

## International Partnership Addressing Domestic and Wild Production of Imperiled American Eel

Populations of native American eel are declining throughout their native range from overfishing, habitat loss, climate change and from parasites. As a group, eels are the most valuable food fish in the world. Adult eels live in freshwaters, e.g., the Great Lakes, and migrate to the Sargasso Sea to spawn. During outmigration from the Great Lakes, the eels experience heavy mortality from hydroelectric turbines. In the U.S., glass eels return from the ocean areas to fresh water habitat and develop into juveniles called elvers, which swim into freshwater to mature.

These early stages of American eels are heavily fished along the Atlantic coast and are a high priced commodity worth up to \$5,000/lb. for the Asian market, since Asian eel stocks have collapsed. Domestic production occurs in Asia, where glass eels are reared to a marketable size and sold, and in Europe, where much of the domestic production of eels comes almost exclusively from aquaculture. European “eel farmers” also stock eels to help protect wild protections.

At present there is no American eel production for food or wild stock enhancement. Science-based attention is needed to protect this high value species from further population declines and to develop a production system to meet domestic demand for eel in the U.S. and to increase wild populations here.

### **NYSG Responds**

New York Sea Grant (NYSG) in partnership with Cornell University, Maine Sea Grant and the University of New England formed a Northeast Aquaculture Team (NEAT) to examine means of protecting and enhancing American eel populations and to explore the use of recirculating aquaculture systems (RAS) for eel production.

Through a grant from the North East Aquaculture Center (NRAC), the team organized a conference workshop in 2014 to discuss solutions to enhance and protect stocks including the use of RAS. Eel RAS systems are widely used throughout Europe, particularly in the Netherlands. Thirty international



*American glass eel. Photo: NYSG*

eel experts and potential business entrepreneurs attended the 2014 conference.

The 2014 workshop generated a list of American eel research needs on eel biology and culture.

Cornell University and engineers in the Netherlands have collaborated to develop a preliminary design for an eel RAS for American eel production, and the team organized an international session for presentation as part of the National Aquaculture Conference in January 2015.

This international partnership and NYSG-facilitated workshops are helping to enhance both domestic production and wild stocks of imperiled American eel.

### **Partners:**

- Cornell University
- Dr. Ep Edding, University of Wannigen, Netherlands
- North East Aquaculture Center
- National Aquaculture Conference

### ***The Sea Grant Focus Area for this project is Healthy New York Coastal Ecosystems and Habitats***

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA.

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