



Mike lacconnelli. Bassmaster Elite Series, 2015, North East, MD. Photo courtesy of Joe Evans.

HIGHLIGHTED CONTENTS	PAGE
Angler Concerns at 2015 Roundtable	1
2015 Work in Response to Concerns	
Black Bass Guide Website	1
Making Bass Releases Better	1
Speed Limits, Gunpowder	2
Elk Neck, Wave Breaks	2
Black Bass Stamp	2
New Licensing Questions	2
Health of Largemouth Bass	3
Spread and Impacts of Snakehead	3
Conservation	
Middle River Fish Kill	3
Catch and Return Area Regulation	5
New Changes, Tournament Permi	ts 5
Stocking	6
Habitat Enhancement, Reefs!	6
Current Status of Tidal Bass Populations	7
What are they Eating?	8
Tournament Fishing	8
Recreational Fishing	9
Roundtable Agenda (2016)	10

BASS ROUNDTABLE 2015

There were 19 attendees at the annual stakeholder meeting, a bass roundtable, held last year. At the roundtable, attendees expressed concerns that were addressed throughout 2015. The work to address some of the major concerns is noted below. To attend future roundtables, contact Joe Love at 410-260-8257 or joseph.love@maryland.gov.

Find your Licensed Bass Guide!

The Department has a website to help connect anglers with licensed charter boat guides. Licensed guides offer many years of experience fishing Maryland waters. Licensed guides not only know the waters, but they are required to have First Aid training and boater safety skills. These licensed guides can offer fun and safe fishing trips for anyone. Beginning in 2016, licensed guides will be bi-annually updated in Fisheries' Map of Licensed Charter Boats & Fishing Guides.

If you are a fishing guide, or are interested in becoming a fishing guide, we have worked with fishing guides to help develop this flow-chart to aid you in obtaining the proper licenses and certifications. Please visit:

http://dnr2.maryland.gov/fisheries/Pages/bass/guides.aspx

Making Bass Releases Better. Dundee

Each year black bass are released at Dundee Marina at Gunpowder State Park during bass tournaments. Angler's expressed concerns that siltation at Dundee would harm bass released there. The Tidal Bass Program worked with Gunpowder State Park to designate a quality release area for bass. The Park also agreed to use an aerator during hot summer months to help oxygenate the water where bass are released.

Go SLOWER! Gunpowder River

A concerned bass angler who lives near Gunpowder River contacted Fisheries Service and identified a dangerous path for boaters. The path connected lower Gunpowder River to popular quarry pits. Concerns raised by the angler and roundtable members led Tidal Bass Program to apply for a 6 knot zone along this route. After an extensive review and public comment period by Boating Services, the 6 knot zone was adopted in late 2015. The slower speed limit not only improves safety for anglers who fish the quarry, but also helps reduce wave energy that beats the surrounding wetlands.



Elk Neck State Park, Wave Breaks

Maryland Bass Nation anglers have requested breakwaters at Elk Neck State park because of safety concerns. Bass anglers moor boats at Rogues Harbor, which can get beaten by waves caused by large ship wakes and wind. Waves can range between one and three feet, but could be greater depending on wind and wakes.

Funding for permanent breakwaters designed in 2010 has not been available. In 2015, the project was re-evaluated during the roundtable and during a special workgroup meeting at Elk Neck State Park. The project was proposed formally in 2015 to the Department. After internal review, it was decided to explore alternative options because of concerns that the current project would cause siltation in the harbor and kill underwater grasses. A new strategy is currently being developed. Improving safety conditions at Rogues Harbor could create safer boating conditions and encourage more tournaments to stage weighins at Elk Neck State Park. This would help spread out traffic and bass in the upper Bay.

Black Bass Stamp

Anglers have expressed interest in developing a black bass stamp to gain more information on the fishery and address a fairness issue in asking non-residents to pay a little more than residents in support of the bass fishery. The Tidal Bass Program shared requested information with stakeholders regarding the issue, uses, and economic impact of a black bass stamp. Stakeholders may work with members of the General Assembly to propose a black bass stamp.

New Licensing Questions

Departmental staff identified a need to develop better lines of communication between black bass anglers and the Department in order to deliver details from roundtables and relevant science-based information that better conserves black bass populations. To help develop that line of communication, some anglers may have noticed a couple of new questions added to the on-line licensing system, COMPASS. One of those questions asks whether anglers will fish for black bass. People who indicate they will fish for black bass and agree to receive information from Maryland Department of Natural Resources, will receive black bass news (including this annual review). News may be sent out electronically to the interested public once every two or three months.

HEALTH OF LARGEMOUTH BASS

Several anglers send in pictures of diseased largemouth bass every year. Some have asked whether fish that are skinny also have disease from largemouth bass virus. We tested largemouth bass from Potomac River tributaries (Piscataway Creek, Mattawoman Creek, and Pomonkey Creek) and Northeast River on the Bay. Tissues were collected and sent to the Fish Health Center (Lamar, PA) to screen for largemouth bass virus. Of the 30 fish from Potomac River, 6 tested positive LMBV (20%), which was not different than that recorded for individuals taken from these same areas in 2009 (20%). In Northeast River, six of ten (60%) of the fish tested positive for LMBV.

Fish testing positive for largemouth bass virus were not skinnier than those without largemouth bass virus. Robert Montgomery reported in December's 2015 B.A.S.S. Times that fish exposed to LMBV have developed antibodies and rarely die from exposure.

During our fish survey in fall 2015, signs of disease or injury were found in about one percent of fish from Potomac River. In the upper Chesapeake Bay, we found about five percent of the fish had signs of disease or injury. The most common signs of were abrasions, reddening of the skin, hooking injuries around the mouth, and fin damage. Only one fish captured from upper Northeast River appeared that it would die from signs of disease. For most populations surveyed in 2015, there was a low occurrence of individuals with signs of disease or injury.



Bass with disease captured in upper Northeast River in Fall 2015 by electrofishing.

SPREAD AND IMPACTS OF NORTHERN SNAKEHEAD

Northern snakehead (Channa argus) is invasive in Maryland, where it was discovered in the tidal Potomac River in 2004. Since then, it spread quickly in Potomac River and Chesapeake Bay watershed. The population size in Potomac River was estimated at around 20,000 subadults and adults in 2015, but more work is needed to get a more accurate value. Since we began encouraging harvest, commercial and recreational harvest has increased significantly. Between 2011 and 2012, there was a near doubling of colonized drainages in the Chesapeake Bay watershed, possibly because of intense rain during tropical storms. Studies indicate that northern snakeheads move a lot during flood events.

Work done in 2014 and 2015 revealed that snakeheads do not show strong prey preference for sunfish, topminnows, or perch-like fishes. Colorful prey items such as goldfish were slightly preferred, but snakeheads were not really that picky. An average sized adult consumed approximately seven fish per two weeks during summer. This consumption rate was not greater than that for other top predators including largemouth bass.

CONSERVATION



Middle River Fish Kill

Captain Scott Sewell, resident of Middle River

and avid bass angler, reported seeing dead fish in November. The following information was obtained from Maryland Department of the Environment regarding the fish kill. The Middle River fish kill appears to be the largest in Maryland in 2015. The Maryland Department of Environment revised its initial estimate of the number of fish killed in the upper Middle River and several of its tributaries to up to 200,000 after investigators went to additional areas and observed dead fish. The fish affected include largemouth bass, yellow perch, bluegill, crappies, chain pickerel, pumpkinseed sunfish, carp, killifish, Atlantic menhaden, spottail shiner and gizzard shad.

There were about 80 smaller fish kills in 2015 in Maryland...In Middle River, laboratory testing confirmed the presence of toxins that are produced by the dinoflagellate algae *Karlodinium veneficum* in water samples collected in the area of the fish kill. Earlier testing had shown the presence of the algae in the waters with cell counts high enough to produce damaging levels of toxin. In addition, an examination of fish tissue showed physical damage to gill tissue that is consistent with the known effects of the algae-produced toxins.

This is the second *Karlodinium*-induced fish kill this year and the 37th confirmed in the state since 2002...

Excessive levels of nutrients such as nitrogen and phosphorus in the water can lead to algae blooms. Reducing nitrogen and phosphorus pollution from all sources is at the heart of Maryland's blueprint for Chesapeake Bay restoration.

The investigation also showed higher than normal natural estuarine salinity levels in the upper areas of the Middle River and its tributaries. Such conditions can affect the physiology of fish and are believed to be a factor in triggering the algae bloom and causing the fish kill.

After becoming aware of citizens' concerns about possible discharges into the waters in the

area of the fish kill the Maryland Department of Environment began an investigation of those concerns. The investigation has included multiple inspections of business facilities in the area and testing of water samples from an outfall there. The Department has found no evidence of any chemical pollution as a cause of the fish kill.

"The Maryland Department of the Environment has aggressively investigated all aspects of this fish kill, following the science every step of the way," said Maryland Department of the Environment Secretary Ben Grumbles. "We know anglers and other citizens are concerned about this, and we appreciate their assistance in raising attention to this issue through social media. We're concerned too. A fish kill sends a strong signal that something is very wrong, and it underscores the importance of clean water to our economy and our quality of life. We will work in collaboration with Baltimore County and its citizens to reduce the nutrient pollution that can help cause algae blooms."

Anyone with information on fish kills or with other concerns on environmental matters involving the Chesapeake Bay or its tributaries should call the Bay environmental hotline at 877-224-7229.

Written by Jesse McKinney, Maryland Department of Environment.



Dead fish in Middle River; Photo: Scott Sewell

Catch & Return Regulation Proposal

A catch-and-return regulation will be proposed in March 2016. It could be enacted in July.

Anglers have expressed increased concern over moving bass around during the spawning season and throughout the year. Scientists have shown that removing a male guarding a nest even for a few minutes, can cause nests to fail, and offspring to die. The odds of a nest failing are much greater when a bass is moved miles from its nest, especially for newly hatched offspring. In 1989, a 15-inch minimum size regulation was passed in tidal water to keep more males on their nests during the spawning season. Some anglers are concerned that it doesn't do enough.



Natural habitat loss in the Potomac River and upper Chesapeake Bay has led to naturally lower levels of reproduction for both highly popular fisheries. To help offset this problem, catchand-return areas in Potomac River and upper Chesapeake Bay have been proposed. An electronic survey conducted between September and November indicated that over 80% of over 950 participants thought catch-andreturn areas would improve spawning success of adults and not harm their fishing experiences. The slight majority of 53% of respondents thought the areas should be managed as catchand-return areas year-round rather than just during the spawning season. Send comments by March 10th to:

fisheriespubliccomment.dnr@maryland.gov

Tournament Permits - New Changes

Since 2011 many bass tournament directors have been obtaining permits and reporting angling results from their tournaments. These results help to manage the fishery.

A small workgroup of tournament directors, bass guides, and Tidal Bass Program staff met to refine permitting procedures. The new permit procedures will: 1) give the Department an opportunity to quickly review permits; 2) encourage directors to adopt or use best management practices; and 3) reward directors who use these best management practices with a Bass Stewardship award.

The best management practices that will be encouraged to improve survival of bass are: 1) provide handling tips to anglers; 2) exclude July and August in tournament schedules; and 3) create an off-limits fishing area at weigh-in site. Other best management practices encourage a reduction in the number of fish released at a weigh-in site: 1) have a plan for redistributing fish away from that area; 2) release fish at multiple weigh-in sites within lake or river; 3) lower creel limits per angler or boat; 4) lower creel of big fish per angler or boat; and 5) use a no possession or catch-and-release rule. Another best management practice is to increase chances that a fish will return home by restricting fishing to within 20 miles of weigh-in site.

Constant Contact Find us on facebook. http://www.facebook.com/MDDNRFisheriesService

Stocking

The stocking policy adopted by the Tidal Bass Program in 2015 recommended on-going stocking of at least 2-inch fish, every two or three years. Stocking 4-inch fish was recommended for streams without much underwater grass or woody debris where young fish could hide. In 2015, there were 20,371 2inch and 4-inch largemouth bass released to tidal waters in 2015. The majority of these (17,280) were 2-inch fish released to upper Mattawoman Creek, which provides quality habitat for young bass. The 4-inch fish were released to Gunpowder River, Worton Creek, Fairlee Creek, Patuxent River, and Choptank River. Gunpowder River and Choptank River received most of the fish.

In 2016, a new change to the stocking policy is being proposed by the Tidal Bass Program. This policy can be accessed by going to:

http://dnr2.maryland.gov/fisheries/Documents/ Tidal Bass Stocking Policy 07 14 2014.pdf

Adult largemouth bass are routinely taken from Potomac River and upper Chesapeake Bay to spawn in state hatcheries. Hatchery ponds provide a controlled environment to improve nest success and survival of young bass. Young fish reproduced from Potomac River adults, will all return to Potomac River with their parents. Young fish reproduced from the upper Chesapeake Bay adults will all return with their parents to the upper Chesapeake Bay.

Additional stocking will include fish going to Middle River. These fish will be purchased by the Department. In the future, the Tidal Bass Program is proposing to purchase young largemouth bass to stock to Middle River, Choptank River, and Gunpowder River, rather than stocking the offspring from parents taken from Potomac River and upper Chesapeake Bay.

Habitat Enhancement, Reefs

The National Harbor is a popular destination for shoppers and diners, right on the banks of Potomac River. It is close to Smoots Bay, which was once considered a highly productive nursery habitat for largemouth bass. For a variety of reasons, many of the underwater grasses in Smoots Bay have died and not come back. This habitat loss may have caused a loss in the number of bass in Smoots Bay.



Reef Balls, Photo courtesy of Chesapeake Bay Foundation

There is a taskforce to help restore that habitat includes members of Maryland Department of Natural Resources, Chesapeake Bay Foundation, Maryland Bass Nation, Wetland Studies and Solutions Inc., and the National Harbor (Peterson Group, LLC). This group will build an artificial reef using 80 Mini Bay-Reef Balls (2.5 ft wide, 1.75 ft high, 200 lbs) and woody material. It is the first of its kind in Maryland.



CURRENT STATUS OF POPULATIONS

Potomac River

Similar to the past 4 years, overall catch remains low and requires management actions. Annual survivorship, reproduction and recruitment have improved on Potomac River. These improvements may help improve catch. Additional management actions will help speed recovery of the fishery. These actions include a possible catch-and-return area regulation for three productive areas for largemouth bass, habitat enhancement, incentives for tournament directors to follow best management practices, increasing outreach to improve survival of caught largemouth bass, and increased stocking of young bass.

Gunpowder River

There were 14 largemouth bass collected from the Gunpowder River; of these, none were juveniles. These fish ranged from 216 mm to 489 mm in total length (TL). Catch indices were similar to that for Choptank River population, but a longer time series is needed to produce a stock assessment of the Gunpowder River population. This time series of data should be completed by 2025.

Choptank River

The population in Choptank River suffers from poor natural reproduction. Despite significant fish stocking efforts since 2009, there has been little evidence of improving recruitment. In 2015, a fish stocking policy was adopted to help improve stocking success. Because reproduction and recruitment appears to be significantly limited by habitat conditions, population growth rates will be highly sensitive to catch-and-release mortality, which should be minimized wherever possible.

Marshyhope Creek

The population from Marshyhope Creek does not appear to require any additional management actions. The population in Marshyhope Creek is actively fished. In general, survey results indicate a quality population in Marshyhope Creek with natural and effective reproduction, probably owed in part to quality, pristine habitat.

Upper Chesapeake Bay

Catch in the upper Chesapeake Bay was below average, but reproduction and recruitment appear to have improved over previous years. Pre-emptive management actions to help protect the population are similar to those for the Potomac River fishery. Current projects to help speed recovery of the fishery include a proposed catch-and-return area regulation for three productive areas for largemouth bass, incentives for tournament directors to follow best management practices, increasing outreach to improve survival of caught largemouth bass, and increased stocking of young bass.



Department Biologist, Adam Eshleman, holding a smallmouth bass caught in the upper Chesapeake Bay during the fall survey.

Wicomico River

The population in Wicomico River is small and capable of providing a small, sustainable fishery. It was stocked in 2012, but natural reproduction was also evident. Habitat conditions appear suitable to support both stocked fish and naturally reproduced fish. The 2014 Wicomico **River Creekwatcher's water monitoring results** indicated improvements in water clarity and nutrient runoff. It is anticipated that older largemouth bass collected during this survey will spawn and contribute to natural reproduction. As habitat in Wicomico River become more suitable for largemouth bass near Salisbury (MD), it will be important to manage and monitor fishing mortality to ensure successful survival of adults.

Pocomoke River

The Pocomoke River population has shown little change. Pristine forests of Pocomoke River help protect habitat for bass. Not as many fish were caught in 2015 as in 2014. Many of the fish caught in 2014 were juveniles and subadults with good growth and condition. These fish could have evaded the survey because those ages are not efficiently captured using boat electrofishing. To meet the management needs, a complete 10-year time series of data will be available in 2019, with reference points available in 2020.



WHAT ARE THEY EATING?

There were 128 largemouth bass that were examined for diet in 2015. The fish were caught in Potomac River and 69% of those examined were mortalities from competitive sport fish tournaments. Largemouth bass average size was 15 inches and 2.1 pounds. For every two females examined, we examined three males.

Of the 128 examined fish, 74 or 58% had nothing in their guts. There were 16 of 88 tournament caught fish (18%) with a hook and/or soft plastic lure in their gut.

There were 41 fish with prey items in their gut, and 38 of them were caught in Potomac River. Of the 38 largemouth bass examined from Potomac River, there were seven with at least one identifiable fish in its gut. The most commonly identified prey fish was white perch, *Morone americana* (n = 3), but banded killifish (*Fundulus diaphanus*)(n = 2), brown bullhead (*Amerius nebulosus*) (n = 1), and silversides were also identified. An additional 19 fish had unidentified fish or fish parts in the gut. The majority of largemouth bass examined from Potomac River ate fish. A fourth of those examined had eaten crayfishes. A small number of bass had eaten stink bugs and shrimp.

TOURNAMENT FISHING

There were 111 tournaments that reported activities in Potomac River and upper Chesapeake Bay. These tournaments offered fishing experiences for 4,472 angler-days from March – November. The number of tournament activity reports from the Potomac River was 41. Tournament activity was pretty similar to recent years, but is less than between 2005 and 2008.

The number of tournaments and number of angler-days in the upper Chesapeake Bay has increased since the mid-2000's. There were 58 reported tournaments in the upper Bay in 2015.

Data were also collected for a small number tournaments held in other tidal waters of the state (Gunpowder River, Choptank River, Nanticoke River, Pocomoke River, Wicomico River), but none have a sufficient dataset for reporting trends. The two most targeted drainages for black bass tournaments were the upper Chesapeake Bay and Potomac River.

Anglers reported catching 29,475 lbs and 13,211 bass, which was lower than in 2014 because there were fewer tournaments. Most of these fish were released alive (97.8% survival), about 1% better than that reported in 2014. More fish were reportedly caught and weighed in the Potomac River (5,285) than other areas. There were 3,462 fish reportedly caught and weighed in the upper Chesapeake Bay.

Tournament anglers in Potomac River weighed in about two fish per day during the nonspawning, 12" minimum season , which was about one fish lower than average for the past decade. There were also about two bass weighed in per day in the upper Chesapeake Bay, which is normal. Available data on catches from eastern shore rivers indicates good fisheries, but relatively little data is reported from those rivers.

WANT TO FISH A TOURNAMENT?

For a list of upcoming tournaments and their locations, please go to:

http://dnr.maryland.gov/fisheries/bass/ta.asp





RECREATIONAL FISHING

There were 148 volunteer angler surveys submitted in 2015 and they represented at least 363 anglers. This is an increase of 27% in reports and 59% in the number of anglers over 2014. The majority of survey reports were submitted in May and August.

Nearly all anglers indicated they would take the fishing trip again. Most reporting anglers indicated that fishing was an important hobby (97 of 148 reports) or an occasional hobby (44 of 148 reports), rather than indicating they rarely go (7 of 148 reports). Most of the reporting anglers enjoyed their fishing trip and considered fishing a routine part of their life.



Rev. Ryan Johnson and his son fishing Middle River with Captain Dick Berich.

Between two and three anglers went on a fishing trip that lasted about four and half hours. About 46% of the fishing trips reported targeting largemouth bass. Of those targeting largemouth bass, 82% of the trips were successful in catching them.

Slightly less than half of the anglers who targeted largemouth bass fished impoundments. The Potomac River was the

second most fished location (10.3% of reports) and the upper Chesapeake Bay was third (8.8%). The Potomac River and upper Chesapeake Bay were the two most highly targeted tidewater areas by non-tournament bass anglers.

Of the 1277 fish reportedly caught in the survey, the majority of the catch was largemouth bass (26.1%), white perch (15.9%), catfish (14.9%), and sunfish (18.8%). The reported catch of largemouth bass doubled since 2014. The reported catch also included brown and rainbow trout (3.5%), yellow perch (6.2%), pickerel (5.2%) and crappie (7.7%). The least reported were northern snakehead (0.7%) and brook trout (0.9%).

As expected, only a small percentage of the caught largemouth bass were eaten (9 of 330 reportedly caught). The two species that were most eaten by anglers included: brook trout (2 of 3 reportedly caught), brown and rainbow trout (15 of 35 reportedly caught), northern snakehead (3 of 5 reportedly caught), white perch (24 of 196 caught), and catfish (104 of 190 caught). The species that contributed most to the diet of anglers was catfish.

The average spent by anglers targeting largemouth bass (\$84.37/day) during their most recent fishing trip was more than that spent by anglers who did not target largemouth bass (\$26.02/day).

Tell us what your catching. Please take the freshwater fishing survey at:

http://dnr.maryland.gov/fisheries/survey/index.asp

All comments on this report can be submitted to *Joe Love* at joseph.love@maryland.gov. A comprehensive report can be requested. Work was paid by fishing license dollars and funds from Sport Fish Restoration Act.

ROUNDTABLE AGENDA

The Black Bass Roundtable was held on February 4, 2016. Meeting information is posted at:

http://dnr2.maryland.gov/fisheries/Pages/bass/reports.aspx

	Black Bass Roundtable (2016) Tentative Agenda
	Tawes Office Building - Conference room, C-1
	580 Taylor Avenue, Annapolis, MD 21401
9:00 am	Opening Remarks, sign-in sheet
9:10 am	Announcements
L.	Status of National Harbor Reef Ball project (Joe Love)
	a. Timetable
	 Deliverable: permit (awaiting Army Corps) to bass reef subcommittee
П.	Status of black bass stamp (Roger Trageser)
	 Deliverable: list of bills currently in session
III.	Status of licensed charter boat guide website (Gina Hunt/Joe Love)
IV.	Status of catch-and-return area regulation proposal (Joe Love)
	a. Deliverable: catch-and-return area write-up
V.	Status of Rogues Harbor project (Tony Prochaska)
	a. Decision letter from DNK internal review
VI.	Status of 2016 changes to tournament permitting system, enforcement (Branson Williams)
vii.	Status of 6 knot zone on lower Gunpowder (Joe Love)
1/111	a. Action requested: periodi for 6 knot zone at the spons
VIII.	a Stocking strategy to improve recruitment (lee Love (Brian Richardson)
14.	 b. Deliverable: annual review to roundtable (amailed)
	c. Action requested: provide comments on other possible management actions
	d. Fishery management plan update (on-line): for copies, contact loe Love
	e. Deliverable: FMP adoption statement (2016)
	f. Deliverable: tentative work plan (2016)
10:10 am	Discussion
١.	Middle River fish kill (Scott Sewell)
	a. Responses by agencies and organizations, surveys and reporting
	b. MD DNR stocking proposal for Middle River and other areas
	c. Action requested: approval of stocking proposal
н.	Possum Point pollution issues, other pollution problems in bass fishery areas
	(Steve Chaconas/Keith Barker/Nick Kuttner)
	a. Deliverable: Department letter
	b. Steps forward on Possum Point
	c. Other pollution problems: data on sanitary sewer overflows in Broad Creek (Matt Lawrence)
	 a. Strategy by the Department's Tidal Bass Program regarding these issues e. Action requested: approval of strategy
IIC	Redistribution of bass following tournaments
	a. Deliverable: short minutes of 2015 meeting (on-line: for copies, contact Joe Love)
	b. Deliverable: draft policy
	c. Action requested: provide comments on policy to Joe Love, adoption
IV.	Best management practice for landing black bass (Steve Chaconas)
	a. Different and best techniques
	b. Action requested: addition of best management practices for landing in guide and Dept doc
11:30 pm	Additional Discussion
12:00 pm	Adjourn

New Faces

New Director of Inland Fisheries, Tony Prochaska

New Manager of Regional Operations Inland Fisheries, John Mullican



New Biologist (eastern region) Inland Fisheries, Mike Porta

