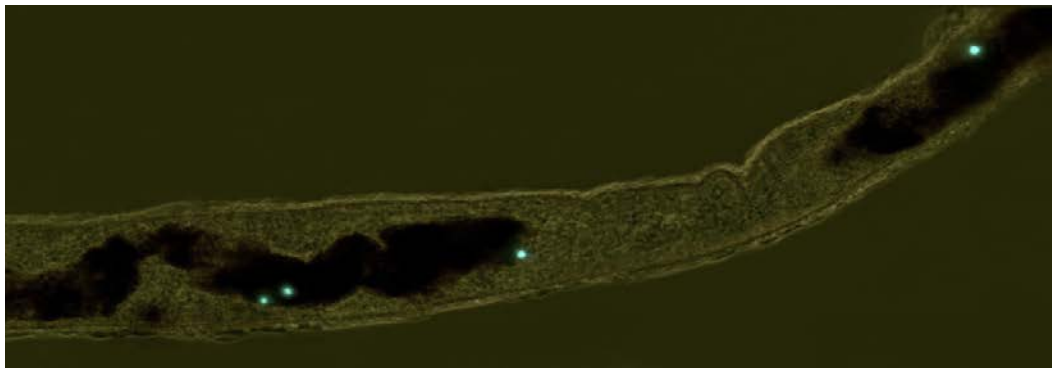


Impacts of Microplastics in the Urban Environment – NEXT STEPS

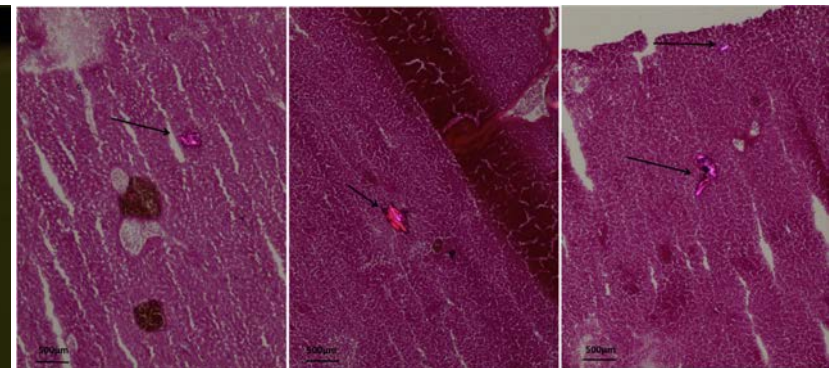
March 29, 2019

NEXT STEPS – SCIENTIFIC RESEARCH

- Environmental effects on Humans and other species
 - Toxicity: Micro- and Nano-plastics, Plasticizers, Plastic-associated compounds
- Bioaccumulation
 - Food Chains (Human and other species)
 - Micro- and Nano-plastics, Plasticizers, Plastic-associated compounds
- Long-term Health Risks
 - Endocrine Disruption (Human and other species)



Setälä et al. 2014. *Environmental Pollution* – Shrimp digestive tract



Avio et al. 2015. *Marine Environmental Research* – Mullet liver

NEXT STEPS - INDUSTRY

- Manufacture “ownership” of packing materials
- Alternatives and reducing plastic packaging
- Creating new recycling markets
- Materials Engineering
 - Alternatives to Plastic
 - New uses for Plastics
 - New Composite Materials
 - Life Cycle Analyses
- Educating communities on their role in dealing with this issue



NEXT STEPS – GOVERNMENT

- Ban Single Use Plastics (Bags, Straws, Styrofoam)
- Enact a Bottle Bill
- Establish a legislatively mandated “Plastics Council” that has designated members from government, industry stakeholders (regulated community dealing with production through recycling), academics and public members. This group can

make recommendations to regulators with input from both the regulated and non-regulated community.



Photo courtesy of Chem Info

Conference Support Provided by:

- National Institute of Environmental Health Sciences (NIEHS)
- Center for Environmental Exposure & Disease (CEED)
- Rutgers School of Environmental & Biological Sciences (SEBS)
- Dept. of Biochemistry & Microbiology
- Bayshore Family of Companies

Schematic of Watershed to Oceans Plastics Cycle

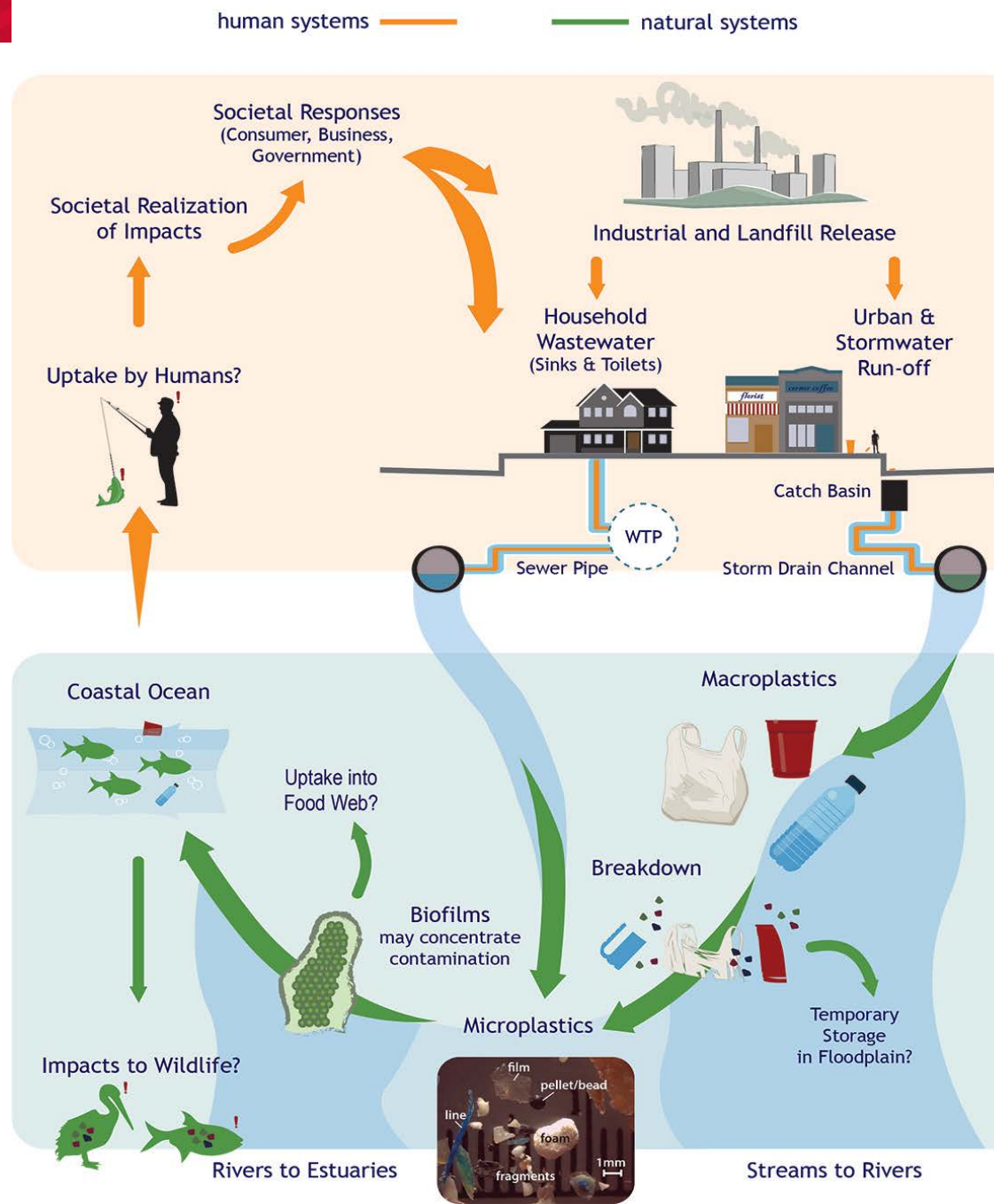


Image Courtesy of Anna Erickson

A Central Clearinghouse for Announcing Regional and Statewide Environmental Activities through CUES -Rutgers

- Hudson Delaware Society of Environmental Toxicology and Environmental Sciences. April 23-25. Princeton, N.J.
- New Jersey Sea Grant Consortium Activities – Representing many Colleges and Universities Throughout the State
- Regional American Chemical Society Meetings
- Non-profit and NGO announcements for meetings and activities.
- Legislative activities and related opportunities to attend hearings.
- Business and entrepreneurial opportunities.