



**Testimony: SB 158: Pesticide Regulation – PFAS Testing – Requirements**

**Submitted to:** The Senate Committee on Education, Energy, and the Environment (EEE)

**Submitted by:** Kurt Schwarz, Maryland Ornithological Society

**Position:** In Support

**February 2, 2023**

The Maryland Ornithological Society (MOS) supports Pesticide Regulation – PFAS Testing—Requirements.

The strong fluorine-carbon bonds of PFAS compounds cause PFAS substances to persist in the environment. Additionally, many PDAS (e.g., PFOA and PFOS) bioaccumulate in the tissues of wildlife, some to levels that could cause overt toxicity. In fact, levels of these substances have been found in the tissues of marine mammals in the Arctic and in many species of birds. These substances have been found in the eggs, blood, and livers of birds across the globe, with concentrations especially pronounced in industrial areas in North America, Europe, and east Asia.<sup>1</sup> PFAS have been shown to reduce hatching success in species of birds such as Double-crested Cormorant<sup>2</sup>, and Little Ringed Plover<sup>3</sup>. PFAS has been found in blood of Northern Cardinal in Hawaii,<sup>4</sup> Snow Buntings in Svalbard<sup>5</sup>, and American

---

<sup>1</sup> Bonisoli-Alquati, Andrea, PFAS concentrations in birds.

<https://www.bonisolialquatilab.com/pfas-concentrations-in-birds.html>

<sup>2</sup> Sedlak, Meg, et al, Per and Polyfluoroalkyl Substances (PFASs) in San Francisco Bay: Synthesis and Strategy, June 2018,

[https://www.sfei.org/sites/default/files/biblio\\_files/PFAS%20Synthesis%20and%20Strategy.pdf](https://www.sfei.org/sites/default/files/biblio_files/PFAS%20Synthesis%20and%20Strategy.pdf)

<sup>3</sup> Yoo, Hoon, et al Perfluoroalkyl acids in the egg yolk of birds from Lake Shihwa, Korea. August 2008, <https://pubmed.ncbi.nlm.nih.gov/18754515/>

<sup>4</sup> Russell, Marie C. et al, Per- and polyfluoroalkyl substances in two different populations of northern cardinals, May 2019,

<https://pubmed.ncbi.nlm.nih.gov/30710759/>

<sup>5</sup> Warner, Nicolas, et al, Snow Buntings (*Plectrophenax nivealis*) as bioindicators for exposure difference in legacy and emerging persistent organic pollutants from the Arctic terrestrial environment on Svalvard, February 2019,

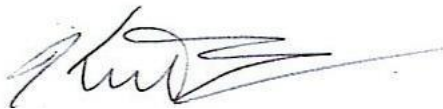
<https://pubmed.ncbi.nlm.nih.gov/30833262/>

Flamingos on the island of Bonaire in the Caribbean<sup>6</sup>, showing how pervasive PFAS is in our environment. That these substances are found in wildlife they are also found in seafood and livestock. PFAS have also been found in the tissues of over 98% of humans.<sup>7</sup>

An estimated 900,000 residents and non-residents enjoy birding in the state. While Marylanders generated \$483 million from wildlife-watching activities in 2011, the Total Industrial Output (TIO), which includes, direct, indirect, and induced effects, totaled over \$909 million, produced 10,807 full- and part-time jobs, and generated \$88.4 million in state and local tax revenue. Nationally, Americans who watch and feed birds contribute \$41 billion to the nation's economy every year.<sup>8</sup> Negative impacts on bird populations, which PFAS cause, are of concern to us.

Millions of pounds of pesticides are applied in Maryland every year. And now it is evident that PFAS is inadvertently being applied to the landscape of Maryland as well, unnecessarily contaminating our crops, soil, waterways, pollinators, wildlife, and humans. Named "forever chemicals" for their persistence and ability to bioaccumulate, we strongly urge legislators act to protect our health and that of the environment by passing Pesticide Regulation – PFAS Testing—Requirements.

Sincerely,



Kurt R. Schwarz  
Conservation Chair Emeritus  
Maryland Ornithological Society  
[www.mdbirds.org](http://www.mdbirds.org)  
7329 Wildwood Ct.  
Columbia, MD 21046  
410-461-1643  
[krschwa1@verizon.net](mailto:krschwa1@verizon.net)

---

<sup>6</sup> de Vries, Pepijn, et al, The toxic exposure of flamingos to per- and polyfluoroalkyl substances (PFAS) from firefighting foam applications in Bonaire, November 2017, <https://www.sciencedirect.com/science/article/abs/pii/S0025326X17305982>

<sup>7</sup> NHANES (on-line), National Health and Nutrition Examination Survey, Center for Disease Control, Atlanta, GA

<sup>8</sup> US Fish and Wildlife Service, Economic Impact: Birds, Birdwatching and the U.S. Economy, November 16, 2017