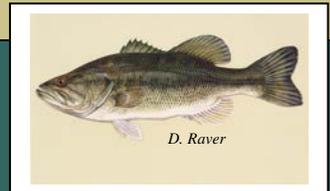


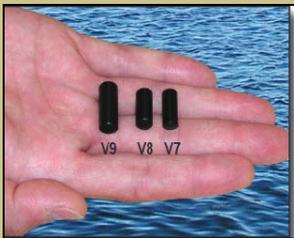
Tidal Largemouth Bass Research



Biological information is collected from bass captured via electrofishing in the fall



Age and size variability indicates a well-balanced population.



Acoustic tags are inserted into the body cavity of the bass; receivers that detect the tags are installed on in-water structures to assess movement patterns in the river



Special Research Tagged Bass - Please Immediately Release!
(Algae growth can cover tag, so look closely)

Largemouth Bass are the most sought after freshwater fish in Delaware. Although considered by many to be a pond fish, Largemouth Bass also inhabit the freshwater portions of many tidal rivers and streams. The Division of Fish and Wildlife monitors the status of tidal bass populations in several key river systems: including the Nanticoke River, Broadkill River, Mispillion River, and the St. Jones River; although the Nanticoke River bass population is the most intensely monitored. Bass populations are surveyed in the fall and the data that is collected is used to evaluate population abundance, the size distribution of the population, and body condition ('plumpness') which indicates if they are getting enough forage.

Bass, like other members of the sunfish family, are nest builders. Nesting is difficult in tidal river systems due to a limited amount of habitat suitable for nesting, heavy siltation, water flow, and tidal flux. Silt can coat the eggs and smother them. Nests built at high tide can be left high and dry during extreme low tides. Abundance and aging data indicates that year-class strength (number of fish produced each year) can be extremely variable. To supplement natural reproduction, especially during poor reproduction years, the Division stocks 'advanced' (3 to 5 inch) fingerling bass into the Nanticoke and Broadkill River systems. The fingerlings are produced from adult bass that are collected in the spring from the Nanticoke River and transported to the aquaculture facility at Delaware State University. After spawning, the adults are returned to the river and the fry are separated into several small ponds with natural prey resources. When the fingerlings reach an average length of 3" they are collected by seining and transported to the rivers for stocking.

The Division of Fish and Wildlife also monitors bass populations through various tagging efforts. Special research tagging includes bass that are surgically implanted with acoustic tags that transmit a code that is unique to each fish. The tags are detected by acoustic receivers that are placed throughout the river system on docks, piers, submersed structure etc. The data from the receivers and from manual tracking provides information on seasonal movements and migratory patterns. In addition to providing location data, the acoustic tags may have temperature and depth sensors. Bass with implanted acoustic transmitters are externally tagged near the dorsal fin with a special bright **orange** 'Research' T-bar anchor tag (see picture on left). Anglers are asked to **Immediately Release** these fish in the location they were caught and to contact the Division.

Periodically, legal size bass ($\geq 12"$) are externally marked with **yellow** T-bar 'Reward' tags to assess angler behavior (seasonal activity, boat vs shore angling, release rates, etc.) and fish movement. These tags have a four digit number and anglers that report their catch receive an exclusive reward. Reporting tagged bass is just one way anglers can contribute to the Division's bass management program.

Tidal river Largemouth Bass populations receive heavy fishing pressure and the Division's research along with data received from anglers aids in determining management needs. The main objective of these efforts is to maintain a sustainable bass population that fills an ecological niche and provides satisfactory angling.

Largemouth Bass with 'Reward' tags can be reported to the contact on the right or entered online at:
<http://de.gov/basstagreturns>

Fisheries Section Contact:
3002 Bayside Drive
Dover, DE 19901
(302) 735-8654
Edna.Stetzar@state.de.us