Potomac River Watershed

- 4th Largest river on the Atlantic Coast
- Watershed covers 14,670 square miles
  - Larger than Connecticut and New Jersey Combined
- Over 5 million people live in the watershed
  - Covers Parts of VA, MD, WV, PA and all of DC
- Provides almost 25% of the fresh water to the Bay and 34% of the sediment and 24% of the nutrient pollution

Stopping Pollution and Restoring Clean Water
In the District there are 60 combined sewer overflows spewing 2.5 billion gallons every year into OUR NATION’s RIVER.
Fish Consumption Advisories in the Potomac Watershed
THE CANARY IN THE RIVER

Somewhere in the Potomac River, possibly in the South Branch, male bass are hatching eggs. This phenomenon is unusual and raises concerns about water quality and the health of the ecosystem.

Male Bass in Potomac Producing Eggs

Pollution suspected cause of anomaly in River’s South Branch

MENDING, W.Va. — The South Branch of the Potomac River is noted for its clear, cold water, where bass can be found. However, recent findings suggest that male bass in the South Branch may be producing eggs.

More Amphibians Now Endangered

An alarming worldwide increase in amphibians that are declining, as well as the rise in water pollution, has led scientists to explore the potential causes. It is suggested that these changes may be linked to environmental degradation that could threaten human health.

CARE, Page A7

WASHINGTON, D.C. — Scientists believe that the rise in water pollution in the South Branch of the Potomac River is causing a rise in the number of male bass producing eggs. The phenomenon is rare and raises concerns about the health of the ecosystem.

Washington Post, June 3, 2023

What's causing this rise in the number of male bass producing eggs in the Potomac River? Further research is needed to understand this phenomenon and its implications for the ecosystem.
Endocrine Disruptors

Potential endocrine disruptor:
- PCBs
- Pesticides
- CAFO waste
- Pharmaceuticals
- Contraceptive pill
- Personal care products
- Herbicides

Emerging Contaminants

- Pesticides, pharmaceuticals, personal care products, plastics
- Intersex fish & fish kills
- EPA has been slow
- USGS studies
- Drinking water issues

Diverse groups of compounds detected in source water

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Compounds Detected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herbicides and degradates</td>
<td>15</td>
</tr>
<tr>
<td>Personal care and domestic use</td>
<td>10</td>
</tr>
<tr>
<td>Gasoline-related</td>
<td>8</td>
</tr>
<tr>
<td>Solvents</td>
<td>5</td>
</tr>
<tr>
<td>Manufacturing additives</td>
<td>5</td>
</tr>
<tr>
<td>Plants or animal derived biochemic</td>
<td>5</td>
</tr>
<tr>
<td>Disinfection by-products</td>
<td>4</td>
</tr>
<tr>
<td>Fungicides</td>
<td>4</td>
</tr>
<tr>
<td>Organic synthesis</td>
<td>4</td>
</tr>
</tbody>
</table>

Compounds in source water were often in finished water

- More commonly detected in finished water (77%)
- Less commonly detected in finished water (23%)

Similar occurrence in source and finished water:
Concentrations are low in source water:
- 76% less than 0.1 ppb
- 21% between 0.1 to 1 ppb
- 3% greater than 1 ppb
- ~130 compounds detected

Concentrations of Some Compounds are Similar for Source and Finished Water:

<table>
<thead>
<tr>
<th>Source Water, ppb</th>
<th>Finished Water, ppb</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>0.001</td>
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</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

- Atrazine
- Fipronil
How Do We Make the Change?

To get someone's attention, speak to their:

- Health
- Money
- Children

Soap Box Final Three Minutes

Getting attention for the issue

Approach #1

“The Safety of our drinking water depends on the health of our rivers and streams.”

Is There a Better Approach for the Public?

One That:

- Keeps People Interested
- Doesn't Scare Them
- Let's Us Work Together
Approach #2

“The best drinking water comes from a healthy river.”

Can We Work Together So People ...

Understand they are getting “safe” drinking water at the lowest price possible

Realize that if we don't stop polluting, today's intersex fish will be tomorrow's three-eyed or five-legged amphibian

Ask (without our prompting) those in power to do everything necessary to truly protect our source water by creating a healthy river.

“The best drinking water comes from a healthy river.”