amphibians,[17] reptiles,[18] mollusks,[19] and other aquatic invertebrates[20]—resulting in developmental and reproductive impacts, behavioral changes, adverse effects to livers, disruption to endocrine systems, and weakened immune systems.[21]

PFAS are extremely resistant to breaking down in the environment.[22] Once released, the chemicals can travel long distances and bio-accumulate in organisms.[23] PFAS have been found in fish tissue across all 48 continental states,[24] and PFOS—a particularly harmful PFAS compound—is one of the most prominent PFAS found in freshwater fish.[25] As a result, communities that rely heavily on subsistence fishing—many of which are low-income and minority communities[26]—are at higher risk of PFAS exposure and associated health effects.[27] In fact, researchers conclude that "[w]idespread PFAS contamination of freshwater fish in surface

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[17] Ankley et al., *Partial Life-Cycle Toxicity and Bioconcentration Modeling of Perfluorooctanesulfonate in the Northern Leopard Frog (Rana Pipiens)*, 23 ENV'T TOXICOLOGY & CHEM. 2745 (2004); Cheng et al., *Thyroid Disruption Effects of Environmental Level Perfluorooctane Sulfonates (PFOS) in Xenopus Laevis*, 20 ECOTOXICOLOGY 2069–78 (2011); Lou et al., *Effects of Perfluorooctanesulfonate and Perfluorobutanesulfonate on the Growth and Sexual Development of Xenopus Laevis*, 22 ECOTOXICOLOGY 1133–44 (2013).

[18] Guillette et al., *Blood Concentrations of Per- and Polyfluoroalkyl Substances are Associated with Autoimmune-like Effects in American Alligators from Wilmington, North Carolina*, FRONTIER TOXICOLOGY 4:1010185 (Oct. 20, 2022).

[19] Liu et al., *Oxidative Toxicity of Perfluorinated Chemicals in Green Mussel and Bioaccumulation Factor Dependent Quantitative Structure-Activity Relationship*, 33 ENV'T TOXICOLOGY & CHEM. 2323–32 (2014); Liu et al., *Immunotoxicity in Green Mussels under Perfluoroalkyl Substance (PFAS) Exposure: Reversible Response and Response Model Development*, 37 ENV'T TOXICOLOGY & CHEM. 1138–45 (2018).

[20] Houde et al., *Endocrine-Disruption Potential of Perfluoroethylcyclohexane Sulfonate (PFECHS) in Chronically Exposed Daphnia Magna*, 218 ENV'T POLLUTION 950–56 (2016); Liang et al., *Effects of Perfluorooctane Sulfonate on Immobilization, Heartbeat, Reproductive and Biochemical Performance of Daphnia Magna*, 168 CHEMOSPHERE 1613–18 (2017); Ji et al., *Oxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid on Freshwater Macroinvertebrates (Daphnia Magna and Moina Macrocopa) and Fish (Oryzias Latipes)*, 27 ENV'T TOXICOLOGY & CHEM. 2159 (2008); MacDonald et al., *Toxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid to Chironomus Tentans*, 23 ENV'T TOXICOLOGY & CHEM. 2116 (2004).

[21] *See supra* notes 16–20.

[22] Carol F. Kwiatkowski, et al., *Scientific Basis for Managing PFAS as a Chemical Class*, ENV'T SCI. & TECH. LETTERS 8–9 (2020).

[23] *See What are PFAS?*, AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, https://perma.cc/DXL3-XDAT; *see also Our Current Understanding of the Human Health and Environmental Risks of PFAS*, *supra* note 1.

[24] Nadia Barbo, et al., *Locally Caught Freshwater Fish Across the United States are Likely a Significant Source of Exposure to PFOS and Other Perfluorinated Compounds*, 220 ENV'T RES. 115165 3 (2023), https://perma.cc/SB8F-C3Y6.

[25] *Id.* at 4.

[26] Nat'l Env't Justice Advisory Council, *Fish Consumption and Environmental Justice* 2–10, EPA (2002), https://perma.cc/PA66-ABA9.

[27] Patricia A. Fair et al., *Perfluoralkyl Substances (PFASs) in Edible Fish Species from Charleston Harbor and Tributaries, South Carolina, United States: Exposure and Risk Assessment*, 171 ENV'T. RES. 266, 273–75 (April 2019), https://perma.cc/7976-XAVU; Chloe Johnson, *Industrial chemicals in Charleston Harbor taint fish – and those who eat them*, POST & COURIER (June 4, 2022), https://perma.cc/Z5TM-MB83.