

F A L L 2 0 1 0

Plum Island Striped Bass

RESEARCH UPDATE

*Dear Friends of Plum
Island Stripers,*

Plum Island, Ma. It's November, the nights are cool, the leaves are falling, and the stripers are on their way out and we're busy following them!

Umass Amherst, in partnership with the Plum Island Long Term Ecological Research group, has been conducting research on striped bass for several years in Plum Island Estuary (PIE). Our latest research effort focuses on tagging and tracking "schoolie" sized striped bass between 16 and 24 inches long in order to understand their movements and habitat use within the estuary, as well their annual migration patterns between PIE and locations along the Atlantic coast.

With the help of local fly fishing guide Capt. Barry Clemson, we tagged 50 fish

in June 2009. 35 fish (over 50%) remained in PIE for at least one month, with one individual staying up to 113 days after tagging. The area around Middle Ground Island was the most popular with our tagged fish; this is probably no surprise to local fishermen who fish there



Striped bass placed in recovery tub after surgery. The acoustic tag acts like a speed pass on the highway. All fish recovered from the surgery.

often!

We noticed a seasonal shift in where we heard fish. More fish were found in the

upper sound in July and August. In September and October the bass had



Intern Sarah Wells measures salinity.

moved down to the lower sound, in preparation for their fall migration.

Thanks to information shared by colleagues we were able to detect our fish on their fall southerly migration. All of our tagged fish left PIE in the fall to migrate south for the winter. Fish were heard in several locations outside of PIE including Cape Ann, the Cape Cod Canal, Long Island Sound and the Hudson River and Delaware Bay estuaries.

This spring 33 out of the 50 fish we tagged in 2009 came back to PIE! It's really amazing that over half of our fish were able to return to the same spot the following year. We've also tagged 35 more fish in the spring of 2010. It will be interesting to compare the behavior of

fish in 2010 to that of fish in 2009 and see if there are differences. This summer has been a lot hotter and dryer than last summer and the striped bass are probably aware of it, as are we!

After the last striped bass has left PIE we'll pull out our equipment and head back to the office to look at all of the great data collected.

Plum Island is a dynamic ecosystem and a place many people call home. We hope our study will help to predict the response of striped bass to man made and natural changes such as water temperature, availability of prey, water quality and fishing. The more we know about how striped bass react to their world, the more we can predict how they will behave in ours.

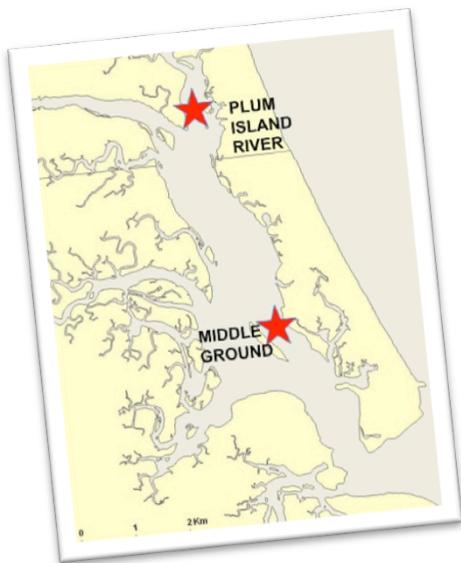


A receiver after a season of listening for fish. Every time a fish passes the receiver, its individual id, the date and the time are recorded.

MEET ADOPT-A-BASS "BABABOOEY"

SPRING TAGGING

Bababooley was caught on June 17, 2009 near Middle Ground Island. He was one of fifty fish caught and tagged in 2009. He came in at 20 inches and 2 lbs, 14 oz.



SUMMER 2009

Bababooley showed typical "summer resident" behavior, staying in PIE through September. Our receivers detected him over 3,400 times! Most of these detections were near Middle Ground and further north at the Plum Island River.

BEYOND PLUM ISLAND

On his fall migration Bababooley was detected passing Cape Ann and the Cape Cod Canal in October. In December Bababooley ended up in Delaware Bay after a brief stopover in Long Island Sound.



BACK AGAIN IN 2010

Bababooley showed up in Delaware Bay in late March and early April. On May 24 he returned to PIE! He was back for the summer and hitting up the same old haunts, Middle Ground and Plum Island River. At the end of June we stopped detecting Bababooley, probably because the tag ran out of power. We wish you the best Bababooley!

THANK YOU!

Thank you so much for your time, donations and interest! Without contributions and volunteers our work would not be possible and we are highly indebted to all of the people who have shown an interest in our work and helped to support it.



The Plum Island Ecosystems LTER (PIE LTER) is an integrated research, education and outreach program with the goal of developing a predictive understanding of the long-term response of watershed and estuarine ecosystems to changes in climate, land use and sea level and to apply this knowledge to the wise management and development of policy to protect the natural resources of the coastal zone.

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