

# **Beavers 101 Resource Page**

This is by no means a comprehensive list. The below resources are meant to serve as a starting point for those wanting to learn more about the benefits of beavers and in place management.

# **Online**

#### Local

- Beavers Northwest Website: www.beaversnw.org
- Beavers in King County Page:

https://www.kingcounty.gov/services/environment/animals-and-plants/beavers.aspx

- Provides resources such as a Decision Flow Chart for management decisions and a Solutions Matrix with a summary of solutions for beaver conflicts.
- Technical Papers including a lit review of beaver management tools. https://your.kingcounty.gov/dnrp/library/2018/kcr2944/kcr2944.pdf
- WDFW Living with Beavers Page: <a href="https://wdfw.wa.gov/species-habitats/species/castor-canadensis">https://wdfw.wa.gov/species-habitats/species/castor-canadensis</a>
- Snohomish Conservation District: <a href="https://snohomishcd.org/living-with-beavers">https://snohomishcd.org/living-with-beavers</a>
- Beaver Restoration Guidebook (published by US Fish and Wildlife Service): <a href="https://www.fws.gov/oregonfwo/Documents/2018BRGv.2.01.pdf">https://www.fws.gov/oregonfwo/Documents/2018BRGv.2.01.pdf</a>

#### Other

- Beaver Institute: https://www.beaverinstitute.org/
  - o Massachusetts based nonprofit providing technical assistance and training in beaver management.

# Scientific Papers by general category

## **Life History**

- Baker, B. W., and E. P. Hill. 2003. Beaver (Castor Canadensis). Page in G. A. Feldhamer, B.
   C. Thompson, and J. A. Chapman, editors. Wild Mammals of North America: Biology,
   Management, and Conservation.
- Mackie, R. S. 1997. Trading Beyond the Mountains: The British Fur Trade on the Pacific, 1793-1843. UBC Press, Vancouver, BC.
- Mott, C. L., C. K. Bloomquist, and C. K. Nielsen. 2011. Seasonal, diet, and ontogenetic patterns of within-den behavior in beavers (Castor canadensis). Mammalian Biology -Zeitschrift für Säugetierkunde 76:436–444.
- Novak, M. 1977. Determining the average size and composition of beaver families.
   Journal of Wildlife Management 41:751–754.
- Raffel, T. R., and A. J. Gatz. 2003. The Orientation of Beavers (Castor Canadensis) When Cutting Trees. The Ohio Journal of Science 103:143–146.



### Benefits to Ecosystems, Hydrology & Geomorphology

- \*seminal review: Rosell, F., O. Bozser, P. Collen, and H. Parker. 2005. Ecological impact of beavers Castor fiber and Castor canadensis and their ability to modify ecosystems. Mammal Review 35:248–276.
- Dittbrenner, Benjamin J., et al. *Restoration Potential of Beaver for Hydrological Resilience in a Changing Climate*. University of Washington, 2019
- Ming-Ko Woo, and J. M. Waddington. 1990. Effects of beaver dams on subarctic wetland hydrology.
- Pollock, M. M., C. Jordan, J. M. Wheaton, C. Volk, N. Weber, J. Hall, and Jason Goldsmith. 2013. Working with Beaver to Restore Salmon Habitat.
- Gurnell, A. M. 1998. The hydrogeomorphological effects of beaver dam-building activity. Progress in Physical Geography 22:167–189.

#### **Benefits to Fish**

- \*seminal paper: Oregon Department of Fish & Wildlife. 2005. The Importance of Beaver (Castor canadensis) to Coho Habitat and Trend in Beaver Abundance in the Oregon Coast Coho ESU 4:1–11.
- Bouwes, N., N. Weber, C. E. Jordan, M. M. Pollock, W. Carl, I. A. Tattam, C. Volk, and J. M. Wheaton. 2016. Ecosystem experiment reveals impacts of natural and simulated beaver dams to a threatened population of steelhead (Oncorhynchus mykiss). Nature Publishing Group:1–12.
- Pollock, M. M., M. Heim, and D. Werner. 2003. Hydrologic and geomorphic effects of beaver dams and their influence on fishes. American Fisheries Society Symposium 37:xxx–xxx.
- Hood, W. G. 2012. Beaver in Tidal Marshes: Dam Effects on Low-Tide Channel Pools and Fish Use of Estuarine Habitat. Wetlands 32:401–410.
- Mitchell, S. C., and R. a Cunjak. 2007. Stream flow, salmon and beaver dams: roles in the structuring of stream fish communities within an anadromous salmon dominated stream. The Journal of animal ecology 76:1062–74.
- Lotkeff, R. L., B. B. Roper, J.M. Wheaton. 2013. Do Beaver Dams Impede the Movement of Trout? Transactions of the American Fisheries Society.
- Pollock, M. M., C. Jordan, J. M. Wheaton, C. Volk, N. Weber, J. Hall, and Jason Goldsmith. 2013. Working with Beaver to Restore Salmon Habitat.
- Kemp et al. 2012. Qualitative and quantitative effects of reintroduced beavers on stream fish. Fish and Fisheries 13:158–181.

### Management

- Bailey, D. R., B. J. Dittbrenner, and K. P. Yocom. 2018. Reintegrating the North American beaver (Castor canadensis) in the urban landscape. Wiley Interdisciplinary Reviews: Water:e1323.
- Boyles, S. L., and B. A. Savitzky. 2006. An Analysis of the Efficacy and Comparative Costs
  of Using Flow Devices to Resolve Conflicts with North American Beavers Along Roadways
  in the Coastal Plain of Virginia. Proc. 23rd Vertebrate Pest Conference.
- Callahan, M. 2005. Best Management Practices for Beaver Problems. Association of Massachusetts Wetland Scientists Newsletter.



- Maynard, M., and W. S. Management. 2005. Effectiveness of Beaver Pond Levelers as a Means to Control Beaver Caused Flooding in Urban Areas.
- Nolte. (n.d.). Feasibility of non-lethal approaches to protect riparian plants from foraging beavers in North America.
- Callahan, M. 2019. Billerica Municipal Beaver Management Program: 2000-2019 Analysis.
   Association of Massachusetts Wetland Scientists Newsletter.
   <a href="https://www.beaverinstitute.org/wp-content/uploads/2019/02/Billerica-Beaver-Study-AMWS-2019.pdf">https://www.beaverinstitute.org/wp-content/uploads/2019/02/Billerica-Beaver-Study-AMWS-2019.pdf</a>

### **Beavers and Climate Change**

- Hood, G. A., and S. E. Bayley. 2008. Beaver (Castor canadensis) mitigate the effects of climate on the area of open water in boreal wetlands in western Canada. Biological Conservation 141:556–567.
- Fouty, B. S. 2008. Climate Change and Beaver Activity How Restoring Nature 's Engineers can Alleviate Problems. Beaversprite:4.
- Elsner, M. M. 2011. Climate Change Impacts on Hydrology of the Western Cascades.

#### **Book**

• Goldfarb, Ben. Eager: The Surprising Secret Life of Beavers and Why They Matter. 2018