

**ENVIRONMENT COMMITTEE
PUBLIC HEARING
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TESTIMONY OF
PETER J. AUSTER, PhD
SENIOR RESEARCH SCIENTIST – MYSTIC AQUARIUM
RESEARCH PROFESSOR EMERITUS – DEPT. OF MARINE SERVICES - UCONN
HOUSE BILL 5141: AN ACT CONCERNING THE PROTECTION OF CERTAIN FISH SPECIES**

My name is Peter J. Auster and I am a Senior Research Scientist at Mystic Aquarium and Research Professor Emeritus of Marine Sciences at the University of Connecticut. I am a marine ecologist with a diverse research portfolio and have conducted and published studies focused on multiple aspects of the Long Island Sound ecosystem, ranging from fish and fisheries, seafloor landscape ecology, the effects of trawling and dredge material disposal, and the impacts of climate change. I have also worked in multiple venues at state, regional, national, and international levels where science informs development of policy and management of our natural resources for both conservation and sustainable use. I am here today to voice my support for House Bill 5141.

This bill has a goal of preventing development of a large-scale commercial fishery for forage fish species in Long Island Sound. Here, forage fish are a subset of species managed as bait fish in Connecticut and collectively include: tidewater silverside (*Menidia beryllina*), Atlantic silverside (*Menidia menidia*), sand lance (*Ammodytes* spp.), and bay anchovy (*Anchoa mitchilli*).

These species have characteristics that make them critical components of the Long Island Sound ecosystem as well as make them vulnerable to ecological overexploitation. As “forage fish” these species are important links in the food web, linking plankton (their prey) to higher trophic levels serving as prey for larger predatory fish like striped bass, seabirds such as roseate tern, and a wide diversity of other lesser-known species important to the marine wildlife of Long Island Sound. These species play this ecological role throughout their life histories (unlike other species that grow to feed on other larger prey). Most important, these forage species occur in dense schools and aggregations, but are distributed in patches throughout the larger region. Once patches of prey fish are located, predators can reduce the energy needed to search for food. This “search versus feeding” energy trade-off can be the difference between survival and mortality, enhancing growth (the bigger you are the fewer mouths can feed on you), provide more energy to escape predators, and result in higher reproduction. Simply stated, depleting local patches of prey forces predators to spend more time and energy hunting for food. The aggregating behavior of prey, while benefiting predators, also makes these species vulnerable to fishing gear, especially close to shore. Putting a limit on catch of forage species (in the bait fish fishery that uses very small mesh nets) can ensure that local depletion of fish patches is minimized and the ecological role that these forage species play can be sustained along our coast.

Notable is that there are other species that serve as forage fish, such as menhaden and Atlantic herring, but these are already managed for allowable catch, have gear restrictions that minimize catch of small fish, and their ecosystem role is considered in management decisions. Here we are filling a gap. House bill 5141 will ensure that future changes in the bait fishery will not degrade the role these species play in sustaining a healthy Long Island Sound while also allowing the existing small-scale bait fish fisheries activities to continue. The 200 lb. trip limit is consistent with our neighbors in Massachusetts and in Rhode Island, who also seek to conserve the foundational role these species play in the ecosystem.

Based on existing text in the bill, I suggest deletion of section 2 and focus only on catch and landings. Bait dealers and distributors will likely have stocked greater than 200 lbs from multiple fishers. Limiting their ability to store bait is not linked to the issue of limiting catch of fishes on the water.

In closing, I am happy to discuss this with you in greater detail at your convenience (pauster@mysticaquarium.org or peter.auster@uconn.edu). Thank you for your consideration.