Strategies to Address Endocrine Disruption in Fish and Wildlife in the Chesapeake Bay Watershed

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**Intersex in the News**

_NPR_ “What do intersex fish mean for water quality?”

_Washington Post_ “As more male bass switch sex, a strange fish story expands”

_Washington Post_ “Bay’s intersex fish mystery remains unsolved”

_New York Times_ ”Intersex fish are found at a high rate in the region”

_LA Times_ ”Intersex fish found in Pennsylvania spur search for chemicals”
Fish Kills, Intersex and EDCs

NOT SURE IF I SHOULD PEE STANDING UP OR SITTING DOWN
Chesapeake Bay EDC Science

**Sources**
- Row crops
- AFOs
- WWTPs
- Storm water

**Pathways**
- Air
- Water
- Sediment
- Maternal transfer
- Food chain

**Receptors**
- Fish
- Invertebrates
- Wildlife
- Humans

**Effects**
- Endocrine
- Reproductive
- Immune
- Population declines
Session Overview

**SOURCES + PATHWAYS**
- Sources, transport, distribution of EDCs
- EDA to identify chemicals causing ED

**RECEPTORS + CONSEQUENCES/EFFECTS**
- Wild fish monitoring to understand ED

**RISK ASSESSMENT**
1. Pat Phillips (USGS): “Endocrine Disrupting Compounds in the Chesapeake Bay Watershed – Where are we going? Where should we go?”

2. Vicki Blazer (USGS): “Biological Effects Monitoring to Identify Consequences of Exposure to Endocrine Disruptors”

3. Jenny Brennan (USGS): “Effects Directed Analysis of Endocrine Disrupting Compounds in the Chesapeake Bay Watershed: An Important Step on the Road to Managing Fish Health in the Watershed”