AMERICAN BIRD CONSERVANCY

Bringing back the birds

HB2189 – PFAS Testing in State Waters
Submitted to: House of Delegates – Agricultural Chesapeake and Natural Resources – Chesapeake Subcommittee meeting
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Position: **FAVORABLE**

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American Bird Conservancy, which works to conserve birds throughout the Americas, strongly supports HB2189 – PFAS Testing in State Waters Bill. To protect wildlife, ecosystems, and human health, we urge its swift passage through the Virginia House of Delegates.

Per- and polyfluoroalkyl substances ("PFAS") are a class of forever chemicals which have, disconcertingly, achieved ubiquity. Maine was the first state to implement a PFAS ban of any kind, which was promulgated in 2021.[1] Since then, multiple states and the United States Environmental Protection Agency ("EPA") have taken major steps in banning the use of PFAS and, in the case of EPA, have removed PFAS chemicals from lists of active and inert ingredients.

In addition to previously addressed human impacts, environmental risks include potential kills of invertebrates, organ failure in vertebrates, and impaired immune function in non-human animals.[2]

American Bird Conservancy is particularly concerned with potential effects on shorebirds and waterfowl which call Virginia home. The Plovers, Willets, and Gulls which frequent the coast may be at risk from loss of prey species. Ruddy Ducks, Hooded Mergansers, and the omnipresent Mallard may all be at risk from organ failure after ingesting invertebrates or fish which are contaminated. PFAS bioaccumulate in aquatic organisms and are both acutely and chronically toxic.[3]

A study of juvenile seabirds in Massachusetts found that **100% of individuals surveyed (36 total) had elevated levels of PFAS in their liver**.[4] This paper, from 2020, was the first to look at concentrations of PFAS in seabirds and was sparked by a desire to investigate predators of marine invertebrates, which past research has confirmed are biological reservoirs for PFAS. Undoubtedly, the dearth of scientific literature on the subject is not from a lack of effect, but rather a lack of investigation.

The Red Knot, a shoreline wading bird, migrates through Virginia every year on their way to their nesting grounds. The horseshoe crab eggs they eat off the Virginia coast sustain them on their long journey and provide ample opportunities for birders and other tourists to view them.[5] **Horseshoe crabs are extremely susceptible to PFAS, experiencing mortality and**

decreased fecundity from even trace amounts of PFAS in marine environments.[6] Furthermore, the levels of PFAS in marine environments are poorly understood; the effects and devastation are likely more widespread than currently accounted for.

PFAS threats transcend environmental risks and can endanger economic wellbeing; US Forest Service estimates that upwards of $20 billion is spent annually on birdwatching.[7]

Most concerningly, though, is the new finding that PFAS are found in many common agricultural pesticides including the neonicotinoid imidacloprid and the organophosphate malathion, both of which contain their own haunting and devastating legacies.[8]

HB2189 – PFAS Testing in State Waters is a commonsense approach to keeping Virginians and wildlife safe from these harmful chemicals. The first step is knowing when and where these chemicals are having a negative impact.

This bill has the potential to save the lives of birds and people alike. The legislators of Virginia have the impetus and opportunity to continue leading the country in pesticide regulation.

American Bird Conservancy strongly urges the passage of HB2189 – PFAS Testing in State Waters.

For more information, please feel free to contact me at eharydkern@abcbirds.org

Sincerely,

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[1] https://cen.acs.org/environment/persistent-pollutants/Worlds-first-ban-products-PFAS/99/web/2021/07
[2] https://www.atsdr.cdc.gov/pfas/health-effects/index.html
[3] https://www.epa.gov/water-research/water-research-webinar-assessing-toxicity-pfas-chemicals-aquatic-organisms
[4] Robuck, A. et al. 2020. Legacy and Novel Per- and Polyfluoroalkyl Substances in Juvenile Seabirds from the U.S. Atlantic Coast. *Environmental Science and Technology* (50) 20. https://doi.org/10.1021/acs.est.0c01951
[5] https://chesapeakebaymagazine.com/blue-bloods-red-knots/

[6] Ali, A. et al. 2021. The fate of poly- and perfluoroalkyl substances in a marine food web influenced by land-based sources in the Norwegian Arctic.
[7] https://www.fs.usda.gov/rm/pubs_rm/rm_gtr229/rm_gtr229_032_038.pdf
[8] Lasee, S. et al. 2022. Targeted analysis and total oxidizable precursor assay of several insecticides for PFAS. *Journal of Hazardous Materials Letters* (3). https://doi.org/10.1016/j.hazl.2022.100067