Increasing Angler Participation in Connecticut

A Summary and Status Update

Connecticut Department of Energy and Environmental Protection
Fisheries Division
79 Elm Street
Hartford, CT 06106
860-424-FISH
DEEP.inland.fisheries@ct.gov
www.ct.gov/deep/fishing

Increasing Angler Participation in Connecticut
A summary and status update
By Mike Beauchene
February 2017

Summary- A major breakout objective of the 2011 Bureau of Natural Resources Strategic Plan was to increase participation in angling by 30% (using 2011 as a benchmark). This equated to adding 52,601 more anglers. Several intiatives were implemented to achieve the desired outcome. **As of the end of December 2016, the number of participants has increased by 8.7% (15,363) over the 2011 value.** The purpose of this document is to present various information relating to fishing license sales and initatives to increase participation in recreational fishing in Connecticut.

Table of Contents

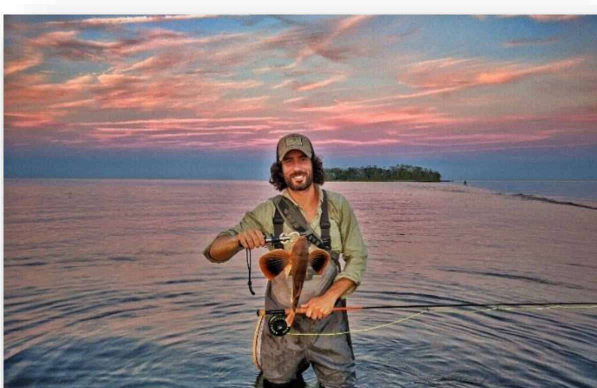
Introduction

The number of anglers nationwide has experienced a steady decline since the peak in 1988 (Bylander 2016). Data from the Connecticut's Department of Energy and Environmental Protection license sales showed a similar long-term decrease beginning in the mid 1980's (Figure 1). In an effort to reverse this trend, an objective of the 2011 Bureau of Natural Resources Strategic Plan was to increase participation in angling by 30% (CT DEEP 2011a).

Members of the sporting community (hunters and anglers) are essential for fish and wildlife conservation as they provide much of the funding for these efforts and are stewards of our natural resources (U.S. Fish and Wildlife Service 2014). In Connecticut, revenue from license sales combined with Federal Fish and Wildlife Restoration Grants fund much of DEEP's land acquisition, habitat improvement, stocking of fish and wildlife, fishing and hunter education programs, and scientific research to inform management decisions (CT DEEP 2011a).

To help increase the number of fishing participants, state fish and game programs have been increasingly developing "**R3**"strategies designed to ***Recruit*** (someone who has never fished), ***Retain*** (someone who currently fishes), and ***Recapture*** (someone who used to fish but is not currently) members of the general population. Programs are diverse and widespread (Byrne 2016), but share a common cause to increase the number of anglers. Recently the State of Minnesota (Bylander 2016) and the Aquatic Resources Education Association (AREA 2016) have published information to assist fish and game staff who are charged with developing and implementing recruitment, retention, and reactivation (R3) programs.

An additional "***R- Relevance***" should be considered when developing or implementing R3 programs. Understanding what is important to the needs and motivation of potential anglers is critical for successful R3 implementation. Agencies can implement state of the art management and have world class fisheries, but these alone may not increase participation if they are not relevant to the customer.



In the latest national survey (2011), an estimated 342 thousand people age 16 and older fished a total of 4.7 million days in Connecticut during 2011 (U.S. Department of the Interior- 2011).

How did we do?

Up 8.7%. As part of its 2011 Strategic Plan, the Bureau of Natural Resources set a goal to "*increase participation*[1] *in angling 30% by 2016*". Reaching the goal would mean adding 52,601 anglers to the number that participated during 2011.

The number of participants increased in each of the first four years, peaking in 2015 (191,404) and dropping slightly in 2016 (191,130) (Figure 1 and Table 1). As of the end of 2016, participation had increased by 8.7% (15,363 participants) from 2011. While well short of the intial 30% goal (add 52,601), this level of angler participation has not been observed since 1995 (21 years).

The drop in participation by 274 from 2015 to 2016 is somewhat surprising as education and outreach efforts continued to expand at a similar pace as prior years and the number of people qualifying for the "FREE" age 65 and older licenses is increasing.

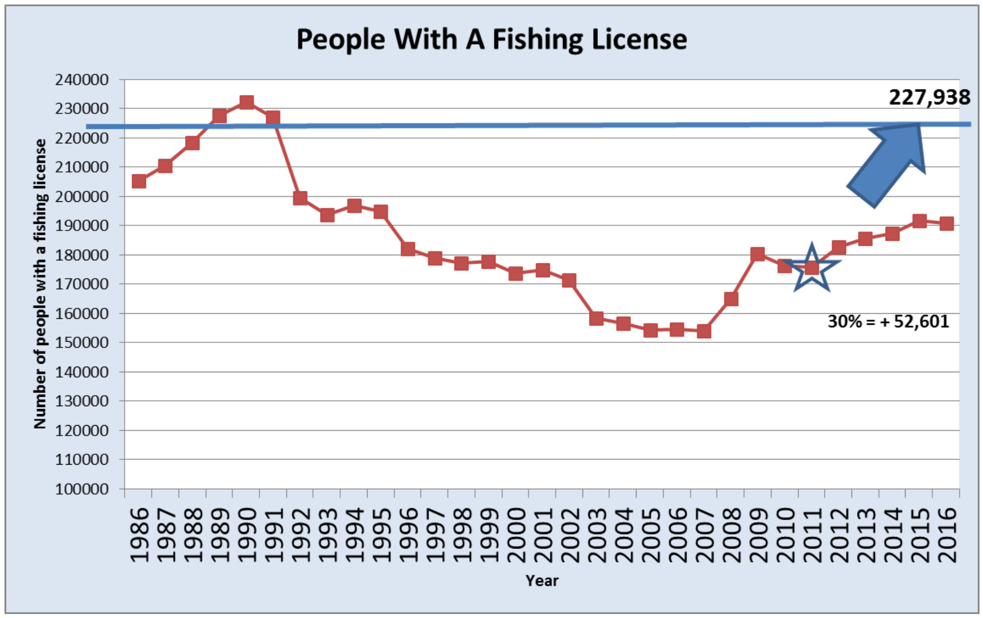


Figure 1. The number of fishing participants[1] by year. The goal was to increase participation 30% by 2016 or add 52,601 people. The actual increase was 8.7% or 15,363 people.

Table 1. Total fishing participants[1] per year.

Year	Number of Fishing Participants	Change from prior year
2011	175,767	--
2012	182,663	+ 6,896
2013	185,641	+ 2,978
2014	187,173	+ 1,532
2015	191,404	+ 4,231
2016	191,130	-274

[1] A participant is a person who obtained a fishing license. The license could have a fee or is free, applies to a resident or non-resident, and permits fishing in the inland or marine district or both. Youth Fishing Passport and Jr. Youth Fishing Passport holders were not included as participants.

Participation is up, how about sales? Total participation is up 8.7% (15,363) however, the number of people who purchased[2] a license(s) has remained nearly constant, increasing 0.9% (1,513) over the 2011 values (nearly 10 times lower than total participation values) (Figure 2).

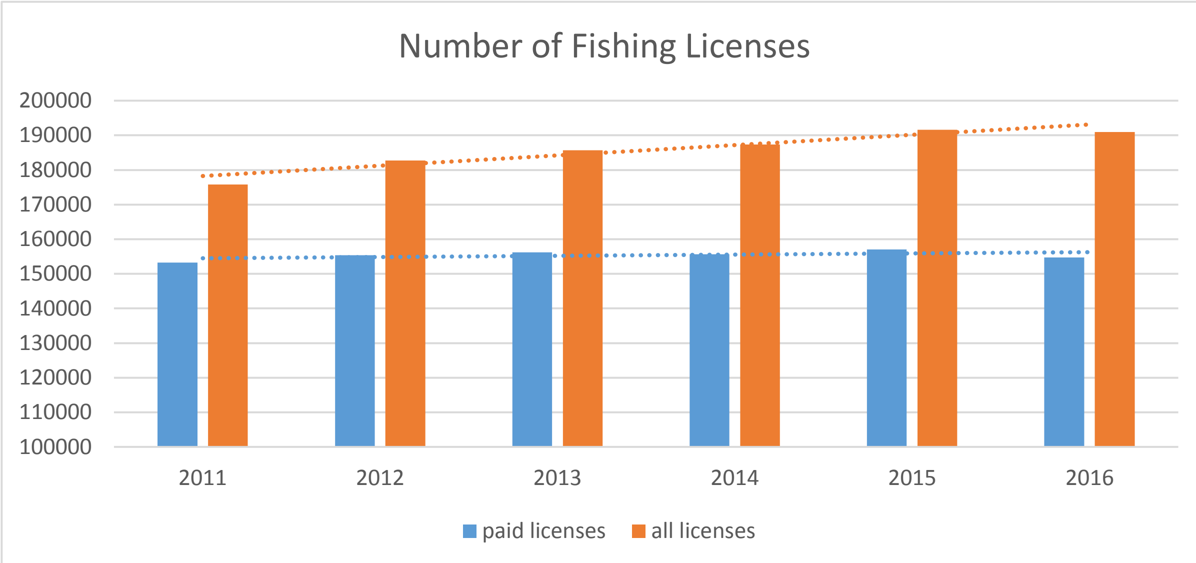


Figure 2. A comparison of the number of people with a fishing license and the number who have paid for a license.

Gainers and Losers: a changing face of license distribution

As the "Baby-Boomers" reach age 65 more and more of our long-time customers will be transitioning from paid licenses to free licenses as is shown by the increase of 13,321 free inland licenses issued to seniors during the five year period.

Over the past five years, there has been a shift in the distribution of fishing licenses with some increasing in number, some decreasing or some remaining the same (Appendix A). The two licenses with the greatest increase over the past five years were the 65 and older "free" licenses for inland and marine district (Table 2). As the number of "Baby Boomers" that reach the free license age of 65 continues to increase over the next several years (Figure 4), it is reasonable to expect that the number of free participants may also increase.

All of the top five license types that decreased in quantity from 2011 values were those with a fee. Specifically the number of resident inland fishing licenses and all waters/firearms combination licenses dropped by over 20,000 combined (Table 3).

[2] Based on participant unique conservation id values, not total number of licenses

Table 2. The top five license products that have gained (+) in quantity since 2011 with the total number of each product[3] distributed by year since 2011. Note that the top two gainers are both "Free" licenses.

License Name	2011	2012	2013	2014	2015	2016	Number Gained (2016-2011)
ANNUAL RESIDENT INLAND FISHING LICENSE-**AGE 65 PLUS**	20,756	25,526	27,840	29,872	31,910	34,077	+13,321
ANNUAL RESIDENT **OVER 65** FREE MARINE FISHING LICENSE	20,570	25,118	27,261	29,240	31,282	33,349	+12,779
ALL WATERS SPORT FISHING LICENSE (RES)	59,932	62,207	64,179	66,144	66,195	67,829	+7,897
ALL WATERS SPORT FISHING LICENSE AND ARCHERY DEER/SMALL GAME (RES)	1,114	1,785	1,553	1,665	1,818	1,961	+847
ALL WATERS SPORT FISHING LICENSE (NON-RESIDENT)	1,267	1,425	1,299	1,426	1,525	1,717	+450

Table 3. The top five license products that have lost (-) quantity since 2011 with the total number of each product distributed by year since 2011. Note that all are licenses that have a fee.

License Name	2011	2012	2013	2014	2015	2016	Number Lost (2016-2011)
INLAND FISHING LICENSE (RES)	38,669	31,879	30,311	29,332	26,968	24,732	-13,937
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE (RES)	23,828	22,574	22,394	21,066	17,266	16,228	-7,600
RESIDENT MARINE FISHING LICENSE	22,127	19,801	18,502	18,780	18,364	18,874	-3,253
FIREARMS HUNTING AND INLAND FISHING LICENSE (RES)	5,165	3,020	2,586	2,251	2,352	2,240	-2,925
NON-RESIDENT MARINE FISHING LICENSE	4,082	3,385	2,878	2,691	2,881	3,010	-1,072

The "free" license for age 65 and older began in 1972 when those eligible for the privilege were a small portion of the fishing participant population. In 2018 and forward, replacing the "free" license with a "senior-discount" would be prudent in order to sustain Connecticut's long tradition of high quality fishing opportunities.

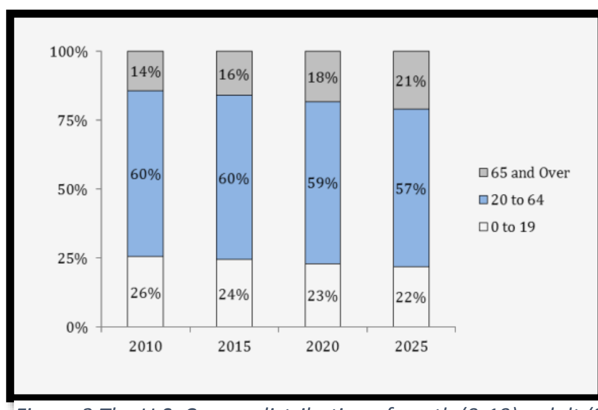


Figure 3 The U.S. Census distribution of youth (0-19), adult (20-64), and seniors (65+) in Connecticut from 2010 to 2025.

Anglers obtaining the free fishing license (age 65+) for marine, inland or both has increased 57% since 2010. Most anglers obtain both the inland and marine licenses with very few choosing just one or the other (Figure 4). Anglers 65 and older now make up just over 20% of the fishing participants, increaseing from 13.9% in 2011 to 21.8% in 2016 (Figure 5).

[3] Sum of the number of each license per year, some may have more than one per participant (i.e. 3-day non-resident)

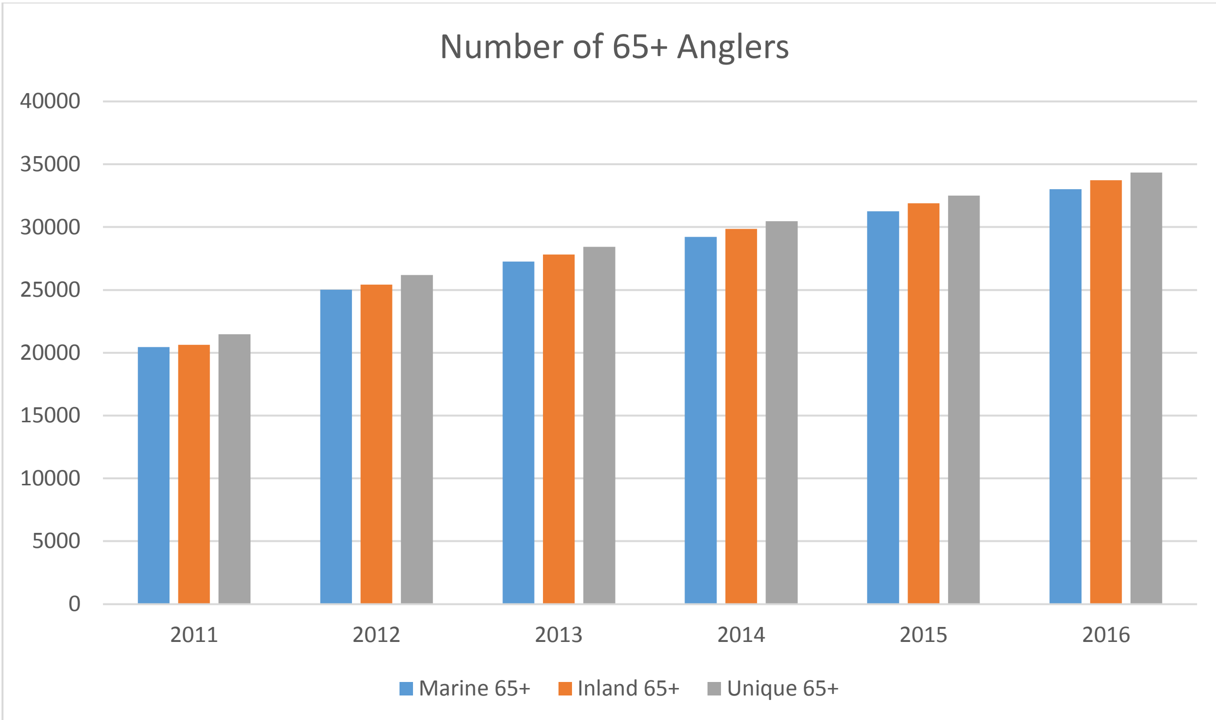


Figure 4. A comparison of the number of people with a fishing license and the number who have paid for a license.

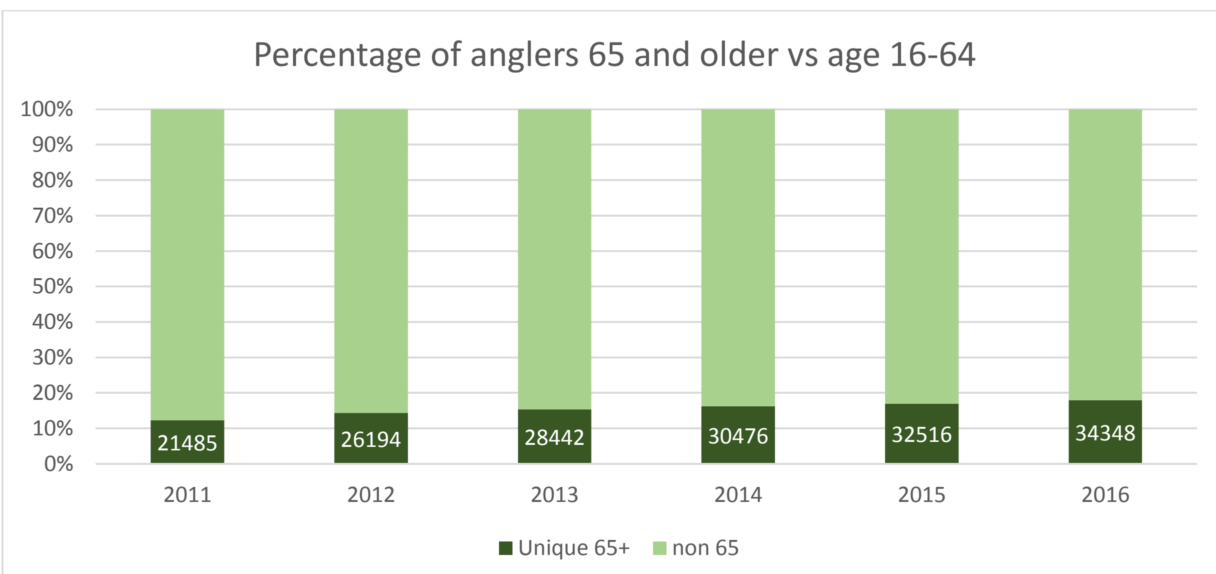


Figure 5. The percentage of people (and total number) 65 and over who obtained a "free" fishing license by year.

Where people are getting their license

There are four ways to obtain a fishing license in Connecticut: the internet (self-service), Town Clerk, private vendor, or DEEP office (Figure 6).

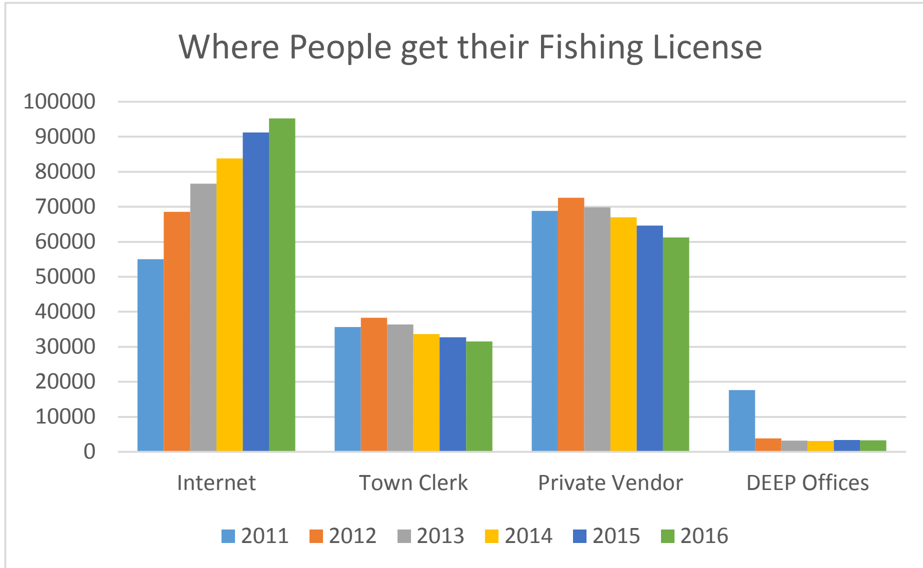


Figure 6. The number of fishing licenses obtained through one of the four methods.

With each passing year, more and more consumers are using the internet and mobile devices to shop on the go. The trend is towards a permanent shift in purchasing behavior (including anglers). More importantly, consumers have come to expect and demand the convience of purchasing a product in a quick, efficient manner from an "on-the-go" mobile device. Customers landing on web pages that are not mobile friendly or offer a "bad" mobile experience often drop the transaction prior to completion (Recreational Fishing and Boating Foundation 2013a).

We have been promoting the availability of the "mobile" friendly self-service transaction to potential youth and adult customers. As such, we feel "spontaneous fishing" is more likely as the time required to search for a physical location that sells a license, then travel to that location, and then have a person assist with the transaction are all eliminated. In addition, the electronic license (a pdf file) can be saved to and stored on the mobile device enabling the angler to fish on-the-spot without having to print their license.

How we got here: A summary of various initiatives

A multi-faceted strategy including partnering with the Recrational Boating and Fishing Foundation (RBFF) on lapsed angler mailings, the passage of innovative legislation, creation of the youth fishing passport, increasing access to fish, participating in social media, and increasing contact with customers (e-newsletters and periodic surveys) has been implemented over the past years. The following is a brief summary of these efforts.

Lapsed Angler Marketing Program: RBFF partnered with 40 state fish and wildlife agencies to implement a national direct mail marketing program in the spring of 2013 and 2014 (RBFF 2014, RBFF 2013b). The program targeted anglers who had not renewed their fishing license for at least one year and encouraged them to buy a fishing license (Appendix B and C). RBFF assumed all of the cost of the mailing in each year. The results for sales in Connecticut were mixed; a net loss of $6,326.70 in 2013 and a gain of $5,677.09 in 2014.

Public Act 14-201: Took effect in 2015 and resulted from legislation containing several provisions intended to increase participation in angling. These included:

- 50% reduction for all licenses, tags, stamps, permits for Connecticut residents age 16 or 17;
- Granted authority to the Commissioner to have up to two "free fishing-license days" per year (in addition to the existing free fishing day);
- Reduced the fee for a group fishing license by 50%;
- Granted authority to the Commissioner to waive the license requirement for any student participating in a fishing field trip that was required as part of a formal secondary school curriculum;
- Granted the Commissioner the authority to reduce, but not elminate, the fee for fishing licenses for the remainder of a calendar year for all people, a defined group of people, and for those who have completed a Connecticut Aquatic Resources Education (CARE) program fishing education class.

Wi-Fi and mobile-connected devices will generate 68% of all internet traffic by 2017.

86% of the U.S. population uses the internet

16-17 licenses fees reduced by 50%: One of the provisions within Public Act 14-201 was the reduction of all fishing and hunting license, permit, and tag fees for Connecticut residents of age 16 or 17. Participation among 16-17 year olds has increased over the pre-PA 14-201 years (Figure 7). We will continue innovative efforts to motivate youth and their families to take advantage of this opportunity. Long-term this increased participation by 16-17 should lead to increased numbers of 18 and older anglers for future years.

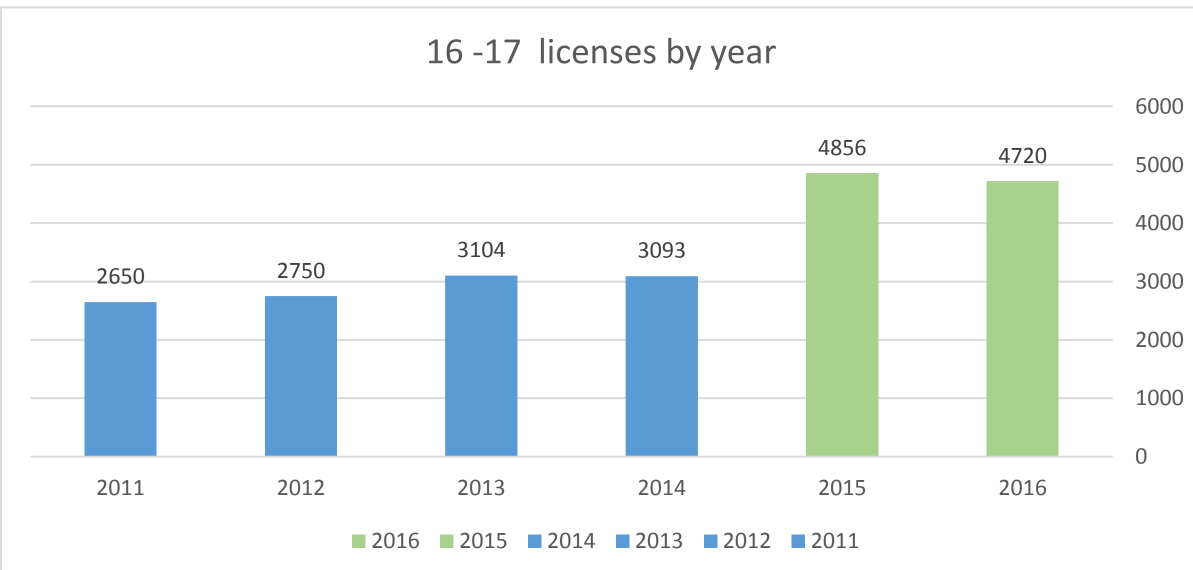


Figure 7. The number of fishing licenses sold to customers who were 16 or 17 year old at the time of purchase. The 50% reduction in fees took effect in 2015.

Free Fishing License Days: Also part of PA 14-201 was the ability for the Commissioner to designate two free fishing license days where anyone may fish for free provided they obtain the 1-day free fishing license. These dates were added to the existing statutory requirement for an annual free fishing day[4], where no license shall be required to fish.

A total of 2,161 people have participated in one or more of the Free Fishing License Days. Of these people, 37% (807) purchased a fishing license after the 1-day promotion (375 in 2015 and 432 in 2016) (Table 4).

A survey was emailed to all Free Fishing License Day holders who provided their email address within a few days of each of the four Free Fishing License Days. In general the responses indicated;

- It was not their first time fishing
- They fished to be with family and friends
- They thought the fishing was excellent
- They had beginner-level fishing skills
- They were males
- They were in their 40's

Table 4. The number of fishing licenses obtained by someone who participated in one or more free fishing license day in 2015 and/or 2016.

License Name (alphabetical)	2015	2016	Total
1 DAY MARINE SPORT FISHING LICENSE	**21**	**22**	**43**
3 DAY INLAND FISHING LICENSE (NON-RESIDENT ONLY)	**34**	**31**	**65**
3 DAY MARINE SPORT FISHING LICENSE (NON-RESIDENT ONLY)	**16**	**20**	**36**
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE	**9**	**11**	**20**
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE 16-17	**1**	**1**	**2**
ALL WATERS SPORT FISHING LICENSE	**123**	**122**	**245**
ALL WATERS SPORT FISHING LICENSE (NON-RESIDENT)	**2**	**5**	**7**
ALL WATERS SPORT FISHING LICENSE 16-17	**5**	**1**	**6**
ALL WATERS SPORT FISHING LICENSE AND ARCHERY DEER/SMALL GAME	**1**	**2**	**3**
ARCHERY SUPER SPORT LICENSE: ALL WATERS FISH; SMALL GAME DEER ARCHERY; PRIVATE LAND SPRING TURKEY		**1**	**1**
FIREARMS HUNTING AND INLAND FISHING LICENSE	**2**	**1**	**3**
FIREARMS HUNTING AND INLAND FISHING LICENSE (NR)		**1**	**1**
FIREARMS SS LICENSE. W/MUZZLE:ALL WATER FISH;PVT LND DEER-S/R & MUZZ;PVT SPRING TRKY	**1**		**1**
FIREARMS SS WATERFOWL LICENSE-ALL WATER FISH;FIREARMS HUNT;MIG DUCK STAMP;HIP PERMIT	**1**	**2**	**3**
FIREARMS SUPER SPORT LICENSE: ALL WATERS FISH; FIREARMS HUNT; PVT LAND DEER-S/R; PVT LAND SP TURKEY	**1**		**1**
INLAND FISHING LICENSE	**76**	**104**	**180**
INLAND FISHING LICENSE (NON-RESIDENT)	**8**	**8**	**16**
INLAND FISHING LICENSE 16-17	**1**	**1**	**2**
MARINE FISHING LICENSE 16-17	**3**		**3**
MARINE WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE	**2**	**1**	**3**
NON-RESIDENT MARINE FISHING LICENSE	**10**	**9**	**19**
RESIDENT MARINE FISHING LICENSE	**58**	**88**	**146**
YOUTH FIREARMS HUNTING AND INLAND FISHING LICENSE 16-17		**1**	**1**
Total	**375**	**432**	**807**

[4] Connecticut General Statute 26-27(f)

Youth Fishing Passport:

The [Youth Fishing Passport] is a free program that began in 2013. The intent is to encourage youth and families to make fishing an activity of choice.

Figure 8. The total number of Youth Fishing Passports and Jr. Youth Fishing Passports distributed by year.

To facilitate fishing together as a family, the Youth Fishing Passport program offers two structured activities; the fishing challenge and Geo-Catching. Both activities involve trying to catch a variety of freshwater and marine species. All participants email a photo of their successful catch and their conservation ID to the Fisheries Division. The top four anglers (those who caught the greatest number of different types of fish) receive a prize pack of fishing equipment while being recognized at the annual trophy fish award program ceremony.

The philosophy behind the Youth Fishing Passport is that by connecting with youth early and supporting their fishing efforts, they should be more likely to continue fishing after turning age 16 (and purchase a license).

The passport, a free downloadable pdf, is available via the sportsmen licensing system and assigns a lifetime conservation ID (as is done with all license holders) to each youth (Figure 8). This allows DEEP to quantify recruitment (purchase of a license) resulting from contact with the angler as a youth at various education and outreach efforts and family or youth fishing programs (Figure 9).

Over 6,000 passports have been issued

- 751 have renewed their passport at least 1 time
- 33 have renewed their passport 4 times
- 153 have renewed their passport 3 times
- 565 have renewed their passport 2 times
- **529 passport holders have purchased a fishing license**

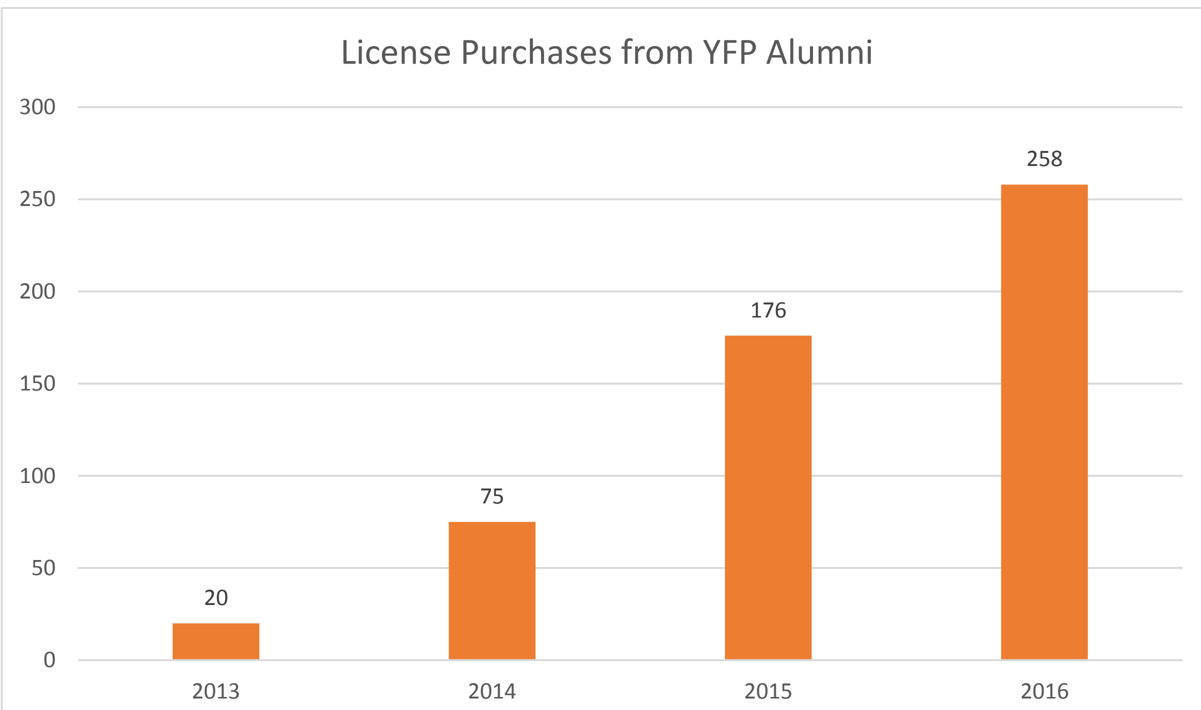


Figure 9. The number of fishing licenses sold to anglers who previously registered for a Youth Fishing Passport or a Jr. Youth Fishing Passport.

CARE to Learn How To Fish?

The Connecticut Aquatic Resources Education (CARE) Program has been providing free fishing instruction since it was established by the Connecticut General Assembly in 1986 (CGS 26-31a). Through the various learn to fish classes, CARE staff and the State Certified Volunteer fishing instructors (approximately 275 currently active) have contact with over 8,000 students annually (CT DEEP 2015c).

The CARE "Family Fishing Course" is the premier CARE student activity, and provides a positive learning experience through multiple meetings (classroom and fishing trip), the necessary skills and confidence to go fishing, increases the sale of fishing related equipment, and increases the sale of fishing licenses (CT DEEP 2015d, CT DEEP 2015e).

An objective within the BNR's goal to increase angler participation by 30% was "*to increase CARE attendance by 20% annually through 2014.*"

CARE attendance did increase by 9.4% during the period of 2011-2014, however the 20% increase annually was not met in any year except for 2012, primarily due to a large number of people attending a "special fishing event" (Figure 10 and Table 5).

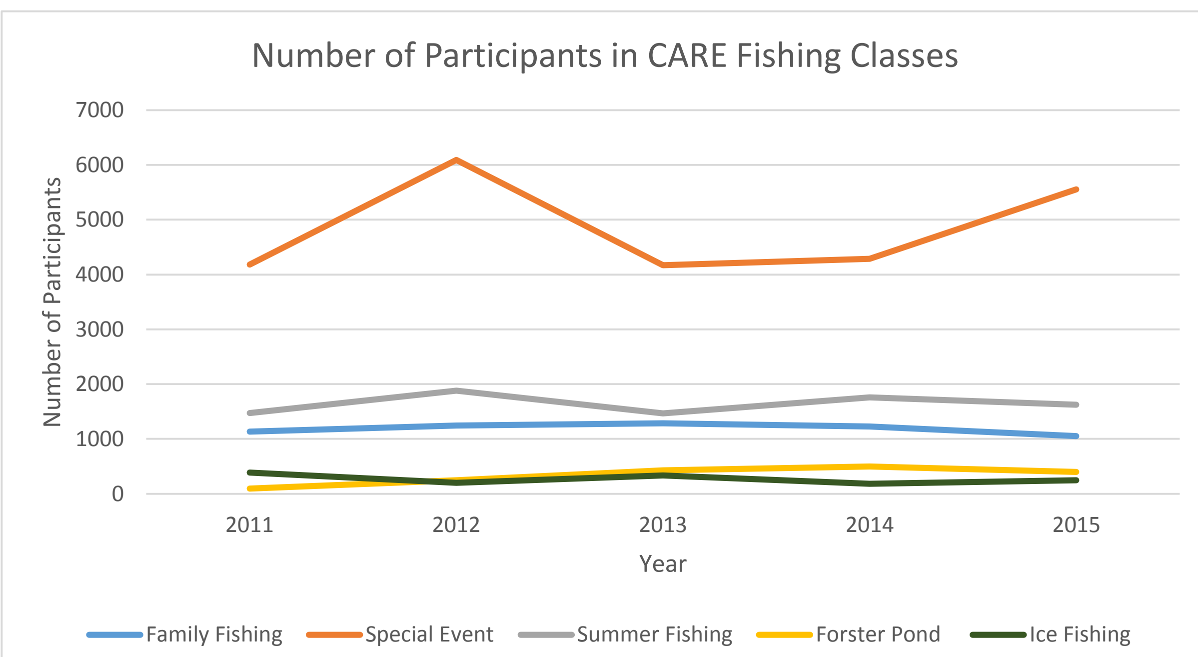


Figure 10. The number of people attending a CARE fishing class (participants) has remained relatively consistent between 2011 and 2015.

Table 5. CARE students per year for the five student activities, total students per year, and change from previous year within the CARE program. Values for 2015 were included for reference but are not included in the analysis, as the objective was annual increase through 2014.

year	Family Fishing	Special Event	Summer Fishing	Forster Pond	Ice Fishing	total	Difference from prior year	% change
2011	1,134	4,179	1,472	96	384	7,265	--	--
2012	1,244	6,093	1,880	245	202	9,664	2,399	33.0
2013	1,287	4,170	1466	425	332	7,680	-1,984	-20.5
2014	1,225	4,288	1,758	498	184	7,953	273	3.6
2015	1,054	5,554	1,622	398	244	8,872	919	11.6

Increased Access and Information:

The Community Fishing Waters Program, which began in 2007 as the "Urban Waters Project" is intended to help increase participation by providing good fisheries (stocked trout and/or channel catfish) in close proximity to large numbers of urban residents (CT DEEP 2011b). The number of Community Fishing Waters was expanded in 2014 to include, Hubbard Park Pond (Meriden), Butternut Park Pond or Rowan's Pond (Middletown), Stanley Quarter Park Pond (New Britain), Birge Pond (Bristol), Center Springs Park Pond (Manchester) and Beaver Park Pond Lagoon (New Haven) (Figure 11). Pickett's Pond (Derby) was added after the expansion, as it was being stocked with trout and adult Channel Catfish.

During the first spring and summer of the expansion, CARE staff conducted angler interviews at four of the new locations (CT DEEP 2015b). We found that;

- Overall fishing effort was high
- Most traveled less than five miles
- Many came to fish specifically for the trout or catfish that were stocked by DEEP

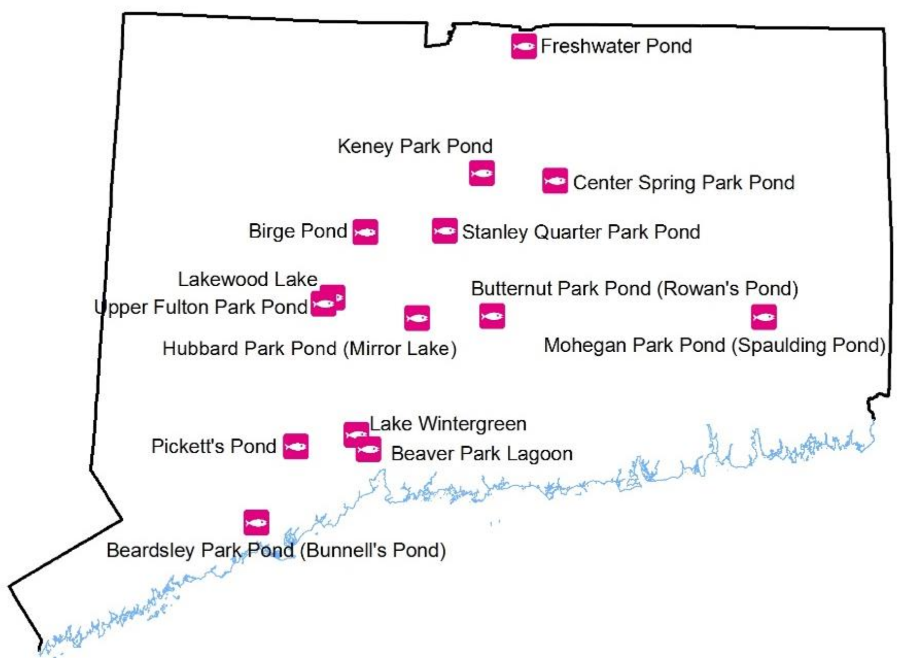


Figure 11. Community Fishing Waters where DEEP stocks trout, Channel Catfish, or both into waters that are located in densely populated areas.

Enhanced Opportunity Shore Fishing Sites This Marine Fisheries program is part of a broader Department effort to improve the fishing experience and quality of access to our Public Trust marine fisheries resources in CT, especially in urban areas (also see Bonus Striped Bass Program). Shore-based fishing is the simplest and most affordable form of salt water fishing and a popular way to enjoy Connecticut's coastline. At the same time, the program was designed to increase the opportunity to catch a legal size (harvestable) marine fish. At the Enhanced Shoreline Opportunity sites, **summer flounder may be taken at 16 inches** (compared to 18 inches otherwise) and **scup may be taken at 9 inches** (versus 10.5 inches), giving the shore angler at these sites a considerable chance of harvesting these marine fish. The network includes forty-one public fishing access areas listed in the DEEP Coastal Access Guide. These sites offer good shore based fishing opportunities in at least 18 different communities distributed from Stonington to Westport.

To aid law enforcement, the sites chosen for this program are separate from any boat launches or marinas where boat caught fish may be present. It is important to the success and continuation of this program that anglers at these enhanced access sites take their catch directly home after fishing, as possession of these species under the standard minimum size at other locations is a violation and can result in significant fines.

The Saltwater Fishing Resource Map provides information in a user-friendly format to help anglers locate the various enhanced shoreline points as well as charter boats and fishing license vendors.

Smartphone App: Initially this proved to be promising as the Fisheries Division was able to leverage the contract between the Parks Division and a private vendor, Parks by Nature. DEEP provided content and review during development; however, at the final stages Parks by Nature lost key personnel and are working to re-establish their team. We have been advised the issues are corrected and the app will be available soon.

Interactive Maps: Progress has been slow but a goal remains to have additional interactive maps available to the public. These maps would provide locations to fish for a species of interest (i.e. Bass, Trout, Walleye) as well as link to regulations and species information. The Saltwater Fishing Resource Map is an example of how to provide effective access information to the angling public.

Currently, a real-time trout-stocking map is near completion. This map displays the number of days since a water was stocked with trout. This can greatly assist the public in obtaining highly desirable information and may reduce the number of phone calls inquiring about stocking information.

Connecticut Wildlife Magazine: Starting in 2011, articles specific to inland and marine fisheries were included in each edition. The intent of these articles were to educate anglers and the outdoor enthusiasts about fisheries and fisheries programs.

User-desired information and friendly Angler's Guide:

Through surveys, anglers have indicated the Angler's Guide is their primary source for fishing information (including rules and regulations), however, to novice anglers it is often perceived as "too complex" or "confusing" and in general "difficult to find answers to questions". This is not to say that the answers are not there, just that it may be packaged ineffectively. Work continues to respond to customer suggestions and ultimately produce a more relevant user-friendly product that will support increased participation by new anglers.

Some changes to date include:

- Angler's Guide Photo Contest
- Creating content with more photos and less wording
- Addition of images and descriptions of popular game fish

Random Smartphone Trivia

Over 50% of smartphone users grab their smartphone immediately after waking up.

This is one of the reasons that email marketing continues to be so valuable. People are addicted to their smartphones and when your person subscribes to your newsletter, they're giving you permission to communicate directly to the device that rarely leaves their hands.

Social media users have risen by 176 million in the last year.

There are 1 million new active mobile social users added every day. That is 12 each second.

Online adults aged 18-34 are most likely to follow a brand via social networking (95%). Think about your audience and see where they are most likely to follow your brand.

US adults spend an average of 1 hour, 16 minutes each day watching video on digital devices

78% of people watch online videos every week, 55% watch every day.

Social Media:

The Fisheries Division is involved with two social media platforms, Facebook (ctfishandwildlife) and Twitter (@ctfishinginfo). Facebook, launched in 2011, has proved to be popular and is an efficient way to stay in contact with our customers. Currently males comprise 70% of our followers and most males are between the ages of 25-34 (23%). Females (29% of followers) tend to have a more equal age distribution (Figure 12).

The Facebook account is co-managed by staff within the Divisions of Wildlife and Fisheries and currently has over 16,000 followers. Unfortunately, Twitter has been much less effective with just over 100 followers to date. This could be that there have not been enough content posts, or that Twitter is not as popular (there are 1.3 billion Twitter accounts but only 320 million are active).

Some of the most “liked” posts on Facebook include:

- Daily stocking reports
- Weekend Fishing Forecasts
- Guess the “Mystery Fish”
- Photos of large or unusual catches
- Videos of staff in action

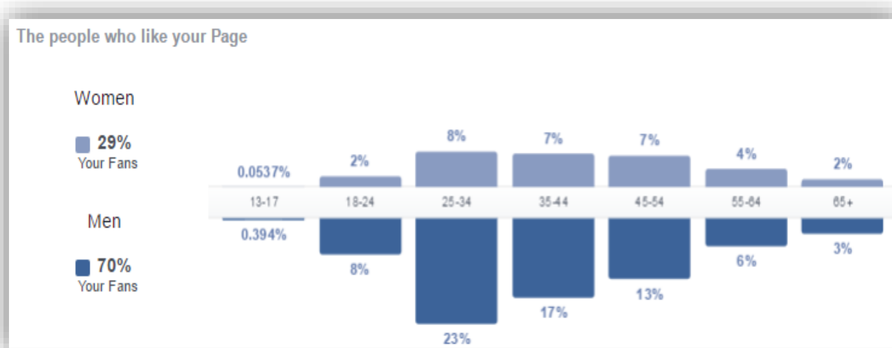


Figure 12. The percentage of CT Fish and Wildlife Facebook fans by age and gender as of December 2016.

Increased Contact with Customers:

Research indicates that continual contact with customers (anglers), including asking their opinion, increases loyalty and retention to the brand/product (fishing). To that end, by using the email addresses provided through the sportsmen licensing system we are able to reach out to our audience quickly and efficiently.

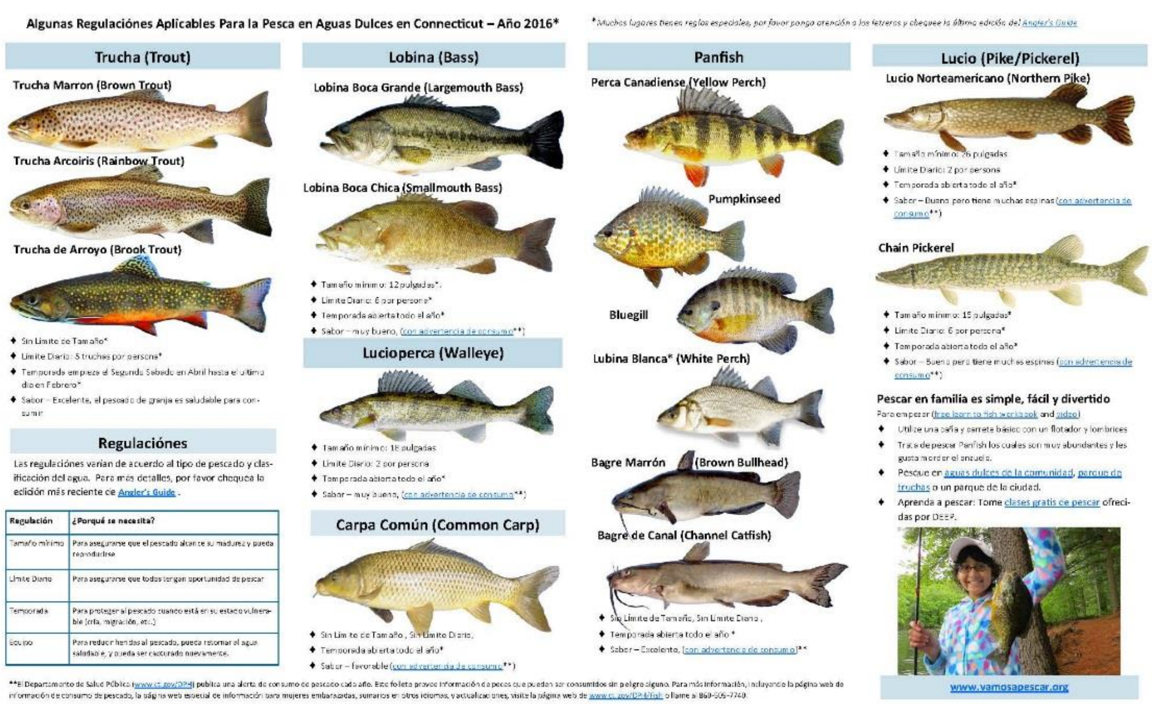
Several e-mail based products that have been implemented include:

- *CT Fishin' Tips* monthly newsletter
- *Weekly Fishing Report*
- *CARE Quarterly* Newsletter
- Various "how are we doing" surveys
- Targeted emails to renew your fishing license (based on license buying behavior). In 2017 an email campaign to encourage license purcahase was implemented. Over 89,000 anglers were "reminded" to purchase their fishing license. After two weeks, 2,036 people had purchased a license ($57,218.00)

Non-Traditional Audiences:

While participation numbers may remain stable or even increase slightly (through our traditional audience that is primarily white, rural or suburban resident, fishing for bass or trout), to increase participation significantly, efforts should focus on understanding the motivation of our non-traditional audiences including Connecticut's Hispanic and Asian residents.

An initial step was made in 2016 with the creation of two educational brochures written in Spanish (Freshwater and Saltwater). A diverse team of native Spanish-speaking DEEP employees (non-anglers) created these brochures. Future effort should focus on getting this information out into the community.



Algunas Regulaciónes Aplicables Para la Pesca en Aguas Dulces en Connecticut – Año 2016*

*Muchos lugares tienen reglas especiales, por favor ponga atención a los letreros y chequee la última edición del Angler's Guide

Trucha (Trout)

Trucha Marron (Brown Trout)

Trucha Arcoiris (Rainbow Trout)

Trucha de Arroyo (Brook Trout)

- Sin Limite de Tamaño*
- Limite Diario: 5 truchas por persona*
- Temporada empieza el Segundo Sabado en Abril hasta el ultimo dia en Febrero*
- Sabor – Excelente, el pescado de granja es saludable para consumir

Regulaciónes

Las regulaciónes varian de acuerdo al tipo de pescado y clasificación del agua. Para más detalles, por favor chequea la edición más reciente de Angler's Guide .

Regulación	¿Porqué se necesita?
Tamaño minimo	Para asegurarse que el pescado alcance su madurez y pueda reproducirse
Limite Diario	Para asegurarse que todos tengan oportunidad de pescar
Temporada	Para proteger al pescado cuando está en su estado vulnerable (cria, migración, etc.)
Equipo	Para reducir heridas al pescado, pueda retornar al agua saludable, y pueda ser capturado nuevamente.

Lobina (Bass)

Lobina Boca Grande (Largemouth Bass)

Lobina Boca Chica (Smallmouth Bass)

- Tamaño minimo: 12 pulgadas*.
- Limite Diario: 6 por persona*
- Temporada abierta todo el año*
- Sabor – muy bueno, (con advertencia de consumo**)

Lucioperca (Walleye)

- Tamaño minimo: 18 pulgadas
- Limite Diario: 2 por persona
- Temporada abierta todo el año*
- Sabor – muy bueno, (con advertencia de consumo**)

Carpa Común (Common Carp)

- Sin Limite de Tamaño , Sin Limite Diario,
- Temporada abierta todo el año*
- Sabor – favorable (con advertencia de consumo**)

Panfish

Perca Canadiense (Yellow Perch)

Pumpkinseed

Bluegill

Lubina Blanca* (White Perch)

Bagre Marrón (Brown Bullhead)

Bagre de Canal (Channel Catfish)

- Sin Limite de Tamaño, Sin Limite Diario ,
- Temporada abierta todo el año *
- Sabor – Excelente, (con advertencia de consumo)**

Lucio (Pike/Pickerel)

Lucio Norteamericano (Northern Pike)

- Tamaño mínimo: 26 pulgadas
- Límite Diario: 2 por persona
- Temporada abierta todo el año*
- Sabor – Bueno pero tiene muchas espinas (con advertencia de consumo**)

Chain Pickerel

- Tamaño minimo: 15 pulgadas*
- Limite Diario: 6 por persona*
- Temporada abierta todo el año*
- Sabor – Bueno pero tiene muchas espinas (con advertencia de consumo**)

Pescar en familia es simple, fácil y divertido

Para empezar (free learn to fish workbook and video)

- Utilize una caña y carrete básico con un flotador y lombrices
- Trata de pescar Panfish los cuales son muy abundantes y les gusta morder el anzuelo.
- Pesque en aguas dulces de la comunidad, parque de truchas o un parque de la ciudad.
- Aprenda a pescar: Tome clases gratis de pescar ofrecidas por DEEP.

www.vamosapescar.org

**El Departamento de Salud Pública (www.ct.gov/DPH) publica una alerta de consumo de pescado cada año. Este folleto provee información de peces que pueden ser consumidos [illegible] sin peligro alguno. Para más información, incluyendo la página web de información de consumo de pescado, la página web especial de información para mujeres embarazadas, sumarios en otros idiomas, y actualizaciones, visite la página web de www.ct.gov/DPH/fish o llame al 860-509-7740.

Partnering with the Office of CT Tourism

Efforts to market the exceptional fishing Connecticut has to offer has been ongoing. The office of tourism web page VisitCT (www.visitct.com) is an image driven layout focusing on eye-catching photos and videos.

The web site offers "partner pages" to support physical property like museums, galleries, historic sites, and theaters (**Attraction**); or Hotels, Motels, Inns, and Bed and Breakfast (**Accommodations**); **Restaurants;** or **Shopping**.

The site includes specific content for "**Party/Charter Fishing Vessels**" which helps to promote fishing in Long Island Sound.

Currently there is a partner page for the Burlington Fish Hatchery and the Quinebaug Fish Hatchery (Mike Beauchene is the account owner). Additional meetings are planned to discuss how or if the site can support items like – fish management areas, places to fish, etc.

There are three content specific pages dedicated to fishing

- Trout fishing Idylls
- 5 Reasons you will be hooked on Inland Fishing in Connecticut
- 6 Reasons why the Connecticut Shore is a top U.S. Fishing Destination

Going Forward:

The majority of the information in this document summarized initiatives to increase participation through recruitment of new anglers and retention of existing anglers (2011-2016). These initiatives were largely based on well-intentioned ideas developed both internally and in response to R3 efforts by fellow state agencies. Future R3 efforts in Connecticut should be formalized through a plan that integrates best practices published in recent R3 guidance documentation (AREA, Bylander 2016) and learns from programs implemented in other states. This plan should maximize the use of resources by prioritizing programs based on the likelihood of increased participation. The plan should detail each of the R3 programs; describe implementation steps, and methods to evaluate outcomes. Key to increasing participation in fishing into the future is the addition of a fourth "R – relevance."

SIXTY IN SIXTY

The Recreational Boating and Fishing Foundation has embarked on a grand effort to grow participation from the current 46 million anglers to 60 million anglers in 60 months (2021). Each state has been allocated specific license sales goals. Combined these individual state efforts will achieve the 60 in 60. Specifically for Connecticut, which has 0.55% of the total license sales nationally, the goal is to sell 7,455 new licenses each year for the next five years (2017 -2021).

Recommendations:

Overall

- **Improve data/acquire data in the DEEP Active system**
    - Add the capacity for the system to prevent typos during user entry of their email (double entry with email validation functionality)
    - Capture mobile phone number for "text" based messages
- Develop a simple and intuitive pathway in the front end of the licensing system for someone who is 100% confident they have never had a fishing license in CT
- **Learn about who is not fishing** (survey non-anglers for motivation and barriers)
- **Collaborative effort with industry partners**, especially in marketing and communication
- **Customer tracking database linked to Active** to help identify participation patterns (license buying history) for each customer. This information is critical for relevant, timely, and targeted communications to retain or reactivate customers.

Recruitment (brand new anglers):

- Become relevant to people who do not fish
- Increase use of the secondary high school fishing license waiver passed as part of PA 14-201 by identifying ways to encourage or assist high schools with implementing basics of fishing into their curriculum.
- Identify a method and implement ability to offer a reduced fee for the remainder of the calendar year for all graduates of a CARE fishing class as part of PA 14-201.
- Continue to build content on the state tourism site. VisitCT.com.
- CARE
    - Reduce the number of cancelled classes due to low registration
    - Increase advertising efforts for FREE classes (Facebook, Twitter, FishBrain)

        - Expand class types (advanced bait, trout, marine, fly fishing, kayak, women only)
    - Increase exposure in local media markets (Develop a Family Fishing Course press release to be distributed to host towns)
    - Take advantage of opportunities presented through the George H.W. Bush Vamos A Pescar Education Fund grants
    - Promote family fishing, especially for sunfish, at family friendly waters

Retention (keeping existing anglers engaged):

- Better customer engagement with Youth Fishing Passport holders, 16-17 year old anglers, and customers who have purchased a license in the current year.
- Reduce the number of anglers that lapse
- Longevity acknowledgement? 5 years in a row, 10 in a row?
- Better use of license acquisition data and development of target group for communication
    - Thank you, you make a difference, benefits of fishing, relevance
- Expand to Instagram and SnapChat and other up and coming social media apps

Reactivation (return of people who once had a fishing license but currently do not)

- Understand why lapsed (moved out of state, death, did it one time for a friend or spouse, physically can't fish, ***did not like***).
- Market free fishing days- come back and give it a go again
- Better use of license acquisition data and development of target group for communication
    - We miss you, how can we help you, what do you need from us,
- Convince people to come back and support fishing – benefits of stress reduction, outdoors, etc.
- Support networks (fishing groups, clubs, meet up events, derbies)

Relevance (connect people to fishing):

- Interactive maps to get fishing information out and in easily assimilated format
    - Trout stocking map
    - Where to fish map (in development)
- Ask and respond to customer suggestions to produce a more user-friendly products that will support increased participation
- Future effort should focus on getting this information out into the community.
- Find out what is important to non-anglers – attitude toward fishing and barriers to participation
- Continue high quality E- correspondence
    - *CT Fishin Tips*
    - *Weekly fishing report*
- Continue social media Facebook, Twitter, FishBrain
    - Implement the "Go Live" feature within Facebook
- Stock fish frequently in easily accessible waters near large numbers of people
- Promote eating fish as part of a healthy diet
- Promote "fishing is a good activity for me and my family"
- Develop additional interactive maps

- For beginners
    - Basics of fishing info (how to get started)
    - Where to fish
    - What you need to get started
    - What to do with a fish after you catch it
    - Smart Phone app or have presence on other existing apps (FishBrain)

Challenges and Opportunities

Discounted license for age 65+: Within the 2017 legislative session, DEEP has proposed/is supporting the adoption of discounted license fees for anglers age 65 and older. The free angling privilege for seniors began in 1972, a time when people under age 40 were a majority of Connecticut's population. Now our population demographic have shifted substantially towards an older "state", the number of free 65+ licenses has increased each of the past five years. As a large proportion of the "baby boomer" generation will reach age 65 over the next 3-5 years and this generation tends to be avid anglers, we are facing a serious drop in license fee based revenue. In light of the state's current fiscal realities and our aging clientele, additional sources of revenue are needed to support fisheries resources and maintain programs.

Many within this demographic are some of our most avid supporters and long-time anglers. Their continued support, via a discounted license fee, will be instrumental for maintaining revenue to implement Bureau of Natural Resource programs. While those about to reach age 65 may not view this favorably, DEEP will need to actively educate and provide relevant examples of how fish and fisheries benefit from their purchase of this discounted license.

Regulation changes on fisheries (daily and minimum size): Changes in regulations, which reduce angler's ability to harvest, can create angst among anglers towards DEEP and Federal Fisheries management programs. This is especially so for marine species, which are regulated through a complex process involving multiple agencies, committees, and stakeholder groups.

Additional education and outreach about the regulation process, especially how anglers can be involved, is one strategy to reduce angst.

Trout Stamp and Salmon Stamp: Currently DEEP has the authority to implement, through regulation, a stamp for salmon and trout. This proposal would establish an additional, and much needed, revenue source to support Connecticut's recreational fisheries programs by requiring anglers ages 16 and older to purchase stamps in order to fish for trout and/or broodstock Atlantic salmon. Establishment of trout and salmon stamps would also provide more accurate information on the number of anglers participating in the two fisheries. In addition, the state would have the low-cost option of surveying trout and salmon anglers electronically to collect information on days fished and catch.

DEEP is proposing regulations, starting January 1, 2018, to require anglers who desire to harvest trout/salmon from any waters or wish to fish in trout management areas, wild trout management areas, and trout parks to obtain a trout stamp ($5.00). Those who would like to fish within broodstock Atlantic salmon areas will need the salmon stamp ($10.00). A combination trout/salmon stamp will be discounted ($12.00). Revenue generated from the sale of these stamps will be applied to fund salmonid culture.

While this may not be viewed with favor by those who only occasionally fish for trout, DEEP will need to actively educate and provide relevant examples of how all of our fish and fisheries benefit from their purchase of this stamp(s) (regardless if they fish for trout or not).

References

Aquatic Resources Education Association (AREA). 2016. "Development of Strategic Tools to Evaluate, Improve, and Develop Angler Recruitment, Retention, and Reactivation Efforts."

Beck, Thomas H. 1931. "Report of Fish and Game Conditions in Connecticut and Six Year Program for State Board of Fisheries and Game."

Byrne, Bob. 2016. "Highlights of Angler Recruitment, Retention, and Reactivation (R3) Literature." Aquatic Resources Education Association.

Bylander, C.B. 2016. "R3 Toolkit. A Guide to Recruitment, Retention, and Reactivation." Minnesota Department of Natural Resources. St. Paul, MN.

U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau. 2011. "2011 National Survey of Fishing, Hunting, and Wildlife Associated Recreation"

Connecticut Department of Energy and Environmental Protection

-----2016. Summary of Free-Fishing License Day Survey Responses (unpublished).

-----2015a. Summary of Free-Fishing License Day Survey Responses (unpublished).

-----2015b. Analysis of Community Fishing Water Angler Surveys -2014 (unpublished).

-----2015c. Annual Project Report for Sport Fish Restoration Grant. CARE program

-----2015d. Angling for the Future. A Comparison of Knowledge, Skill, and Participation Before and After Attending a CARE Family Fishing Course.

-----2015e. Estimated fishing license sales and economic contribution of CARE family fishing course participants for the years 2010-2014.

-----2011a. Bureau of Natural Resources Strategic Plan (2011-2016).

-----2011b. "Urban Fishing Initiative". Final Report for Federal Aid in Sport Fish Restoration.

Recreational Fishing and Boating Foundation. 2014. Evaluation Results 2014 Fishing License Marketing Program. Connecticut Department of Energy and Environmental Protection and RBFF.

-----2013a. The Connected Angler: Six Ways to Improve Anglers' Online License Purchase Experience.

U.S Fish and Wildlife Service. 2014. "Wildlife and Sportfish Restoration Program".

-----2013b. Evaluation Results 2014 Fishing License Marketing Program. Connecticut Department of Energy and Environmental Protection and RBFF.

Appendix A: Number of participants (unique conservation identification numbers) that obtained a fishing privilege from 2011 to 2016 used for the analysis in this document. Those where participants have increased since 2011 are in bold font.

License Name	2011	2012	2013	2014	2015	2016	Grand Total
1 DAY MARINE SPORT FISHING LICENSE	**541**	**559**	**604**	**697**	**807**	**724**	**3,932**
1 DAY MARINE SPORT FISHING LICENSE 16-17					20	24	44
3 DAY INLAND FISHING LICENSE (NON-RESIDENT ONLY)	4,308	4,177	4,284	4,305	4,706	4,208	25,988
3 DAY MARINE SPORT FISHING LICENSE (NON-RESIDENT ONLY)	**1,237**	**1,285**	**1,299**	**1,371**	**1,379**	**1,484**	**8,055**
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE	23,828	22,574	22,394	21,066	17,266	16,228	123,356
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE (NON-RESIDENT)	146	160	159	136	139	143	883
ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE 16-17					379	309	688
ALL WATERS SPORT FISHING LICENSE	**59,932**	**62,207**	**64,179**	**66,144**	**66,195**	**67,829**	**386,486**
ALL WATERS SPORT FISHING LICENSE (NON-RESIDENT)	**1,267**	**1,425**	**1,299**	**1,426**	**1,525**	**1,717**	**8,659**
ALL WATERS SPORT FISHING LICENSE 16-17					2,782	2,796	5,578
ALL WATERS SPORT FISHING LICENSE AND ARCHERY DEER/SMALL GAME	**1,114**	**1,785**	**1,553**	**1,665**	**1,818**	**1,961**	**9,896**
ALL WATERS SPORT FISHING LICENSE AND ARCHERY DEER/SMALL GAME 16-17					52	9	61
ANNUAL RESIDENT INLAND FISHING LICENSE-AGE 65 PLUS	**20,756**	**25,526**	**27,840**	**29,872**	**31,910**	**34,077**	**169,981**
ANNUAL RESIDENT MARINE FISHING LICENSE-CODE 5	93	98	94	78	84	83	530
ANNUAL RESIDENT MARINE FISHING LICENSE-CODE 9	**305**	**345**	**337**	**375**	**427**	**453**	**2,242**
ANNUAL RESIDENT MARINE FISHING LICENSE-TYPE 17-H	518	540	532	504	514	513	3,121
ANNUAL RESIDENT OVER 65 FREE MARINE FISHING LICENSE	**20,570**	**25,118**	**27,261**	**29,240**	**31,282**	**33,349**	**166,820**
ARCHERY SUPER SPORT LICENSE: ALL WATERS FISH; SMALL GAME DEER ARCHERY; P/ L SPRING TURKEY 16-17					29	48	77
ARCHERY SUPER SPORT LICENSE: ALL WATERS FISH; SMALL GAME DEER ARCHERY; PRIVATE LAND SPRING TURKEY	**741**	**929**	**956**	**1,086**	**1,002**	**1,060**	**5,774**
FIREARMS HUNTING AND INLAND FISHING LICENSE	5,165	3,020	2,586	2,251	2,352	2,240	17,614
FIREARMS HUNTING AND INLAND FISHING LICENSE (NR)	197	198	169	165	148	158	1,035
FIREARMS HUNTING AND INLAND FISHING LICENSE 16-17					67	44	111
FIREARMS SS LIC. W/MUZZLE:ALL WATER FISH;PVT LND DEER-S/R&MUZZ;PVT SP TRKY 16-17					46	39	85

FIREARMS SS LICENSE. W/MUZZLE:ALL WATER FISH;PVT LND DEER-S/R & MUZZ;PVT SPRING TRKY	2,066	2,534	2,609	2,703	2,062	1,953	13,927
FIREARMS SS LICENSE: ALL WATERS FISH; FIREARMS HUNT; PVT LAND DEER-S/R; PVT LAND SP TURKEY 16-17					49	53	102
FIREARMS SS WATERFOWL LIC. ALL WATER FISH;FIREARMS HUNT;MIG DUCK STAMP;HIP PERMIT 16-17					61	43	104
FIREARMS SS WATERFOWL LICENSE-ALL WATER FISH;FIREARMS HUNT;MIG DUCK STAMP;HIP PERMIT					1,293	1,099	2,392
FIREARMS SUPER SPORT LICENSE: ALL WATERS FISH; FIREARMS HUNT; PVT LAND DEER-S/R; PVT LAND SP TURKEY					1,116	1,248	2,364
FREE INLAND FISHING - CODE 5	98	88	80	73	81	79	499
FREE INLAND FISHING - CODE 9	**395**	**420**	**401**	**435**	**496**	**484**	**2,631**
FREE INLAND FISHING - TYPE 17-H	563	581	558	526	516	529	3,273
FREE ONE-DAY SPORT FISHING LICENSE-1ST					500	581	1,081
FREE ONE-DAY SPORT FISHING LICENSE-2ND					534	544	1,078
INLAND FISHING LICENSE	38,669	31,879	30,311	29,332	26,968	24,732	181,891
INLAND FISHING LICENSE (NON-RESIDENT)	**4,315**	**3,910**	**3,995**	**3,893**	**4,235**	**4,398**	**24,746**
INLAND FISHING LICENSE 16-17					996	973	1,969
MARINE FISHING LICENSE 16-17					369	357	726
MARINE WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE	**337**	**397**	**448**	**457**	**449**	**441**	**2,529**
MARINE WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE (NON-RESIDENT)	18	23	30	23	25	20	139
MARINE WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE 16-17					9	4	13
NON-RESIDENT MARINE FISHING LICENSE	4,082	3,385	2,878	2,691	2,881	3,010	18,927
RESIDENT MARINE FISHING LICENSE	22,127	19,801	18,502	18,780	18,364	18,874	116,448
YOUTH ALL WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE 16-17						25	25
YOUTH FIREARMS HUNTING AND INLAND FISHING LICENSE 16-17						8	8
YOUTH MARINE WATERS SPORT FISHING AND FIREARMS HUNTING LICENSE 16-17						1	1

Evaluation Results
2013 Fishing License Marketing Program

Connecticut Department of Environmental Protection
and
Recreational Boating & Fishing Foundation

Purpose and Introduction

The Recreational Boating & Fishing Foundation (RBFF) partnered with 40 state fish and wildlife agencies to implement a national direct mail marketing program in spring 2013 to increase fishing license sales. The program targeted anglers who had not renewed their fishing licenses for at least one year and encouraged them to buy a fishing license. Nationally, for the program:

- Postcards were mailed to 2.89 million lapsed anglers; one round of mailings was included to increase reach nationally
- Half of the direct mail recipients received four-color postcards and the other half received black and white postcards within each state
- A follow-up email pilot test was implemented in five of the 40 states. RBFF funded the costs of the direct mail program[1]
- State agencies received all the revenue from the program

Connecticut Program At-A-Glance
- 34,506 postcards mailed on April 3, 2013 to resident lapsed anglers (including 8 seed names)
- 3,827 lapsed anglers purchased a license during the 42-day evaluation period
- $121,086 generated in license revenue

Program Implementation

Following is a summary of the main components of Connecticut's 2013 program:[2]
- One direct mailing:
    - Drop Date: April 3, 2013
    - Mail Pieces:
        - Four-color 6"x9" postcards
        - Black and white 4"x6" postcards
    - Postal Class: Non-profit
- Treatment Group: 33,876 lapsed anglers who purchased a license in 2011 but did not renew their fishing license in 2012.
    - 16,923 anglers received a four-color postcard
    - 16,953 anglers received a black and white postcard

[1] Five of the 40 states partnered with RBFF to implement a pilot test program that included a second touch point via email in addition to the direct mail component. States selected included Alabama, Florida, Indiana, Maine and Texas based on criteria including: mandatory email collection, above average response rate in 2012 and current vendor relationship.
[2] Program terms and definitions are listed on page 10.

Methods

List Development: State fishing license data was processed as follows:[3]

- Out-of-state and undeliverable addresses were removed using Coding Accuracy Support System (CASS) and National Change of Address (NCOA) software.
- Records were appended with Tapestry data using ESRI Community Coder/TAPESTRY® software.
- Lapsed anglers were identified according to the target audience selection criteria and treatment and control groups were developed.

Target Audience: The target audience was selected from 40,585 resident lapsed anglers who had not renewed their fishing licenses in 2012, according to the following criteria:

- Ages 18-64.
- Anglers who last purchased an annual or longer term license.
- Pulled from Tiers 1-5, then Tier 8.
- To reach the national goal of 2.89 million lapsed anglers, the average treatment group for each state was 72,344 anglers.[4]

Treatment and control groups were drawn from the target audience as follows:

- Treatment Group: 33,876 randomly selected anglers.
- Control Group: 5,976 randomly selected anglers.[5]

Evaluation: The evaluation timeframe was six weeks. To allow the direct mail piece to get to the mailbox, the evaluation period began three days after the drop date (April 6) and ended 42 days later on May 18. As part of the evaluation, to calculate overall response and lift, both the Treatment and Control Groups were adjusted by removing anglers who purchased licenses prior to the start of the evaluation period.[6]

Results

Overall:

- Response rate was 11.30%, resulting in:
  - 3,827 lapsed anglers purchasing 3,860 licenses and permits during the evaluation period.
  - $121,086 generated in license revenue.
    - $114,021 of net revenue from lapsed anglers over and above the cost of the direct mail program.
- Lift[7] was 0.07 percentage points, resulting in:
  - 23 lapsed anglers purchasing 24 licenses and permits during the evaluation period.
  - $738 generated in new license revenue.

Details:

- None of the segments evaluated had statistically significant results.

---

[3] Detailed tables are located on pages 3 -7.
[4] Some states fell short of the average mail list size of 72,344, so to make up for this deficit nationally, additional anglers were drawn for the top ten participating states with the highest angler populations.
[5] The control group equals 15% of the final pool of anglers selected per the target audience selection criteria.
[6] Although undeliverable mail was not anticipated given a non-profit mail rate, RBFF did receive some undeliverable mail pieces, however the overall percentage was <0.10%.
[7] Lift is the percentage point difference in the Treatment Group from the Control Group.

Outcomes and Next Steps

Connecticut's 2013 Fishing License Marketing Program resulted in the purchase of 3,827 licenses but the overall lift was not statistically significant.

Results for all states will be available later in 2013, allowing for the identification of trends across states, and more comprehensive recommendations will be shared at that time.

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. government.

List of Tables

Appendix: Responder vs. Non-Responder Analysis

Table 1. Definition of Tiers

	License Years in which license purchased (x):			
Tier	2009	2010	2011	2012
1&2	x	x	x	
3&4		x	x	
5&6	x		x	
7&8			x	

As of 2/3/2013.

Table 2. Summary of License Buyers, 2009-2013*

	N	% of Records
All Records	311,406	100.0%
	N	**% 2011 Anglers**
Lapsed 2012	53,418	33.3%
2011 Anglers	**160,180**	**100.0%**
Lapsed Anglers Tier	**N**	**% of Lapsed**
1&2	11,944	22.4%
3&4	8,837	16.5%
5&6	6,314	11.8%
7&8	26,323	49.3%
TOTAL	**53,418**	**100.0%**

As of 2/3/2013.

Table 3. Results of Data Processing Steps

	Total	
	Number	**Percent**
Total Lapsed Anglers in Target Audience[1]	**46,984**	**100.0%**
Removed during NCOA process[2]	6,399	13.6%
Total Available Lapsed Anglers in Target Audience	**40,585**	**86.4%**

[1] *All resident anglers in Tiers 1-5 or 8, 18 to 64 years old, who last purchased an annual or longer term fishing license in 2011.*

[2] *Invalid addresses, moved out of state.*

Table 4. Mail List Adjustments

Mail List Adjustments	Treatment Group (Mail List)	Control Group
Original Mailing List	34,506	6,087
Seed Names	8	N/A
Bought Before Mailing	622	111
Adjusted Mailing List for Evaluation	**33,876**	**5,976**

Table 5. Response and Lift - Overall and by Treatment Type

Treatment Type	Treatment Group (Mail List): # in Adjusted Mail List	Treatment Group (Mail List): # Purchased During Evaluation Period	Treatment Group (Mail List): % Response Rate	Control Group: # in Adjusted Control Group	Control Group: # Purchased During Evaluation Period	Control Group: % Purchase Rate	Lift [a]: Lift (Percentage Points)	Lift [a]: Net Increase in Licensed Anglers
Overall Results	**33,876**	**3,827**	**11.30%**	**5,976**	**671**	**11.23%**	**0.07**	**23 ***
Black & White Postcard	16,953	1,966	11.60%	5,976	671	11.23%	**0.37**	**62 ***
Color Postcard	16,923	1,861	11.00%	5,976	671	11.23%	**-0.23**	**-39 ***

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
** The calculated Lift is not statistically significant at the 95% level of confidence.*
Note: A total of 3,860 privileges were purchased by program respondents, or 1.01 privileges per respondent. Based on this calculation, the estimated net lift in the number of licenses sold was 24.

Table 6. Revenue and Costs

Gross Program Revenue[1]	**$**	**121,086.00**
Revenue per Respondent	$	31.64
Total Program Costs (funded by RBFF)	**$**	**7,064.52**
Direct Mail Costs per Recipient	$	0.21
Net Program Revenue	**$**	**114,021.48**
Estimated Additional Revenue		
SFRB Trust Fund[2]		N/A

[1] *License sales net of agent and transaction fees.*
[2] *Connecticut receives the minimum SFRB Trust Fund allocation due to its small area and angler population. Therefore a change in the angler population will not result in a greater allocation of SFRB funds.*

Table 7. Net License Revenue Based on Lift[1]

	Overall
Direct Mail Costs (funded by RBFF)	**$ 7,064.52**
Gross Revenue Based On Lift	**$ 737.82**
Net Revenue Based On Lift	**$ (6,326.70)**
Lift Required to Break Even	0.66
Potential Increase in SFRB Trust Funds Based on Lift[2]	N/A

[1] *Based on overall lift of 23 licensed anglers.*

[2] *Connecticut receives the minimum SFRB Trust Fund allocation due to its small area and angler population. Therefore a change in the angler population will not result in a greater allocation of SFRB funds.*

Table 8. Response and Lift by Tier

Tier	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased during Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased during Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
1&2	7,475	1,356	18.14%	1,295	238	18.38%	**-0.24**	**-18** *
3&4	5,360	660	12.31%	970	120	12.37%	**-0.06**	**-3** *
5&6	4,160	632	15.19%	738	96	13.01%	**2.18**	**91** *
7&8	16,881	1,179	6.98%	2,973	217	7.30%	**-0.31**	**-53** *
Total	**33,876**	**3,827**	**11.30%**	**5,976**	**671**	**11.23%**	**0.07**	**23** *

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 9. Response and Lift by Level of Urbanization

Urbanization Group	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
Urban	11,764	1,093	9.29%	2,150	224	10.42%	**-1.13**	**-133** *
Suburban	20,647	2,537	12.29%	3,575	413	11.55%	**0.74**	**152** *
Rural	1,433	195	13.61%	243	33	13.58%	**0.03**	**0** *

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
**The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 10. Response and Lift by Gender

Gender	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
Male	27,466	3,245	11.81%	4,820	577	11.97%	**-0.16**	**-43** *
Female	6,403	581	9.07%	1,154	93	8.06%	**1.01**	**65** *

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
**The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 11. Response and Lift by Age Group

Age Group[b]	Treatment Group (Mail List): # in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	Control Group: # in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift[a]: Lift (Percentage Points)	Net Increase in Licensed Anglers
18 to 24	4,538	494	10.89%	785	84	10.70%	**0.19**	**8** *
25 to 34	7,149	796	11.13%	1,290	147	11.40%	**-0.26**	**-19** *
35 to 44	7,132	801	11.23%	1,229	149	12.12%	**-0.89**	**-64** *
45 to 54	9,047	989	10.93%	1,605	166	10.34%	**0.59**	**53** *
55 to 64	6,010	747	12.43%	1,067	125	11.72%	**0.71**	**43** *

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
[b] Anglers younger than 18 and older than 64 were excluded from the Treatment and Control Groups.
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 12. Response and Lift by Household Income

Household Income Group	Treatment Group (Mail List): # in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	Control Group: # in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift[a]: Lift (Percentage Points)	Net Increase in Licensed Anglers
Under $10,000	-	-	0.00%	-	-	0.00%	**0.00**	**0**
$10,000 - $24,999	598	64	10.70%	87	6	6.90%	**3.81**	**23** *
$25,000 - $49,999	6,127	684	11.16%	1,062	123	11.58%	**-0.42**	**-26** *
$50,000 - $74,999	12,283	1,433	11.67%	2,126	252	11.85%	**-0.19**	**-23** *
$75,000 - $99,999	8,544	984	11.52%	1,544	176	11.40%	**0.12**	**10** *
$100,000 or More	6,295	661	10.50%	1,150	113	9.83%	**0.67**	**42** *

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
**The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 13. Response and Lift in the Ten Largest Tapestry Segments

Tapestry: Code	Name	Treatment Group (Mail List): # in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	Control Group: # in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift[a]: Lift (Percentage Points)	Net Increase in Licensed Anglers
24	Main Street, USA	4,488	590	13.15%	743	83	11.17%	**1.98**	**89** *
06	Sophisticated Squires	3,344	376	11.24%	533	62	11.63%	**-0.39**	**-13** *
18	Cozy and Comfortable	2,891	359	12.42%	465	62	13.33%	**-0.92**	**-26** *
07	Exurbanites	2,679	354	13.21%	505	60	11.88%	**1.33**	**36** *
02	Suburban Splendor	2,172	251	11.56%	395	44	11.14%	**0.42**	**9** *
10	Pleasant-ville	2,063	224	10.86%	441	50	11.34%	**-0.48**	**-10** *
13	In Style	1,674	220	13.14%	308	36	11.69%	**1.45**	**24** *
05	Wealthy Seaboard Suburbs	1,607	163	10.14%	286	29	10.14%	**0.00**	**0** *
14	Prosperous Empty Nesters	1,596	172	10.78%	283	28	9.89%	**0.88**	**14** *
17	Green Acres	1,096	154	14.05%	176	24	13.64%	**0.41**	**5** *

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
** The calculated Lift is not statistically significant at the 95% level of confidence.*
Note: Green Shaded Tapestry Code indicates lifestyle description includes fishing.

Appendix: Responders vs. Non-Responders Analysis

As an extension to the evaluation of the 2013 Fishing License Marketing Program, the treatment group (anglers who received direct mail postcards) was further analyzed to identify differences between anglers who purchased a license after receiving the postcard and anglers who did not purchase a license. These two groups of anglers are designated as responders and non-responders, respectively, and defined as follows:

- Responder: angler who received a program mailer and bought a fishing license during the program evaluation period.
- Non-responder: angler who received a program mailer and did not buy a fishing license during the program evaluation period.

Top findings:

- Responders were more likely to be in Tier 1&2, that accounted for 63.2% of responders but only 56.9% of non-responders (Table A1). Conversely, non-responders were more likely to be in Tier 7&8.
- Suburban anglers were more likely to not respond while urban anglers were more likely to respond (Table A2).
- The youngest anglers were most likely to respond (Table A3).
- Anglers with incomes from $50,000 to $74,999 were more likely to not respond while anglers with incomes of $100,000 or more were more likely to respond (Table A4).
- There was not a great difference between responders and non-responders in the distribution across the ten largest Tapestry segments (Table A5).

Table A1. Responders and Non-responders by Tier

	Responders		Non-responders		Total Treatment Group	
Tier	#	%	#	%	#	%
1&2	1,356	35.4%	6,119	20.4%	7,475	22.1%
3&4	660	17.2%	4,700	15.6%	5,360	15.8%
5&6	632	16.5%	3,528	11.7%	4,160	12.3%
7&8	1,179	30.8%	15,702	52.3%	16,881	49.8%

Chi-square test of independence, sig. p = 0.000

Table A2. Responders and Non-responders by Level of Urbanization

	Responders		Non-responders		Total Treatment Group	
Urbanization Group	#	%	#	%	#	%
Urban	1,093	28.6%	10,671	35.5%	11,764	34.8%
Suburban	2,537	66.3%	18,110	60.3%	20,647	61.0%
Rural	195	5.1%	1,238	4.1%	1,433	4.2%

Chi-square test of independence, sig. p = 0.000

Table A3. Responders and Non-responders by Gender

Gender	Responders		Non-responders		Total Treatment Group	
	#	%	#	%	#	%
Male	3,245	84.8%	24,221	80.6%	27,466	81.1%
Female	581	15.2%	5,822	19.4%	6,403	18.9%

Chi-square test of independence, sig. p = 2.000

Table A4. Responders and Non-responders by Age Group

Age Group[a]	Responders		Non-responders		Total Treatment Group	
	#	%	#	%	#	%
18 to 24	494	12.9%	4,044	13.5%	4,538	13.4%
25 to 34	796	20.8%	6,353	21.1%	7,149	21.1%
35 to 44	801	20.9%	6,331	21.1%	7,132	21.1%
45 to 54	989	25.8%	8,058	26.8%	9,047	26.7%
55 to 64	747	19.5%	5,263	17.5%	6,010	17.7%

Chi-square test of independence, sig. p = 0.000

[a] *Anglers younger than 18 and older than 64 were excluded from the Treatment and Control Groups.*

Table A5. Responders and Non-responders by Household Income

Household Income Group	Responders		Non-responders		Total Treatment Group	
	#	%	#	%	#	%
Under $10,000	-	0.0%	-	0.0%	-	0.0%
$10,000 - $24,999	64	1.7%	534	1.8%	598	1.8%
$25,000 - $49,999	684	17.9%	5,443	18.1%	6,127	18.1%
$50,000 - $74,999	1,433	37.5%	10,850	36.1%	12,283	36.3%
$75,000 - $99,999	984	25.7%	7,560	25.2%	8,544	25.2%
$100,000 or More	661	17.3%	5,634	18.8%	6,295	18.6%

Chi-square test of independence, sig. p = 0.000

Table A6. Responders and Non-responders by Ten Largest Tapestry Segments

Code	Name	Responders		Non-responders		Total Treatment Group	
		#	%	#	%	#	%
24	Main Street, USA	590	15.4%	3,898	13.0%	4,488	13.2%
06	Sophisticated Squires	376	9.8%	2,968	9.9%	3,344	9.9%
18	Cozy and Comfortable	359	9.4%	2,532	8.4%	2,891	8.5%
07	Exurbanites	354	9.3%	2,325	7.7%	2,679	7.9%
02	Suburban Splendor	251	6.6%	1,921	6.4%	2,172	6.4%
10	Pleasant-ville	224	5.9%	1,839	6.1%	2,063	6.1%
13	In Style	220	5.7%	1,454	4.8%	1,674	4.9%
05	Wealthy Seaboard Suburbs	163	4.3%	1,444	4.8%	1,607	4.7%
14	Prosperous Empty Nesters	172	4.5%	1,424	4.7%	1,596	4.7%
17	Green Acres	154	4.0%	942	3.1%	1,096	3.2%

Chi-square test of independence, sig. p = 0.000

Definitions

Definitions of common terms used in this report include:

1) **Target Audience**: The pool of lapsed anglers that fit the direct mail marketing program selection criteria. The treatment and control groups are drawn from the same target audience.

2) **Treatment Group**: The portion of the target audience that receives the marketing treatment (direct mailing).

3) **Control Group**: The portion of the target audience that receives no treatment (mailing). This group is approximately 15% of the target audience that is set aside to measure the number of people who would have responded (i.e., purchased a license) whether or not they received the mailing.

4) **Tiers**: A tier is a segment, or grouping, of lapsed anglers based on their past license buying history. Anglers who bought licenses in most years before lapsing in 2012 are assigned to higher tiers, while anglers who did not purchase licenses as often are assigned to lower tiers.

5) **Tapestry**: Provided by ESRI®, TAPESTRY allows each mail recipient to be assigned to one of 65 segments of the U.S. population based on their lifestyle characteristics. A full list of segments and their definitions can be found at www.esri.com/library/brochures/pdfs/tapestry-segmentation.pdf.

6) **Urbanization Segments**: These segregate mail recipients based on their rural, suburban or urban locations. These are also defined in the above link.

The four key performance measures used in the program evaluation are:

1) **Response Rate:** The total number of unique individuals who responded to the mailing divided by the total number of unique individuals who received the mailing. Response rate is calculated for the program overall as well as by priority tier, Tapestry and urbanization.

2) **Net Increase in Licensed Anglers:** The estimated number of people who bought a license during the direct mail campaign who would not have bought a license otherwise. This number is determined by use of a control group. Specifically, the percentage of people who bought a license in the control group is subtracted from the percentage of people in the treatment group who received a mail piece and subsequently bought a license during the campaign evaluation period. The differential in response rates is then applied to the number of people on the mailing list to estimate that number of anglers who purchased a license who would not have purchased without receiving the mailing.

3) **Lift:** A treatment group's response rate minus the purchase rate from the control group. This measure reports the marginal gain created by the direct mail component compared to no direct mail campaign.

4) **Net Revenue Based on Lift:** Net revenue generated solely as a result of lift from the direct mail. The estimated additional dollars the state receives as a result of the mailing. This number is calculated by multiplying the lift (the estimated number of individuals who would not have bought a license without the mailing) by the average weighted license revenue per direct mail respondent, minus mailing costs. Estimated Sport Fish Restoration (SFR) Program dollars received for each new license sold is calculated and reported separately.

Beauchene, Mike

From: Rachel Piacenza [rpiacenza@rbff.org]
Sent: Monday, July 22, 2013 4:23 PM
To: Beauchene, Mike
Cc: Aarrestad, Peter; Parks, Lisa
Subject: CT-RBFF Fishing License Marketing Program - 2013 Evaluation Report
Attachments: CT - RBFF 2013 Fishing License Marketing Program Evaluation Report - DRAFT.doc

Importance: High

Hi Mike,

Attached is the draft report for the evaluation of your 2013 Fishing License Marketing Program. Please review the report with your team and let us know if you have any questions. We're in the midst of evaluating additional state programs and look forward to sharing national results and additional details later this summer.

As with last year, this year's effort included one round of mailings (most states dropped in early April), which allowed us to increase reach nationally to 2.89 million anglers. Our national target audience included anglers ages 18-64 who last purchased an annual or longer-term license, with a focus on Tiers 1-5 and 8. Mail piece testing included an oversized 9x6 color postcard, a standard 4x6 black and white postcard, as well as a second touch point via email in five of our 40 partnering states. Overall for the program nationally, to date we are seeing response rates ranging from 2.8% - 12.1%. When we compare this year's mailing to last year's mailing, **the majority of states have a higher response rate in 2013.**

Thank you for your partnership in this program, and we look forward to building on our learnings and continuing to implement marketing strategies together to increase fishing license sales.

We would like to finalize your 2013 report in the next two weeks, so please let me know any feedback via e-mail by August 5.

Thanks!

Rachel

Rachel Piacenza
Senior Manager, State Initiatives | Recreational Boating & Fishing Foundation
500 Montgomery Street, Suite 300 | Alexandria, VA 22314-1657
office: 703-519-9542 | fax: 703-519-9565
email: rpiacenza@rbff.org | RBFF.org | TakeMeFishing.org

Connect with us:

Evaluation Results
2014 Fishing License Marketing Program

Connecticut Department of Environmental Protection
and
Recreational Boating & Fishing Foundation

Purpose and Introduction

The Recreational Boating & Fishing Foundation (RBFF) partnered with 40 state fish and wildlife agencies to implement a national direct mail marketing program in spring 2014 to increase fishing license sales. The program targeted anglers who had not renewed their fishing licenses for at least one year and encouraged them to buy a fishing license. Nationally, for the program:

- Postcards were mailed to 2.89 million lapsed anglers; one round of mailings was included to increase reach nationally
- All of the direct mail recipients received black and white postcards within each state
- A follow-up email pilot test was implemented in 12 of the 40 states. RBFF funded the costs of the direct mail program[1]
- State agencies received all the revenue from the program

Connecticut Program At-A-Glance

- 33,676 postcards mailed on April 3, 2014 to resident lapsed anglers (including 8 seed names)
- 3,429 lapsed anglers purchased a license during the 42-day evaluation period
- $109,814 generated in license revenue

Program Implementation

Following is a summary of the main components of Connecticut's 2014 program:[2]

- One direct mailing:
    - Drop Date: April 3, 2014
    - Mail Piece: black and white 4"x6" postcard
        - Half of Tier 8 anglers received a postcard containing a conservation-focused message
        - Half of Tier 8 anglers received a postcard containing an outdoors-focused message
    - Postal Class: Non-profit
- Treatment Group: 33,061 lapsed anglers who purchased a license in 2012 but did not renew their fishing license in 2013.

[1] Twelve of the 40 states partnered with RBFF to implement a pilot test program that included a second touch point via email in addition to the direct mail component. States included Alabama, Colorado, Florida, Georgia, Indiana, Maine, Oklahoma, Pennsylvania, Texas, Utah, Virginia and Vermont.

[2] Program terms and definitions are listed on page 9.

Methods

List Development: State fishing license data was processed as follows:[3]

- Out-of-state and undeliverable addresses were removed using Coding Accuracy Support System (CASS) and National Change of Address (NCOA) software.
- Records were appended with Tapestry data using ESRI Community Coder/TAPESTRY® software.
- Lapsed anglers were identified according to the target audience selection criteria and treatment and control groups were developed.

Target Audience: The target audience was selected from 39,610 resident lapsed anglers who had not renewed their fishing licenses in 2013, according to the following criteria:

- Ages 18-64.
- Anglers who last purchased an annual or longer term license.
- Pulled from Tiers 1-5, then Tier 8.
- To reach the national goal of 2.89 million lapsed anglers, the average treatment group for each state was 72,344 anglers.[4]

Treatment and control groups were drawn from the target audience as follows:

- Treatment Group: 33,061 randomly selected anglers.
- Control Group: 5,838 randomly selected anglers.[5]

Evaluation: The evaluation timeframe was six weeks. To allow the direct mail piece to get to the mailbox, the evaluation period began three days after the drop date (April 6) and ended 42 days later on May 18. As part of the evaluation, to calculate overall response and lift, both the Treatment and Control Groups were adjusted by removing anglers who purchased licenses prior to the start of the evaluation period.[6]

Results

Overall:

- Response rate was 10.37%, resulting in:
    - 3,429 lapsed anglers purchasing 3,478 licenses and permits during the evaluation period.
    - $109,814 generated in license revenue.
        - $104,337 of net revenue from lapsed anglers over and above the cost of the direct mail program.
- Lift[7] was 1.05 percentage points, resulting in:
    - 348 lapsed anglers purchasing 353 licenses and permits during the evaluation period.
    - $11,154 generated in new license revenue.

---

[3] Detailed tables are located on pages 4 -8.

[4] Some states fell short of the average mail list size of 72,344, so to make up for this deficit nationally, additional anglers were drawn for the top ten participating states with the highest angler populations.

[5] The control group equals 15% of the final pool of anglers selected per the target audience selection criteria.

[6] Although undeliverable mail was not anticipated given a non-profit mail rate, RBFF did receive some undeliverable mail pieces, however the overall percentage was <0.10%.

[7] Lift is the percentage point difference in the Treatment Group from the Control Group.

Details:

- The group of anglers receiving the conservation-focused message responded with statistically significant lift of 0.98 percentage points, while the group receiving the outdoors-focused message did not respond with lift that was statistically significant.
- The following segments had statistically significant results:
  - Tier 1, Tier 4 and Tier 8 anglers.
  - Anglers in the Suburban level of urbanization group.
  - The two age groups comprised of anglers 25 to 44 years old.
  - The group comprised of anglers with incomes of $100,000 or more.
  - Of the ten largest Tapestry segments, anglers found in the "Cozy and Comfortable" segment.

Outcomes and Next Steps

Connecticut's 2014 Fishing License Marketing Program resulted in the purchase of 3,478 licenses and statistically significant lift of 1.05 percentage points, an equivalent net increase of 348 anglers.

Results for all states will be available later in 2014, allowing for the identification of trends across states, and more comprehensive recommendations will be shared at that time.

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. government.

List of Tables

Table 1. Definition of Tiers

Tier	License Years in which license purchased (x)				
	2009	2010	2011	2012	2013-2014*
1	x	x	x	x	
2		x	x	x	
3	x		x	x	
4			x	x	
5	x	x		x	
6		x		x	
7	x			x	
8				x	

** As of 1/27/14.*

Table 2. Summary of License Buyers, 2009-2013*

	N	% of Records
All Records	343,792	100.0%
	N	**% 2011 Anglers**
Lapsed 2013	55,572	39.1%
2012 Anglers	**141,987**	**100.0%**
Lapsed Anglers Tier	**N**	**% of Lapsed**
1	2,693	4.8%
2	9,641	17.3%
3	718	1.3%
4	7,645	13.8%
5	944	1.7%
6	4,946	8.9%
7	1,160	2.1%
8	27,825	50.1%
TOTAL	**55,572**	**100.0%**

**As of 1/27/2014.*

Table 3. Results of Data Processing Steps

	Total	
	Number	Percent
Total Lapsed Anglers in Target Audience[1]	**46,715**	**100.0%**
Removed during NCOA process[2]	7,105	15.2%
Total Available Lapsed Anglers in Target Audience	**39,610**	**84.8%**

[1] All resident anglers in Tiers 1-5 or 8, 18 to 64 years old, who last purchased an annual or longer term fishing license in 2012.

[2] Invalid addresses, moved out of state.

Table 4. Mail List Adjustments

	Treatment Group (Mail List)	Control Group
Original Mailing List	33,676	5,942
Seed Names	8	N/A
Bought Before Mailing	607	104
Adjusted Mailing List for Evaluation	**33,061**	**5,838**

Table 5. Overall Response and Lift

Direct Mail	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
Results	**33,061**	**3,429**	**10.37%**	**5,838**	**544**	**9.32%**	**1.05**	**348**

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
Note: A total of 3,478 privileges were purchased by program respondents, or 1.01 privileges per respondent. Based on this calculation, the estimated net lift in the number of licenses sold was 353.

Table 6. Tier 8 Results by Message

Message	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
Message 1 - Conservation-focused	9,471	643	6.79%	3,410	198	5.81%	**0.98**	**93**
Message 2 - Outdoors-focused	9,465	615	6.50%	3,410	198	5.81%	**0.69**	**65 ***

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 7. Revenue and Costs

Gross Program Revenue[1]	**$ 109,814.00**
Revenue per Respondent	$ 32.03
Total Program Costs (funded by RBFF)	**$ 5,476.93**
Direct Mail Costs per Recipient	$ 0.17
Net Program Revenue	**$ 104,337.07**
Estimated Additional Revenue	
SFRB Trust Fund[2]	$ 23,351.49

[1] *License sales net of agent and transaction fees.*

[2] *Connecticut receives the minimum SFRB Trust Fund allocation due to its small area and angler population. Therefore a change in the angler population will not result in a greater allocation of SFRB*

Table 8. Net License Revenue Based on Lift[1]

	Overall
Direct Mail Costs (funded by RBFF)	**$ 5,476.93**
Gross Revenue Based On Lift	**$ 11,154.02**
Net Revenue Based On Lift	**$ 5,677.09**
Lift Required to Break Even	0.52
Potential Increase in SFRB Trust Funds Based on Lift[2]	N/A

[1] *Based on overall lift of 348 licensed anglers.*

[2] *Connecticut receives the minimum SFRB Trust Fund allocation due to its small area and angler population. Therefore a change in the angler population will not result in a greater allocation of SFRB funds.*

Table 9. Response and Lift by Tier

Tier	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased during Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased during Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
1	1,628	279	17.14%	274	34	12.41%	**4.73**	**77**
2	6,086	1,097	18.02%	1,090	198	18.17%	**-0.14**	**-9** *
3	505	51	10.10%	68	9	13.24%	**-3.14**	**-16** *
4	5,224	662	12.67%	884	95	10.75%	**1.93**	**101**
5	682	82	12.02%	112	10	8.93%	**3.09**	**21** *
8	18,936	1,258	6.64%	3,410	198	5.81%	**0.84**	**158**
Total	**33,061**	**3,429**	**10.37%**	**5,838**	**544**	**9.32%**	**1.05**	**348**

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 10. Response and Lift by Level of Urbanization

Urbanization Group	Treatment Group (Mail List)			Control Group			Lift [a]	
	# In Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
Urban	11,691	1,015	8.68%	2,081	168	8.07%	**0.61**	**71** *
Suburban	19,856	2,252	11.34%	3,472	347	9.99%	**1.35**	**268**
Rural	1,473	161	10.93%	275	29	10.55%	**0.38**	**6** *

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
**The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 11. Response and Lift by Age Group

Age Group [b]	Treatment Group (Mail List)			Control Group			Lift [a]	
	# in Adjusted Mail List	# Purchased During Evaluation Period	% Response Rate	# in Adjusted Control Group	# Purchased During Evaluation Period	% Purchase Rate	Lift (Percentage Points)	Net Increase in Licensed Anglers
18 to 24	4,597	445	9.68%	821	71	8.65%	**1.03**	**47** *
25 to 34	6,940	690	9.94%	1,258	105	8.35%	**1.60**	**111**
35 to 44	6,710	663	9.88%	1,178	95	8.06%	**1.82**	**122**
45 to 54	8,571	917	10.70%	1,482	162	10.93%	**-0.23**	**-20** *
55 to 64	6,243	714	11.44%	1,099	111	10.10%	**1.34**	**83** *

[a] *Lift is the percentage point difference in the Treatment Group from the Control Group.*
[b] *Anglers younger than 18 and older than 64 were excluded from the Treatment and Control Groups.*
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 12. Response and Lift by Household Income

Household Income Group	Treatment Group (Mail List): # in Adjusted Mail List	Treatment Group (Mail List): # Purchased During Evaluation Period	Treatment Group (Mail List): % Response Rate	Control Group: # in Adjusted Control Group	Control Group: # Purchased During Evaluation Period	Control Group: % Purchase Rate	Lift [a]: Lift (Percentage Points)	Lift [a]: Net Increase in Licensed Anglers
Under $10,000	524	44	8.40%	88	4	4.55%	**3.85**	**20** *
$10,000 - $24,999	5,936	551	9.28%	1,057	88	8.33%	**0.96**	**57** *
$25,000 - $49,999	11,939	1,351	11.32%	2,085	216	10.36%	**0.96**	**114** *
$50,000 - $74,999	8,317	864	10.39%	1,472	139	9.44%	**0.95**	**79** *
$75,000 - $99,999	6,306	618	9.80%	1,126	97	8.61%	**1.19**	**75** *
$100,000 or More	33,022	3,428	10.38%	5,828	544	9.33%	**1.05**	**346**

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
**The calculated Lift is not statistically significant at the 95% level of confidence.*

Table 13. Response and Lift in the Ten Largest Tapestry Segments

Tapestry: Code	Tapestry: Name	Treatment Group (Mail List): # in Adjusted Mail List	Treatment Group (Mail List): # Purchased During Evaluation Period	Treatment Group (Mail List): % Response Rate	Control Group: # in Adjusted Control Group	Control Group: # Purchased During Evaluation Period	Control Group: % Purchase Rate	Lift [a]: Lift (Percentage Points)	Lift [a]: Net Increase in Licensed Anglers
24	Main Street, USA	4,296	501	11.66%	750	79	10.53%	**1.13**	**48** *
06	Sophisticated Squires	3,105	382	12.30%	527	54	10.25%	**2.06**	**64** *
18	Cozy and Comfortable	2,675	330	12.34%	436	42	9.63%	**2.70**	**72**
07	Exurbanites	2,602	288	11.07%	480	52	10.83%	**0.24**	**6** *
02	Suburban Splendor	2,168	216	9.96%	363	35	9.64%	**0.32**	**7** *
10	Pleasant-ville	2,051	221	10.78%	362	32	8.84%	**1.94**	**40** *
13	In Style	1,652	175	10.59%	298	28	9.40%	**1.20**	**20** *
05	Wealthy Seaboard Suburbs	1,650	158	9.58%	296	32	10.81%	**-1.24**	**-20** *
14	Prosperous Empty Nesters	1,551	160	10.32%	281	29	10.32%	**0.00**	**0** *
17	Green Acres	1,104	117	10.60%	201	25	12.44%	**-1.84**	**-20** *

[a] Lift is the percentage point difference in the Treatment Group from the Control Group.
** The calculated Lift is not statistically significant at the 95% level of confidence.*

Definitions

Definitions of common terms used in this report include:

1) **Target Audience**: The pool of lapsed anglers that fit the direct mail marketing program selection criteria. The treatment and control groups are drawn from the same target audience.

2) **Treatment Group**: The portion of the target audience that receives the marketing treatment (direct mailing).

3) **Control Group**: The portion of the target audience that receives no treatment (mailing). This group is approximately 15% of the target audience that is set aside to measure the number of people who would have responded (i.e., purchased a license) whether or not they received the mailing.

4) **Tiers**: A tier is a segment, or grouping, of lapsed anglers based on their past license buying history. Anglers who bought licenses in most years before lapsing in 2013 are assigned to higher tiers, while anglers who did not purchase licenses as often are assigned to lower tiers.

5) **Tapestry**: Provided by ESRI®, TAPESTRY allows each mail recipient to be assigned to one of 65 segments of the U.S. population based on their lifestyle characteristics. A full list of segments and their definitions can be found at www.esri.com/library/brochures/pdfs/tapestry-segmentation.pdf.

6) **Urbanization Segments**: These segregate mail recipients based on their rural, suburban or urban locations. These are also defined in the above link.

The four key performance measures used in the program evaluation are:

1) **Response Rate:** The total number of unique individuals who responded to the mailing divided by the total number of unique individuals who received the mailing. Response rate is calculated for the program overall as well as by priority tier, Tapestry and urbanization.

2) **Net Increase in Licensed Anglers:** The estimated number of people who bought a license during the direct mail campaign who would not have bought a license otherwise. This number is determined by use of a control group. Specifically, the percentage of people who bought a license in the control group is subtracted from the percentage of people in the treatment group who received a mail piece and subsequently bought a license during the campaign evaluation period. The differential in response rates is then applied to the number of people on the mailing list to estimate that number of anglers who purchased a license who would not have purchased without receiving the mailing.

3) **Lift:** A treatment group's response rate minus the purchase rate from the control group. This measure reports the marginal gain created by the direct mail component compared to no direct mail campaign.

4) **Net Revenue Based on Lift:** Net revenue generated solely as a result of lift from the direct mail. The estimated additional dollars the state receives as a result of the mailing. This number is calculated by multiplying the lift (the estimated number of individuals who would not have bought a license without the mailing) by the average weighted license revenue per direct mail respondent, minus mailing costs. Estimated Sport Fish Restoration (SFR) Program dollars received for each new license sold is calculated and reported separately.