VIRGINIA SALTWATER RECREATIONAL FISHING DEVELOPMENT FUND
SUMMARY PROJECT APPLICATION*

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NAME AND ADDRESS OF APPLICANT:

Virginia Institute of Marine Science
P.O. Box 1346
Gloucester Pt., VA 23062

PROJECT LEADER (name, phone, e-mail):

Susanna Musick, VIMS, Marine Advisory Program
804-684-7166, susanna@vims.edu

Lewis Gillingham, VMRC, VA Saltwater Fishing Tournament, 757-247-8013, Lewis.Gillingham@mrc.virginia.gov

PRIORITY AREA OF CONCERN:

Recreational Fisheries Research and Education

PROJECT LOCATION:

VIMS and VMRC; lower Chesapeake Bay and VA offshore waters

DESCRIPTIVE TITLE OF PROJECT:

Virginia Game Fish Tagging Program 2013 (Year 19)

PROJECT SUMMARY:

(1) Develop and maintain a quality tagging program using a corps of trained angler taggers and direct the tagging effort on select target species to take advantage of significant numbers of non-legal, released fish.

(2) Direct program tagging effort toward opportunistic occurrences of strong year classes of fish in Virginia's waters when appropriate- especially species not already subject to scientific tagging studies in these waters (such as red drum, black drum, speckled trout, tautog, sheepshead, spadefish, etc.). The program avoids species (e.g. striped bass) already monitored in state waters by tagging studies coordinated by fishery research agencies and institutions.

(3) Maintain a database of tagged and recaptured fish records accessible to the angling community, but also of use to fishery researchers and managers. Make summaries and reports of data available to the angling community through annual reports, websites, presentations, children's fishing clinics, etc. and provide requested data to researchers and fishery managers.

(4) Use the tagging program to increase education of marine anglers regarding the importance of reporting tagged fish to enhance the understanding and management of key stocks important to Virginia's marine recreational fisheries.

(5) Use program results to educate the angling community about fishery conservation and management benefits directly connected with proper handling and releasing of undersized fish. Tag-recapture data show that anglers who regularly use proper catch and release fishing practices have better angling catches.

EXPECTED BENEFITS:

Provide previously unavailable data on local fish movement and seasonal migrations on tagging program target species, all of which are important to VA's marine recreational fisheries. Tagged fish length data document fish year classes supporting VA fisheries and the data collected by anglers includes species not readily sampled by existing VIMS monitoring surveys. Data document over wintering of large numbers of speckled trout and red drum in select lower Bay power plant discharge areas. Tag-recapture data enhance other data sources by documenting numbers and sizes of undersized finfish released under fishery regulations in VA waters. Results will continue to be disseminated to the angling community. Annual Reports for the program are available the VIMS website, but more importantly through trained angler taggers spreading results across the angling community. This program also provides the angling community with hands-on participation in a fisheries research and conservation project; this directly benefits Virginia's marine recreational fisheries. Program results demonstrate to the angling community that significant numbers of released, sub-legal fish survive, as well as becoming available again to anglers for better fishing experiences.

COSTS:

VMRC Funding:	$44,654 (VIMS)	+ $27,738 (VMRC) = $72,392
Recipient Funding:	$25,222 (VIMS)	
Total Costs:	**$69,876 (VIMS)**	**+ $27,738 (VMRC) = $97,614**

Detailed budget must be included with proposal.

Updated 11/12/08

***This form alone does not constitute a complete application, see application instructions or contact Sonya Davis at 757-247-8155 or sonya.davis@mrc.virginia.gov**

Virginia Game Fish Tagging Program
Budget – 2013
VMRC Portion

The majority of the VMRC portion of the budget is returned to the angling public in the form of tagging awards and information, delivery charges (UPS and USPS) and shipping supplies (96%).

Tagging awards consist primarily of rewards sent to the general public for reporting tag recapture information but also include costs for data sheets, Conservation Certificates and Plaques that are provided to the volunteer taggers. The number of reported recaptured fish in any given year correlates to the number of fish tagged in that year but is also influenced by the number of fish tagged in recent prior years. For the first time in any year, in 2008 the number of active volunteer taggers reached roughly 200 (the carrying capacity of the program) and remained at that number through 2012. To cover the expected increase in recaptures, the number of certain reward items was increased in the 2011 budget request. Additionally UPS postage and shipping costs, plus the related mailing supplies, were increased to reflect both increases in cost per item and increases due to the number of items shipped. We believe the funding amount in the 2012 budget is sufficient for 2013. Therefore our request for funding in 2013 includes no increases from the budget submitted for 2012 of $27,738. Below is the breakdown by category and item.

Tagging Awards

720 Hats @ $6.50 each	4680
720 T-Shirts @ $6.50 each	4680
250 Pewter Fish Pins @3.00 each	750
1200 Decals @ .85 each	1020
600 Digital Stickers @ 1.75 each	1050
500 Tackle Organizers @ 3.00	1500
12 Tag Plaques @ $14 each	168
Conservation Certificates	500
Data Sheets and Cards	600
Total	**14948***

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Postage and Shipping

U. S. Postage	1560
UPS Shipping	8970
Total	**10530**
Supplies (Paper, Envelopes, Mailers, Tape, Bubble Wrap etc.)	1060
Travel	1200
Total	**2260**
Grand Total	**27,738**

Virginia Game Fish Tagging Program					
Virginia Institute of Marine Science					
Proposed Budget for January 1, 2013 to December 31, 2013					
BUDGET CATEGORY		DIRECT	MATCH		
I. Salaries					
a. Marine Recreation Specialist	1.5 mm/1 mm	$ 7,580	$ 5,053		
$60,638 Per Year					
$5,053 Per Month					
b. Data Technician, TBN	1 mm/1 mm	$ 3,154	$ 3,154		
$37,854 Per Year					
$3,154 Per Month					
Subtotal		$ 10,734	$ 8,208		
II. Fringe Benefits (40%)		$ 4,294	$ 3,283		
Total Salaries and Fringe Benefits		$ 15,028	$ 11,491		
III. Communications		$ 1,000			
(Annual Report, Website/Recapture Updates,					
Promotional Publications, Mobile communications)					
IV. Travel		$ 2,000			
(Local travel for field work, Tagging work					
group meetings, presentations at scientific					
meetings and association clubs.)					
V. Supplies		$ 17,695			
20,000 T-Bar Tags @$0.63*	$ 12,600				
1,000 Plastic Dart Tags @0.88	$ 880				
1,000 Steel Dart Tags @$2.70	$ 2,700				
15 Steel Tagging Needles @$15	$ 225				
40 Tagging Guns @$30	$ 1,200				
30 Tagging Needles @$3	$ 90				
Subtotal	$ 17,695				
VI. Total Direct Costs		$ 35,723	$ 11,491		
VII. Indirect Costs - 25% VMRC		$ 8,931			
Indirect Costs - 48% on Match			$ 5,515		
Indirect Costs - 23% from Direct			8,216		
VIII. TOTAL PROJECT COSTS		$ 44,654	$ 25,222	$ 69,876	

Virginia Game Fish Tagging Program
Year 19 Proposal (2013)

January 1, 2013 to December 31, 2013

Proposal Submitted to:

Virginia Recreational Fishing Development Fund
Virginia Marine Resources Commission
2600 Washington Avenue, Third Floor
Newport News, Virginia 23607

Proposal Submitted by:

Marine Advisory Services
Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, Virginia 23062

Susanna Musick
Principal Investigator
804-684-7166

Thomas J. Murray
Associate Director for Advisory Services
804-684-7190

Margaret J. Fonner
Director of Sponsored Programs
804-684-7029

for **Roger L. Mann**
Director for Research and Advisory Services
804-684-7108

April 10, 2012

VIRGINIA GAME FISH TAGGING PROPOSAL FOR 2013

Overview

Since 1995, the Virginia Game Fish Tagging Program (VGFTP) has coordinated a fish tagging and recapture program and database created from data collected by a dedicated group of trained marine anglers. The program was coordinated from 1995 to 2007 by Claude Bain (VMRC) and Jon Lucy (VIMS). Currently, the program is under the direction of Lewis Gillingham (VMRC, Virginia Saltwater Fishing Tournament (VSFT) Director) and Susanna Musick (VIMS, Marine Advisory Program).

This proposal seeks to continue funding for the project from the Saltwater Recreational Fishing Development Fund during 2013 (Year 19). In complement to the VMRC funds requested in this proposal, the Virginia Institute of Marine Science of the College of William and Mary will provide matching funds. Additional communication and administrative support is provided by the Virginia Sea Grant Program at VIMS, a federal funding source (National Oceanographic and Atmospheric Administration-NOAA) of special significance to VIMS as part of the broader Virginia Sea Grant Marine Extension Program.

VIMS and the VMRC share program responsibilities to take advantage of the respective organizations' communication links with the marine recreational angling community, strengths in data analysis and production of publications. The tagging program's database is housed and maintained at the VMRC. The VSFT has a close association with the Hampton Roads community having been in Virginia Beach from 1995-2008 and now in Newport News. Since 1958, the VSFT has monitored and awarded trophy catches and releases of marine fish in state waters. This mechanism provides regular and trusted contact with anglers, tackle shops and marinas. The mailing protocol used by the VSFT for the trophy catch awards translates well to recapture awards distribution for the tagging program. The VSFT handles tagging and recapture data entry in addition to the awards.

Like the VSFT, VIMS enters tagging and recapture data for the VGFTP. VIMS also conducts regular data analysis for the program and flags questionable data for the program. VIMS provides data summaries and figures for training workshops, annual reports, researchers, fishery managers, anglers and presentations to angling clubs, civic groups and scientific meetings. VIMS is also responsible for ordering, distributing and maintaining tagging equipment for the program including tags, tagging needles and tag applicators.

Overall Objectives

The following basic objectives guide program activities:

(1) Develop and maintain a quality tagging program using a corps of trained angler taggers and direct the tagging effort on select target species to take advantage of significant numbers of non-legal, released fish.
(2) Direct program tagging effort toward opportunistic occurrences of strong year classes of fish in Virginia's waters when appropriate-especially species not already subject to scientific tagging studies in these waters (such as red drum, black drum, speckled trout, tautog, sheepshead, spadefish, etc.). The program avoids species (e.g. striped bass) already monitored in state waters by tagging studies coordinated by fishery research agencies and institutions.
(3) Maintain a database of tagged and recaptured fish records accessible to the angling community, but also of use to fishery researchers and managers. Make summaries and reports of data available to the angling community through annual reports, websites, presentations, children's fishing clinics, etc. and provide requested data to researchers and fishery managers.
(4) Use the tagging program to increase education of marine anglers regarding the importance of reporting tagged fish to enhance the understanding and management of key stocks important to Virginia's marine recreational fisheries.
(5) Use program results to educate the angling community about fishery conservation and management benefits directly connected with proper handling and releasing of undersized fish. Tag-recapture data

show that anglers who regularly use proper catch and release fishing practices have better angling catches.

The program maintains a group of experienced, trained, angler-taggers who can capitalize on opportunities to tag key species that often exhibit high abundance levels during a given fishing season. These events contribute to rebuilding and sustaining specific fisheries in Virginia's one billion dollar recreational fishery and take on even greater value when this program documents sizes and abundance of recreationally-targeted fish and the habitats they utilize.

Program Structure

Participation during any one year is limited to approximately 200 trained taggers to keep the program manageable and to promote quality tagging and data collection. Under this participation level, the need for tags, equipment and the handling of tag-recapture data have been manageable. This number of taggers has worked well to produce useful data on the number and size distribution of tagged fish and a valuable time-series of tag-recapture data for the targeted species. Since 2009, there has been one, centrally-located, annual training workshop.

Annually, in December, taggers are asked to renew their active status in the program for the coming year. Due to various circumstances (moving out of the area, selling their boat, etc.) about 10-30% of participants may become inactive at the end of the year. This change opens up new "slots" for anglers on the waiting list to join the program. The spring tagging training workshop fills these open positions with new taggers.

Just over 30 new taggers were trained in 2011 and approximately 20 more new taggers joined the program in March 2012. The training workshop focuses on program objectives, data recording needs, fish handling and tagging techniques, and hands-on tagging practice with fresh fish. After practicing tagging to the satisfaction of program staff, new taggers are provided tags and tagging equipment (including waterproof data sheets, tagging protocol handouts and fish measuring boards).

Details of Program Responsibilities

In addition to handling the majority of data entry, the VA Saltwater Fishing Tournament office distributes tags, needles, etc. These items are regularly mailed to taggers and records are maintained regarding tag-number series assigned to the participants. This information is important for tracking down late tagged fish data reports for reported recaptures. Similarly, "Fish Recapture Reports" generated from the database are mailed to both the tagger and the angler reporting the recapture (along with the available reward item). This timely feedback loop is critical to the success of the tagging program.

Every tag clearly states that a "REWARD" is offered for reporting recaptures of tagged fish. Appropriate reward items (program caps, sun visors, T-shirts, fish pins, etc.) are mailed to anglers (and commercial fishers and fish dealers reporting tags) by the VSFT office along with fish Recapture Reports. The most popular reward item is the t-shirt, which must be printed in limited numbers each year to stay within budget. Typically, late in the fishing year the T-shirt supply becomes exhausted. Then other reward items are substituted for it (most reporters of recaptured fish understand such issues).

The majority of data for both tagged and recaptured fish are entered into the database at the VSFT office; the data go directly into the database maintained on a server at the VMRC. The VMRC database manager is proactive in contributing to the improvement of tagged and recaptured fish data and outputs. Current options include setting up various reports that provide "single-click" data summaries for review and tracking program results.

VIMS continues to serve as a remote site for entering tagged and recaptured fish data for selected program participants. To relieve some of the workload from the VSFT office, VIMS (Dianne Roberts)

enters all data for the program's most productive tagger, Mr. Ed Shepherd. From 2007-2011, Mr. Shepherd has tagged 2,000-4,000 fish annually (3,434 in 2011, Table 1) which resulted in 550-900+ recapture reports each year. Ms. Roberts also provides critical feedback to the program regarding data organization, tagging inventory, workshop materials and dissemination preparation. VIMS also distributes tags to tagging program members on the Middle Peninsula.

At VIMS, tagged fish and recapture data records are also checked for possible inconsistencies and errors; the corrected data then are analyzed and formatted for various presentations and reports. Figures demonstrating fish movement and habitat use patterns are also developed for a variety of educational programs (VIMS Marine Science Day, kids fishing clinics, science teachers and public presentations). Data and graphics also are developed in different formats for various program dissemination needs, i.e. VIMS website pages, annual tagging training workshops, posters, annual reports and presentations (angling clubs, civic groups and scientific meetings). Use of the VGFTP as a source of data by recreational fisheries managers has grown. In 2011, VIMS engaged with the VMRC to collect whole catch data on summer flounder. Also, VIMS analyzed VGFTP tautog data for the 2011 Atlantic States Marine Fisheries Commission compliance report and provided cobia recapture data (including long-term migration and habitat usage data) for the South East Data Assessment and Review. The VGFTP continues to be an important source of data that is in many cases, not available elsewhere.

Tag and program equipment orders including the construction of fish measuring boards are handled by VIMS. VIMS also periodically conducts tag retention field trials to evaluate whether changes might be warranted regarding the type of tag used for a specific species. Depending on the size range of fish, certain tags are more appropriate for small fish specimens (like the 2.5 in T-bar tag) versus large fish (plastic and stainless steel dart tags). For target species larger than 26-28 inches total length, the program recommends using a 6.25 in. stainless steel dart tag with wire core sheath. (Figure 1).

In 2008, select taggers were provided dogleg dart tags (DD tags) and wide-anchor dart tags (DW tags) to trial in speckled trout and red drum. These retention studies of plastic dart tags continue under the guidance of Susanna Musick to examine patterns of times at large (versus T-bar tags). Recapture rates and times at large are being examined to determine if improved retention patterns result from the DD and DW tags.

Target Species: 2000-2012

Target species for 2013 are listed below (unchanged since 2000).

Black Drum	*Pogonias cromis*
Black Sea Bass	*Centropristis striata*
Cobia	*Rachycentron canadum*
Summer Flounder	*Paralichthys dentatus*
Gray Triggerfish	*Balistes capriscus*
Red Drum	*Sciaenops ocellatus*
Sheepshead	*Archosargus probatocephalus*
Spadefish	*Chaetodipterus faber*
Speckled Trout	*Cynoscion nebulosus*
Tautog	*Tautoga onitis*

Background and Overall Accomplishments-2011

The tagging program documents annual and year-to-year movement and habitat utilization patterns of selected finfish species in Virginia waters. For certain species, the program documents significant coastwide migrations. Many of these species spawn in the lower Bay or nearshore waters of Virginia and use Virginia estuarine and coastal waters as nursery and feeding grounds.

The program's results are of interest to the angling community and to fishery researchers and managers. The number and size distribution of fish tagged each year compliment other research-based data sets and can help fishery managers gain a more comprehensive picture of sizes of fish released in the state's marine recreational fishery.

Tagging effort for flounder, red and black drum, speckled trout, cobia, spadefish, triggerfish and sheepshead primarily occurs in Bay and nearshore coastal waters. However, tagging of tautog, black sea bass, spadefish and gray triggerfish occurs over much broader areas of the Bay and inshore-offshore waters. Tagging for structure-oriented species occurs on sites such as fishing piers, artificial reefs, the Chesapeake Bay Bridge Tunnel complex, shipwrecks and other bottom sites occurring from the lower Bay to sites offshore of Virginia.

Special tagging continues at warm water discharge sites through cooperation with Virginia Dominion Power. Past tagging results at the Yorktown Power Station (York River) and the Center for Energy Conservation Power Station (Elizabeth River) have helped to document these areas as important over-wintering sites for various species, especially speckled trout and red drum.

Through 2011, the program's database included over 186,000 tagged fish records and approximately 21,082 recapture records (Table 2). (*Note: VGFTP data referenced here include summaries of fish tagged and recaptured in terms of the number of *fish* recaptured (Table 2) and the *cumulative* number of *recaptures*, including multiple recaptures of the same fish (Table 3).) During 2007-2009, there was good consistency among top ranked species by number of fish tagged per year. Summer flounder traditionally accounted for the most tagged fish each year with red drum, speckled trout and black sea bass each account for >3,000 fish tagged (2007-2009). Recapture rates during 2011 (Table 3) were approximately 11.4% and 23% for tautog and gray triggerfish, respectively. The spadefish recapture rate was 7.1%, red drum was 22.9%, cobia was 5.1% and black sea bass was 30.3%. Recapture rates were 7.4% for flounder. The lowest recapture rates occurred for black drum (4.7%) and sheepshead, which had no recaptures. Speckled trout brought good news as the recapture rate rose from 2.4% 2010) to 7% in 2011.

During 2011, 110 trained anglers tagged fish. In March, "Top Tagger" awards were presented in Hampton at Bass Pro Shops' "Spring Fishing Classic" seminar series. The Tagging Program is fortunate to have a consistent group of anglers dedicating volunteer effort into tagging considerable numbers of fish that result in useful recapture data. The 2011 top taggers are responsible for a major portion of tagged and recaptured fish data each year. The good-natured competition for the annual awards encourages taggers to work at becoming more consistent in their tagging. This consistency helps their chances of making the list of annual award winners for any given year. Trained anglers' tagging accomplishments appear in Table 1 by number of tagged fish. Seventy-eight (78) anglers tagged 25 or more fish during 2011; this accounted for about 98 percent of all fish tagged in the year. This participation level was similar to that in 2010. These anglers' consistent efforts produce the majority of data on local and regional habitat use and movement patterns of target species.

Top ranking anglers by total recaptures during 2011 appear in Table 4. The majority (95%) of recaptures reported during the year were accounted for by the 39 taggers listed. As expected, anglers tagging the most fish often have the highest number of recaptures per year. Higher numbers of recaptures are associated with a number of variables including fishing (and tagging) frequency, organizing tags and data sheets to enhance tagging efficiency, and tagging at locations which hold fish for significant periods and which are fished frequently by other anglers.

Long-term trends and Select 2011 Results

Black sea bass: Just over 1589 fish were tagged in 2011. In the past, many of the tagged sea bass were 5-6 inches (total length) with over 2,100 tagged at Fort Monroe Fishing Pier in 2009. A number of multiple recaptures occurred among the small fish, especially at the Fort Monroe Pier. Previous data have shown minimal movement away from tagging sites. To manage program resources better, a minimum tagging size limit of 6.5

inches was implemented in 2010. Even with this size limit in place, black sea bass had the highest recapture rate in 2011 at ~30.3%.

Flounder: VGFTP flounder show consistent patterns of recruitment within the Chesapeake Bay. From 2007-2010, the majority of flounder were tagged and recaptured in Virginia waters. Minimum tagging size limit restrictions were set in 2010 to better manage program activities (data entry and rewards). This decision helped to verify that the majority of single and multiple recaptures at piers and other structure sites were composed of primarily smaller fish (<12 in.). The Gloucester Point Fishing Pier was the top tagging site for the program (2007-2010) and similar site fidelity patterns for recaptures have been seen at the Hampton Roads Bridge Tunnel complex, Ocean View Fishing Pier, Fort Monroe Fishing Pier and Rudee Inlet waters. The pattern of VGFTP recaptures is similar to that of previous studies (Desfosse (1995), Kraus and Musick (2001)) with the majority of recaptures in the general tagging area. Likewise, the northern and southern range for recaptures (Rhode Island and South Carolina), followed that of Desfosse (1995). *Overall, the tagging program data have shown similar results to earlier flounder datasets from Virginia, providing further support for the angler-assisted tagging methodology.* Preliminary data suggest that total recreational catches of summer flounder declined in 2011. This was reflected in the VGFTP with lower summer flounder effort: in 2011, approximately 2,685 flounder were tagged and 190 recaptured.

Red drum: From 1998-2011, >500 red drum have been tagged each year in Virginia. During recent years, Rudee Inlet and the "Hot Ditch" area of the Elizabeth River have held over-wintering populations of sub-adult drum. Every winter since 1998, good numbers of red drum have been tagged at the Elizabeth River Hot Ditch, and several fish were also tagged at the York River "Hot Ditch." However, tagging at the York River site was limited in 2010 and 2011, due to limited warm water outflow. In 2011, 1,219 red drum were tagged and 264 were recaptured (Table 2).

Speckled trout: One positive pattern seen in 2011 was the increase in the recapture rate of speckled trout. In 2010, the annual recapture rate for speckled trout was 2.4%; this increased to 7% in 2011. Most of the speckled trout recaptured were young fish tagged earlier in the 2011 season, though the average recapture size was smaller (9.8 inches TL) than in previous years (12.7-17.1 inches TL, 2007-2010). Longer term recaptures will help provide data regarding the retention rate of TB tags in smaller speckled trout, too. Speckled trout made up 65.5% of tagging effort in 2011. This reflects not only the large numbers of speckled trout in the Chesapeake Bay last year, but also the growing popularity of the species as a game fish.

Tautog: Through 2011, tagging effort on tautog in Virginia waters has resulted in >15,544 fish tagged. From this effort, there have been >2,456 recaptures reported (Table 3). Tag-recapture data for tautog continue to document that the species does not undergo regular seasonal movements offshore during the fall or inshore during the winter. Tautog tagged in Virginia Bay and offshore waters show no distinctive northward migration over time.

Proposed 2013 Activities

1. Tags and tagging equipment will be provided to the program's participants with the primary emphasis of collecting and recording quality data on tagged fish.
2. The VGFTP database will be maintained on the VMRC server and improvements (where necessary) will be addressed such as data sorting and retrieving, automatic report generation and access, and online reporting and tagger record access (making participant's tag and recapture records more accessible to them through a secure process).
3. Continue working with taggers to trial various types of tags that may increase retention (and thereby recapture rates) in species such as speckled trout, red drum, etc.
4. Produce updated materials and results for the program website and create the 2013 Tagging Program Annual Report. Explore preferred methods of dissemination for program participants.

5. Conduct tagging training workshop(s) to bring new anglers into the program (as space permits). Continue updating and improving instructional handouts and presentations to improve training and provide continuing education for existing taggers.

Expected Benefits

The VGFTP data will continue to provide anglers, researchers and fishery managers with historic and recent data describing fish habitat use and seasonal movement patterns for key recreational species. The data may also highlight significant pattern shifts for fish that may warrant special research projects to ascertain whether such changes are significant.

The program will provide the opportunity to tag large numbers of fish on relatively short notice with an experienced group of trained angler-taggers. This situation has taken place in the past, especially in regard to juvenile and adult red drum, cobia, summer flounder, speckled trout, spadefish, sheepshead and tautog.

The program will provide improved communication, understanding and cooperation among scientists, managers and anglers regarding tagging programs and the benefits of good reporting rates of recaptured fish. The program delivers relevant information to the angling community and the public about the importance of Virginia's marine recreational fisheries, including the benefits of correct fish handling techniques and effective catch and release fishing on fish resources.

Annual tagging program reports will continue to offer program results readily accessible to anglers and others interested in tracking marine recreational fisheries in state waters. Accessibility to annual reports will be primarily through the VIMS website (and library) with links to the site from VMRC webpages and other related fisheries management groups. The VIMS website will continue to be updated in 2012 and 2013 to make it more user-friendly for the taggers and other recreational community members.

The VGFTP database will continue to document changes in relative abundance of various year classes of recreationally-targeted fish in Virginia. It also provides data on the size distribution of sub-legal fish released in Virginia's recreational fishery, patterns of seasonal migrations and habitat use of key fish, including over-wintering areas used by key target species.

Location

The project is located in Virginia and the taggers are Virginia recreational fishermen. All species of fish targeted by the program are recreationally important and found seasonally in the Chesapeake Bay. Tagging efforts will occur in Virginia waters including the Chesapeake Bay and adjacent nearshore and offshore waters.

Annual Report

The annual report for 2010 was completed and submitted to the Recreational Fishing Advisory Board and VMRC staff in May 2011. Limited hard copies are available of the report, though online access is encouraged to reduce printing and paper wastage. Annual reports through 2010 are available on the VIMS VGFTP website: www.vims.edu/vgftp/ .

References:

Desfosse, J. 1995. Movements and ecology of summer flounder, *Paralichthys dentatus*, tagged in the southern Mid-Atlantic Bight. College of William & Mary, Williamsburg, VA, PhD Dissertation, 187 pp.

Kraus, R. T. 1998. Tagging and habitat utilization of juvenile summer flounder, *Paralichthys dentatus*. College of William & Mary, Williamsburg, VA, M.S. Thesis, 148 pp.

Kraus, R.T. and J.A. Musick. 2001. A brief interpretation of summer flounder, *Paralicthys dentatus*, movements and stock structure with new tagging data on juveniles. Mar. Fish. Rev. 63 (3):1-6.

Figure 1. VGFTP Tags and Applicators

Tagging Gun and T-Bar Tags (top photo); Stainless Steel Dart Tag and Applicator (bottom photo)
(Note: coin for scale – 0.75 inches diameter)

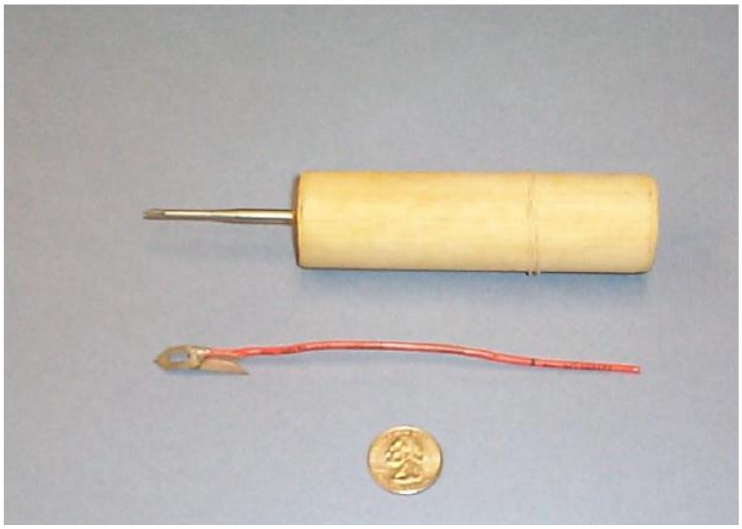

Table 1. VGFTP 2011 Top Taggers: Anglers Tagging >25 Fish

First Name	Last Name	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheepshead	Spadefish	Speckled Trout	Tautog	Triggerfish	Total
ED	SHEPHERD	26	984	0	253	0	0	0	2171	0	0	3434
SHELDON	AREY	1	0	1	15	12	0	0	1855	0	0	1884
DONNIE	SMITH	0	0	0	23	78	0	0	1246	0	0	1347
BRANDON	BARTLETT	1	50	3	20	1	0	0	907	4	0	986
JIM	ROBINSON	45	8	4	75	225	1	4	564	27	0	953
GEORGE	WOJCIK	0	5	1	76	1	0	0	621	0	0	704
ED	LAWRENCE	0	0	1	8	121	0	0	516	0	0	646
CARL	STOVER	28	14	0	203	7	0	14	289	0	0	555
JON	LUCY	4	0	0	2	136	0	0	408	0	0	550
ROB	COLLINS	7	155	0	69	11	4	2	57	183	8	496
WAYNE	ROWE	2	1	0	14	51	7	0	374	0	0	449
MARK	SPENCER	0	0	0	0	3	0	0	391	0	0	394
WALTER	EHMANN	5	39	0	0	58	0	2	245	0	0	349
RICK	GUYOT	3	5	1	17	43	1	0	267	8	4	349
JAY	DUELL	3	2	0	134	5	0	0	174	0	1	319
SAMUEL	SELLARD	7	24	0	104	17	0	0	0	118	0	270
MARVIN	HARDISTY	1	0	0	1	40	0	0	196	0	0	238
KEVIN	CRUM	1	0	0	1	10	0	0	209	0	0	221
MIKE	PERRON	3	40	0	73	0	0	0	37	61	0	214
MIKE	HANDFORTH	0	0	0	211	0	0	0	0	0	0	211
DAVID	COHN	16	7	0	0	29	1	0	49	97	0	199
JOHN	TAYLOR	0	5	0	68	0	0	0	116	0	0	189
JIM	DUELL	1	1	0	98	3	0	0	79	2	0	184
JOHN	DUNN	0	0	0	2	0	0	0	166	0	0	168
KEN	SCHULTZ	0	0	0	119	0	0	0	24	0	0	143
BARRY	DAVIS	0	0	0	16	0	0	0	122	0	0	138
BILL	KNAPP	7	5	1	3	6	3	0	74	36	0	135
JARED	SEELOFF	3	0	0	0	119	0	0	3	0	0	125
RICK	YAVNER	1	0	0	8	0	0	0	113	0	0	122
DAVID	GRIFFITH	0	0	0	37	48	0	0	37	0	0	122
JEREMY	HULCE	6	44	0	1	1	0	0	63	0	0	115
DANNY	TAYLOR	0	0	0	110	0	0	0	0	4	0	114
SUSAN	HARRELL	0	108	0	4	0	0	0	2	0	0	114
KEN	NEILL	9	0	0	0	6	0	0	0	98	0	113
JORJ	HEAD	0	0	111	0	1	0	0	0	0	0	112

First Name	Last Name	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheepshead	Spadefish	Speckled Trout	Tautog	Triggerfish	Total
RON	DUKE	0	0	0	0	0	0	0	94	0	0	94
MARK	NESIUS	1	16	0	1	2	0	0	69	1	0	90
MIKE	RUSS	0	0	0	0	51	0	0	34	0	0	85
WAYNE	SEYMOUR	0	0	0	0	40	0	0	44	0	0	84
JOE	SIMONS	0	0	0	0	0	0	0	81	0	0	81
ANDREW	KUMJIAN	0	0	0	10	2	0	0	64	3	0	79
CHARLES	DONNELL	0	0	0	73	0	0	0	0	0	0	73
JOHN	ZARELLA	5	10	0	29	0	0	0	26	0	0	70
BRANDON	POULTER	1	0	4	37	0	0	0	25	1	0	68
RENSHAW	FORTIER	0	0	0	4	0	0	0	63	0	0	67
JOHN	DANCEL	0	0	0	5	0	0	0	61	0	0	66
MATTHEW	MARQUEDANT	0	0	0	1	0	0	0	63	0	0	64
LEE	HUGHES	0	0	0	63	0	0	0	0	0	0	63
TIMOTHY	WATERS	0	0	0	0	0	0	0	62	0	0	62
KEVIN	DUBOIS	0	5	0	1	0	0	0	53	0	0	59
IN CHUN	KIM	0	0	0	58	0	0	0	0	0	0	58
DOUG	PURCELL	0	0	0	8	0	0	0	49	0	0	57
WES	BLOW	1	0	1	2	12	0	0	41	0	0	57
WILL	DAMERON	2	28	0	22	0	0	0	4	0	0	56
JASON	WALTON	0	1	0	54	1	0	0	0	0	0	56
JEFF	HOTTENSTEIN	0	0	0	16	0	0	0	38	0	0	54
SUSANNA	MUSICK	0	3	1	11	4	0	0	33	0	0	52
LANCE	STITCHER	0	0	0	50	0	0	0	0	0	0	50
DOROTHY	ELLIOTT	0	0	0	50	0	0	0	0	0	0	50
JOE	BESSLER	0	0	0	0	0	0	0	47	0	0	47
DAVID	BARNHART	0	0	0	0	3	0	0	44	0	0	47
THOMAS	EMBRY	0	2	0	30	0	0	0	14	0	0	46
GERALD	HEAD	0	0	0	0	0	0	0	45	0	0	45
ASHLEY	MCCALL	0	0	0	45	0	0	0	0	0	0	45
RICK	WINEMAN	8	0	0	0	12	0	0	14	11	0	45
RICHARD	SEELOFF	6	0	0	0	36	0	0	3	0	0	45
WILLIAM	SPRUILL	0	0	0	43	0	0	0	0	0	0	43
JOHN	HUME	0	0	0	0	0	0	0	38	0	0	38
HUNTER	TUCKER	0	0	0	33	0	0	0	0	5	0	38
TIM	CANNON	0	4	0	0	0	0	0	32	0	0	36
RORY	GOGGIN	0	2	0	29	0	0	0	2	0	0	33

First Name	Last Name	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheepshead	Spadefish	Speckled Trout	Tautog	Triggerfish	Total
CHRIS	WILLIAMS	0	0	0	18	0	0	0	13	0	0	31
DOUG	WEHNER	10	0	0	1	0	0	0	20	0	0	31
KENDALL	OSBORNE	0	0	0	0	0	0	0	29	0	0	29
BEN	CAPPS	0	6	0	0	0	0	0	22	0	0	28
MERIWETHER	PAYNE	0	0	0	27	0	0	0	0	0	0	27
BRIAN	WATKINS	0	3	17	1	3	0	0	1	0	0	25
SHANE	HATCHER	0	0	1	24	0	0	0	0	0	0	25

Table 2. VGFTP Numbers of Fish Tagged and Recaptured, 1995-2012

Game Fish Tagging Program

Virginia Marine Resources Commission

Virginia Institute of Marine Science

Recaptures / Tagged by Year and Species Report

Based on Number of Fish

Print Date: April 5, 2012, 9:09 am

Year	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheeps Head	Spade Fish	Speckled Trout	Tautog	Trigger Fish	Total
2012	1 / 3	3 / 62	0 / 0	1 / 0	11 / 24	0 / 0	0 / 0	49 / 808	37 / 399	0 / 0	102 / 1,296
2011	9 / 204	303 / 1,590	8 / 158	190 / 2,685	264 / 1,219	0 / 18	2 / 28	761 / 12,693	77 / 697	3 / 13	1616 / 19,305
2010	2 / 84	237 / 1,003	15 / 108	434 / 5,251	274 / 1,866	1 / 19	11 / 87	163 / 7,285	77 / 683	17 / 95	1231 / 16,480
2009	5 / 169	656 / 3,272	8 / 36	1098 / 9,328	506 / 3,110	8 / 225	20 / 390	97 / 3,194	108 / 540	45 / 133	2545 / 20,395
2008	6 / 186	294 / 2,684	7 / 64	769 / 7,874	456 / 4,504	2 / 40	36 / 300	183 / 3,275	139 / 745	69 / 211	1959 / 19,883
2007	33 / 546	252 / 1,875	13 / 71	947 / 8,615	483 / 3,353	28 / 229	69 / 433	59 / 2,880	227 / 954	37 / 262	2148 / 19,219

This report accounts for double tagging and counts the number of fish that were tagged and not the number of tags. Double Tag info is valid for 2008 and after. For recaptures, this report counts the number of fish recaptured and does not count multiple recaptures of the same fish.

Table 3. VGFTP Cumulative Numbers of Fish Tagged and Recaptured, 1995-2012

Game Fish Tagging Progam

Virginia Marine Resources Commission

Virginia Institute of Marine Sciences

Recaptures / Tagged by Year and Species Report

Based on Number of Tags

Print Date: April 5, 2012, 9:06 am

Year	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheeps Head	Spade Fish	Speckled Trout	Tautog	Trigger Fish	Total
2012	1 / 3	3 / 62	0 / 0	1 / 0	11 / 24	0 / 0	0 / 0	49 / 809	37 / 399	0 / 0	102 / 1297
2011	10 / 214	482 / 1590	8 / 158	200 / 2689	281 / 1226	0 / 18	2 / 28	889 / 12702	79 / 697	3 / 13	1954 / 19335
2010	2 / 85	374 / 1003	15 / 108	464 / 5255	294 / 1885	1 / 21	12 / 87	177 / 7291	78 / 683	17 / 95	1434 / 16513
2009	5 / 172	1012 / 3274	8 / 36	1265 / 9348	544 / 3133	8 / 225	20 / 391	99 / 3203	110 / 541	46 / 176	3117 / 20499
2008	6 / 192	332 / 2687	8 / 66	866 / 7896	509 / 4925	2 / 40	41 / 300	215 / 3520	145 / 745	76 / 212	2200 / 20583
2007	36 / 546	292 / 1875	13 / 71	1060 / 8615	511 / 3364	41 / 229	73 / 433	60 / 2929	238 / 955	47 / 262	2371 / 19280
2006	28 / 288	260 / 1269	26 / 187	793 / 6218	361 / 4153	0 / 176	28 / 221	51 / 1952	309 / 2081	32 / 79	1925 / 16627
2005	4 / 205	107 / 686	4 / 98	621 / 6123	42 / 794	3 / 185	21 / 173	29 / 1149	133 / 822	4 / 23	973 / 10258
2004	5 / 232	70 / 1012	5 / 184	648 / 7286	23 / 502	27 / 274	43 / 299	26 / 990	119 / 1221	41 / 193	1016 / 12193
2003	5 / 176	88 / 922	11 / 14	397 / 3704	339 / 2270	0 / 6	26 / 236	8 / 361	59 / 497	12 / 31	963 / 8219
2002	15 / 188	231 / 1732	15 / 63	317 / 3566	193 / 2752	1 / 10	55 / 470	23 / 1247	129 / 653	23 / 56	1053 / 10741
2001	4 / 395	280 / 1913	19 / 87	636 / 6880	27 / 295	1 / 7	49 / 553	13 / 486	149 / 951	2 / 14	1215 / 11599
2000	5 / 109	294 / 2008	10 / 65	161 / 2603	173 / 1124	1 / 12	60 / 523	11 / 362	156 / 713	0 / 0	912 / 7519
1999	7 / 90	384 / 2139	16 / 59	4 / 4	135 / 1073	0 / 0	25 / 233	16 / 521	356 / 1923	0 / 0	973 / 6049
1998	8 / 196	455 / 2655	13 / 73	3 / 28	92 / 551	0 / 0	38 / 476	29 / 495	226 / 1347	0 / 0	881 / 5824
1997	2 / 72	48 / 592	9 / 108	2 / 38	44 / 438	0 / 0	36 / 547	12 / 440	77 / 914	0 / 0	233 / 3150
1996	3 / 85	0 / 0	9 / 75	0 / 6	4 / 92	0 / 0	8 / 189	4 / 409	74 / 543	0 / 0	102 / 1400
1995	37 / 200	0 / 0	2 / 50	0 / 3	2 / 66	0 / 0	25 / 193	14 / 601	30 / 260	0 / 0	110 / 1374

For recaptures, this report counts the number recaptures including recaptures of the same fish.

Table 4. VGFTP 2011 Top Taggers: Anglers Who Had >5 of their Tagged Fish Recaptured

First Name	Last Name	Black Drum	Black Sea Bass	Cobia	Flounder	Red Drum	Sheepshead	Spadefish	Speckled Trout	Tautog	Triggerfish	Total
ED	SHEPHERD	4	427	1	22	4	0	0	417	0	0	875
DONNIE	SMITH	0	0	0	1	24	0	0	74	0	0	99
SHELDON	AREY	0	0	0	1	7	0	0	83	0	0	91
JON	LUCY	0	0	0	0	48	0	0	15	0	0	63
ED	LAWRENCE	0	0	0	0	39	0	0	22	0	0	61
BRANDON	BARTLETT	0	7	0	0	0	0	0	51	1	0	59
JIM	ROBINSON	2	0	0	10	29	0	0	17	1	0	59
JARED	SEELOFF	0	0	0	0	52	0	0	1	0	0	53
ROB	COLLINS	0	16	0	2	4	0	0	3	20	1	46
JOHN	TAYLOR	0	2	0	5	0	0	0	37	0	0	44
CARL	STOVER	2	1	0	16	0	0	0	20	1	0	40
GEORGE	WOJCIK	0	0	0	3	1	0	0	28	0	0	32
MARVIN	HARDISTY	0	0	0	0	19	0	0	8	0	0	27
MIKE	RUSS	0	1	0	0	16	0	0	3	0	0	20
MARK	SPENCER	0	0	0	0	0	0	0	19	0	0	19
WALTER	EHMANN	0	5	0	0	2	0	0	11	0	0	18
JAY	DUELL	0	0	0	8	5	0	0	4	0	1	18
BILL	KNAPP	0	2	0	0	2	0	0	2	12	0	18
MIKE	HANDFORTH	0	0	0	16	0	0	0	0	0	0	16
RICK	GUYOT	0	0	0	1	6	0	0	6	1	1	15
BRANDON	POULTER	0	0	0	15	0	0	0	0	0	0	15
KEN	NEILL	0	0	0	0	0	0	0	0	15	0	15
MIKE	PERRON	0	1	0	3	0	0	0	2	6	0	12
DAVID	COHN	0	0	0	0	2	0	0	4	6	0	12
JOHN	DUNN	0	0	0	1	4	0	0	6	0	0	11
RORY	GOGGIN	0	0	0	10	0	0	0	0	0	0	10
KEN	SCHULTZ	0	0	0	10	0	0	0	0	0	0	10
SUSAN	HARRELL	0	8	0	0	0	0	0	0	0	0	8
IN CHUN	KIM	0	0	0	7	0	0	0	0	0	0	7
WAYNE	SEYMOUR	0	0	0	0	3	0	0	4	0	0	7
SAMUEL	SELLARD	0	3	0	2	0	0	0	1	1	0	7
WILLIAM	SPRUILL	0	0	0	7	0	0	0	0	0	0	7
WAYNE	ROWE	0	0	0	1	0	0	0	5	0	0	6
BARRY	DAVIS	0	0	0	2	0	0	0	4	0	0	6
WILL	DAMERON	0	4	0	0	1	0	0	0	0	0	5
LANCE	STITCHER	0	0	0	4	0	0	0	0	1	0	5
DAVID	AGEE	0	0	0	1	0	0	0	0	4	0	5
JIM	DUELL	0	0	0	4	0	0	0	1	0	0	5
KEVIN	CRUM	0	0	0	1	0	0	0	4	0	0	5