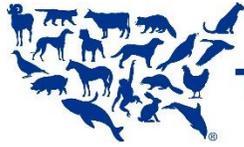


HB631_FAV_HSUS.pdf

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Position: FAV



**THE HUMANE SOCIETY
OF THE UNITED STATES**

February 21, 2024

Environment and Transportation Committee

HB 631

Beaver Population Support– Habitat Restoration- Ecosystem Services- Conservation

FAVORABLE

The Humane Society of the United States (HSUS), on behalf of our Maryland supporters, strongly supports House Bill 631, the Beaver Believer Act. This legislation provides a basis for Counties to create local laws that promote, protect, and support beaver and their associated habitat. This bill will initialize an essential step towards linking and expanding the regional benefits of beaver on the landscape to improved stream and wetland function across Maryland as well as improving the overall health and vibrancy of the Chesapeake Bay Watershed.

Intense exploitation of beaver over the last 400 years reduced a pre-colonial North American beaver population estimated to be in the 10's (if not 100's) of millions, and some millions in Maryland, to little more than scattered vestiges by the 1800s. Midway through the 1800's, Maryland saw beaver nearly go extinct, and by the turn of the 20th century, the wetlands and habitat that they engineered and created for millennia had been drained and purposed to agriculture. Lost with the beavers was the fundamental role they played in shaping how water flowed across the landscape in our watershed and along the Chesapeake's some hundred thousand tributaries.

Present day beaver populations are in recovery and their numbers in Maryland are rising as they return to the streams and tributaries where they once flourished. As they do, and where support is in place to allow it, they can create wetlands and habitats for an array of species and provide ecosystem services and benefits as we learn more about how critical they are to improving ecosystem function at the landscape level.

Ongoing research continues to highlight that supporting the return of beavers in substantial ways will regulate the discharge of water across the watershed, increasing available ground water and reducing damage from flooding. Expanding beaver activity resulting in beaver ponds and impoundments will increase the ability to filter water and trap sediments while helping to process nutrients- including removing nitrogen loads. As beaver wetlands are formed and riparian habitats are enlarged, diverse habitat for other wildlife - insect, invertebrate,

mammal, bird and fish, including trout and other important fish with critical habitat needs - are also expanded.

This legislation will complement and amplify the process-based ecological stream restoration work that the Maryland Department of Natural Resources and local environmental organization are working and collaborating to implement. The passing of this legislation will help build opportunity, awareness and infrastructure to utilize the ecological changes that beaver bring, promoting improved water quality, aquatic habitat, and floodplain habitat that are an essential component of bay restoration goals.

With the return of beaver and connected support of their populations, it is important that effective and humane approaches are ready and built into responses when beaver occupation comes into conflict with landowners and human infrastructure. The HSUS and many others have worked for decades to help develop effective tools and approaches to address beaver activity related to tree damage and damming of water flow in various kinds of impoundments. Researchers, practitioners and organizations continue to advance, develop and refine an expanding suite of tools and service infrastructure to address conflicts with beaver. Those include fencing and protective barriers that can restrict beaver activity and protect trees where they are not wanted, and economical flow devices that can control water levels in beaver impoundments where necessary while allowing beaver to remain. Having these solutions ready will make it possible for beavers to exist alongside human infrastructure and allow the significant ecosystem benefits and services to extend to all Marylanders.

We thank the committee for its consideration of this legislation and request a favorable vote on HB 631.

Resources

Thompson, S., Vehkajoki, M., Pellikka, J. and Nummi, P. (2021), Ecosystem services provided by beavers *Castor spp.*. *Mam Rev*, 51: 25-39. <https://doi.org/10.1111/mam.12220>

Hood, Glynnis. *The Beaver Manifesto*. Rocky Mountain Books, 2011.

Donegan, Claudia. "Leave It to Beavers: Keystone Species Provides Nature-based Restoration." *Maryland Natural Resource magazine*, Vol. 23, No. 4, Winter 2021.

Blankenship, Karl. "Can beavers help build a better Chesapeake Bay?" *Bay Journal*, Vol. 31, No. 10, January-February 2022.

Natural Resources - Protection of Beaver Populatio

Uploaded by: Lisa Radov

Position: FAV



MARYLAND VOTES FOR ANIMALS

PO Box 10411
BALTIMORE, MD 21209

February 21, 2024

To: The House Environment and Transportation Committee
From: Lisa Radov, President and Chair, Maryland Votes for Animals, Inc.
Re: Natural Resources - Protection of Beaver Population and Habitat - County Authority (Beaver Believer Act)- HB 631 - Support

Chair Korman, Vice - Chair Boyce, members of the Environment and Transportation Committee, thank you for the opportunity to testify before you today. My name is Lisa Radov. I am the President and Chairman of Maryland Votes for Animals, Inc. We champion humane legislation to improve the lives of animals in Maryland. Speaking for Maryland Votes for Animals, our Board of Directors, and our members across the State of Maryland, I respectfully ask that the House Environment & Transportation Committee vote favorably for Natural Resources - Protection of Beaver Population and Habitat - County Authority (Beaver Believer Act) – HB 631.

This bill would authorize a county, notwithstanding a certain provision of law, to enact a local law to promote, protect, and support the population and habitat of beavers in the county.

Beavers are ecosystem engineers because they create, modify, and maintain habitat and ecosystems. They consequently have a large impact on the biodiversity of an area. They bring wood into the water, and that wood provides food and shelter for insects in our region. Moreover, Beaver dams benefit a multitude of native species as the ponds they create store cool water in summer, creating habitat for the region's important native aquatic species.

Maryland Votes for Animals supports the efforts of local jurisdictions to protect beavers as they provide benefits to neighboring species that have ramifications on our ecosystem and environment.

In closing, I would like to thank Delegate Allen for his sponsorship of HB 631 and ask the committee for a favorable report.

HB631 LaPorte_M_FAV_ENT.pdf

Uploaded by: MARIE LAPORTE

Position: FAV

2516 Chestnut Woods Ct.
Reisterstown, MD 21136

Committee: Environment and Transportation

Testimony on: HB631 “Beaver Believer Act”

Position: Favorable

Hearing Date: February 21, 2024

I am a 28 year resident of Baltimore county requesting a favorable report on HB631, which will encourage the use of beavers, where appropriate, to address stormwater management, restore streams, regenerate aquifers, and create habitat for wildlife.

The climate crisis has created a cyclical weather pattern with increasingly severe storms dumping unprecedented precipitation followed by weeks or months of drought, also known as a wet drought.¹ These conditions were present across much of the U.S. in 2023 and University of Maryland experts anticipate this increasing pattern in Maryland, as well.² At one extreme, there is rainwater hitting streams and rivers at heavy volumes and being quickly flushed into the ocean. This quick movement of water doesn't allow sufficient time for the ground to soak up the freshwater that rain provides, which is where the beavers provide important benefits.

Beavers create a series of dams when they find a suitable habitat and those dams create ponds that slow the stormwater. The ponds are important reservoirs of water that allow the water to sink into the ground to recharge our aquifers³ and provide water more consistently downstream. The ponds can be problematic when they're built near development, but in many rural areas of our state, they could help even out the impact of precipitation changes with climate change, recharge aquifers, and minimize land subsidence. This concept is increasingly embraced in many states, such as New York, Massachusetts, Connecticut, Minnesota, Washington, Wyoming and many more, with even California joining in.

¹ Double-whammy weather: Study identifies increased frequency of connected patterns from drought to heavy rain in regional hotspots across the globe
<https://www.princeton.edu/news/2020/05/14/double-whammy-weather-study-identifies-increased-frequency-connected-patterns>

² <https://extension.umd.edu/resource/effects-climate-change-maryland/>

³ Westbrook, Cherie J. et al, “Beaver Dams and Overbank Floods Influence Groundwater Surface Water Interactions of a Rocky Mountain Riparian Area” Water Resources Research

Beaver dammed ponds also reduce sediment and pollution (concentrate nitrogen) runoff and could reduce pollution⁴ into the Chesapeake Bay. One frequent concern raised is that beaver ponds sometimes get too high and risk flooding nearby roads or development; however, professionally installed flow devices are a proven reliable method to drain excess water to keep pond levels manageable.⁵

As an added benefit of enormous consequence, the ponds that beavers create also attract hundreds of species and support a diverse ecosystem. For their work in helping create habitat, beavers are considered a keystone species. Even diverse fish species benefit from beaver dams and are not impeded by their dams. The pools of water are a resting place for spawning fish and a beneficial habitat for young fish. The dams do not inhibit spawning fish from navigating up the streams and there is ample evidence to suggest they can easily do this and are better protected by the dams and the slowed water.

The ponds are an important habitat for hundreds of species and attract aquatic insects, ducks, songbirds, frogs, turtles, and lizards to name a few of the multitude of animal species supported by beaver dams.⁶ Plant species also increase by a third in streamside habitats.⁷

Maryland's Department of Natural Resources has shown interest in creating beaver dam analogs, which are man-made dams that simulate a beaver dam and serve to attract beavers for long-term maintenance. Without a doubt, it takes some understanding to appreciate beavers, but they are very important to helping address the growing impacts of climate change and help support plant and animal biodiversity. We should all be beaver believers.

For these reasons, I respectfully request a favorable report on HB631.

Sincerely,

Marie LaPorte

⁴ Dewey, Christian et al, Beaver dams overshadow climate extremes in controlling riparian hydrology and water quality, *Nature Communications*, 8 Nov. 2022.

⁵The Beaver Institute, https://www.beaverinstitute.org/library_category/flow-devices/

⁶ Goldfarb, Ben. Eager: The Surprising Secret Life of Beavers and Why They Matter, p.55

⁷ Wright, Justin, et al, An Ecosystem Engineer, the Beaver, Increases Species Richness at the Landscape Scale. *Oecologia*, 132, no.1 (2002). p.96-101.

HB 631 CBF - FAV.pdf

Uploaded by: Matt Stegman

Position: FAV



CHESAPEAKE BAY FOUNDATION

Environmental Protection and Restoration
Environmental Education

House Bill 631

Natural Resources – Protection of Beaver Population and Habitat – County Authority (Beaver Believer Act)

Date: February 21, 2024

Position: **Favorable**

To: House Environment & Transportation Committee

From: Gussie Maguire
MD Staff Scientist

Chesapeake Bay Foundation (CBF) **SUPPORTS** HB 631 which authorizes counties to enact local laws promoting, protecting, and supporting beaver populations and habitats.

The North American beaver (*Castor canadensis*) could be called the Chesapeake Bay watershed's original stormwater management engineer. As the species begins to rebound from a legacy of trapping and hunting, its positive impact on the watershed has been marked. Beaver dams help trap sediment, manage nutrients, and restore habitat for other native flora and fauna. The watershed's inhabitants face ongoing runoff woes, but working with these natural experts has proven successful and cost-effective: low-tech beaver dam analogs constructed by humans have been used to attract beavers, who then improve upon and expand the area of restorationⁱ. Protecting beavers and their habitats allows them to provide crucial ecosystem services, inspire best management practices, increase climate resilience, and improve water quality in the Chesapeake Bay and its tributaries.

CBF urges the Committee's FAVORABLE report on HB 631.

For more information, please contact Matt Stegman, Maryland Staff Attorney, at mstegman@cbf.org.

ⁱ <https://news.maryland.gov/dnr/2021/01/01/leave-it-to-beavers-keystone-species-provides-nature-based-restoration/>

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403

The Chesapeake Bay Foundation (CBF) is a non-profit environmental education and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 200,000 members and e-subscribers, including 71,000 in Maryland alone, CBF works to educate the public and to protect the interest of the Chesapeake and its resources.

HB0631_DNR_OPP_ENT_2-21-24.pdf

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Position: UNF



Wes Moore, Governor
Aruna Miller, Lt. Governor
Josh Kurtz, Secretary
David Goshorn, Deputy Secretary

February 21, 2024

BILL NUMBER: HOUSE BILL 631 – FIRST READER

SHORT TITLE: NATURAL RESOURCES – PROTECTION OF BEAVER POPULATION AND HABITAT – COUNTY AUTHORITY (BEAVER BELIEVER ACT)

DEPARTMENT’S POSITION: OPPOSE

EXPLANATION OF DEPARTMENT’S POSITION

The Department of Natural Resources opposes HB 631 because it sets up the potential for counties to enact local ordinances that would either be expressly preempted by conflict with the Department's authority to regulate wildlife, or otherwise be preempted by the Department's implicit authority to regulate broadly in this field. The bill's inclusion of the phrase "notwithstanding 10-504" does not mitigate this preemption issue or avoid future conflict between state and local law in this arena. For example, a county ordinance prohibiting trapping of beavers would conflict directly with the Department's authorization of a wildlife damage control operator to trap beavers pursuant to a Department-issued permit, or a hunter's ability to trap beavers during open season pursuant to a Department-issued license.

BACKGROUND INFORMATION

The Department of Natural Resources is responsible for managing all Maryland wildlife including beavers (*NR 10-202*). They employ a team of dedicated professionals educated and trained in proper wildlife management techniques. These employees manage beavers on a statewide basis to ensure conservation of the species while at the same time mitigating conflicts that sometimes can occur between beavers and humans. The wide breadth of data and information available to the department from both within and outside of state boundaries best qualifies them to enact the laws and regulations required to effectively manage the species.

Beaver populations are healthy across Maryland and the department routinely promotes the ecological value of having this species on the landscape. Beavers contribute to improvements in water quality and to providing quality habitat for numerous other wildlife species through dam building. However, there are instances where this species needs to be controlled due to property damage and/or other conflicts with humans. As a result, the department promotes a mix of lethal and non-lethal methods to manage this species. These same methods are promoted and successfully used for most wildlife game species in the state.

BILL EXPLANATION

HB 631 would authorize counties to enact their own laws to promote, protect, and support beaver populations and their habitats.