report&hl=en&authuser=0#hl=en&authuser=0&q=Demonstration+of+Biweekly+Zequanox+Treatments+to+Control+Invasive+Mussel+Populations+at+Hoover+Dam

Locklin, J., Corbitt, D., & McMahon, R. (2020). Settlement, density, survival and shell growth of zebra mussels, *Dreissena polymorpha*, in a recently invaded low latitude, warm water Texas reservoir. *Aquatic Invasions*, *15*(3), 408–434. https://doi.org/10.3391/ai.2020.15.3.04

Lohner, R. N., Sigler, V., Mayer, C. M., & Balogh, C. (2007). A comparison of the benthic bacterial communities within and surrounding *Dreissena* clusters in lakes. *Microbial Ecology*, *54*(3), 469–477.

Loomis, E. M., Sjoberg, J. C., Wong, W. H., & Gerstenberger, S. (2011). Abundance and stomach content analysis of threadfin shad in Lake Mead, Nevada: Do invasive quagga mussels affect this prey species? *Aquatic Invasions*, *6*(2), 157.

Louis, F., Rocher, B., Barjhoux, I., Bultelle, F., Dedourge-Geffard, O., Gaillet, V., Bonnard, I., Delahaut, L., Pain-Devin, S., Geffard, A., Paris-Palacios, S., & David, E. (2020). Seasonal monitoring of cellular energy metabolism in a sentinel species, *Dreissena polymorpha* (bivalve): Effect of global change? *Science of The Total Environment*, *725*, 138450. https://doi.org/10.1016/j.scitotenv.2020.138450

Lovell, S. J., Stone, S. F., & Fernandez, L. (2006). The economic impacts of aquatic invasive species: A review of the literature. *Agricultural and Resource Economics Review*, *35*(01), 195–208. https://doi.org/10.1017/S1068280500010157

Lozano, S. J., Scharold, J. V., & Nalepa, T. F. (2001). Recent declines in benthic macroinvertebrate densities in Lake Ontario. *Canadian Journal of Fisheries and Aquatic Sciences*, *58*(3), 518–529. https://doi.org/10.1139/cjfas-58-3-518

Lucy, F. (2006). Early life stages of *Dreissena polymorpha* (zebra mussel): The importance of long-term datasets in invasion ecology. *Aquatic Invasions*, *1*(3), 171–182. https://doi.org/10.3391/ai.2006.1.3.12

Luetjens, C. M., & Dorresteijn, A. W. C. (1998). Dynamic changes of the microtubule system corresponding to the unequal and spiral cleavage modes in the embryo of the zebra mussel, *Dreissena polymorpha* (Mollusca, Bivalvia). *Zygote*, *6*(3), 239–248. https://doi.org/10.1017/S0967199498000185

Lund, K., Cattoor, K. B., Fieldseth, E., Sweet, J., & McCartney, M. A. (2018). Zebra mussel (*Dreissena polymorpha*) eradication efforts in Christmas Lake, Minnesota. *Lake and Reservoir Management*, *34*(1), 7–20. https://doi.org/10.1080/10402381.2017.1360417

Luoma, J. A., Severson, T. J., Barbour, M. T., & Wise, J. K. (2018). Effects of temperature and exposure duration on four potential rapid-response tools for zebra mussel (*Dreissena polymorpha*) eradication. *Management of Biological Invasions*, *9*, 14.

Luoma, J. A., Severson, T. J., Weber, K. L., & Mayer, D. A. (2015). *Efficacy of* Pseudomonas fluorescens *(*Pf-*CL145A) spray dried powder for controlling zebra mussels adhering to test substrates* (Open-File Report No. 2015–1050). U.S. Geological Survey.

Luoma, J., Dean, J., Severson, T., Wise, J., & Barbour, M. (2017). Use of alternating and pulsed direct current electrified fields for zebra mussel control. *Management of Biological Invasions*, *8*(3), 311–324. https://doi.org/10.3391/mbi.2017.8.3.05

Luoma, J., Severson, T., Wise, J., & Barbour, M. (2018). Exposure-related effects of Zequanox on juvenile lake sturgeon (*Acipenser fulvescens*) and lake trout (*Salvelinus namaycush*). *Management of Biological Invasions*, *9*(2), 163–175. https://doi.org/10.3391/mbi.2018.9.2.09

Mabrey, K., Elgin, A., & Glyshaw, P. (2017). *Using the Fluoromarker Calcein to Assess Growth Rates of Quagga Mussels in situ.*

MacIsaac, H. J. (1994). Size-Selective predation on zebra mussels (*Dreissena polymorpha*) by crayfish (*Orconectes propinquus*). *Journal of the North American Benthological Society*, *13*(2), 206–216. https://doi.org/10.2307/1467239

MacIsaac, H. J., Sprules, G., Johannson, O. E., & Leach, J. H. (1992). Filtering impacts of larval and sessile zebra mussels (*Dreissena polymorpha*) in western Lake Erie. *Oecologia*, *92*(1), 30–39. https://doi.org/10.1007/BF00317259

Mackie, G. L. (1991). Biology of the exotic zebra mussel, *Dreissena polymorpha*, in relation to native bivalves and its potential impact in Lake St. Clair. *Hydrobiologia*, *219*(1), 251–268.

Mackie, G. L., & Claudi, R. (2010). *Monitoring and control of macrofouling mollusks in fresh water systems* (Second). Taylor & Francis.

Mackie, G. L., & Kilgour, B. W. (1995). Efficacy and role of alum in removal of zebra mussel veliger larvae from raw water supplies. *Water Research*, *29*(2), 731–744.

Mackie, G. L., Lowery, P., & Cooper, C. (2000). *Plasma pulse technology to control zebra mussel biofouling* (Technical Note TN-ZMR-2-22). U.S. Army Corps of Engineers.

Mackie, G. L., & Schloesser, D. W. (1996). Comparative biology of zebra mussels in Europe and North America: An overview. *American Zoologist*, *36*(3), 244–258. https://doi.org/10.1093/icb/36.3.244

Maclsaac, H. J., Sprules, W. G., & Leach, Jh. (1991). Ingestion of small-bodied zooplankton by zebra mussels (*Dreissena polymorpha*): Can cannibalism on larvae influence population dynamics? *Canadian Journal of Fisheries and Aquatic Sciences*, *48*(11), 2051–2060.

Madenjian, C. P., Bunnell, D. B., Warner, D. M., Pothoven, S. A., Fahnenstiel, G. L., Nalepa, T. F., Vanderploeg, H. A., Tsehaye, I., Claramunt, R. M., & Clark, R. D. (2015). Changes in the Lake Michigan food web following dreissenid mussel invasions: A synthesis. *Journal of Great Lakes Research*, *41*, 217–231. https://doi.org/10.1016/j.jglr.2015.08.009

Madenjian, C. P., Pothoven, S. A., Dettmers, J. M., & Holuszko, J. D. (2006). Changes in seasonal energy dynamics of alewife (Alosa pseudoharengus) in Lake Michigan after invasion of dreissenid mussels. *Canadian Journal of Fisheries and Aquatic Sciences*, *63*(4), 891–902.

Madon, S. P., Schneider, D. W., Stoeckel, J. A., & Sparks, R. E. (1998). Effects of inorganic sediment and food concentrations on energetic processes of the zebra mussel, *Dreissena polymorpha*: Implications for growth in turbid rivers. *Canadian Journal of Fisheries and Aquatic Sciences*, *55*(2), 401–413.

Magni, S., Gagné, F., André, C., Della Torre, C., Auclair, J., Hanana, H., Parenti, C. C., Bonasoro, F., & Binelli, A. (2018). Evaluation of uptake and chronic toxicity of virgin polystyrene microbeads in freshwater zebra mussel *Dreissena polymorpha* (Mollusca: Bivalvia). *Science of The Total Environment*, *631–632*, 778–788. https://doi.org/10.1016/j.scitotenv.2018.03.075

Magoulick, D., & Lewis, L. (2002). Predation on exotic zebra mussels by native fishes: Effects on predator and prey. *Freshwater Biology*, *47*, 1908–1918. https://doi.org/10.1046/j.1365-2427.2002.00940.x

Malacrinò, A., Sadowski, V. A., Martin, T. K., Cavichiolli de Oliveira, N., Brackett, I. J., Feller, J. D., Harris, K. J., Combita Heredia, O., Vescio, R., & Bennett, A. E. (2020). Biological invasions alter

environmental microbiomes: A meta-analysis. *PLOS ONE*, *15*(10), e0240996. https://doi.org/10.1371/journal.pone.0240996

Mann, R. (2010). *Economic risk associated with the potential establishment of zebra and quagga mussels in the Columbia River Basin*. 82.

Marescaux, J., Falisse, E., Lorquet, J., Van Doninck, K., Beisel, J.-N., & Descy, J.-P. (2016). Assessing filtration rates of exotic bivalves: Dependence on algae concentration and seasonal factors. *Hydrobiologia*, *777*(1), 67–78.

Marsden, J. E., & Lansky, D. M. (2000). Substrate selection by settling zebra mussels, *Dreissena polymorpha*, relative to material, texture, orientation, and sunlight. *Canadian Journal of Zoology*, *78*(5), 787–793.

Marshall, N., & Stepien, C. (2021). Genetic trajectories of zebra and quagga mussel invasions across three decades: Lake Erie versus Hudson River populations. *Aquatic Invasions*, *16*(1), 147–166. https://doi.org/10.3391/ai.2021.16.1.10

Marshall, N. T., & Stepien, C. A. (2019). Invasion genetics from eDNA and thousands of larvae: A targeted metabarcoding assay that distinguishes species and population variation of zebra and quagga mussels. *Ecology and Evolution*, *9*(6), 3515–3538. https://doi.org/10.1002/ece3.4985

Marshall, N. T., Vanderploeg, H. A., & Chaganti, S. R. (2021). Environmental (e)RNA advances the reliability of eDNA by predicting its age. *Scientific Reports*, *11*(1). https://doi.org/10.1038/s41598-021-82205-4

Martin, M. D., Mackie, G. L., & Baker, M. A. (1993a). Acute toxicity tests and pulsed-dose delayed mortality at 12 and 22C in the zebra mussel (*Dreissena polymorpha*). *Archives of Environmental Contamination and Toxicology*, *24*(3), 389–398. https://doi.org/10.1007/BF01128739

Martin, M. D., Mackie, G. L., & Baker, M. A. (1993b). Control of the biofouling mollusc, *Dreissena polymorpha* (Bivalvia: Dreissenidae), with sodium hypochlorite and with polyquaternary ammonia and benzothiazole compounds. *Archives of Environmental Contamination and Toxicology*, *24*(3), 381–388. https://doi.org/10.1007/BF01128738

Martinez, J. D. (2018). *Effects of copper and temperature on the life stages of the invasive zebra mussel* [M.S. Thesis]. Texas Christian University.

Mastitsky, S. E., Karatayev, A. Y., Burlakova, L. E., & Molloy, D. P. (2010). Parasites of exotic species in invaded areas: Does lower diversity mean lower epizootic impact?: Impacts of the parasites of exotic species. *Diversity and Distributions*, *16*(5), 798–803. https://doi.org/10.1111/j.1472-4642.2010.00693.x

Mathai, P. P., Bertram, J. H., Padhi, S. K., Singh, V., Tolo, I. E., Primus, A., Mor, S. K., Phelps, N. B. D., & Sadowsky, M. J. (2021). Influence of environmental stressors on the microbiota of zebra mussels (*Dreissena polymorpha*). *Microbial Ecology*, *81*(4), 1042–1053. https://doi.org/10.1007/s00248-020-01642-2

Mathai, P. P., Magnone, P., Dunn, H. M., & Sadowsky, M. J. (2020). Water and sediment act as reservoirs for microbial taxa associated with invasive dreissenid mussels. *Science of The Total Environment*, *703*, 134915. https://doi.org/10.1016/j.scitotenv.2019.134915

Matisoff, G., Brooks, G., & Bourland, B. I. (1996). Toxicity of chlorine dioxide to adult zebra mussels. *Journal - American Water Works Association*, *88*(8), 93–106. https://doi.org/10.1002/j.1551-8833.1996.tb06603.x

Matthews, J., van der Velde, G., bij de Vaate, A., & Leuven, R. (2012). *Key factors for spread, impact and management of quagga mussels in the Netherlands* (No. 404; Series of Reports on Environmental Science). Radboud University Nijmegen.

Matthews, J., Van der Velde, G., De Vaate, A. B., Collas, F. P. L., Koopman, K. R., & Leuven, R. (2014). Rapid range expansion of the invasive quagga mussel in relation to zebra mussel presence in The Netherlands and Western Europe. *Biological Invasions*, *16*(1), 23–42.

Matthews, M. A., & McMahon, R. (1999). Effects of temperature and temperature acclimation on survival of zebra mussels (*Dreissena polymorpha*) and Asian clams (*Corbicula fluminea*) under extreme hypoxia. *Journal of Molluscan Studies*, *65*(3), 317–325.

Matthews, M. A., & McMahon, R. F. (1995). *Survival of zebra mussels (*Dreissena polymorpha*) and Asian clams (*Corbicula fluminea*) under extreme hypoxia. (*Technical Report EL-95-3). U.S. Army Corps of Engineers.

McCartney, M. A., Auch, B., Kono, T., Mallez, S., Zhang, Y., Obille, A., Becker, A., Abrahante, J. E., Garbe, J., Badalamenti, J. P., Herman, A., Mangelson, H., Liachko, I., Sullivan, S., Sone, E. D., Koren, S., Silverstein, K. A. T., Beckman, K. B., & Gohl, D. M. (2019). *The Genome of the Zebra Mussel,* Dreissena polymorpha*: A Resource for Invasive Species Research* [Preprint]. Genomics. https://doi.org/10.1101/696732

McCartney, M. A., & Mallez, S. (2018). The role of waterway connections and downstream drift of veliger larvae in the expanding invasion of inland lakes by zebra mussels in Minnesota, USA. *Aquatic Invasions*, *13*.

McDowell, W. G., & Sousa, R. (2019). Mass Mortality Events of Invasive Freshwater Bivalves: Current Understanding and Potential Directions for Future Research. *Frontiers in Ecology and Evolution*, *7*. https://doi.org/10.3389/fevo.2019.00331

McEachran, M. C., Trapp, R. S., Zimmer, K. D., Herwig, B. R., Hegedus, C. E., Herzog, C. E., & Staples, D. F. (2019). Stable isotopes indicate that zebra mussels (*Dreissena polymorpha*) increase dependence of lake food webs on littoral energy sources. *Freshwater Biology*, *64*(1), 183–196. https://doi.org/10.1111/fwb.13206

McMahon, R. F. (1996). The physiological ecology of the zebra mussel, *Dreissena polymorpha* , in North America and Europe. *American Zoologist*, *36*(3), 339–363. https://doi.org/10.1093/icb/36.3.339

McMahon, R. F. (2002). Evolutionary and physiological adaptations of aquatic invasive animals: R selection versus resistance. *Canadian Journal of Fisheries and Aquatic Sciences*, *59*(7), 1235–1244.

McMahon, R. F. (2011). Quagga mussel (*Dreissena rostriformis bugensis*) population structure during the early invasion of Lakes Mead and Mohave January-March 2007. *Aquatic Invasions*, *6*(2), 131–140.

McMahon, R. F., Matthews, M. A., Shaffer, L. R., & Johnson, P. D. (1995). *Effects of elevated carbon dioxide concentrations on survivorship in zebra mussels (*Dreissena polymorpha*) and Asian clams (*Corbicula fluminea*)*. Electric Power Research Inst., Palo Alto, CA (United States).

McMahon, R. F., Ussery, T. A., & Clarke, M. (1993). *Use of emersion as a zebra mussel control method* (Contract Report EL-93-1; p. 36). U.S. Army Corps of Engineers.

Meehan, S. (2014). *Assessment and utilisation of Zequanox® for zebra mussel (*Dreissena polymorpha*) control in Irish waters* [Ph.D. Thesis]. Institute of Technology, Sligo.

Meehan, S., Gruber, B., & Lucy, F. (2014). Zebra mussel control using Zequanox® in an Irish waterway. *Management of Biological Invasions*, *5*(3), 279–286. https://doi.org/10.3391/mbi.2014.5.3.11

Meehan, S., Lucy, F., Gruber, B., & Rackl, S. (2013). Comparing a microbial biocide and chlorine as zebra mussel control strategies in an Irish drinking water treatment plant. *Management of Biological Invasions*, *4*(2), 113–122. https://doi.org/10.3391/mbi.2013.4.2.03

Meehan, S., Shannon, A., Gruber, B., M. Rackl, S., & E. Lucy, F. (2014). Ecotoxicological impact of Zequanox®, a novel biocide, on selected non-target Irish aquatic species. *Ecotoxicology and Environmental Safety*, *107*, 148–153. https://doi.org/10.1016/j.ecoenv.2014.05.017

Mehler, K., Burlakova, L. E., Karatayev, A. Y., Biesinger, Z., Valle-Levinson, A., Castiglione, C., & Gorsky, D. (2018). Sonar technology and underwater imagery analysis can enhance invasive *Dreissena* distribution assessment in large rivers. *Hydrobiologia*, *810*(1), 119–131.

Mei, X., Zhang, X., Kassam, S.-S., & Rudstam, L. G. (2016). Will the displacement of zebra mussels by quagga mussels increase water clarity in shallow lakes during summer? Results from a mesocosm experiment. *PloS One*, *11*(12), e0168494.

Mellina, E., & Rasmussen, J. B. (1994). Patterns in the distribution and abundance of zebra mussel (*Dreissena polymorpha*) in rivers and lakes in relation to substrate and other physicochemical factors. *Canadian Journal of Fisheries and Aquatic Sciences*, *51*(5), 1024–1036.

Mellina, E., Rasmussen, J. B., & Mills, E. L. (1995). Impact of zebra mussel (*Dreissena polymorpha*) on phosphorus cycling and chlorophyll in lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(12), 2553–2573.

Mench, D. L. (2018). *Reclamation Detection Laboratory for Exotic Species (RDLES): Invasive mussel detection and research related to spread, control, and management* (Final Report ST-2018-2617-01). Bureau of Reclamation.

Mendoza, A. (2014). Dreissena polymorpha*: An observational chemical attachment study* [B.A. Thesis]. Carthage College.

Merten, B. J. (2013). *Review of mussel adhesion mechanism and scoping study* (Technical Memorandum MERL-2013-43).

Merzel, R. L., Purser, L., Soucy, T. L., Olszewski, M., Colón-Bernal, I., Duhaime, M., Elgin, A. K., & Banaszak Holl, M. M. (2020). Uptake and Retention of Nanoplastics in Quagga Mussels. *Global Challenges*, *4*(6), 1800104. https://doi.org/10.1002/gch2.201800104

Metzel, C. (2011). *The byssal structure of* Dreissena polymorpha *in freshwater habitats of the Midwest: A reattachment study* [B.A. Thesis]. Carthage College.

Michigan, N. L., Monge, D., Eberhardy, A., & Shah, M. (2012). The Effects Of Quagga Mussels On Phosphorous-Dependent Growth Of Cladophora In. *Proceedings of The National Conference On Undergraduate Research (NCUR) 2012*. National Conference On Undergraduate Research, Ogden, UT.

Miller, A. (2000). *Controlling zebra mussels, quagga mussels, and biofilm growth with the plasma sparker* (Technical Note TN-ZMR-2-23). U.S. Army Corps of Engineers. http://www.dajere.ca/Sparktec%20history.pdf

Miller, A. C., Payne, B. S., Freitag, T., & Bivens, T. (1994). Developing environmentally sound methods and strategies to control zebra mussels at public facilities. *Proceedings of The Fourth International Zebra Mussel Conference*, 291–300.

Mills, D. (2019). Artificial substrate experiments to investigate potential impacts of invasive quagga mussel (*Dreissena rostriformis bugensis*, Bivalvia: Dreissenidae) on macroinvertebrate communities in a UK river. *Aquatic Invasions*, *14*(2), 365–383. https://doi.org/10.3391/ai.2019.14.2.13

Mills, E. L., Dermott, R. M., Roseman, E. F., Dustin, D., Mellina, E., Conn, D. B., & Spidle, A. P. (1993). Colonization, ecology, and population structure of the "quagga" mussel (Bivalvia: Dreissenidae) in the lower Great Lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *50*(11), 2305–2314.

Mills, E. L., Rosenberg, G., Spidle, A. P., Ludyanskiy, M., Pligin, Y., & May, B. (1996). A review of the biology and ecology of the quagga mussel (*Dreissena bugensis*), a second species of freshwater dreissenid introduced to North America. *American Zoologist*, *36*(3), 271–286.

Minguez, L., Brulé, N., Sohm, B., Devin, S., & Giambérini, L. (2013). Involvement of apoptosis in host-parasite interactions in the zebra mussel. *PLoS ONE*, *8*(6), e65822. https://doi.org/10.1371/journal.pone.0065822

Minguez, L., Buronfosse, T., Beisel, J.-N., & Giambérini, L. (2012). Parasitism can be a confounding factor in assessing the response of zebra mussels to water contamination. *Environmental Pollution*, *162*, 234–240. https://doi.org/10.1016/j.envpol.2011.11.005

Minguez, L., Devin, S., Molloy, D. P., Guérold, F., & Giambérini, L. (2013). Occurrence of zebra mussel parasites: Modelling according to contamination in France and the USA. *Environmental Pollution*, *176*, 261–266. https://doi.org/10.1016/j.envpol.2013.01.031

Minguez, L., & Giambérini, L. (2012). Seasonal dynamics of zebra mussel parasite populations. *Aquatic Biology*, *15*(2), 145–151. https://doi.org/10.3354/ab00418

Minguez, L., Molloy, D. P., Guérold, F., & Giambérini, L. (2011). Zebra mussel (*Dreissena polymorpha*) parasites: Potentially useful bioindicators of freshwater quality? *Water Research*, *45*(2), 665–673. https://doi.org/10.1016/j.watres.2010.08.028

Moffitt, C., Stockton-Fiti, K., & Claudi, R. (2016). Toxicity of potassium chloride to veliger and byssal stage dreissenid mussels related to water quality. *Management of Biological Invasions*, *7*(3), 257–268. https://doi.org/10.3391/mbi.2016.7.3.05

Mohit, S., Johnson, T., & Arnott, S. (2021). Recreational watercraft decontamination: Can current recommendations reduce aquatic invasive species spread? *Management of Biological Invasions*, *12*(1), 148–164. https://doi.org/10.3391/mbi.2021.12.1.10

Molloy, D., Giamberini, L., Morado, J., Fokin, S., & Laruelle, F. (2001). Characterization of intracytoplasmic prokaryote infections in *Dreissena* sp. (Bivalvia: Dreissenidae). *Diseases of Aquatic Organisms*, *44*, 203–216. https://doi.org/10.3354/dao044203

Molloy, D., Lynn, D., & Giamberini, L. (2005). *Ophryoglena hemophaga* n. Sp. (Ciliophora: Ophryoglenidae): A parasite of the digestive gland of zebra mussels *Dreissena polymorpha*. *Diseases of Aquatic Organisms*, *65*, 237–243. https://doi.org/10.3354/dao065237

Molloy, D., Mayer, D., Gaylo, M., Burlakova, L., Karatayev, A., Presti, K., Sawyko, P., Morse, J., & Paul, E. (2013). Non-target trials with *Pseudomonas fluorescens* strain CL145A, a lethal control agent of dreissenid mussels (Bivalvia: Dreissenidae). *Management of Biological Invasions*, *4*(1), 71–79. https://doi.org/10.3391/mbi.2013.4.1.09

Molloy, D. P. (1998). The potential for using biological control technologies in the management of *Dreissena* spp. *Journal of Shellfish Research*, *17*(1), 177–183.

Molloy, D. P. (2002). Biological control of zebra mussels. *Proceedings of the Third California Conference on Biological Control*, 86–94.

Molloy, D. P., GiambéRini, L., Stokes, N. A., Burreson, E. M., & Ovcharenko, M. A. (2012). *Haplosporidium raabei* n. Sp. (Haplosporidia): A parasite of zebra mussels, *Dreissena polymorpha* (Pallas, 1771). *Parasitology*, *139*(04), 463–477. https://doi.org/10.1017/S0031182011002101

Molloy, D. P., Karatayev, A. Y., Burlakova, L. E., Kurandina, D. P., & Laruelle, F. (1997). Natural enemies of zebra mussels: Predators, parasites, and ecological competitors. *Reviews in Fisheries Science*, *5*(1), 27–97. https://doi.org/10.1080/10641269709388593

Molloy, D. P., & Mayer, D. A. (2007). *Overview of a novel green technology: Biological control of zebra and quagga mussels with* Pseudomonas fluorescens. New York State Museum.

Molloy, D. P., Mayer, D. A., Gaylo, M. J., Morse, J. T., Presti, K. T., Sawyko, P. M., Karatayev, A. Y., Burlakova, L. E., Laruelle, F., Nishikawa, K. C., & Griffin, B. H. (2013). *Pseudomonas fluorescens* strain CL145A – A biopesticide for the control of zebra and quagga mussels (Bivalvia: Dreissenidae). *Journal of Invertebrate Pathology*, *113*(1), 104–114. https://doi.org/10.1016/j.jip.2012.12.012

Molloy, D. P., Mayer, D. A., Giamberini, L., & Gaylo, M. J. (2013). Mode of action of *Pseudomonas fluorescens* strain CL145A, a lethal control agent of dreissenid mussels (Bivalvia: Dreissenidae). *Journal of Invertebrate Pathology*, *113*(1), 115–121. https://doi.org/10.1016/j.jip.2012.12.013

Molloy, D., Powell, J., & Ambrose, P. (1994). Short-term reduction of adult zebra mussels (*Dreissena polymorpha*) in the Hudson River near Catskill, New York: An effect of juvenile blue crab (*Callinectes sapidus*) predation? *Journal of Shellfish Research*, *13*, 367–371.

Molloy, D., Roitman, V. A., & Shields, J. (1996). *Survey of the Parasites of Zebra Mussels (Bivalvia:Dreissenidae) in Northwestern Russia, with Comments on Records of Parasitism in Europe and North America.*

Montz, G., & Hirsch, J. (2016). Veliger presence in residual water – assessing this pathway risk for Minnesota watercraft. *Management of Biological Invasions*, *7*(3), 235–240. https://doi.org/10.3391/mbi.2016.7.3.03

Morrison, A. L., Thelen, M. A., Howe, S. E., Zimmer, K. D., Herwig, B. R., Staples, D. F., & McEachran, M. C. (2021). Impacts of zebra mussels *(Dreissena polymorpha*) on isotopic niche size and niche overlap among fish species in a mesotrophic lake. *Biological Invasions*, *23*(9), 2985–3002. https://doi.org/10.1007/s10530-021-02553-0

Mortensen, J. D. (2013). *Resistance of protective coatings to high pressure water jets for invasive mussel removal* (Hydraulic Laboratory Technical Memorandum PAP-1074). US Bureau of Reclamtion.

Mortensen, J. D., & Karp, C. (2016). *Testing of commonly used fish screens for resistance to invasive mussel fouling* (Final Report ST-2016-5740-1; p. 47). US Bureau of Reclamation.

Mortensen, J. D., & Pucherelli, S. (2016). *Invasive mussel control in pipes using turbulence* (Final Report ST-2016-4183-1). US Bureau of Reclamation.

Mosley, C. (2014). *Phosphorus recycling by profunda quagga mussels in Lake Michigan* [M.S. Thesis]. University of Wisconsin-Milwaukee.

Mychek-Londer, J. G., Balasingham, K. D., & Heath, D. D. (2020). Using environmental DNA metabarcoding to map invasive and native invertebrates in two Great Lakes tributaries. *Environmental DNA*, *2*(3), 283–297. https://doi.org/10.1002/edn3.56

Mychek-Londer, J. G., Chaganti, S. R., & Heath, D. D. (2020). Metabarcoding of native and invasive species in stomach contents of Great Lakes fishes. *PLOS ONE*, *15*(8), e0236077. https://doi.org/10.1371/journal.pone.0236077

Nalepa, T. F. (2009). *Recent disappearance of the benthic amphipod,* Diporeia *spp., in the Great Lakes: Spatial patterns, potential causes, and ecological implications*. *26*(1), 12.

Nalepa, T. F. (2008). An overview of the spread, distribution, and ecological impacts of the quagga mussel, *Dreissena rostriformis bugensis*, with possible implications to the Colorado River system. *Proceedings of the Colorado River Basin Science and Resource Management Symposium*, 113–121. https://www.researchgate.net/publication/280659681_An_Overview_of_the_Spread_Distribution

and Ecological Impacts of the Quagga Mussel Dreissena rostriformis bugensis with Possible Implications to the Colorado River System

Nalepa, T. F., Fanslow, D. L., Foley III, A. J., Lang, G. A., Eadie, B. J., & Quigley, M. A. (2006). Continued disappearance of the benthic amphipod *Diporeia* spp. in Lake Michigan: Is there evidence for food limitation? *Canadian Journal of Fisheries and Aquatic Sciences*, *63*(4), 872–890. https://doi.org/10.1139/f05-262

Nalepa, T. F., Fanslow, D. L., & Lang, G. A. (2009). Transformation of the offshore benthic community in Lake Michigan: Recent shift from the native amphipod *Diporeia* spp. to the invasive mussel *Dreissena rostriformis bugensis*. *Freshwater Biology*, *54*(3), 466–479. https://doi.org/10.1111/j.1365-2427.2008.02123.x

Nalepa, T. F., Fanslow, D. L., Lang, G. A., Lamarand, D. B., Cummins, L. G., & Carter, G. S. (2008). *Abundances of the amphipod* Diporeia *spp. And the mussels* Dreissena polymorpha *and* Dreissena rostriformis bugensis *in Lake Michigan in 1994-1995, 2000, and 2005* (Technical Memorandum GLERL-144; p. 25). National Oceanographic and Atmospheric Administration.

Nalepa, T. F., Fanslow, D. L., Lang, G. A., Mabrey, K., & Rowe, M. (2014). *Lake-wide benthic surveys in Lake Michigan in 1994-95, 2000, 2005, and 2010: Abundances of the amphipod* Diporeia *spp. And abundances and biomass of the mussels* Dreissena polymorpha *and* Dreissena rostriformis bugensis (Technical Memorandum GLERL-164; p. 25). National Oceanographic and Atmospheric Administration.

Nalepa, T. F., Fanslow, D. L., Lansing, M. B., & Lang, G. A. (2003). Trends in the benthic macroinvertebrate community of Saginaw Bay, Lake Huron, 1987 to 1996: Responses to phosphorus abatement and the zebra mussel, *Dreissena polymorpha*. *Journal of Great Lakes Research*, *29*(1), 14–33. https://doi.org/10.1016/S0380-1330(03)70412-2

Nalepa, T. F., Fanslow, D. L., & Pothoven, S. A. (2010). Recent changes in density, biomass, recruitment, size structure, and nutritional state of *Dreissena* populations in southern Lake Michigan. *Journal of Great Lakes Research*, *36*, 5–19.

Nalepa, T. F., Fanslow, D. L., Pothoven, S. A., Foley, A. J., & Lang, G. A. (2007). Long-term trends in benthic macroinvertebrate populations in Lake Huron over the past four decades. *Journal of Great Lakes Research*, *33*(2), 421–436. https://doi.org/10.3394/0380-1330(2007)33[421:LTIBMP]2.0.CO;2

Nalepa, T. F., Fanslow, D. L., Pothoven, S. A., Iii, A. J. F., Lang, G. A., Mozley, S. C., & Winnell, M. W. (2007). *Abundance and distribution of benthic macroinvertebrate populations in Lake Huron in 1972 and 2000-2003* (GLERL-140; NOAA Technical Memorandum, p. 34). National Oceanographic and Atmospheric Administration.

Nalepa, T. F., Hartson, D., Fanslow, D. L., & Lang, G. A. (2001). Recent population changes in freshwater mussels (Bivalvia: Unionidae) and zebra mussels (*Dreissena polymorpha*) in Lake St. Clair, U. S. A. *American Malacological Bulletin*, *16*(1/2), 141–145.

Nalepa, T. F., Lang, G. A., & Fanslow, D. L. (2000). Trends in benthic macroinvertebrate populations in southern Lake Michigan. *SIL Proceedings, 1922-2010*, *27*(5), 2540–2545. https://doi.org/10.1080/03680770.1998.11898123

Nalepa, T. F., Pothoven, S. A., & Fanslow, D. L. (2009). Recent changes in benthic macroinvertebrate populations in Lake Huron and impact on the diet of lake whitefish (*coregonus clupeaformis*). *Aquatic Ecosystem Health & Management*, *12*(1), 2–10. https://doi.org/10.1080/14634980802715175

Nalepa, T. F., Riseng, C. M., Elgin, A. K., & Lang, G. A. (2018). *Abundance and distribution of benthic macroinvertebrates in the Lake Huron system: Saginaw Bay, 2006-2009, and Lake Huron, including Georgian Bay and North Channel, 2007 and 2012.* (GLERL-172; NOAA Technical Memorandum, p. 50). National Oceanographic and Atmospheric Administration.

Nalepa, T. F., Rockwell, D. C., & Schloesser, D. W. (2006). *Disappearance of the amphipod Diporeia spp. In the Great Lakes: Workshop summary, discussion, and recommendations* (GLERL-136; NOAA Technical Memorandum, p. 20). National Oceanographic and Atmospheric Administration.

National Park Service. (2007). *Lake Mead National Recreation Area Draft Quagga Mussel Initial Response Plan* (p. 14). https://www.usbr.gov/lc/region/programs/quagga/docs/NPSDraftResponsePlan.pdf

Nelson, S. M., & Nibling, F. (2013). Monitoring invasive quagga mussels, *Dreissena rostriformis bugensis* (Bivalvia: Dreissenidae), and other benthic organisms in a western US aqueduct. *Management of Biological Invasions*, *4*(1), 51–59.

Nicholls, K. H., Hopkins, G. J., & Standke, S. J. (1999). Reduced chlorophyll to phosphorus ratios in nearshore Great Lakes waters coincide with the establishment of dreissenid mussels. *Canadian Journal of Fisheries and Aquatic Sciences*, *56*(1), 153–161.

Nichols, S. J., & Black, M. G. (1994). Identification of larvae: The zebra mussel (*Dreissena polymorpha*), quagga mussel (*Dreissena rosteriformis bugensis*), and Asian clam (*Corbicula fluminea*). *Canadian Journal of Zoology*, *72*(3), 406–417. https://doi.org/10.1139/z94-057

Nicholson, M. E. (2018). *Aquatic community response to Zequanox®: A mesocosm experiment* [M.S. Thesis]. Queen's University.

Nienhuis, S., Haxton, T., & Dunkley, T. (2014). An empirical analysis of the consequences of zebra mussel invasions on fisheries in inland, freshwater lakes in Southern Ontario. *Management of Biological Invasions*, *5*(3), 287–302. https://doi.org/10.3391/mbi.2014.5.3.12

Noonburg, E. G., Shuter, B. J., & Abrams, P. A. (2003). Indirect effects of zebra mussels (*Dreissena polymorpha*) on the planktonic food web. *Canadian Journal of Fisheries and Aquatic Sciences*, *60*(11), 1353–1368.

O'Donnell, J. M., Durand, M. E., Robitaille, P.-M. L., Fisher, S. W., & Stromberg, P. C. (1996). ^{31}P-NMR analysis of lethal and sublethal lesions produced by KCl-intoxication in the zebra mussel, *Dreissena polymorpha*. *The Journal of Experimental Zoology*, *276*(1), 53–62. https://doi.org/10.1002/(SICI)1097-010X(19960901)276:1<53::AID-JEZ6>3.0.CO;2-4

Olson, M. (2018, July 8). Lone zebra mussel found in Lake Minnewashta. *Chanhassen Villager*. https://www.swnewsmedia.com/chanhassen_villager/news/local/lone-zebra-mussel-found-in-lake-minnewashta/article_087d901b-1364-5bc1-9bee-8ab2da3c5fb5.html

O'Meara, S., & Hosler, D. (2016). *Interim Report: Zebra mussel eradication , potash study San Justo Reservoir* (Final Report ST-1610-01). US Bureau of Reclamation.

Ostlie, L. S., Nelson, J. R., & Whiley, R. J. (1994). The efficacy of pulsed electric fields in preventing settlement of zebra mussel veligers. *Proceedings of The Fourth International Zebra Mussel Conference*, 301–318.

Otts, S., & Nanjappa, P. (2014). *Preventing the spread of aquatic invasive species by recreational boats: Model legislative provisions & guidance to promote reciprocity among state watercraft inspection and decontamination programs* (p. 44). National Sea Grant Law Center.

Otts, S. S., & Bowling, T. (2013). Legislative and regulatory efforts to minimize expansion of invasive mussels through watercraft movements. *The Arizona Journal of Environmental Law & Policy*, *3*(2).

Otts, S. S., & Janasie, C. (2014). *From theory to practice: A comparison of state watercraft inspection and decontamination programs to model legislative provisions* (NSGLC--14--05--09). National Sea Grant Law Center.

Ożgo, M., Urbańska, M., Hoos, P., Imhof, H. K., Kirschenstein, M., Mayr, J., Michl, F., Tobiasz, R., Wesendonk, M., Zimmermann, S., & Geist, J. (2020). Invasive zebra mussel (*Dreissena polymorpha*) threatens an exceptionally large population of the depressed river mussel (*Pseudanodonta complanata*) in a postglacial lake. *Ecology and Evolution*, *10*(11), 4918–4927. https://doi.org/10.1002/ece3.6243

Pacific Environmental Advocacy Center of Lewis and Clark Law School. (n.d.). *Implementing Legislation and Regulation to Prevent the Spread of Aquatic Invasive Species*. Oregon Invasive Species Council.

Pacific States Marine Fisheries Commission, Invasive Species Action Network and the U.S. Fish and Wildlife Service. (2021). *Moss Ball Incident Action Report* (p. 23). Columbia River Basin AIS Team.

Papeş, M., Sällström, M., Asplund, T. R., & Vander Zanden, M. J. (2011). Invasive Species Research to Meet the Needs of Resource Management and Planning: Management of Invasive Species. *Conservation Biology*, *25*(5), 867–872. https://doi.org/10.1111/j.1523-1739.2011.01714.x

Passamaneck, Y. J. (2018). *Literature review and synthesis of invasive mussel control techniques* (Final Report ST-2018-1868-01). Bureau of Reclamation.

Passamaneck, Y. J., & Kocot, K. (2020). *Sequencing of the quagga mussel (*Dreissena rostriformis bugensis*) genome as a tool for biocontrol* (Final Report ST-2020-1866-01). Bureau of Reclamation.

Paukstis, G. L., Tucker, J. K., Bronikowski, A. M., & Janzen, F. J. (1999). Survivorship of aerially-exposed zebra mussels *Dreissena polymorpha* under laboratory conditions. *Journal of Freshwater Ecology*, *14*(4), 511–517. https://doi.org/10.1080/02705060.1999.9663709

Payne, B. S. (1992). *Freeze survival of aerially exposed zebra mussels* (Technical Note ZMR-2-09). U.S. Army Corps of Engineers.

Payne, B. S., Miller, A., & Adams, G. (1998). *Effects of elevated carbon dioxide concentrations on survivorship in zebra mussels (*Dreissena polymorpha*)* (Technical Note ZMR-2-21). U.S. Army Corps of Engineers.

Péden, R., Poupin, P., Sohm, B., Flayac, J., Giambérini, L., Klopp, C., Louis, F., Pain-Devin, S., Potet, M., Serre, R.-F., & Devin, S. (2019). Environmental transcriptomes of invasive *Dreissena*, a model species in ecotoxicology and invasion biology. *Scientific Data*, *6*(1). https://doi.org/10.1038/s41597-019-0252-x

Pedersen, A. F., Gopalakrishnan, K., Boegehold, A. G., Peraino, N. J., Westrick, J. A., & Kashian, D. R. (2020). Microplastic ingestion by quagga mussels, *Dreissena bugensis*, and its effects on physiological processes. *Environmental Pollution*, *260*, 113964. https://doi.org/10.1016/j.envpol.2020.113964

Peñarrubia, L., Alcaraz, C., Vaate, A. bij de, Sanz, N., Pla, C., Vidal, O., & Viñas, J. (2016). Validated methodology for quantifying infestation levels of dreissenid mussels in environmental DNA (eDNA) samples. *Scientific Reports*, *6*, 39067. https://doi.org/10.1038/srep39067

Peribáñez, M. A., Elrío, M. L., Gracia, M. J., Fernández de Luco, D., Castillo, J. A., Lucientes, J., & Cia, I. (2006). *Phyllodistomum folium* (Trematoda: Gorgoderidae) infecting zebra mussels (*Dreissena polymorpha*) in the Ebro River, Spain. *Parasitology International*, *55*(2), 143–145. https://doi.org/10.1016/j.parint.2005.12.002

Perry, W. L., Lodge, D. M., & Lamberti, G. A. (1997). Impact of crayfish predation on exotic zebra mussels and native invertebrates in a lake-outlet stream. *Canadian Journal of Fisheries and Aquatic Sciences*, *54*(1), 120–125. https://doi.org/10.1139/f96-255

Phillips, S., Darland, T., & Sytsma, M. (2005). *Potential economic impacts of zebra mussels on the hydropower facilities in the Columbia River Basin*. Bonneville Power Administration.

Potet, M., Giambérini, L., Pain-Devin, S., Louis, F., Bertrand, C., & Devin, S. (2018). Differential tolerance to nickel between *Dreissena polymorpha* and *Dreissena rostriformis* bugensis populations. *Scientific Reports*, *8*(1), 700.

Pothoven, S. A., & Elgin, A. K. (2019). Dreissenid veliger dynamics along a nearshore to offshore transect in Lake Michigan. *Journal of Great Lakes Research*, *45*(2), 300–306. https://doi.org/10.1016/j.jglr.2019.01.001

Pothoven, S. A., & Fahnenstiel, G. L. (2015). Spatial and temporal trends in zooplankton assemblages along a nearshore to offshore transect in southeastern Lake Michigan from 2007 to 2012. *Journal of Great Lakes Research*, *41*, 95–103. https://doi.org/10.1016/j.jglr.2014.09.015

Pothoven, S. A., & Madenjian, C. P. (2008). Changes in consumption by alewives and lake whitefish after dreissenid mussel invasions in Lakes Michigan and Huron. *North American Journal of Fisheries Management*, *28*(1), 308–320.

Pothoven, S. A., & Nalepa, T. F. (2006). Feeding ecology of lake whitefish in Lake Huron. *Journal of Great Lakes Research*, *32*(3), 489–501. https://doi.org/10.3394/0380-1330(2006)32[489:FEOLWI]2.0.CO;2

Pri, V., Lima, M. L., Taberlet, P., Valentini, A., Poulet, N., Jean, P., Breugnot, E., Couprie, S. phanie, Jardin, G. lle, Roset, N., Vigneron, T., Lamand, F., Gargominy, O., Rocle, M., & Dejean, T. (2020). *Large-scale monitoring of freshwater bivalves: An eDNA point of view on species distribution and conservation*. https://doi.org/10.22541/au.158888143.31089837

Props, R., Schmidt, M. L., Heyse, J., Vanderploeg, H. A., Boon, N., & Denef, V. J. (2018). Flow cytometric monitoring of bacterioplankton phenotypic diversity predicts high population-specific feeding rates by invasive dreissenid mussels. *Environmental Microbiology*, *20*(2), 521–534.

Prud'homme, S. M., Hani, Y. M. I., Cox, N., Lippens, G., Nuzillard, J.-M., & Geffard, A. (2020). The zebra mussel (*Dreissena polymorpha*) as a model organism for ecotoxicological studies: A prior 1H NMR spectrum interpretation of a whole body extract for metabolism monitoring. *Metabolites*, *10*(6), 256. https://doi.org/10.3390/metabo10060256

Pucherelli, S., Claudi, R., Prescott, T., Willett, L., & Van Oostrom, T. (2021). *Case studies: Impact and control of invasive mussels at hydropower plants* (Final Report ST-2020-1876-01). Bureau of Reclamation.

Pucherelli, S. F., & Claudi, R. (2017). Evaluation of the effects of ultraviolet light treatment on quagga mussel settlement and veliger survival at Davis Dam. *Management of Biological Invasions*, *8*, 301–310.

Pucherelli, S. F., Keele, J., & Hosler, D. (2015). *Using microsatellite analysis to track genetic changes in quagga mussel populations in the western United States* (Final Report ST-2015-5173-01). US Bureau of Reclamtion.

Pucherelli, S., O'Meara, S., Bloom, K., & Kirsch, J. (2016). *Habitat suitability parameters for quagga mussels in the Lower Colorado River system and at Reclamation managed facilities* (Final Report ST-2015-754F-01). US Bureau of Reclamation.

Quinn, N. P., & Ackerman, J. D. (2012). Biological and ecological mechanisms for overcoming sperm limitation in invasive dreissenid mussels. *Aquatic Sciences*, *74*(3), 415–425. https://doi.org/10.1007/s00027-011-0237-0

Race, T. D., & Kelly, M. A. (1994). A comparison of metal leachate rate and zebra mussel control efficacy for coatings and materials. *Proceedings of The Fourth International Zebra Mussel Conference*, 16.

Rager, A. (2015). *Scanning electron microscope (SEM) imaging and anaglyphs of invasive mussel veligers* (Final Report ST-2015-7361). US Bureau of Reclamation.

Raikow, D. F. (2004). Food web interactions between larval bluegill (*Lepomis macrochirus*) and exotic zebra mussels (*Dreissena polymorpha*). *Canadian Journal of Fisheries and Aquatic Sciences*, *61*(3), 497–504.

Rajagopal, S., Van Der Velde, G., & Jenner, H. A. (2002). Does status of attachment influence survival time of zebra mussel, *Dreissena polymorpha* , exposed to chlorination? *Environmental Toxicology and Chemistry*, *21*(2), 342–346. https://doi.org/10.1002/etc.5620210216

Rajagopal, S., van der Velde, G., & Jenner, H. A. (2002). Effects of low-level chlorination on zebra mussel, *Dreissena polymorpha*. *Water Research*, *36*(12), 3029–3034.

Rajagopal, S., Van Der Velde, G., Van Der Gaag, M., & Jenner, H. A. (2003). How effective is intermittent chlorination to control adult mussel fouling in cooling water systems? *Water Research*, *37*(2), 329–338. https://doi.org/10.1016/S0043-1354(02)00270-1

Ram, J. L., Fong, P., Croll, R. P., Nichols, S. J., & Wall, D. (1992). The zebra mussel *Dreissena polymorpha*, a new pest in North America: Reproductive mechanisms as possible targets of control strategies. *Invertebrate Reproduction & Development*, *22*(1–3), 77–86. https://doi.org/10.1080/07924259.1992.9672259

Ram, J. L., Fong, P. P., & Garton, D. W. (1996). Physiological aspects of zebra mussel reproduction: Maturation, spawning, and fertilization. *American Zoologist*, *36*(3), 326–338. https://doi.org/10.1093/icb/36.3.326

Ram, J. L., Karim, A. S., Banno, F., & Kashian, D. R. (2012). Invading the invaders: Reproductive and other mechanisms mediating the displacement of zebra mussels by quagga mussels. *Invertebrate Reproduction & Development*, *56*(1), 21–32. https://doi.org/10.1080/07924259.2011.588015

Ram, J. L., Purohit, S., Newby, B. Z., & Cutright, T. J. (2012). Evaluation of the natural product antifoulant, zosteric acid, for preventing the attachment of quagga mussels – a preliminary study. *Natural Product Research*, *26*(6), 580–584. https://doi.org/10.1080/14786419.2010.541873

Ramcharan, C. W., Padilla, D. K., & Dodson, S. I. (1992). Models to predict potential occurrence and density of the zebra mussel, *Dreissena polymorpha*. *Canadian Journal of Fisheries and Aquatic Sciences*, *49*(12), 2611–2620.

Rao, D. G. V. P., & Khan, M. A. Q. (2000). Zebra mussels: Enhancement of copper toxicity by high temperature and its relationship with respiration and metabolism. *Water Environment Research*, *72*(2), 175–178.

Reed, D. P., Herod, J. J., & Sickel, J. B. (1998). Variations in Zebra Mussel (*Dreissena polymorpha*) Veliger Densities throughout 1996 at Dam 52 on the lower Ohio River. *Journal of Freshwater Ecology*, *13*(3), 255–261. https://doi.org/10.1080/02705060.1998.9663617

Reed-Andersen, T., Carpenter, S. R., Padilla, D. K., & Lathrop, R. C. (2000). Predicted impact of zebra mussel (*Dreissena polymorpha*) invasion on water clarity in Lake Mendota. *Canadian Journal of Fisheries and Aquatic Sciences*, *57*(8), 1617–1626.

Reeders, H. H., & De Vaate, A. B. (1990). Zebra mussels (*Dreissena polymorpha*): A new perspective for water quality management. *Hydrobiologia*, *200*(1), 437.

Rees, D. J., Hanifi, A., Obille, A., Alexander, R., & Sone, E. D. (2019). Fingerprinting of Proteins that Mediate Quagga Mussel Adhesion using a De Novo Assembled Foot Transcriptome. *Scientific Reports*, *9*(1). https://doi.org/10.1038/s41598-019-41976-7

Rehmann, C. R., Stoeckel, J. A., & Schneider, D. W. (2003). Effect of turbulence on the mortality of zebra mussel veligers. *Canadian Journal of Zoology*, *81*(6), 1063–1069. https://doi.org/10.1139/z03-090

Reid, N. J., Anderson, M. A., & Taylor, W. D. (2010). Distribution of quagga mussel veligers, *Dreissena bugensis*, in the reservoirs of the Colorado River Aqueduct. *Lake and Reservoir Management*, *26*(4), 328–335. https://doi.org/10.1080/07438141.2010.542878

Reynolds, S. A., Davey, M. P., & Aldridge, D. C. (2019). Harnessing Synthetic Ecology for commercial algae production. *Scientific Reports*, *9*(1). https://doi.org/10.1038/s41598-019-46135-6

Ricciardi, A., Neves, R. J., & Rasmussen, J. B. (1998). Impending extinctions of North American freshwater mussels (Unionoida) following the zebra mussel (*Dreissena polymorpha*) invasion. *Journal of Animal Ecology*, *67*(4), 613–619.

Ricciardi, A., Serrouya, R., & Whoriskey, F. G. (1995). Aerial exposure tolerance off zebra and quagga mussels (Bivalvia: Dreissenidae): implications for overland dispersal. *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(3), 470–477.

Ricciardi, A., Snyder, F. L., Kelch, D. O., & Reiswig, H. M. (1995). Lethal and sublethal effects of sponge overgrowth on introduced dreissenid mussels in the Great Lakes–St. Lawrence River system. *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(12), 2695–2703.

Ricciardi, A., & Whoriskey, F. G. (2004). Exotic species replacement: Shifting dominance of dreissenid mussels in the Soulanges Canal, upper St. Lawrence River, Canada. *Journal of the North American Benthological Society*, *23*(3), 507–514. https://doi.org/10.1899/0887-3593(2004)023<0507:ESRSDO>2.0.CO;2

Richardson, T., & Richardson, S. (n.d.). *Battle of the Bads!: A Report on the Most Harmful Nonindigenous Aquatic Species Within the Contiguous States West of the 100th Meridian*. Wildlife Forever.

Robertson, J. J., Swannack, T. M., McGarrity, M., & Schwalb, A. N. (2020). Zebra mussel invasion of Texas lakes: Estimating dispersal potential via boats. *Biological Invasions*, *22*(11), 3425–3455. https://doi.org/10.1007/s10530-020-02333-2

Rodríguez-Rey, M., Consuegra, S., Börger, L., & Garcia de Leaniz, C. (2021). Boat ramps facilitate the dispersal of the highly invasive zebra mussel (*Dreissena polymorpha*). *Biological Invasions*, *23*(5), 1487–1496. https://doi.org/10.1007/s10530-020-02453-9

Rogalskiy, S. P., Morozovskaya, I. A., Boretskaya, M. A., Cherniavskaya, T. V., Tarasiuk, O. P., Dzhuzha, O. V., Sheludko, Ye. V., Bogomolov, Yu. I., & Protasov, A. A. (2020). Periphyton Development on the Protective Coating, Modifiedby the Cation Biocide. *Hydrobiological Journal*, *56*(1), 57–69. https://doi.org/10.1615/HydrobJ.v56.i1.50

Rolla, M., Consuegra, S., Carrington, E., Hall, D. J., & Garcia de Leaniz, C. (2019). Experimental evidence of chemical attraction in the mutualistic zebra mussel-killer shrimp system. *PeerJ*, *7*, e8075. https://doi.org/10.7717/peerj.8075

Rolla, M., Consuegra, S., Hall, D. J., & Garcia de Leaniz, C. (2020). Seasonal and spatial variation in growth and abundance of zebra mussel (*Dreissena polymorpha*) in a recently invaded artificial lake: Implications for management. *Frontiers in Ecology and Evolution*, *8*. https://doi.org/10.3389/fevo.2020.00159

Rosenberg, G., & Ludyanskiy, M. L. (1994). A nomenclatural review of *Dreissena* (Bivalvia: Dreissenidae), with identification of the quagga mussel as *Dreissena bugensis*. *Canadian Journal of Fisheries and Aquatic Sciences*, *51*(7), 1474–1484.

Rothlisberger, J. D., Chadderton, W. L., McNulty, J., & Lodge, D. M. (2010). Aquatic Invasive Species Transport via Trailered Boats: What is Being Moved, Who is Moving it, and What Can Be Done. *Fisheries*, *35*(3), 121–132. https://doi.org/10.1577/1548-8446-35.3.121

Rowe, M. D., Anderson, E. J., Vanderploeg, H. A., Pothoven, S. A., Elgin, A. K., Wang, J., & Yousef, F. (2017). Influence of invasive quagga mussels, phosphorus loads, and climate on spatial and temporal patterns of productivity in Lake Michigan: A biophysical modeling study: Lake Michigan productivity model. *Limnology and Oceanography*, *62*(6), 2629–2649. https://doi.org/10.1002/lno.10595

Rowe, M. D., Anderson, E. J., Wang, J., & Vanderploeg, H. A. (2015). Modeling the effect of invasive quagga mussels on the spring phytoplankton bloom in Lake Michigan. *Journal of Great Lakes Research*, *41*, 49–65. https://doi.org/10.1016/j.jglr.2014.12.018

Salamanca-Díaz, D. A., Calcino, A. D., de Oliveira, A. L., & Wanninger, A. (2021). Non-collinear Hox gene expression in bivalves and the evolution of morphological novelties in mollusks. *Scientific Reports*, *11*(1). https://doi.org/10.1038/s41598-021-82122-6

Schall, B. J. (2019). Evaluation of Portable Water Filtration Systems to Reduce the Transport Risk of Zebra Mussels and Asian Clams during Fish Spawning and Trap-and-Transfer Operations. *North American Journal of Aquaculture*, *81*(3), 253–257. https://doi.org/10.1002/naaq.10093

Schessl, M., Johns, C., & Ashpole, S. L. (2019). Microbeads in Sediment, Dreissenid Mussels, and Anurans in the Littoral Zone of the Upper St. Lawrence River, New York. *Pollution*, *5*(1). https://doi.org/10.22059/poll.2018.257596.468

Schloesser, D. W., Bij de Vaate, A., & Zimmerman, A. (1994). A bibliography of *Dreissena polymorpha* in European and Russian waters: 1964-1993. *Journal of Shellfish Research*, *13*(1), 243–267.

Schloesser, D. W., Kovalak, W. P., Longton, G. D., Ohnesorg, K. L., & Smithee, R. D. (1998). Impact of zebra and quagga mussels (*Dreissena* spp.) on freshwater unionids (Bivalvia: Unionidae) in the Detroit River of the Great Lakes. *The American Midland Naturalist*, *140*(2), 299–313.

Schloesser, D. W., & Nalepa, T. F. (1994). Dramatic decline of unionid bivalves in offshore waters of western Lake Erie after infestation by the zebra mussel, *Dreissena polymorpha*. *Canadian Journal of Fisheries and Aquatic Sciences*, *51*(10), 2234–2242.

Schloesser, D. W., Nalepa, T. F., & Mackie, G. L. (1996). Zebra mussel infestation of unionid bivalves (Unionidae) in North America. *Integrative and Comparative Biology*, *36*(3), 300–310. https://doi.org/10.1093/icb/36.3.300

Schloesser, D. W., & Schmuckal, C. (2012). Bibliography of *Dreissena polymorpha* (zebra mussels) and *Dreissena rostriformis bugensis* (quagga mussels): 1989 to 2011. *Journal of Shellfish Research*, *31*(4), 1205–1263. https://doi.org/10.2983/035.031.0432

Schneider, D. W. (1992). A bioenergetics model of zebra mussel, *Dreissena polymorpha*, growth in the Great Lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *49*(7), 1406–1416.

Schwaebe, L. (2012). *Spawning, veliger growth and desiccation of* Dreissena bugensis [M.S. Thesis, University of Nevada, Las Vegas]. https://digitalscholarship.unlv.edu/thesesdissertations/1625

SeaGrant Law Center. (2021). *Preventing the Spread of Quagga and Zebra Mussels to the Columbia River Basin and Pacific Northwest via Interstate Boat Sales* (p. 19).

Seebens, H., Briski, E., Ghabooli, S., Shiganova, T., MacIsaac, H. J., & Blasius, B. (2019). Non-native species spread in a complex network: The interaction of global transport and local population dynamics determines invasion success. *Proceedings of the Royal Society B: Biological Sciences*, *286*(1901), 20190036. https://doi.org/10.1098/rspb.2019.0036

Sepulveda, A. (2019). Using environmental DNA to extend the window of early detection for dreissenid mussels. *Management of Biological Invasions*, *10*(2), 342–358. https://doi.org/10.3391/mbi.2019.10.2.09

Sepulveda, A., Counihan, T. D., Gage, J., & Prisciandaro, A. (2021). *Columbia River Basin Dreissenid Mussel Risk Assessment Web Interface*.

Sepulveda, A. J., Hutchins, P. R., Jackson, C., Ostberg, C., Laramie, M. B., Amberg, J., Counihan, T., Hoegh, A., & Pilliod, D. S. (2020). A round-robin evaluation of the repeatability and reproducibility of environmental DNA assays for dreissenid mussels. *Environmental DNA*, *2*(4), 446–459. https://doi.org/10.1002/edn3.68

Shen, C., Liao, Q., & Bootsma, H. A. (2020). Modelling the influence of invasive mussels on phosphorus cycling in Lake Michigan. *Ecological Modelling*, *416*, 108920. https://doi.org/10.1016/j.ecolmodel.2019.108920

Skaja, A. (2010). Testing coatings for zebra and quagga mussel control. *Journal of Protective Coatings & Linings*, *July*, 57–65.

Skaja, A. (2011). *Natural biocides for zebra and quagga mussel control* (Technical Memorandum MERL-2011-46). US Bureau of Reclamation.

Skaja, A. (2012). *Coatings for mussel control—Three years of laboratory and field testing* (Technical Memorandum MERL-2012-11; p. 56). US Bureau of Reclamation.

Skaja, A. (2014). *Coatings for mussel control—Results from six years of field testing* (Technical Memorandum MERL-2014-64; p. 40). US Bureau of Reclamation.

Skaja, A. (2015). *Coatings for invasive mussel control—Final report* (Final Report ST-2015-7095-01). US Bureau of Reclamation.

Skaja, A. D. (2014). *Durable foul release coatings final report 2012-2013* (Technical Memorandum MERL-2014-57). US Bureau of Reclamtion.

Smircich, M. G., Strayer, D. L., & Schultz, E. T. (2017). Zebra mussel (*Dreissena polymorpha*) affects the feeding ecology of early stage striped bass (*Morone saxatilis*) in the Hudson River estuary. *Environmental Biology of Fishes*, *100*(4), 395–406. https://doi.org/10.1007/s10641-016-0555-0

Smith, B. R., & Edds, D. R. (2014). Zebra mussel colonization of construction materials, and effectiveness of a foul release coating. *Transactions of the Kansas Academy of Science*, *117*(3/4), 159–166. https://doi.org/10.1660/062.117.0301

Smith, D. G. (1999). Differences in siphonal anatomy between *Dreissena polymorpha* and *D. bugensis* (Mollusca: Dreissenidae) in Lake Ontario. *The American Midland Naturalist*, *141*(2), 402–405.

Smythe, A. G., & Dardeau, E. A. (1999). *Overview of electrical technologies for controlling dreissenids, with emphasis on pulse-power systems* (Technical Note ZMR-3-22). U.S. Army Corps of Engineers. http://acwc.sdp.sirsi.net/client/es_ES/default/index.assetbox.assetactionicon.view/1005158?rm=ZEBRA+MUSSEL+R0%7C%7C%7C1%7C%7C%7C0%7C%7C%7Ctrue

Smythe, G., & Miller, A. (2003). *Pulse-power: A possible alternative to chemicals for zebra mussel control; summary of 2000 field studies* (Technical Note ERDC TN-ANSRP-03-2). U.S. Army Engineer Research and Development Center. http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=ADA421520

Sousa, R., Novais, A., Costa, R., & Strayer, D. L. (2014). Invasive bivalves in fresh waters: Impacts from individuals to ecosystems and possible control strategies. *Hydrobiologia*, *735*(1), 233–251. https://doi.org/10.1007/s10750-012-1409-1

Spear, M. J., Walsh, J. R., Ricciardi, A., & Zanden, M. J. V. (2021). The Invasion Ecology of Sleeper Populations: Prevalence, Persistence, and Abrupt Shifts. *BioScience*, *71*(4), 357–369. https://doi.org/10.1093/biosci/biaa168

Spidle, A. P., Marsden, J. E., & May, B. (1994). Identification of the Great Lakes quagga mussel as *Dreissena bugensis* from the Dnieper River, Ukraine, on the basis of allozyme variation. *Canadian Journal of Fisheries and Aquatic Sciences*, *51*(7), 1485–1489.

Spidle, A. P., May, B., & Mills, E. L. (1995). Limits to tolerance of temperature and salinity in the quagga mussel (*Dreissena bugensis*) and the zebra mussel (*Dreissena polymorpha*). *Canadian Journal of Fisheries and Aquatic Sciences*, *52*(10), 2108–2119. https://doi.org/10.1139/f95-804

Spidle, A. P., Mills, E. L., & May, B. (1995). Absence of naturally occurring hybridization between the quagga mussel (*Dreissena bugensis*) and the zebra mussel (*D. polymorpha*) in the lower Great Lakes. *Canadian Journal of Zoology*, *73*(2), 400–403.

State of Michigan. (n.d.). *Status and strategy for zebra and quagga mussel management* (pp. 1–20). State of Michigan. http://www.michigan.gov/documents/deq/wrd-ais-dreissenids_499881_7.pdf

Stepien, C., Grigorovich, I., Gray, M., Sullivan, T., Yerga-Woolwine, S., & Kalayci, G. (2013). Evolutionary, Biogeographic, and Population Genetic Relationships of Dreissenid Mussels, with Revision of Component Taxa. In T. Nalepa & D. Schloesser, *Quagga and Zebra Mussels* (pp. 403–444). CRC Press. https://doi.org/10.1201/b15437-33

Stewart-Malone, A., Misamore, M., Wilmoth, S., Reyes, A., Wong, W. H., & Gross, J. (2015). The effect of UV-C exposure on larval survival of the dreissenid quagga mussel. *PLoS ONE*, *10*(7). https://doi.org/10.1371/journal.pone.0133039

Stockton-Fiti, K. (2017). *Determining the toxicity of antifreeze to quagga mussels* (p. 20). U.S. Fish and Wildlife Service.

Stockton-Fiti, K. A., & Moffitt, C. M. (2017). Safety and efficacy of Virkon® aquatic as a control tool for invasive Molluscs in aquaculture. *Aquaculture*, *480*, 71–76. https://doi.org/10.1016/j.aquaculture.2017.08.005

Stockton-Fiti, K., & Claudi, R. (2017). Use of a differential simple stain to confirm mortality of dreissenid mussel veligers in field and laboratory experiments. *Management of Biological Invasions*, *8*(3), 325–333. https://doi.org/10.3391/mbi.2017.8.3.06

Stockton-Fiti, K., Claudi, R., & Prescott, T. H. (2021). *Evaluation of Fortress Mussel Control Systems copper ion generator for effects on adult mussels and evaluation of the performance of the copper ion generator under field conditions* (p. 25). ONG Consulting, LLC.

Stockton-Fiti, K., & Moffitt, C. (2017). *Investigation of the Edwards protocol's effectiveness on dreissenid mussel veligers* [Final Report]. Mississippi River Basin Panel on Aquatic Nuisance Species.

Stoeckel, J. A., Padilla, D. K., Schneider, D. W., & Rehmann, C. R. (2004). Laboratory culture of *Dreissena polymorpha* larvae: Spawning success, adult fecundity, and larval mortality patterns. *Canadian Journal of Zoology*, *82*(9), 1436–1443.

Stoeckel, J. A., Schneider, D. W., Soeken, L. A., Blodgett, K. D., & Sparks, R. E. (1997). Larval dynamics of a riverine metapopulation: Implications for zebra mussel recruitment, dispersal, and control in a large-river system. *Journal of the North American Benthological Society*, *16*(3), 586–601. https://doi.org/10.2307/1468146

Strachan, B. (2019). *Bivalve populations in freshwater environments: Viability, invasion, persistence and a potential role in the spread of antimicrobial resistance* [Ph.D. Thesis]. Ulster University.

Strayer, D. L. (2020). Non-native species have multiple abundance–impact curves. *Ecology and Evolution*, *10*(13), 6833–6843. https://doi.org/10.1002/ece3.6364

Strayer, D. L., Adamovich, B. V., Adrian, R., Aldridge, D. C., Balogh, C., Burlakova, L. E., Fried-Petersen, H. B., G.-Tóth, L., Hetherington, A. L., Jones, T. S., Karatayev, A. Y., Madill, J. B., Makarevich, O. A., Marsden, J. E., Martel, A. L., Minchin, D., Nalepa, T. F., Noordhuis, R., Robinson, T. J., … Jeschke, J. M. (2019). Long-term population dynamics of dreissenid mussels (*Dreissena polymorpha* and *D. rostriformis*): A cross-system analysis. *Ecosphere*, *10*(4). https://doi.org/10.1002/ecs2.2701

Strayer, D. L., Fischer, D. T., Hamilton, S. K., Malcom, H. M., Pace, M. L., & Solomon, C. T. (2020). Long-term variability and density dependence in Hudson River *Dreissena* populations. *Freshwater Biology*, *65*(3), 474–489. https://doi.org/10.1111/fwb.13444

Strayer, D. L., Powell, J., Ambrose, P., Smith, L. C., Pace, M. L., & Fischer, D. T. (1996). Arrival, spread, and early dynamics of a zebra mussel (*Dreissena polymorpha*) population in the Hudson River estuary. *Canadian Journal of Fisheries and Aquatic Sciences*, *53*(5), 1143–1149.

Strayer, D. L., Solomon, C. T., Findlay, S. E. G., & Rosi, E. J. (2019). Long-term research reveals multiple relationships between the abundance and impacts of a non-native species. *Limnology and Oceanography*, *64*(S1). https://doi.org/10.1002/lno.11029

Swearingen, D. L. (2021). *The impact of summer mortality of invasive zebra mussels on nutrient cycling in a Texas reservoir* [M.S. Thesis]. Texas State University.

Sykes, C. L. (2009). *Efficacy of potassium chloride and formalin for removing quagga mussel veligers from transport tanks at Willow Beach National Fish Hatchery*. Lower Colorado River Multi-Species Conservation Program.

Sykes, C. L., Caldwell, C. A., & Gould, W. R. (2011). Physiological effects of potassium chloride, formalin, and handling stress on bonytail. *North American Journal of Fisheries Management*, *31*(2), 291–298.

Tang, F., & Aldridge, D. C. (2019). Microcapsulated biocides for the targeted control of invasive bivalves. *Scientific Reports*, *9*(1). https://doi.org/10.1038/s41598-019-55392-4

Taskinen, J., Urbańska, M., Ercoli, F., Andrzejewski, W., Ożgo, M., Deng, B., Choo, J. M., & Riccardi, N. (2021). Parasites in sympatric populations of native and invasive freshwater bivalves. *Hydrobiologia*, *848*(12–13), 3167–3178. https://doi.org/10.1007/s10750-020-04284-0

Terziyski, D. I., Beshkova, M. B., Kalchev, R. K., Kalcheva, H. V., & Iliev, I. Z. (2018). Relationships of water column transparency, total phosphorus and chlorophyll-a in reservoirs with and without *Dreissena* spp. (Bivalvia: Mollusca). *Aquatic Ecology*, 8.

Therriault, T. W., Weise, A. M., Higgins, S. N., Guo, Y., & Duhaime, J. (2021). *Risk assessment for three dreissenid mussels (*Dreissena polymorpha*,* Dreissena rostriformis bugensis*, and* Mytilopsis leucophaeata*) in canadian freshwater ecosystems* (p. 93). Fisheries and Oceans Canada.

Thorp, J. H., & Casper, A. F. (2003). Importance of biotic interactions in large rivers: An experiment with planktivorous fish, dreissenid mussels and zooplankton in the St. Lawrence River. *River Research and Applications*, *19*(3), 265–279.

Tordonato, D. (2011). *Investigation of overcoating coal tar enamel with foul release coatings* (Technical Memorandum MERL-2011-41). US Bureau of Reclamation.

Tordonato, D. S. (2015). *Foul-release coatings scale-up testing – Parker Dam trashrack* (Final Report ST-2015-5270-1). US Bureau of Reclamation.

Tošenovský, E., & Kobak, J. (2015). Impact of abiotic factors on aggregation behaviour of the zebra mussel *Dreissena polymorpha*. *Journal of Molluscan Studies*, eyv033. https://doi.org/10.1093/mollus/eyv033

Tracy, S., Day, J. L., Renner, J., & Sappington, M. (2021). Human dimensions of aquatic invasive species transport at Lake Mead National Recreation Area. *Management of Biological Invasions*, 16.

Turcotte, R. (2009). *Copper ion generators and the control of quagga mussels* [Technical Memorandum]. US Bureau of Reclamation. https://www.usbr.gov/tsc/techreferences/env/Cu_Ion_Gen_for_Quagga_Report.pdf

Turkett, W. B. (2016). *Impacts to phytoplankton after the establishment of quagga mussels in Lake Mead, Nevada* [Ph.D. Thesis]. University of Nevada, Las Vegas.

Turner, K., Wong, W. H., Gerstenberger, S., & Miller, J. M. (2011). Interagency monitoring action plan (I-MAP) for quagga mussels in Lake Mead, Nevada-Arizona, USA. *Aquatic Invasions*, *6*(2), 195.

United Water Conservation District. (2017). *Quagga mussel monitoring and montrol plan, Lake Piru, California* (p. 389). United Water Conservation District.

URS Group, Inc. (2009). *Zebra mussel eradication project, Lake Offutt, Offutt Air Force Base, Nebraska* (p. 51). Offutt Air Force Base.

U.S. Department of the Interior. (2020). *Safeguarding the West from Invasive Species* (p. 19). Department of the Interior.

U.S. Department of the Interior. (2021). *U.S. Department of the Interior Invasive Species Strategic Plan, Fiscal Years 2021-2025* (p. 54).

USBR. (2015). *Available methods for invasive mussel control* (Congressional Report). US Bureau of Reclamation.

USFWS. (2015). *Quagga mussel (*Dreissena rostriformis bugensis*) ecological risk screening summary* [Ecological Risk Screening Summary]. U.S. Fish and Wildlife Service,.

Ussery, T. A., & McMahon, R. F. (1995). *Comparative study of the desiccation resistance of zebra mussels (*Dreissena polymorpha*) and quagga mussels (*Dreissena bugensis*)* (Technical Report EL-95-6). U.S. Army Corps of Engineers.

Ussery, T., Miller, A. C., & Payne, B. S. (1998). Effects of forced hot air on zebra mussel *Dreissena polymorpha* survival. *Journal of Freshwater Ecology*, *13*(3), 365–367. https://doi.org/10.1080/02705060.1998.9663630

Van Benschoten, J. E., Jensen, J. N., Harrington, D., & DeGirolamo, D. J. (1995). Zebra mussel mortality with chlorine. *Journal-American Water Works Association*, *87*(5), 101–108.

Vander Zanden, M. J., & Olden, J. D. (2008). A management framework for preventing the secondary spread of aquatic invasive species. *Canadian Journal of Fisheries and Aquatic Sciences*, *65*(7), 1512–1522. https://doi.org/10.1139/F08-099

Vanderbush, B., Longhenry, C., Lucchesi, D. O., & Barnes, M. E. (2021). A review of zebra mussel biology, distribution, aquatic ecosystem impacts, and control with specific emphasis on South Dakota, USA. *Open Journal of Ecology*, *11*(02), 163–182. https://doi.org/10.4236/oje.2021.112014

Vanderploeg, H. A. (2003). *Ecological forecasting of Ponto-Caspian species in the Great Lakes: Describing, understanding, and predicting a system in transition* (Technical Memorandum NOS NCCOS 1). National Oceanographic and Atmospheric Administration. https://www.glerl.noaa.gov/pubs/fulltext/2003/20030015.pdf

Vanderploeg, H. A., Bunnell, D. B., Carrick, H. J., & Höök, T. O. (2015). Complex interactions in Lake Michigan's rapidly changing ecosystem. *Journal of Great Lakes Research*, *41*, 1–6. https://doi.org/10.1016/j.jglr.2015.11.001

Vanderploeg, H. A., Johengen, T. H., & Liebig, J. R. (2009). Feedback between zebra mussel selective feeding and algal composition affects mussel condition: Did the regime changer pay a price for its success? *Freshwater Biology*, *54*(1), 47–63. https://doi.org/10.1111/j.1365-2427.2008.02091.x

Vanderploeg, H. A., Liebig, J. R., Carmichael, W. W., Agy, M. A., Johengen, T. H., Fahnenstiel, G. L., & Nalepa, T. F. (2001). Zebra mussel (*Dreissena polymorpha*) selective filtration promoted toxic *Microcystis* blooms in Saginaw Bay (Lake Huron) and Lake Erie. *Canadian Journal of Fisheries and Aquatic Sciences*, *58*(6), 1208–1221.

Vanderploeg, H. A., Nalepa, T. F., Jude, D. J., Mills, E. L., Holeck, K. T., Liebig, J. R., Grigorovich, I. A., & Ojaveer, H. (2002). Dispersal and emerging ecological impacts of Ponto-Caspian species in the Laurentian Great Lakes. *Canadian Journal of Fisheries and Aquatic Sciences*, *59*(7), 1209–1228.

Vanderploeg, H. A., Pothoven, S. A., Fahnenstiel, G. L., Cavaletto, J. F., Liebig, J. R., Stow, C. A., Nalepa, T. F., Madenjian, C. P., & Bunnell, D. B. (2012). Seasonal zooplankton dynamics in Lake Michigan: Disentangling impacts of resource limitation, ecosystem engineering, and predation during a critical ecosystem transition. *Journal of Great Lakes Research*, *38*(2), 336–352.

Vanderploeg, H. A., Sarnelle, O., Liebig, J. R., Morehead, N. R., Robinson, S. D., Johengen, T. H., & Horst, G. P. (2017). Seston quality drives feeding, stoichiometry and excretion of zebra mussels. *Freshwater Biology*, *62*(4), 664–680.

Vanni, M. J. (2021). Invasive mussels regulate nutrient cycling in the largest freshwater ecosystem on Earth. *Proceedings of the National Academy of Sciences*, *118*(8), e2100275118. https://doi.org/10.1073/pnas.2100275118

Verde, J. A. (2017). *Lake Powell food web structure: Predicting effects of quagga mussel* [M.S. Thesis]. Brigham Young University.

Vernon, E. L., & Jha, A. N. (2019). Assessing relative sensitivity of marine and freshwater bivalves following exposure to copper: Application of classical and novel genotoxicological biomarkers. *Mutation Research/Genetic Toxicology and Environmental Mutagenesis*, *842*, 60–71. https://doi.org/10.1016/j.mrgentox.2019.01.008

Verween, A., Vincx, M., & Degraer, S. (2009). Comparative toxicity of chlorine and peracetic acid in the biofouling control of *Mytilopsis leucophaeata* and *Dreissena polymorpha* embryos (Mollusca, Bivalvia). *International Biodeterioration and Biodegradation*, *63*(4), 523–528. https://doi.org/10.1016/j.ibiod.2009.03.002

Vijayavel, K., & Kashian, D. R. (2019). Toxic effect and physiological disruption of sodium phosphate to the quagga mussel (*Dreissena bugensis*). *Environmental Science and Pollution Research*, *26*(2), 1576–1583. https://doi.org/10.1007/s11356-018-3720-5

Wahl, T., Christensen, R., & Grush, C. (2008). *Trashrack cleaning alternatives for Parker Dam powerplant forebay inlet trashrack structure* (Technical Memorandum PAP-0984). US Bureau of Reclamation.

Wainman, B. C., Hincks, S. S., Kaushik, N. K., & Mackie, G. L. (1996). Biofilm and substrate preference in the dreissenid larvae of Lake Erie. *Canadian Journal of Fisheries and Aquatic Sciences*, *53*(1), 134–140.

Wakida-Kusunoki, A. T., Wakida, F. T., & Leon-Sandoval, J. M. de. (2015). First record of quagga mussel *Dreissena rostriformis bugensis* (Andrusov, 1897) (Bivalvia, Dreissenidae) from Mexico. *BioInvasions Records*, *4*(1), 31–36. https://doi.org/10.3391/bir.2015.4.1.05

Walker, G. K., Edwards, C. A., & Black, M. G. (1996). Comparative morphology of zebra (*Dreissena polymorpha*) and quagga (*Dreissena bugensis*) mussel sperm: Light and electron microscopy. *Canadian Journal of Zoology*, *74*(5), 809–815.

Waller, D. L., & Bartsch, M. R. (2018). Use of carbon dioxide in zebra mussel (*Dreissena polymorpha*) control and safety to a native freshwater mussel (Fatmucket, *Lampsilis siliquoidea*). *Management of Biological Invasions*, *9*, 12.

Waller, D. L., Bartsch, M. R., Fredricks, K. T., Bartsch, L. A., Schleis, S. M., & Lee, S. H. (2017). Effects of carbon dioxide on juveniles of the freshwater mussel (*Lampsilis siliquoidea* [Unionidae]). *Environmental Toxicology and Chemistry*, *36*(3), 671–681.

Waller, D. L., Bartsch, M. R., Lord, E. G., & Erickson, R. A. (2020). Temperature-Related Responses of an Invasive Mussel and 2 Unionid Mussels to Elevated Carbon Dioxide. *Environmental Toxicology and Chemistry*, *39*(8), 1546–1557. https://doi.org/10.1002/etc.4743

Waller, D. L., & Fisher, S. W. (1998). Evaluation of several chemical disinfectants for removing zebra mussels from unionid mussels. *The Progressive Fish-Culturist*, *60*(4), 307–310. https://doi.org/10.1577/1548-8640(1998)060<0307:EOSCDF>2.0.CO;2

Waller, D. L., Fisher, S. W., & Dabrowska, H. (1996). Prevention of zebra mussel infestation and dispersal during aquaculture operations. *The Progressive Fish-Culturist*, *58*(2), 77–84.

Waller, D. L., Rach, J. J., Cope, W. G., Marking, L. L., Fisher, S. W., & Dabrowska, H. (1993). Toxicity of candidate molluscicides to zebra mussels (*Dreissena polymorpha*) and selected nontarget organisms. *Journal of Great Lakes Research*, *19*(4), 695–702. https://doi.org/10.1016/S0380-1330(93)71257-5

Waller, D., Luoma, J., & Erickson, R. (2016). Safety of the molluscicide Zequanox® to nontarget macroinvertebrates *Gammarus lacustris* (Amphipoda: Gammaridae) and *Hexagenia* spp. (Ephemeroptera: Ephemeridae). *Management of Biological Invasions*, *7*(3), 269–280. https://doi.org/10.3391/mbi.2016.7.3.06

Ward, J. M., & Ricciardi, A. (2007). Impacts of *Dreissena* invasions on benthic macroinvertebrate communities: A meta-analysis. *Diversity and Distributions*, *13*(2), 155–165. https://doi.org/10.1111/j.1472-4642.2007.00336.x

Warziniack, T. W., Finnoff, D., & Shogren, J. F. (2013). Public economics of hitchhiking species and tourism-based risk to ecosystem services. *Resource and Energy Economics*, *35*(3), 277–294. https://doi.org/10.1016/j.reseneeco.2013.02.002

Watkins, J. M. (2011). *Evaluating the role of exotic dreissenid mussels in the disappearance of the benthic amphipod* Diporeia *spp. In the Laurentian Great Lakes* [Ph.D. Thesis, Cornell University]. https://ecommons.cornell.edu/bitstream/handle/1813/33548/jmw237.pdf?sequence=1

Watkins, J. M., Dermott, R., Lozano, S. J., Mills, E. L., Rudstam, L. G., & Scharold, J. V. (2007). Evidence for remote effects of dreissenid mussels on the amphipod *Diporeia*: Analysis of Lake Ontario benthic surveys, 1972–2003. *Journal of Great Lakes Research*, *33*(3), 642–657.

Watters, A., Gerstenberger, S. L., & Wong, W. H. (2013). Effectiveness of EarthTec® for killing invasive quagga mussels *Dreissena rostriformis bugensis* and preventing their colonization in the Western United States. *Biofouling*, *29*(1), 21–28. https://doi.org/10.1080/08927014.2012.744825

Weber, A., Jeckel, N., & Wagner, M. (2020). Combined effects of polystyrene microplastics and thermal stress on the freshwater mussel *Dreissena polymorpha*. *Science of The Total Environment*, *718*, 137253. https://doi.org/10.1016/j.scitotenv.2020.137253

Weber, M. (2015). *Zequanox application technique pilot study on Lake Erie*. Michigan Department of Environmental Quality.

Weber, S., Brink, L., Wörner, M., Künzel, S., Veith, M., Teubner, D., Klein, R., Paulus, M., & Krehenwinkel, H. (2021). *Molecular diet analysis in zebra and quagga mussels (*Dreissena *spp.) and an assessment of the utility of aquatic filter feeders as biological eDNA filters* [Preprint]. https://doi.org/10.1101/2021.03.01.432951

Wegner, B., Kronsbein, A. L., Gillefalk, M., van de Weyer, K., Köhler, J., Funke, E., Monaghan, M. T., & Hilt, S. (2019). Mutual Facilitation Among Invading Nuttall's Waterweed and Quagga Mussels. *Frontiers in Plant Science*, *10*. https://doi.org/10.3389/fpls.2019.00789

Wells, S., & Sytsma, M. (2009). *A review of the use of coatings to mitigate biofouling in freshwater* (p. 2018). Bonneville Power Administration and the Pacific Marine Fisheries Commission.

Wells, S. W., Counihan, T. D., Puls, A., Sytsma, M., & Adair, B. (2010). *Prioritizing zebra and quagga mussel monitoring in the Columbia River Basin*. Bonneville Power Administration and the Pacific States Marine Fisheries Commission. https://works.bepress.com/mark_sytsma/35/

Wells, S. W., & Sytsma, M. (2013). *Estimating costs of using foul-release type coatings to mitigate* Dreissena *sp. Mussel macrofouling at a FCRPS facility*. Bonneville Power Administration.

Western Regional Panel on Aquatic Nuisance Species. (2020a). *Updated Recommendations for the Quagga and Zebra Mussel Action Plan for Western U.S. Waters*.

Western Regional Panel on Aquatic Nuisance Species. (2020b). *Updated recommendations for the quagga and zebra mussel action plan for Western U.S. waters (QZAP 2.0)*. Western Regional Panel on Aquatic Nuisance Species.

White, J. D., Hamilton, S. K., Sarnelle, O., & Tierney, K. (2015). Heat-induced mass mortality of invasive zebra mussels *Dreissena polymorpha* at sublethal water temperatures. *Canadian Journal of Fisheries and Aquatic Sciences*, *72*(8), 1221–1229. https://doi.org/10.1139/cjfas-2015-0064

White, R., & Otts, S. S. (2013). Preventing the spread of zebra and quagga mussels: The role of the Lacey Act. *The Arizona Journal of Environmental Law & Policy*, *3*(2).

Whitledge, G., Weber, M., DeMartini, J., Oldenburg, J., Roberts, D., Link, C., Rackl, S., Rude, N., Yung, A., Bock, L., & Oliver, D. (2015). An evaluation Zequanox® efficacy and application strategies for targeted control of zebra mussels in shallow-water habitats in lakes. *Management of Biological Invasions*, *6*(1), 71–82. https://doi.org/10.3391/mbi.2015.6.1.06

Whittier, T. R., Ringold, P. L., Herlihy, A. T., & Pierson, S. M. (2008). A calcium-based invasion risk assessment for zebra and quagga mussels (*Dreissena* spp). *Frontiers in Ecology and the Environment*, *6*(4), 180–184. https://doi.org/10.1890/070073

Wildridge, P. J., Werner, R. G., Doherty, F. G., & Neuhauser, E. F. (1998). Acute toxicity of potassium to the adult zebra mussel *Dreissena polymorpha*. *Archives of Environmental Contamination and Toxicology*, *34*(3), 265–270. https://doi.org/10.1007/s002449900316

Wilson, A. B., Naish, K.-A., & Boulding, E. G. (1999). Multiple dispersal strategies of the invasive quagga mussel (*Dreissena bugensis*) as revealed by microsatellite analysis. *Canadian Journal of Fisheries and Aquatic Sciences*, *56*(12), 2248–2261.

Wimbush, J., Frischer, M. E., Zarzynski, J. W., & Nierzwicki-Bauer, S. A. (2009). Eradication of colonizing populations of zebra mussels *Dreissena polymorpha* by early detection and SCUBA removal: Lake George, NY. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *19*(6), 703–713. https://doi.org/10.1002/aqc.1052

Wong, D., Turner, K., Gerstenberger, S. L., & Miller, J. M. (2011). *Interagency Monitoring Action Plan (I-MAP): Quagga mussels in Lakes Mead and Mohave* [Approved Working Document]. I-MAP Quagga Mussel Coordination Team.

Wong, W. H., & Gerstenberger, S. (2011). Quagga mussels in the western United States: Monitoring and management. *Aquatic Invasions*, *6*(2), 125–129. https://doi.org/10.3391/ai.2011.6.2.01

Wong, W. H., Gerstenberger, S., Baldwin, W., & Moore, B. (2012). Settlement and growth of quagga mussels (*Dreissena rostriformis bugensis Andrusov*, 1897) in Lake Mead, Nevada-Arizona, USA. *Aquatic Invasions*, *7*(1), 7–19. https://doi.org/10.3391/ai.2012.7.1.002

Wong, W. H., Gerstenberger, S., Miller, J. M., Palmer, C., Moore, B., Gerstenberger, S. L., & Palmer, C. J. (2011). A standardized design for quagga mussel monitoring in Lake Mead, Nevada-Arizona A standardized design for quagga mussel monitoring in Lake Mead, Nevada- Arizona. *Aquatic Invasions*, *6*(2), 205–215. https://doi.org/10.3391/ai.2011.6.2.09

Wong, W. H., Gerstenberger, S., & Watters, A. (2014). *Using pressurized hot water spray to kill and remove dreissenid mussels on watercraft: Field testing on the efficacy of water temperature, high pressure, and duration of exposure* (p. 20) [Final Report to United State Fish and Wildlife Servic]. US Fish and Wildlife Service.

Wong, W. H., Tietjen, T., Gerstenberger, S., Holdren, G. C., Mueting, S., Loomis, E., Roefer, P., Moore, B., Turner, K., & Hannoun, I. (2010). Potential ecological consequences of invasion of the quagga mussel (*Dreissena bugensis*) into Lake Mead, Nevada–Arizona. *Lake and Reservoir Management*, *26*(4), 306–315. https://doi.org/10.1080/07438141.2010.504071

Woodruff, P., van Poorten, B., Walters, C., & Christensen, V. (2021). Potential effects of invasive Dreissenid mussels on a pelagic freshwater ecosystem: Using an ecosystem model to simulate mussel invasion in a sockeye lake. *Aquatic Invasions*, *16*(1), 129–146. https://doi.org/10.3391/ai.2021.16.1.09

Wright, D. A., Setzler-Hamilton, E. M., Magee, J. A., Kennedy, V. S., & McIninch, S. P. (1996). Effect of salinity and temperature on survival and development of young zebra (*Dreissena polymorpha*) and quagga (*Dreissena bugensis*) mussels. *Estuaries*, *19*(3), 619–619. https://doi.org/10.2307/1352522

Yang, Z., Zhang, L., Hu, J., Wang, J., Bao, Z., & Wang, S. (2020). The evo-devo of molluscs: Insights from a genomic perspective. *Evolution & Development*, *22*(6), 409–424. https://doi.org/10.1111/ede.12336

Zhu, B., Fitzgerald, D. G., Mayer, C. M., Rudstam, L. G., & Mills, E. L. (2006). Alteration of ecosystem function by zebra mussels in Oneida Lake: Impacts on submerged macrophytes. *Ecosystems*, *9*(6), 1017–1028.

Zhulidov, A., Kozhara, A., Nalepa, T., Gurtovaya, T., & Zhulidov, D. (2013). Relative abundance of two dreissenid species, *Dreissena polymorpha* and *Dreissena rostriformis bugensis* in the Lower Don River system, Russia. *Aquatic Invasions*, *8*(3), 311–318. https://doi.org/10.3391/ai.2013.8.3.07

Zhulidov, A. V., Nalepa, T. F., Kozhara, A. V., Zhulidov, D. A., & Gurtovaya, T. Yu. (2006). Recent trends in relative abundance of two dreissenid species, *Dreissena polymorpha* and *Dreissena bugensis* in the Lower Don River system, Russia. *Archiv Für Hydrobiologie*, *165*(2), 209–220. https://doi.org/10.1127/0003-9136/2006/0165-0209

Zhulidov, A. V., Pavlov, D. F., Nalepa, T. F., Scherbina, G. H., Zhulidov, D. A., & Gurtovaya, T. Yu. (2004). Relative Distributions of *Dreissena bugensis* and *Dreissena polymorpha* in the Lower Don River System, Russia. *International Review of Hydrobiology*, *89*(3), 326–333. https://doi.org/10.1002/iroh.200310727

Zolper, T. J. (2021). *Microparticle generation system* (Patent No. US10933390 B2).

Zolper, T. J., Luoma, J. A., & Flores, C. A. (2020). *Variable volume flow injection nozzle* (Patent No. 10,765,102 B2).