

Tournament News



We Bring You Delaware's Great Outdoors
through Science and Service

Fisheries Section Updates

Winter 2016

The tournament season is winding down now, but as you know, bass fishing in the winter can be rewarding with a little patience and numerous layers of clothing! I think it's peaceful out on the water or in the woods when there is less hustle and bustle. I know that some of you are already planning your 2017 tournament season, so kudos for getting a jump on it. Please let me know if I can be of any assistance.

Sincerely,
Edna

Don't forget to obtain permits for your tournaments and submit a report of the results. Go to the **Largemouth Bass Fishing Tournament Page** at:

<http://de.gov/lmbtourney>



D. Raver

Sustainable Fisheries Goal Implementation Team (GIT)- Chesapeake Bay Program

- The GIT was formed by the Chesapeake Bay Program to address fish and habitat management across state boundaries within the watershed. For those of you interested in fishing the tributaries of the Chesapeake Bay, check out activities of the GIT at:

http://www.chesapeakebay.net/groups/group/sustainable_fisheries

The website includes links to numerous publications drafted by various workgroups of the GIT: Chesapeake Bay Stock Assessment Committee, Fish Habitat Action Team, Forage Action Team, Invasive Catfish Task Force, and the Maryland and Virginia Oyster Restoration Interagency Teams. Delaware has reps on several of these groups.

Largemouth Bass Virus (LMBV)

The Northeast Black Bass Technical Committee recommended that states in the Northeast screen bass populations for the presence of LMBV. The most recent tests in Delaware occurred in 2012 and entailed sampling the Nanticoke River and Broadkill River bass populations. The tests were negative for LMBV. These populations are scheduled for testing approximately every five years and an assessment on the need for testing in 2017 is currently underway. Criteria that would prompt a need for testing includes presence of LMBV in nearby waterways or the occurrence of a bass fish kill in state waters. The optimum time to collect samples is during the summer when water temperatures are highest and the virus is more easily detected. If testing in 2017 is deemed necessary, the Division may be looking to partner with a bass club and collect the bass during a tournament. Will keep you posted!

CONTACT INFORMATION:

Tournament reports and tag returns:

- Fisheries Biologist:
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- Fisheries Technician:
Position Vacant

Tournament permits:

- Angela Dula, 302-739-9913

Fish & Wildlife Enforcement:

- New Castle/Kent County
302-739-6139
- Sussex County
302-855-1901

Report Violations:

- 302-739-4580
- 1-800-523-3336

24-hour Enforcement Number:

- 1-800-662-8802

Operation Game Theft:

- 1-800-292-3030

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Pond Sampling 2016

The Division of Fish and Wildlife conducts fish community sampling via electrofishing at 6-8 State-owned ponds per year. Population characteristics of each species are evaluated to determine if there is a balance between the populations. The results of the sampling are compared with the historical values for that pond to detect trends in abundance and condition. Supplemental sampling via seining is often conducted to assess spawning. Ideally, the fish community will have a moderately dense population of predators (i.e. bass) and adequate forage (sunnies primarily) represented by a variety of size groups. If some size groups are overabundant, competition for resources can lead to poor growth and condition. Gaps in size distribution can indicate variable spawning and recruitment. These factors, along with habitat conditions (water quality, adequate shelter, % aquatic vegetation etc.) and angling pressure are evaluated to determine if management actions (stocking, culling, habitat improvements, size/creel limits, etc.) are necessary.

Pond	Catch Rate: Bass/Hr	*PSD	**RSD-P	#Average Relative Weight	Comments:
Becks Pond	15.3	66.7	16.7	95.8	Low density Bass population; 2016 sampling difficult due to excessive filamentous algae and shallow depth; Catch rate highest for 12"-15" Bass, with few ≥15"; Established Northern Snakehead population
Craigs Pond	57.6	72.0	36.0	96.9	Proportion of Bass ≥12" and ≥15" has improved; robust Bluegill population; access impeded by filamentous algae that becomes excessive by summer
Derby Pond	45.3	36.0	4.0	92.8	Abundance of Bass declined but proportion of quality sized (≥12") improved; relative weights for some size groups low; gaps in size distribution indicates sporadic spawning and recruitment; White Perch population has increased substantially; water quality issues being evaluated
Haven Lake	35.0	71.4	42.9	98.4	Low density Bass population with high proportion of bass ≥ 15" and ≥18"; variety of panfish present; increased abundance of Black Crappie and high proportion ≥10"
Horsey Pond	73.2	64.4	28.9	94.5	Bass abundant with high proportion ≥12"; number of bass ≥ 15" higher than average for Sussex county; fair number of Bluegill ≥ 6"; abundant Chain Pickerel with some citations reported
Millsboro Pond	39.3	64.7	11.8	108.9	Bass abundance doubled since 2011; proportion of bass ≥12" indicative of a balanced fish community; Bluegill and Black Crappie populations comprised primarily of smaller individuals; Redear Sunfish moderately abundant;

**PSD: Proportional Stock Distribution-the proportion of bass ≥12"; target values for moderate densities of bass are between 40-70*

***RSD-P: Relative Stock Distribution-Preferred-the proportion of bass ≥15"; target values for moderate densities of bass are between 10-40*

#Average Relative Weight-measure of condition ('plumpness'); target value is ≥90; values <90 indicate issues w/density, feeding or other factors

Angler Creel Surveys 2016-2017

One of the primary goals of the Division's freshwater pond management program is to provide satisfactory recreational angling. As noted above, the Division collects fish community data at each of the state's public freshwater ponds. But, how does this data compare to what anglers are catching? A 2-year project (2016 & 2017) designed to answer questions about angler catch and effort is being conducted at Blairs Pond and Killens Pond. Division derived fish community data sets will be evaluated along with creel survey data collected June-August. The creel survey includes a series of short questions designed to determine how long anglers are fishing, what species they target, what they catch, sizes they catch, and if the fish are kept or released. The survey is voluntary, but if you are approached by someone wearing a Division of Fish and Wildlife hat and carrying a clipboard, we hope you will take the time to chat with us for a few minutes.

Project supported by:



Tidal Largemouth Bass Stocking Program

Largemouth Bass that inhabit tidal waters provide some of the best angling, but they also face some of the most challenging environmental conditions. Successful nest building in the face of tidal flux and turbidity is difficult especially when suitable spawning habitat is limited. Coupled with human activities that impact water quality and heavy fishing pressure, it is difficult for the populations to sustain solely by natural reproduction. One way to mitigate these factors is to supplement the population by stocking. The Division recognized this in the early 1990s and began supplementing the most heavily fished populations with advanced fingerlings (average length $\geq 3''$). Since 1995, the Nanticoke River bass population has been enhanced by 148,373 fingerlings and since 1996, the Broadkill River with 35,806 fingerlings. We start planning early each spring and don't rest until late September when all of the fingerlings are stocked! Here is a look at the process:

Brood Stock Collection:



Known spawning areas in the Nanticoke River system are electrofished in search of ripe adult bass in early April



In 2016, DE B.A.S.S. Nation contributed tournament caught bass in partnership with the Division.



The goal is to obtain close to 50 total lbs of female bass. The Division got some of the best brood stock from the tournament which had a 15" minimum

Spawning and Growing:



The brood stock are transported in an aerated tank to the Aquaculture Research Facility at Delaware State Univ.



The bass spawn at the research facility and then are returned to the river. Meanwhile, the fry are separated into several ponds and fed natural food



When the fingerlings reach an average length of 3" they are collected by seining and transported to the river for stocking

Stocking :

The fingerlings were stocked by DSU in protected coves and other areas throughout the Nanticoke River system. For the Broadkill River, anglers Jerry Jeranka (ABA) and Jim Fields (DE BASS) volunteered their time to help us distribute the fingerlings into suitable nursery habitat.

A huge thank you to all that contributed. We have a great partnership!!

Jerry Jeranka- American Bass Assoc.



Jim Fields-DE B.A.S.S Federation



Results of the Nanticoke River Bass Tagging Study

All legal length (≥ 12 ") Largemouth Bass collected in the Nanticoke River during the Division of Fish and Wildlife's fall electrofish sampling from 2012-2014 were tagged with yellow T-bar anchor tags. Each tag was marked 'Reward' and had a unique number used to identify individual bass as well as a Division phone number for anglers to call. Specially designed hats or t-shirts were given to anglers that reported a tagged bass. The purpose of the tagging study was to assess angler characteristics and fish movement. During the study, 767 bass were tagged; of these 318 were tagged in the mainstem Nanticoke River and 449 were tagged in Broad Creek. As of December 31, 2015, anglers reported catching 182 (23.7%) of the tagged bass. The majority of the catches were in the main stem Nanticoke River (52%) followed by Broad Creek (42%) and a few (3%) downstream in Maryland waters.



Fish Movement

Redistribution of tagged fish by anglers can confound analysis of fish movement, but most anglers released bass in the same general area in which they were caught with the exception of tagged bass caught during tournaments. The tendency for anglers to release bass with the tag intact allowed multiple catches of the same fish and longer term data on those fish. Most of the bass that were tagged in the main stem Nanticoke River were recaptured by anglers in the 'Upper Nanticoke' (upstream of the railroad bridge in Seaford) and most of the bass tagged in Broad Creek were recaptured by anglers in the 'Upper Broad' (upstream of Bethel). Coincidentally, habitat within these two sections of the river system have a higher proportion of 'prime' bass habitat compared to other segments of the river. Bass that were recaptured multiple times by different anglers commonly remained in the same general area of the river with small scale movement between the lower and upper sections of Broad Creek or within the main stem Nanticoke. A good example of site fidelity was one 16" female that was caught repeatedly in the lower section of Broad Creek despite being transported to Sharptown twice during tournaments for weigh-in. The 'time-at-large' ranged from 12 days to 5 years, 11 months and 8 days. Out of seven bass that were at large for more than 900 days, only one was recaptured quite a distance from the original tagging location. Large scale movement was also observed for a few other fish including one tagged in the lower section of Broad Creek and caught 14 months later in the 'Upper Nanticoke' and another fish tagged in the 'Upper Broad' and caught in the mouth of Marshyhope Creek. Recaptured tagged bass exhibited movement consistent with research findings in other tidal rivers where most of the population has a small home range and a smaller portion migrates further distances.



Logo designed by Rachel Sprowl specifically for the bass tagging program

Angler Characteristics

Angling effort can bias catch data especially when effort is not equally distributed throughout the river system or throughout the seasons. However, some information could still be assessed during the three year study. Most of the 116 anglers that reported catching tagged bass were Delaware residents (77%), followed by Maryland (16%), Pennsylvania (1%), Virginia (1%), Utah (1%) and 4% that did not provide a state of residence. A fair number of these anglers were members of an organized Largemouth Bass fishing club (42%) and 20% of the reported catches were bass caught during fishing tournaments. Most anglers practice catch and release fishing and just a small percentage (1.7%) reported keeping tagged bass. All of the anglers that kept bass were fishing from shore and one angler kept a bass because it was unlikely to survive from being hooked in the throat. Tag reports peaked in October for anglers fishing from a boat and during May for anglers fishing from shore.



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<http://www.facebook.com/DelawareFishWildlife>

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