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Virginia Game Fish Tagging Program
Year 22 Proposal (2016)

January 1, 2016 to December 31, 2016

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
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December 5, 2014

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VIRGINIA SALTWATER RECREATIONAL FISHING DEVELOPMENT FUND SUMMARY PROJECT APPLICATION

Please complete all fields. This page should be used as a coversheet for a detailed application.

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DESCRIPTIVE TITLE OF EVENT:
VIRGINIA GAME FISH TAGGING PROGRAM

PROJECT LOCATION:
All Virginia (marine) waters

BRIEF PROJECT SUMMARY: (include a detailed description of activity as an attachment)

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. This proposal seeks to continue funding for the project from the Saltwater Recreational Fishing Development Fund during 2016 (Year 22). 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.).
(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.

EXPECTED BENEFITS: (Describe how your project directly benefits the average Virginia recreational angler)

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.

SUMMARY COSTS: (Please attach a detailed budget including all sources of recipient funding)

SUMMARY COSTS

Requested VMRC Funding:	**$ 51,475**
Recipient Funding:	**$ 25,743**
Total Costs:	**$ 77,218**

VIRGINIA GAME FISH TAGGING PROPOSAL FOR 2016

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 cooperative program is currently managed by Susanna Musick (VIMS, Marine Advisory Program) and Lewis Gillingham (VMRC, Virginia Saltwater Fishing Tournament (VSFT) Director).

This proposal seeks to continue funding for the project from the Saltwater Recreational Fishing Development Fund during 2016 (Year 22). 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.

VIMS and the VMRC share program responsibilities to take advantage of the respective organizations' communication links with the marine recreational angling community and strengths in data analysis and 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 and implementing the annual training workshop.

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.

Approximately 20 new taggers joined the program in April 2014. 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 2007-2014, Mr. Shepherd has tagged 2,000-10,000 fish annually, which resulted in 550-1,000+ 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 fisheries managers has continued to grow. VGFTP data are used by state and regional level management groups. The VMRC used VGFTP tagging and recapture data as part of their Atlantic States Marine Fisheries Commission compliance reports for red drum and tautog. VIMS also contributed data for the ASMFC PID (Public Information Document) for black drum. VIMS has also served on the ASMFC Black Drum Technical Committee Tagging Workgroup and provided tagging, recapture, mortality, habitat use and size frequency data for the assessment. 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). Since 2008, select taggers have been 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 supervision of Susanna Musick to examine patterns of times at large (versus T-bar tags). Recapture rates and times at large are examined regarding tag retention patterns from the DD and DW tags.

Target Species: 2000-2014

Target species for 2016 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-Winter 2014

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 coastal 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 important 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 overview of the sizes of fishes 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.

Through winter 2014 (data accurate through December 1, 2014), 96 trained anglers tagged fish. Earlier this year, in February, "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 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. Thus far, sixty-one (61) anglers have tagged 25 or more fish during 2014; this accounts for about 97 percent of all fishes tagged in the year. This participation level was similar to that in 2013. These anglers' consistent efforts produce the majority of data on local and regional habitat use and movement patterns of target species.

In 2014, seventy-three (73) taggers reported recaptures, with the majority (97%) of recaptures reported by the top 41 taggers. 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. In spring 2015, the majority of 2014 data should be complete and the top taggers for the program will be recognized during the annual awards ceremony. Their individual accomplishments and related data will be published in subsequent reports.

Select 2014 Results

Through December 2014, the program's database included over 253,277 tag records and approximately 27,994 recapture records (Table 2). In 2014, the VGFTP had a 19.8% decrease in tagging (n=13,569, Table 2) and a 6.4% increase in recaptures (n=2,163, Table 2) from the previous year. Species with an increase in tagging included black sea bass (n=2,661 tags), cobia (n=285 tags), flounder (n=1,601 tags), spadefish (n=285 tags) and triggerfish (n=53) (Table 2). Of these, spadefish had the most impressive increase (up 163.9% from 2013). The top tagged species in 2014 was again speckled trout. This is a return to 2010, 2011 and 2013 when speckled trout led the tagging effort. However, summer flounder, which ranked as the top tagged species from 2001-2009, also had an impressive effort increase of 77.1%; this was a welcome change from the decline that had taken place since 2009. Species that had lower tagging numbers in 2014 included black drum (n=128 tags), red drum (n=2,971 tags); sheepshead (n=18 tags); speckled trout (n=5,054 tags); and tautog (n=85 tags) (Table 2). Although these species had a decline in tagging effort, some of them (black drum, sheepshead) had an increase in recaptures, though the total numbers were low. Finally, these are preliminary data for 2014; tagging effort in 2014 continues and this should be taken into consideration when examining these initial 2014 figures.

VGFTP data provided fish movement and site-fidelity patterns of fish captured and released in Chesapeake Bay and Atlantic coastal waters. These data have also provided an important source of information for marine fisheries management. Since 1995, more than 500 taggers have been trained and participated in the program and fishing effort has been documented at over 900 locations in Virginia waters. The VGFTP continues to serve as an exceptional source of recreational fisheries data. The fact that the VGFTP offers unique data on recreationally-important finfish was just one reason why it was awarded certification by the Atlantic States Marine Fisheries Commission (ASMFC) in 2013. The VGFTP is one of only 5 currently certified by the Interstate Tagging Committee (ITC).The program was commended for the training provided to taggers and the commitment of

program personnel and anglers to the program. Evaluators also recognized the VGFTP's role in improving communication between fishery scientists and managers and the recreational fishing community while obtaining quality tagging data.

Proposed 2016 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 2016 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 circumstance 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.

Though our best efforts have been made for the 2016 budget projections, the attached budget is being prepared two years into the future. Therefore, minor adjustments may be necessary to reflect the changes in equipment costs, state funding, etc. and tagging effort related to overall abundance of fishes. The ratio of tag types has been adjusted to provide emphasis on the most prevalent tag type and to keep overall equipment costs lower. 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) www.vims.edu/vgftp/ , with links to the site from VMRC webpages and other related fisheries management groups. The VIMS website will continue to be updated in 2015 and 2016 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 2013 was completed and submitted to the Recreational Fishing Advisory Board and VMRC staff in May 2014. Limited hard copies are available of the report, though online access is encouraged to reduce printing and paper wastage. Annual reports through 2013 are available on the VIMS VGFTP website: www.vims.edu/vgftp/ ; future reports will be posted to the same location.

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)

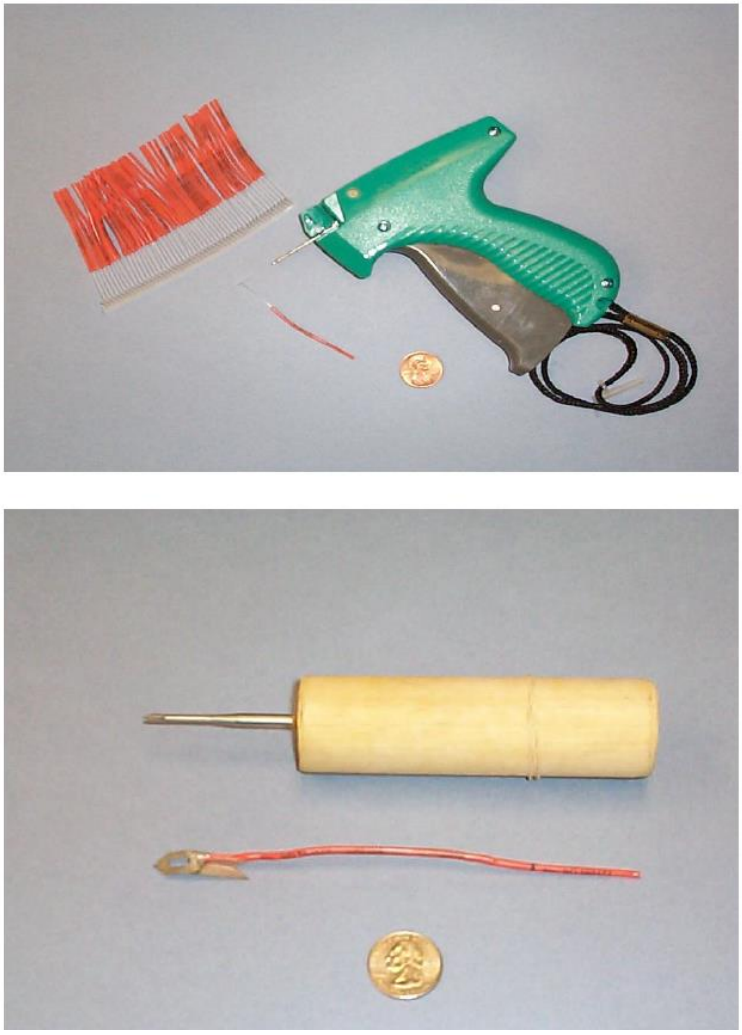

Table 1. VGFTP Numbers of Fish Tagged and Recaptured, 1995-2014

Year	Black Drum		Black Sea Bass		Cobia		Flounder		Red Drum		Sheepshead		Spadefish		Speckled Trout		Tautog		Triggerfish		Total	
	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish	Recaps	Fish
2014	6	128	661	2,661	18	285	207	1,600	465	2,971	1	18	29	285	92	5,054	84	512	3	53	1,563	13,567
2013	3	201	380	1,886	16	210	107	892	804	5,926	0	28	11	108	265	6,511	118	1,061	2	24	1,704	16,847
2012	8	144	166	1,382	11	431	98	1,772	1,426	18,351	0	31	31	493	283	7,874	99	1,035	16	89	2,138	31,602
2011	9	204	303	1,590	8	158	190	2,684	264	1,219	0	18	2	28	761	12,723	77	698	3	13	1,616	19,335
2010	2	84	237	1,003	15	108	434	5,251	274	1,866	2	19	11	87	163	7,285	77	683	17	95	1,232	16,480
2009	5	169	656	3,272	8	36	1,098	9,328	506	3,110	8	225	20	390	97	3,194	108	540	45	133	2,545	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	1,959	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	2,148	19,219
Total Recaps /Fish	72	1,662	2,949	16,353	96	1,363	3,850	38,016	4,678	41,300	41	608	209	2,124	1,903	48,796	929	6,228	192	880	14,905	157,328
Overall Recap-ture Rate	4.33%		18.03%		7.04%		10.13%		11.33%		6.74%		9.84%		3.90%		14.92%		21.82%		9.47%	

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. The first column under each species is the number of recaptured fish and the second column is the number of tagged fish.

*This table also includes 190 cobia and 199 spadefish that were tagged as part of a special cooperative study with the Virginia Tech Virginia Seafood Agriculture Research and Extension Center in 2012.

Table 2. VGFTP Cumulative Numbers of Fish Tagged and Recaptured, 1995-2014

Year	Black Drum		Black Sea Bass		Cobia		Flounder		Red Drum		Sheepshead		Spadefish		Speckled Trout		Tautog		Triggerfish		Total	
	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags	Recaps	Tags
2014	6	128	1,166	2,661	18	285	273	1,601	485	2,971	1	18	33	285	92	5,054	85	513	4	53	2,163	13,569
2013	3	202	608	1,886	16	212	128	894	864	5,940	0	28	12	108	271	6,516	125	1,064	2	24	2,029	16,874
2012	13	146	187	1,382	11	437	103	1,773	1,612	18,371	0	31	37	493	288	7,883	100	1,037	17	89	2,368	31642
2011	10	214	482	1,590	8	158	200	2,688	282	1,226	0	18	2	28	889	12,732	79	698	3	13	1,955	19,365
2010	2	85	374	1,003	15	108	464	5,255	294	1,885	2	21	12	87	177	7,291	78	683	17	95	1,435	16,513
2009	5	172	1,012	3,274	8	36	1,265	9,348	544	3,133	8	225	20	391	99	3,203	110	541	46	176	3,117	20,499
2008	6	192	332	2,687	8	66	866	7,896	509	4,925	2	40	41	300	215	3,520	145	745	76	212	2,200	20,583
2007	36	546	292	1,875	13	71	1,060	8,615	511	3,364	41	229	73	433	60	2,929	238	955	47	262	2,371	19,280
2006	28	288	260	1,269	26	187	793	6,218	361	4,153	0	176	28	221	51	1,952	309	2,081	32	79	1,925	16,627
2005	4	205	107	686	4	98	621	6,123	42	794	3	185	21	173	29	1,149	133	822	4	23	973	10,258
2004	5	232	70	1,012	5	184	648	7,286	23	502	27	274	43	299	26	990	119	1,221	41	193	1,016	12,193
2003	5	176	88	922	11	14	397	3,704	33	2,270	0	6	26	236	8	361	59	497	12	31	963	8,219
2002	15	188	231	1,732	15	63	317	3,566	193	2,752	1	10	55	470	23	1,247	129	653	23	56	1,053	10,741
2001	4	395	280	1,913	19	87	636	6,880	27	295	1	7	49	553	13	486	149	951	2	14	1,215	11,599
2000	5	109	294	2,008	10	65	161	2,603	173	1,124	1	12	60	523	11	362	156	713	0	0	912	7,519
1999	7	90	384	2,139	16	59	4	4	135	1,073	0	0	25	233	16	521	356	1,923	0	0	973	6,049
1998	8	196	455	2,655	13	73	3	28	92	551	0	0	38	476	29	495	226	1,347	0	0	881	5,824
1997	2	72	48	592	9	108	2	38	44	438	0	0	36	547	12	440	77	914	0	0	233	3,150
1996	3	85	0	0	9	75	0	6	4	92	0	0	8	189	4	409	74	543	0	0	102	1,400
1995	37	200	0	0	2	50	0	3	2	66	0	0	25	193	14	601	30	260	0	0	110	1,374
Total Recaps /Tags	204	3,921	6,670	31,286	236	2,436	7,941	74,529	6,230	55,925	87	1,280	644	6,238	2,327	58,141	2,777	18,161	326	1,320	27,994	253,278
Overall Recap-ture Rate	5.20%		21.32%		9.69%		10.65%		11.14%		6.80%		10.32%		4.00%		15.29%		24.70%		11.05%	

For recaptures, this table counts the total number of recaptures, including recaptures of the same fish. The first column under each species is the number of recaptured fish and the second column is the number of tags.

*This table also includes 190 cobia and 199 spadefish that were tagged as part of a special cooperative study with the Virginia Tech Virginia Seafood Agriculture Research and Extension Center in 2012.

Virginia Game Fish Tagging Program
Virginia Institute of Marine Science
Proposed Budget for January 1, 2016 to December 31, 2016

BUDGET CATEGORY			VMRC	MATCH	TOTAL
I. Salaries					
a. Marine Recreation Specialist	1.5 mm/1.38 mm		8606	7917	16523
$ 68,847 Per Year					
$ 5,737 Per Month					
b. Data Technician, TBN	1.2 mm		4246	0	4246
$ 42,460 Per Year					
$ 3,538 Per Month					
	Subtotal		12852	7917	20769
II. Fringe Benefits					
48.89% Marine Recreation Specialist			4207	3871	8078
39.43% Data Technician			1674	0	1674
	Subtotal		5882	3871	9752
Total Salaries and Fringe Benefits			18734	11788	30522
III. Communications (Annual Report, Website/Recapture Updates, Promotional Publications, Mobile communications)			1000	0	1000
IV. Travel (Local travel for field work, Tagging work group meetings, presentations at scientific meetings and association clubs.)			2000	30	2030
V. Supplies			19446	0	19446
23,000 T-Bar Tags @ $0.68* =	$	15,640			
400 Plastic Dart Tags @ $0.94 =	$	376			
1,000 Steel Dart Tags @ $2.70 =	$	2,700			
15 Steel Tagging Needles @ $15.00 =	$	225			
30 Tagging Guns @ $15.00 =	$	450			
20 Tagging Needles @ $2.75 =	$	55			
Subtotal =	$	19,446			
VI. Total Direct Costs			41180	11818	52998
VII. Indirect Costs - 25% VMRC			10295	0	10295
Indirect Costs - 45.7% on Match			0	5401	5401
Indirect Costs - 20.7% from Direct			0	8524	8524
VIII. TOTAL PROJECT COSTS			51475	25743	77218
50% Required Match				25738	

Virginia Game Fish Tagging Program
Budget – 2016
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. To cover the increase of certain reward items (hats, t-shirts and tackle organizers) plus increase in UPS shipping (roughly 10%) we requested an additional $1,680 over the 2011 budget for 2014 (no increases were requested in 2012, 2013 or 2014). We expect some increases for 2016 (especially UPS) but are not requesting any additional funding for 2016 since the increases are expected to be minor and can be absorbed within the existing budget. Any unused portion of our budget is administratively returned to the fund. Below is the breakdown by category and item.

Tagging Awards

720 Hats @ $6.75 each	4860
720 T-Shirts @ $7.00 each	5040
250 Pewter Fish Pins @3.00 each	750
1200 Decals @ .85 each	1020
600 Digital Stickers @ 1.75 each	1050
500 Tackle Organizers @ 3.50	1750
12 Tag Plaques @ $14 each	168
Conservation Certificates	500
Data Sheets and Cards	600
Total	**15,738**

Postage and Shipping

U. S. Postage	1560
UPS Shipping	9860
Total	**11,420**

Supplies (Paper, Envelopes, Mailers, Tape, Bubble Wrap etc.)	1060
Travel	1200
Total	**2260**
Grand Total	**29,418**