

# VIRGINIA RECREATIONAL FISHING DEVELOPMENT FUND SUMMARY PROJECT APPLICATION\*

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|---|--|
| <b>NAME AND ADDRESS OF APPLICANT:</b><br>Virginia Institute of Marine Science and<br>Virginia Marine Resources Commission<br>Virginia Saltwater Fishing Tournament<br>968 S. Oriole Drive<br>Virginia Beach, VA 23451   | <b>PROJECT LEADER:</b><br><br>Jon Lucy, VIMS<br>Claude Bain, VMRC  |
| <b>PRIORITY AREA OF CONCERN:</b><br><br>Data Collection, Research and Public Education  | <b>PROJECT LOCATION:</b><br><br>Virginia Beach and Gloucester Point, VA – benefits<br>will be distributed throughout the Commonwealth<br>of Virginia |
| <b>DESCRIPTIVE TITLE OF PROJECT:</b><br><br>Virginia Game Fish Tagging Program – Year 12  |  |
| <b>PROJECT SUMMARY:</b><br><br>Recruit & train a corps of voluntary taggers from the recreational angling community to tag targeted species of<br>recreationally important fish; collect and manage the data produced from this effort; share the data with the fisheries<br>management community   |  |
| <b>EXPECTED BENEFITS:</b><br><br><ol style="list-style-type: none"> <li>1) Better data and information for several species of recreationally important fish</li> <li>2) Database available to fisheries managers, institutions and researchers</li> <li>3) Corps of taggers who can react to special tagging situations that can develop on short notice</li> <li>4) Better communication among anglers, managers and researchers on tagging programs, catch and release<br/>fishing and its benefits, and proper fish handling techniques</li> </ol> |  |
| <b>COSTS:</b><br><br><br><br><br><br><br><br><br><br><div style="display: flex; justify-content: space-between;"> <div> <b>VMRC Funding:</b><br/> <b>Recipient Funding:</b><br/> <b>Total Costs:</b> </div> <div> <b>\$60,823 (41,903 VIMS + 18,920 VSWFT)</b><br/> <b><u>\$19,024</u> ( VIMS Match)</b><br/> <b>\$79,847</b> </div> </div> <p><b>Detailed budget must be included with proposal.</b></p>   |  |

Updated 11/18/02

\*This form alone does not constitute a complete application, see application instructions or contact Chad Boyce  
 at 757-247-8155 or [cboyce@mrc.state.va.us](mailto:cboyce@mrc.state.va.us)

**Virginia Game Fish Tagging Program  
Year 12 Proposal (2006)**

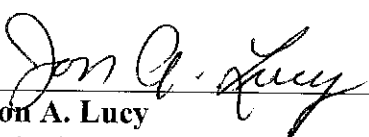
**January 1, 2006 to December 31, 2006**


**Proposal Submitted to:**

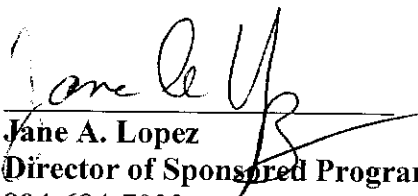
**Virginia Recreational Fishing Development Fund  
Virginia Marine Resources Commission  
2600 Washington Avenue, Third Floor  
Newport News, Virginia 23607**

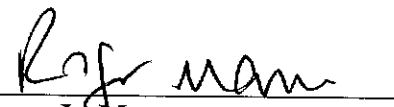
**Proposal Submitted by:**

**Virginia Sea Grant Marine Advisory Program  
Virginia Institute of Marine Science  
College of William and Mary  
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**June 1, 2005**

# **Virginia Game Fish Tagging Program (VGFTP)**

## **Year 12 Proposal (2006)**

### Overview:

This project, beginning in 1995, is a cooperative program of the Virginia Saltwater Fishing Tournament (program of the Marine Resources Commission) and the Virginia Institute of Marine Science, College of William and Mary (VIMS). The project coordinators are Claude Bain (VSWFT) and Jon Lucy (VIMS).

Through December 31, 2004, just over 76,600 fish have been tagged and 7,408 recaptures reported, an overall recapture rate of approximately 9.7%. Trained anglers tagged approximately 10,600, 8,100 fish, and 12,000 fish, respectfully, during 2002-2004 among ten carefully targeted species. The sport fishing community, trained observers on trawlers, and commercial fishermen-fish packing-fish retail businesses together reported about 870, 960, and 990 recaptures in 2002, 2003, and 2004, respectively, giving the program cumulative recapture rates of 9.6%-9.9% at the end of each year. The number of fish tagged in 2004 was a single year record, and the number recaptured in 2004 was the second highest.

The number of trained taggers reached almost 175 during 2004 - a program record. Working cooperatively with Dominion Resources and Bass Pro Shops to hold a special Chesapeake Game Fish Tagging Rodeo day on the property of the Chesapeake Energy Conservation Center (Elizabeth River Power Station) helped attract new taggers to the 2004 training workshops. Another such tagging day is tentatively planned with Dominion Resources for December 2005.

Joining with Bass Pro Shops to host one of four tagging training workshops in 2004 and 2005 also helped bring experienced anglers into the tagging program. Participation, limited to keep the program manageable, has now increased to nearly 200 trained angler taggers for 2005. Tagged fish numbers appear to be lagging the record pace of 2004 so far during 2005, mainly due to the weather-associated problems affecting all fishing businesses. It must be remembered that tagged fish numbers are also impacted significantly by the abundance of targeted species. Therefore, if a species fails to have good year class recruiting to its fishery in a given year, tagging numbers for that species may subsequently decline during that year and following years.

Information generated by the VGFTP has been utilized by the Atlantic States Marine Fisheries Commission (ASMFC), VMRC, VIMS and other management groups to assist in expanding their available data to improve fisheries research and management. Information generated by the VGFTP has been helpful in suggesting informational gaps in fisheries data and has led to more intensive studies of specific fish species.

We are regularly requested to provide up-dated information on numbers and sizes of tagged tautog for each year, and tag-recapture records. These data are used by the ASMFC tautog Technical Committee in updating information on sizes of fish caught in the recreational fishery, and provide an index of release rates as well (see Tautog section). Because of the sampling design of the NMFS/NOAA Fisheries "Marine Recreational Fisheries Statistics Survey" (MRFSS), dockside sampling of Virginia anglers' catches typically include very few

tautog (it is a specialty fishery and not participated in by as large a proportion of anglers as the case for species such as striped bass, flounder, gray trout, etc.).

During 2004, we were permitted to join cooperatively in a NMFS tagging study of black sea bass. On two tagging trips funded by NMFS, we double tagged with our T-bar tags approximately 180 small and medium sea bass. Double-tagged fish each had a T-bar tag in the shoulder musculature and a NMFS internal anchor (belly) tag. Given internal anchor tags traditionally have a very high retention rate in many species (it is the tag used by all states for striped bass), this provided the opportunity to test tag retention of our tag against the NMFS tag. To date 12 recaptures of the double-tagged fish have occurred over a period of up to eight months (last recaptures reported May 11 and 17, 2005). All fish still had the T-bar tag and NMFS internal anchor tag in place, indicating the T-bar tag is an appropriate tag for this species, as previous tank holding trials have indicated for short observations periods.

NMFS is enthusiastic about our cooperative tag-retention study. As part of their coast-wide tagging program to reassess the black sea bass stock, the state of New Jersey only used T-bar tags for its part of the tagging effort. Other states, including Virginia, have used internal anchor tags. Our work not only verifies the validity of using T-bar tags for black sea bass in Virginia's Game Fish Program, but will assist NMFS in evaluating how to merge the New Jersey black sea bass tagging data with that of other states.

Also in October-November 2004 we began double-tagging experiments of speckled trout to determine if the nearly 100 % retention rate of T-bar tags demonstrated when holding specks in the field for 5-8 days decline over longer times. As with the sea bass double-tagging study, we hope to answer this question by tagging numbers of trout with both our T-bar tag and a Hallprint soft-anchor, internal "belly" tag. Approximately 35 fish were double-tagged, most in Lynnhaven Inlet, but also a few in Rudee Inlet waters. Holding sample specimens of double tagged specks in VIMS Aquarium (three fish: 10, 12, and 14 inches TL) from late December through April showed tag entry areas healed over well and both tags stayed in the fish during the 14 week trial.

#### Outreach to Scientific and Angling Communities

As the case in most years, VIMS and VMRC's Saltwater Fishing Tournament Program each have adjacent exhibits at the Virginia Beach Sport Fishing Show. In addition to other projects, we highlight accomplishments of the Game Fish Tagging Program using posters and handouts. We always receive numerous questions about the tagging program garner interest among anglers in going through our annual tagging training workshops.

In May 2004 we were invited by the tag manufacturer, Hallprint, Ltd., to display and man a large-format poster at the Fourth World Fisheries Congress in Vancouver, BC (over 1,100 delegates attended). The program received unprecedented exposure to fishery researchers and managers because the tag manufacturer requested we include the poster in its trade show exhibit, a major component of the conference. Conventional posters on fisheries research and education projects were so numerous at the conference that they were only on display for one day, then removed and replaced with new posters. Featured in the trade show, the Game Fish Tagging Program poster was on display five full days. The presentation addressed overall program objectives and accomplishments, particularly with reference to flounder, red drum, cobia, tautog, and black sea bass.

In August 2004 we made a presentation to the American Fisheries Society Annual meeting on tagging program results. Given in a well-attended symposium, "Socio-Economic and Extension: Empowering People in Fisheries Conservation (organized in part by the National Sea Grant Program), the presentation was "Virginia Game Fish Tagging Program: Involving Marine Anglers in Research & Management Issues Important to Virginia/Mid-Atlantic Recreational Fisheries." The focus of the talk was that with funding from saltwater license funds, Virginia's corps of trained angler taggers (and the resulting tagging database) were making contributions to fisheries management. The program's tag-recapture data patterns also demonstrated to the angling community real-world benefits of practicing sound catch and release methods, i.e., undersized fish carefully released (and tagged) were recaptured one or more times during the same fishing season in which they were tagged, as well as during subsequent fishing years, providing future fishing opportunities. That most reported recaptures were from the angling community, not commercial fishermen reinforced the accrued benefit. Special examples were given regarding data on flounder, red drum, and cobia.

Taking a different focus, we accepted an invitation to address the Mid-Atlantic Chapter of the American Fisheries Society on the evolution of the angler-assisted tagging program and how its data was becoming more useful to researchers and managers. This presentation was made in early November 2004 at New Castle, DE. In November we also accepted an invitation to address tagging program results with the Deltaville Chapter of the CCA of VA.

Our flounder tag-recapture data results were presented to a Flatfish Conference (December 2004, Connecticut). With over 100 attendees from marine research labs and universities along the Atlantic coasts, our results were well received. The patterns of site fidelity of juvenile flounder to lower Chesapeake Bay sites, in some instances over 3-4 year periods were supported at the meeting by New Jersey researchers. Acoustic tag tracking of juvenile flounder over periods of weeks in a small New Jersey coastal river showed the same pattern as our multiple recaptures of flounder over weeks to months at fishing piers, bridge-tunnels, and rock jetties where they had been initially tagged. Our data on wide dispersal of Chesapeake Bay tagged flounder during the subsequent year to tagging, i.e., being recaptured in coastal areas from Long Island to the North/South Carolina line, also was of interest to the audience, expanding upon earlier results of tagging studies conducted by VIMS and NC researchers.

Red drum tag-recapture data (for puppy drum/sub-adult fish and large fish-- > 38 inches TL) from our program, compared to that of North Carolina Division of Marine Fisheries, are showing similarities and differences in patterns of movement of fish tagged in the respective states. These patterns were highlighted in a poster presentation at the Southeast Fish and Wildlife Association annual conference in South Carolina. Up to 20% of puppy drum tagged in Virginia waters have been recaptured in subsequent fall-winter-spring months in North Carolina. However, to date no large (>38 inches TL) red drum tagged along Virginia barrier island beaches or inside the lower Bay have been recaptured in North Carolina. Mixing of adult fish from both states off North Carolina during winter months is yet to be documented by the combined tagging programs. However, by changing to Hallprints' stainless steel, wire core, dart tags for large fish in 2001 (with higher retention rates in the big fish), recaptures of large drum are on the increase.

Representatives of both the South Carolina Game Fish Tagging Program and the Maryland DNR Recreational Fisheries Program attended 2004 tagging training workshops to

assess possible applications of our training methods and organizational structure to their respective programs.

## **Red Drum**

Regarding red drum migration and movement patterns in Virginia's Chesapeake Bay and ocean waters, VGFTP data was the only data available to VMRC for input into the developing ASMFC Red Drum Fishery Management Plan during 2001. The flexibility of the program to respond effectively to the sudden appearance during mid-summer 2002 to an extremely large year class of juvenile (puppy) red drum resulted in high numbers of drum tagged in key locations, the major areas of concentrated tagging were: Lynnhaven Inlet (August-October 2002), Mobjack Bay area (August-September 2002), the Elizabeth River Hot Ditch (December 2002-March 2003), and the York River Hot Ditch (December 2002-March 2003).

Efforts by taggers at the York River Power Plant warm-water, discharge canal had major influence on encouraging VIMS and Dominion Resources to plan and conduct the VGFTP's first significant day-long educational event (VIMS-Dominion Resources Red Drum Tagging Rodeo). The event attracted over 40 anglers and experienced taggers, many from the Richmond area, resulting in over 130 red drum being tagged during the day. The resulting data have indicated site fidelity of drum to the discharge canal can be from 4-6 weeks to nearly 3 months. Once taking up residence in the canal waters during November-December, the fish often remain there until adjacent waters warm to about 45-50 F. At that time some fish begin leaving the canal area while others remain there well into spring months.

Not surprisingly, this same pattern has been observed for puppy drum tagged at the Elizabeth River Hot Ditch where a longer data history exists. The success of the Red drum Tagging Rodeo led Dominion Resources, VIMS, VMRC, and the VGFTP to cooperate in a second full day educational event at the Elizabeth River Power Station discharge canal in January 2004. While attracting over 80 anglers from Richmond, Williamsburg, and Hampton Roads, reduced numbers of red drum held the day's tagging effort to less than 50 fish, most of which were juvenile black drum. However several speckled trout and one summer flounder were also tagged.

During 2004 we had five recaptures of large red drum tagged 1-2 years earlier from the area holding such fish (from the Inner Middle Ground Shoal around Nautilus Shoal and up along the southern Eastern Shore barrier islands all the way to Cobb Island). This shows the benefit of changing to the larger, stainless steel dart tag for the larger fish. Of eight such recaptures of large red drum (34-47 inches TL) during 2003-2004, seven of the fish had been tagged with the larger tag and only one with a smaller plastic dart tag. These returns show the importance of the shoals and sloughs along the barrier island beaches to adult, spawning size drum over the period from May 2002 to October 2004.

## **Tautog**

The program's tautog tag and recapture data helped support the VIMS/VMRC position with the Tautog Technical Committee of ASMFC that the Committee accept Virginia's plan for maintaining status quo regulations on the state's largely recreational fishery. As a result at the 2002 ASMFC Committee meeting, Mr. Jack Travelstead of VMRC, in concert with Dr. John

Hoenig of VIMS Fisheries Sciences Department, were able to convince Committee members that Virginia should be exempted from a 25% cutback in fish landings (reducing fishing mortality by 29%) put into effect for northern states where the stock is more heavily fished (with the exception of Rhode Island). Catch-curve analyses using VMRC Virginia landing/dockside sample data, have also supported lower fishing pressure on the species in Virginia compared to states north of New Jersey. The tagging program data also make up a significant part (about 50%) of fisheries data used to characterize the size distribution of captured and released fish in the tautog recreational fishery within the species' southern management region (New Jersey to Virginia).

Equally as important, tag returns through 2004 show only three fish out of 1,410 recaptured tautog (0.2%) have moved beyond Chesapeake Bay or Virginia offshore waters. Two fish tagged inside Chesapeake Bay in 1999 were recaptured in spring 2000, one at the jetties at Ocean City, MD and one at jetties at Oregon Inlet, NC. There is only one additional recapture of a Virginia tagged tautog beyond Virginia waters. A fish (13 in. TL) tagged May 2003 at the Chesapeake Bay Bridge Tunnel was recaptured during May 2004 at Cape Henlopen Harbor of Refuge, just inside the mouth (south side) of Delaware Bay.

These results have been used to strengthen arguments with the ASMFC Tautog Technical Committee that it is of no fishery management/conservation value to impose cuts on Virginia's tautog fishery (almost all recreational) thinking that doing so will mean Virginia fish will spread up the coast to help expand more northern populations. Not only is Virginia's fishery not over-fished (as in the northern management area), tagging data support that fish inside Virginia waters, or on wrecks and reefs offshore the state, do not migrate in significant numbers to the northern management area. The tagging data is based upon both small and large fish being tagged in the bay and offshore.

In addition, a special analysis of the tautog tagging data and VMRC landing data, funded in 2003-2004 by the Recreational Fisheries Advisory Board/VMRC (J. Hoenig, D. Hepworth, and J. Lucy, PI's), strengthened Virginia's position on how our fishery warrants being managed somewhat differently than that in northern states. The tagging data analysis confirms there is little seasonal movement of tautog inshore-offshore, a typical migratory pattern from New York north, nor do fish in Virginia waters migrate significantly north or south. Tagging results show that the majority of tautog recaptured remain at or near the site of initial tagging for periods from 1-4 years. The application of the tagging program data to these and other issues was highlighted in the spring 2005 Virginia Marine Resources Bulletin, the article "Angling for Answers" (the MRB is published by VIMS Sea Grant Marine Advisory Program).

Through efforts of our taggers, Virginia has also cooperated with University of Rhode Island in providing fin clip samples from tautog caught in Virginia for inclusion in a coast-wide genetic study of the fish population. The study was completed during 2004 and the results appear to show slight genetic distinctions in Virginia tautog versus fish sampled from New Jersey-New York-Rhode Island-Massachusetts waters, another indicator of limited mixing of the species between the extreme southern region and areas to the north, unlike the case with black sea bass and flounder, validated along with other studies by the Game Fish Tagging Program's database.

## **Cobia**

Tag return data continue to document that a significant portion of sexually mature fish return possibly annually, or at least 1-2 times over periods of 2-5 years, to Chesapeake Bay waters. Spawning has been documented to occur during summer months in the lower Bay thorough other studies supported by the Recreational Fishing Development Fund. Adult cobia tagged inside the Bay have been recaptured again in the Bay after being at large for periods of 1-5 years, with several fish being recaptured in the Bay more than once over periods of 1-3 years post tagging. After leaving the Bay in late summer, tagged cobia have been recaptured along North Carolina beaches in fall-winter months, and as far south as Florida (at St. Augustine and Melbourne, February-March 2002).

A long-distance record for coastal movement of cobia, the only such well-documented record known to exist, resulted from the tagging program. A 38-inch TL fish tagged in August 2000 at York Spit (in lower Chesapeake Bay) was recaptured in May 2004 at an oil-gas platform about in the Gulf of Mexico (about 30+ miles southeast of the mouth of the Mississippi River (Delta). Traveling a minimum, straight-line distance of 1600+ miles (in 1,367 days), the cobia covered more than one mile per day (overall average). Growing from 37 to 55 inches (FL), the fish was likely a 6-year old female (according to Dr Jim Franks, Gulf Coast Research Lab, Gulf Springs, MI, also doing tagging studies on cobia).

## **Flounder**

Data on undersized flounder tagged at numerous fishing piers in the lower Bay indicate such fish remain in close proximity to pier and jetty structures over periods of 2-17 weeks, behavior not previously documented in Virginia waters. Tagging results demonstrating this site-fidelity pattern in Bay flounder were presented at the Flat Fish Conference (CT, December 2002) and at the Tidewater Chapter-American Fisheries Society meeting (NC, January 2003). Highlights of tagging program results were also part of the VIMS exhibit at the Virginia Beach Sport Fishing Show (2003 and 2004). Tagging program results were also referenced in an invited presentation on marine fisheries catch and release issues given at a Bycatch Symposium hosted by the American Fisheries Society in August 2003. A poster highlighting tagging results with flounder was presented at the Atlantic Estuarine Research Society Conference (March 2004, Salisbury, MD; 125 attendees).

## **Other Program Activities and Benefits**

The VGFTP continues to be involved in the ASMFC Interstate Tagging Committee. The Committee has been developing guidelines for evaluating research-based and angler-assisted tagging programs to ensure program quality and long-term management/sharing of databases. Ultimately the effort should provide a general certification mechanism for marine fishery tagging programs. The Committee has developed a Tagging Programs web site which serves as a guide to anglers and organizations interested in becoming more involved in tagging, as well as a resource for determining tag types and tag color/number series used for various fish and shark tagging efforts.

A strong element of the VGFTP lies in its flexibility to take advantage of successful spawns of targeted species and direct significant tagging effort at the resulting large numbers of



fish being caught and released by anglers. This was especially important during 2002-2003 when the highest abundance levels in decades of small red drum (puppy drum) appeared in Chesapeake Bay and Rudee Inlet. Late summer-fall tagging efforts in Lynnhaven and Rudee Inlets produced some of the most interesting movement patterns to date as the fish began leaving the Bay, moving south along the North Carolina beaches during late August-November. Many of the fish also were documented to over-winter in the warm-water discharges of at least two power plants, the Elizabeth River "Hot Ditch" and the York River "Hot Ditch" (Yorktown Power Station). A similar effort focused on summer flounder in Rudee Inlet in 2004, when over 1500 were tagged in a four month period in this small area, has the potential to yield some valuable data on dispersal and movements in subsequent years.

### **Needs and Objectives:**

This project is multi-dimensional, fulfilling both research and data needs, as well as combining a serious element of public education. The VGFTP has selected targeted species that are not the subject of intensive efforts from other tagging programs, in which there are gaps in baseline data and information, and which are recreationally important. Targeted species currently include red drum, black drum, cobia, spadefish, tautog, speckled trout, summer flounder, sheepshead, triggerfish, and black sea bass.

The types of information the project attempts to generate includes: 1) information on fish movements and migratory patterns; 2) some information relating to growth rates (length); and, 3) some data helpful in suggesting, verifying or evaluating mortality rates and stock analysis.

The public education component of the VGFTP has three important aspects: 1) fostering of public interest in conservation and resource management by direct involvement in the program as volunteer taggers or through the reporting of recapture events and subsequent communication; 2) communication about scientific study of fisheries resources – how the process works, how information can and cannot be used, limitations; and 3) educating the public about resource needs, catch-and-release fishing, and fish handling techniques to improve resource survival of catch and release events.

### **Approach:**

The VGFTP utilizes a limited number of trained volunteer taggers from the recreational fishing community. Volunteers are enrolled on a "first-come, first-served" basis during December and January. Veteran taggers are required to re-enroll upon the same terms as new taggers to ensure fair access to the program for all Virginia recreational fishermen. Four training sessions are held in February and early March – one at the VIMS lab in Wachapreague, one at VIMS in Gloucester Point, one at VMRC headquarters in Newport News, and one in Virginia Beach. All new enrollees must attend a training session, where they receive information about the program, about handling and tagging fishing, about procedures used by the VGFTP, and where they receive their tagging equipment. Veteran taggers are not required to attend another seminar each year (although they are encouraged to attend and share ideas), and a fair percentage of veterans attend each year.

Persons recapturing and reporting a tagged fish receive a letter thanking them for their effort and detailing information about the fish they caught. They have the option to receive a VGFTP hat, t-shirt or a pewter pin for reporting the recapture to the VGFTP. Taggers receive a letter summarizing the original tagging and detailing the recapture. All parties receive a VGFTP decal that is intended to help program visibility and provide program promotion.

Volunteer taggers receive a VGFTP "Conservation Award" certificate for tagging a minimum of 25 fish during the year; and the top taggers in each species are awarded a small plaque.

The program will continue to explore opportunities to conduct tag retention studies on target species and experiment with various tag designs. The program's tag manufacturer HALLPRINT LTD. in South Australia is supportive of this activity and will supply experimental tags as warranted, generally at no cost (Mr. David Hall, Hallprint Pty., personal communication). The program shared tag retention data on T-bar and dart tags with researchers in Delaware as they are considering whether to initiate a weakfish (gray trout) tagging project. Results of from up to three and six month holding trials of tagged trout in tanks largely verify the results observed by our own tank trials in earlier years, i.e., T-bar tags, while only retained in the spiny dorsal fin area in 8-10 inch TL trout at a rate of about 79% (first dorsal fin area muscle) and 67% (second dorsal fin [with soft spines] muscle), still exceed retention of dart tags in the first dorsal fin area (a 64% retention rate). However, discounting tags with broken anchors during insertion, the higher first dorsal fin T-bar retention rate drops to 64%, considerably below the 80% retention level often used as a standard for tags considered to work successfully in a species.

#### **Expected Benefits:**

1. Generation of information and data on recreationally important fish species, as detailed in the section on "Needs and Objectives". Standing alone much of this information may not be sufficient to generate actions or decisions on resource-related issues, but it may point to potential problems, may point out new or previously unknown possibilities warranting targeted scientific work, may bolster, verify, bring into question, help evaluate current research and management regimes.
2. The opportunity to tag large numbers of fish on short notice with a group of trained taggers. This occurred in 1999, 2000, and especially 2002 with juvenile red drum, 2001 with spadefish, and 2001-2003 with summer flounder. Strong tagging efforts continue in 2004 with 1-2 year old flounder, plus greater numbers of larger flounder (>17 inches TL). In such instances, large, unexpected fish concentrations presented a "window of opportunity" to tag significant numbers of fish (a window which would have closed before funding and a new targeted tagging effort could have been mounted from scratch by research groups). The VGFTP is able to capitalize on these opportunities quickly. This type of situation could even occur in a species not targeted by the VGFTP: a simple memorandum to taggers stating the addition of a new species to the program and requesting a targeted effort due to the special needs or opportunity could result in tagging efforts commencing in less than a week.
3. Better communication, understanding and cooperation among scientists, managers and anglers regarding tagging programs. Better information to the public about

tagging efforts, proper fish handling techniques, and the role and importance of catch-and-release fishing in the recreational fishery.

4. An annual report summarizing the tag program results. Annual report available on website at VIMS.
5. A database available for fisheries managers, scientists and institutions.

**Location:**

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

**Annual Report:**

The annual report for year 2004 has just been completed and a copy provided to the Recreational Fishing Advisory Board.

**Budget** (follows as a separate page)

## VGFTP Year 12 Budget (2006)

|  | MRFAB Funds | Match  |
|--|-------------|--------|
| I. Salaries (VIMS)   |             |        |
| Jon Lucy, co-PI (1.5mm/1.0mm)  | 8997        | 5,998  |
| Field/Data Technician (2 month)  | 4,240       |        |
| Subtotal   | 13,237      | 5,998  |
| II. Fringe Benefits (VIMS) @ 30%   | 3,971       | 1,799  |
| III. Publications (Annual Report - VIMS)                                 | 1500        |        |
| IV. Travel - VIMS(local, tagging workshops,<br>clubs, scientific groups) | 3500        |        |
| V. Supplies – VIMS (tags, tagging equip., etc.)                          |             |        |
| 20,000 T-bar Tags @ \$430/1000   | 8,500       |        |
| 1,000 Steel Darts @ \$1 ea.  | 1,000       |        |
| 50 Tagging Guns @ \$30 ea.   | 1,500       |        |
| 35 Tagging Needles @ \$3 ea.   | 105         |        |
| 35 Measuring Boards  | 210         |        |
| Subtotal   | 11,315      |        |
| Supplies – VSWFT (tag awards, cards, etc.)                               |             |        |
| 500 Hats @ \$6.00 ea.  | 3,000       |        |
| 700 Tagging T-Shirts @ \$6.00 ea.  | 4,200       |        |
| 200 Pewter Pins @ \$3.00 ea.   | 600         |        |
| 1000 Decals  | 500         |        |
| 12 Tag Plaques @ \$10 ea.  | 120         |        |
| Conservation Certificates  | 500         |        |
| Tag Cards & Data Sheets  | 500         |        |
| Subtotal   | 9,420       |        |
| VI. Postage & UPS Shipping (VSWFT)                                       | 8,750       |        |
| VII. Travel – VSWFT  | 750         |        |
| VIII. Indirect Costs on VIMS portion of budget                           |             |        |
| 25% on Direct  | 8,381       |        |
| 22.45% on Direct   |             | 7,526  |
| 47.45% on Match  |             | 3,700  |
| TOTAL  | 60,823      | 19,024 |

Note: no salaries, fringe benefits or indirect costs taken by VSWFT or its personnel despite substantial time commitment and indirect costs associated with usage of program assets since funding for all VSWFT programs is provided directly by MRFAB; no matching funds provided on VSWFT portion of budget, since matching money would also come from other MRFAB funds provided to VSWFT.