



*A SOCIAL & ECONOMIC ANALYSIS  
OF TOURNAMENT FISHING AT  
LUCCHETTI RESERVOIR, PUERTO RICO*

*Prepared for the  
Puerto Rico Department of Natural & Environmental Resources*

*A Social and Economic Analysis of Tournament Fishing at  
Lucchetti Reservoir, Puerto Rico*



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# Table of Contents

Page #

<b>List of Tables</b>		<b>ii</b>
<b>List of Figures</b>		<b>ii</b>
<b>Acknowledgments</b>		<b>iii</b>
<b>Introduction</b>		<b>1</b>
<b>Methods</b>		<b>2</b>
<b>Results</b>		<b>5</b>
<i>Survey Response Rate</i>		<b>5</b>
<i>Objective 1</i>	<i>Tournament Angler Characteristics, Participation Patterns, and Attitudes toward Fishing</i>	<b>5</b>
<i>Objective 2</i>	<i>Characteristics of Tournament Fishing Trips, Trip Expenditures, and Economic Impact of Tournament-related Expenditures</i>	<b>7</b>
<i>Objective 3</i>	<i>Tournament Angler Attitudes Tournament Fishing Protocols and Trip Satisfaction</i>	<b>11</b>
<i>Objective 4</i>	<i>Tournament Angler Support for Fishing Regulations, Stocking Practices, and Tournament Protocols at Lucchetti Reservoir</i>	<b>14</b>
<b>Discussion</b>		<b>17</b>
<b>Literature Cited</b>		<b>20</b>
<b>APPENDIX A</b>	<b>SELF-ADMINISTERED MAIL QUESTIONNAIRE</b>	<b>21</b>
<b>APPENDIX B</b>	<b>SURVEY CORRESPONDENCE</b>	<b>34</b>
<b>APPENDIX C</b>	<b>OPEN-ENDED COMMENTS</b>	<b>40</b>

## List of Tables

Table #		Page #
1	Average tournament angler expenditures made in the Municipality of Yauco, elsewhere in Puerto Rico, and in total during their last tournament trip to Lucchetti Reservoir in 2009. Average trip length was 2.0 days.	8
2	Average costs incurred for various goods by tournament anglers during their last tournament fishing trip to Lucchetti Reservoir in 2009. Item must have been purchased in Puerto Rico in 2009 and used on the angler's last tournament trip. Average costs were determined by dividing actual cost for each expenditure item by the number of days each angler fished in Puerto Rico in 2009, then multiplied by 2 (the average length of a Lucchetti Reservoir tournament trip).	9
3	Economic impacts (direct, indirect, induced, and total) generated from resident trip and equipment-related fishing tournament expenditures on Lucchetti Reservoir in 2009.	10
4	Tournament angler disagreement or agreement with various statements about fishing tournament protocols at Lucchetti Reservoir ranked by the percentage of anglers who responded "agree" to "strongly agree".	12
5	Tournament angler disagreement or agreement with various statements about their most recent tournament fishing trip to Lucchetti Reservoir; ranked by the percentage of anglers who responded "agree" to "strongly agree" to the statement.	13
6	Tournament angler support for current regulations and management approaches at Lucchetti Reservoir related to largemouth bass and possible alternatives.	15
7	Tournament angler disagreement or agreement with various statements about management practices and facilities at Lucchetti Reservoir; ranked by the percentage of anglers who responded "agree" to "strongly agree".	16

## List of Figures

Figure #		Page #
1	Raw Response Rates for the Lucchetti Reservoir Tournament Angler Survey	5
2	Lucchetti Reservoir tournament anglers' satisfaction with most recent tournament trip.	12

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## Introduction

Lucchetti Reservoir in Yauco is highly sought after by Puerto Rican fishing clubs as a location for largemouth bass fishing tournaments. Additionally, access-point and roving creel surveys conducted at Lucchetti Reservoir indicate that the majority of the fishing effort there is from tournament anglers. In 2005, for example, annual non-tournament effort was 432 angler hours whereas tournament effort was 2,704 angler hours, or 86% of the total fishing effort.

Tournament anglers are also the most vocal ones expressing concerns about the reservoir's facilities and its management to local fisheries managers and biologists. With the exception of fishing effort, only non-documented anecdotal information is available on this constituency group. Considering that tournament anglers are the primary clientele at Lucchetti Reservoir, the Puerto Rico Department of Environmental and Natural Resources (PRDNER) asked the principal investigator to assist them in developing a scientific survey that would explore tournament angler characteristics, participation patterns, attitudes, and expenditures made while participating in tournaments at the reservoir.

The PRDNER believed that obtaining feedback from this well-organized group of anglers would reaffirm to tournament anglers that they are an integral part of the management process, and that the agency is concerned about their needs and desires. Additionally, the PRDNER believed social information about tournament anglers would assist management personnel with better understanding how possible changes in management strategies would affect angler sentiment, and identify areas where agency and angler thought differed on important issues related to the fishery. The latter could assist managers in developing appropriate educational and public relations programs that may alleviate some of the conflicts that arise between anglers and the agency. Further, the PRDNER was interested in determining angler expenditures made during fishing trips and documenting how much economic impact those expenditures had, and the number of jobs they created in the Puerto Rico economy. Therefore, the objectives of this study were four-fold. Specifically, this study's objectives were to determine:

- 1) Tournament angler characteristics, their fishing participation patterns overall and at Lucchetti Reservoir, species preferences, and attitudes toward catching and keeping fish,
- 2) Characteristics of Lucchetti Reservoir tournament fishing trips, angler expenditures, and the economic impact of tournament fishing trip expenditures as a result of tournament fishing activity at the reservoir.

- 3) Tournament anglers' attitudes toward tournament fishing protocols and their satisfaction with various aspects of their most recent Lucchetti Reservoir tournament fishing trip, and
- 4) Tournament anglers' support for current and proposed fishing regulations and management practices at Lucchetti Reservoir

## Methods

In February 2009, the PRDNER fisheries manager in charge of Lucchetti Reservoir held a scoping meeting with presidents of the 12 active organized freshwater fishing clubs in Puerto Rico who regularly held largemouth bass fishing tournaments at the reservoir. The purpose of the meeting was to gauge their support for a tournament angler study, and if supported, to solicit their assistance in providing fishing club member lists for sampling purposes. Additionally, they were asked to provide the fisheries manager with a list of their key issues and concerns about fishing and management of Lucchetti Reservoir for survey development purposes. Their issues primarily revolved around the facilities at Lucchetti Reservoir, the fish population and associated management regulations, and tournament fishing protocols. At this meeting, 10 of the 12 fishing club presidents indicated their willingness to cooperate in the study and provide necessary information. Nevertheless, club presidents were concerned about their confidentiality by providing responses directly to PRDNER personnel (which was the original intent of the project), and requested a second meeting with the fisheries manager and principal investigator to discuss survey implementation and related concerns. In May 2009, the principal investigator met with club presidents and tournament anglers at an open meeting in Puerto Rico for introductory purposes and to discuss project details. It was clear from this meeting that tournament anglers were more comfortable with the principal investigator having sole control of this project, and it was decided by all attendees and the PRDNER that the survey research process would be implemented from Mississippi State University (MSU).

After the second meeting, member lists were obtained from the 10 fishing club presidents who agreed to participate in the study which resulted in a sample of 336 tournament anglers. Additionally, the principal investigator worked closely with the Lucchetti Reservoir fisheries manager to develop a self-administered mail questionnaire (APPENDIX A) that would address both angler and managerial needs. The questionnaire sought to collect basic demographic and participation information; attitudes toward fishing, tournament protocols, and facilities; support for current fishing regulations and possible alternative regulations; and information about tournament anglers' last tournament fishing trip to Lucchetti Reservoir, including their expenditure and satisfaction levels. Finally, the questionnaire provided two open-ended questions



where tournament anglers could share their comments about fishing or fisheries management specifically at Lucchetti Reservoir, and in Puerto Rico in general.

The survey instrument was translated by the Lucchetti Reservoir fisheries manager so that both Spanish and English versions would be available for anglers to complete. Questionnaire development and subsequent mailing procedures employed the use of the Tailored Design Method (TDM; Dillman 2000) to increase response rate. The TDM specifies the appropriate question wording and ordering, and is a personalized approach to correspondence which combines to increase response. To reduce recall bias associated with angler expenditures and to get a better spread of expenditures throughout the year, the 10 fishing clubs were randomly divided into two survey waves (Hiatt and Worrall 1977). The first wave was contacted by the principal investigator starting in October 2009 and the second wave was contacted in January 2010. Anglers were instructed to complete the trip-related questions and expenditures based on their most recent tournament trip to the reservoir.

After development of survey correspondence in English (APPENDIX B), all correspondence was translated into Spanish. On Day 1 of each survey wave, a pre-letter was sent to each angler informing them that they would be receiving their questionnaire in about a week. On Day 8 the mail questionnaire was sent via first class mail with an introductory letter and a postage-paid business reply envelope (e.g., a complete packet). Each questionnaire contained a barcode for identification purposes by the principal investigator. The initial and subsequent introductory letters were in Spanish and contained the Spanish version of the questionnaire. At the bottom of the letter in English, those who preferred to receive the questionnaire in English were instructed to contact the principal investigator via phone at MSU. On Day 18, a post card reminder/thank you letter was sent to each angler. Follow-up complete packets were sent as necessary to non-respondents on Days 28 and 49 of each survey wave. Respondents returned surveys to MSU where they were logged in and processed. Non-deliverable questionnaires were investigated immediately and re-mailed if possible to ensure each person sampled received all survey mailings with an equal opportunity to respond.

A non-response analysis was not completed for three reasons. First, phone survey follow-ups were problematic because of the language barrier. Second, although 10 of the 12 fishing clubs provided the principal investigator with mailing lists, it was clear from the May 2009 meeting that not all members of each participating club were willing to respond to the survey. Contacting non-respondents via phone after they declined three mailed invitations to complete the study would have created undue tension. Finally, because club lists only contained address information and no other information customary in fishing license databases, use of methods developed by Fisher (1996) to correct for non-response bias in survey results was not possible.



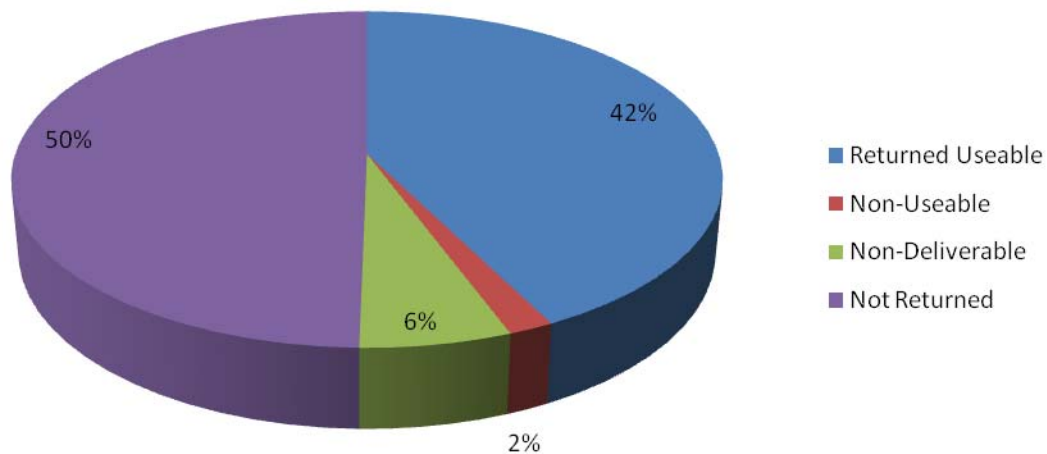
Returned data were coded, checked, and verified during data entry at MSU. Frequency tables and means were produced in SAS 9.1 (SAS 2009) as a final check on errors. For participation and expenditure items where extreme statistical outliers existed, outliers on the higher end were adjusted back the 95<sup>th</sup> percentile for that variable prior to making final analyses rather than removing them from the analysis altogether. Mean expenditure profiles (U.S. currency spent/angler/tournament trip) were derived for Lucchetti Reservoir. The survey collected expense data by specific expenditure categories to align them with the appropriate industrial or business sector in the Puerto Rico economy (e.g., the cost of sleeping accommodations with hotel and lodging places). All trip-related expenses where anglers indicated they paid for themselves and others who attended with them (e.g., spouse) were used in total. Long-term expenses were divided by the number of days fished in Puerto Rico in 2009. These were then multiplied by 2 (e.g., the average length of a Lucchetti Reservoir tournament trip) to derive the contribution of long-term expenditures made during the study year (2009) as a result of fishing during Lucchetti Reservoir tournament fishing trips.

Expenditure profiles, coupled with respective attendance figures on the number of tournament trips made to Lucchetti Reservoir in 2009, enabled the economic impact analysis. Economic impacts of tournament-related fishing trip expenditures to Lucchetti Reservoir were generated using Impact Analysis for Planning (IMPLAN) software (Olson and Lindall 2000). The software used an island-wide model developed in 1992 with information provided by researchers at the University of Puerto Rico (Ruiz 2006). IMPLAN software used economic data from the study to construct a model of the Puerto Rico economy. Expenditures made in Puerto Rico on behalf of fishing activity at Lucchetti Reservoir were then organized into final demands on Puerto Rico industries and businesses. An IMPLAN model of Puerto Rico was built to generate direct and secondary impacts resulting from participant expenditures. Direct impacts included sales, salaries, wages, and jobs created by the initial purchases of anglers that were retained by the island's economy in the operation of its businesses. Secondary impacts were composed of indirect and induced impacts. Indirect impacts were created through purchases made by directly impacted business or individuals with supporting businesses in the Puerto Rico economy. These impacts included the same categories as direct impacts. Induced impacts embodied purchases by employees within direct and indirect impacted sectors that generate sales, salaries, wages, and jobs. Leakages (expenditures leaving Puerto Rico to purchase goods or services) occurred and were taken into account. Multipliers obtained from the analyses were used to assess economic impact relationships within the Puerto Rican economy. Social Accounting Matrix (SAM) Type II multipliers, which are the total sales output for Puerto Rico divided by their respective direct sales, were examined in this project.

## Results

### ***SURVEY RESPONSE RATE***

Out of the 336 tournament anglers who were sent a questionnaire, 142 returned useable questionnaires. The raw response rate was 43% (Figure 1). When adjusted for 20 non-deliverable and 8 non-eligible responses (refusals) the final adjusted response rate was 46%.



**Figure 1. Raw Response Rates for the Lucchetti Reservoir Tournament Angler Survey**

### ***OBJECTIVE 1: Tournament Angler Characteristics, Participation Patterns, and Attitudes toward Fishing***

- Tournament anglers were predominately Hispanic/Latino (91%) males (99%). They ranged in age from 26 to 89 years with their average age being almost 52 years. Most tournament anglers had attended at least some college with their average years of formal education equaling about 15 years. The median household income of tournament anglers was "\$20,000-\$29,999"; only 18% of tournament anglers indicated they had annual household incomes above \$50,000.

- About 95% of tournament anglers rated fishing as their most important outdoor recreational activity, and about 4% indicated it was their second most important activity.
- Tournament anglers indicated they have been fishing an average of 26 years in freshwater and about 18 years in saltwater. On average, they indicated that they had been fishing about 14 years at Lucchetti Reservoir.
- When asked to compare how their fishing ability compared to other anglers in general, about 70% indicated they were "equally skilled", 20% indicated they were "more skilled", and 10% indicated they were "less skilled".
- When asked to indicate what species of freshwater fish they preferred to catch in Puerto Rico, 93% indicated largemouth bass as their first species preference. About 6% indicated peacock bass and less than 1% each indicated snook and tilapia as their first species preference. About 80% of anglers indicated peacock bass as their second preferred species to catch in Puerto Rico.
- When asked to identify their favorite reservoir to fish in Puerto Rico for largemouth bass, about 41% indicated Lucchetti Reservoir was their favorite reservoir, followed by Toabaco (16%), Castaner (9%), Cerrillos (9%), Gueayo (7%), and Guajataca Reservoir (6%).
- When not fishing in tournaments, about 37% of anglers indicated they fished most often with "family and friends together". About 23% fished with "friends", 20% fished with "family", 10% fished "alone", 7% fished with "club members", and about 2% indicated they fished most often with "business associates".
- .
- Tournament anglers fished an average of 44 days in 2009. Of this total, an average of 39 days was spent fishing in fresh water in Puerto Rico, and 4 days was spent fishing in salt water in Puerto Rico. On average, tournament anglers indicated they spent about 1 day in 2009 fishing outside of Puerto Rico. When asked about their fishing participation at Lucchetti Reservoir in 2009, anglers indicated they fished about 8 days at the reservoir (4 days in tournaments and 4 days for recreation or pre-fishing for tournaments).
- Tournament anglers indicated they participated in an average of 12 bass fishing tournaments in 2009 in Puerto Rico. Less than 8% of tournament anglers indicated they participated in saltwater fishing tournaments, or freshwater fishing tournaments outside of Puerto Rico.
- Tournament anglers were asked a series of 16 questions regarding their attitudes toward catching and keeping fish on a 5-point Likert scale (Anderson et al. 2007). These 16

questions were designed to measure four constructs: catching something, catching numbers, catching large fish, and retaining fish. Four questions made up each construct and were additive so the lowest score an angler could have on a construct was a "4" and the highest score they could have was a "20". The higher the score, the stronger their orientation was toward that construct. On average, tournament anglers scored highest on the "catching large fish" construct (mean=15.3), followed by the "catching numbers" construct (mean=12.7), the "catching something" construct (mean=9.6), and the "retaining fish" construct (mean=6.9). Overall, tournament anglers are most strongly oriented toward catching large fish and least oriented toward retaining fish for eating.

***OBJECTIVE 2: Characteristics of Tournament Fishing Trips, Trip Expenditures, and Economic Impact of Tournament-related Expenditures***

- From Lucchetti Reservoir tournament records, it was determined that there were 508 participants in fishing tournaments held at Lucchetti Reservoir in 2009.
- Tournament anglers traveled an average of 96 kilometers (one-way) to fish in their last fishing tournament at Lucchetti Reservoir.
- About 14% of tournament anglers indicated their home residence was in the Municipality of Lares, 8% indicated they were from the Municipality of Adjuntas, 7% each were from the Municipalities of Gurabo, Bayamon, and Ponce, and 4% each were from the Municipalities of San Juan and Caguas. The remainder of tournament anglers (49%) was dispersed among 30 different municipalities in Puerto Rico.
- The number of days that tournament anglers spent away from home on their last tournament fishing trip to Lucchetti Reservoir ranged from 1 to 5 days. The average tournament fishing trip lasted an average of 2 days from the time they left home until they returned there.
- Only 6% of tournament anglers indicated their last fishing tournament at Lucchetti Reservoir was their first time fishing at the reservoir.
- About 6% of tournament anglers indicated that someone else paid for their entire trip costs. Those tournament anglers who incurred expenses paid for an average 1.7 people on their trip. The number of people they paid for ranged from 1 (themselves) to 6 people (family and/or friends who accompanied them on their trip).

- Tournament angler expenditure profiles were developed from reported expenditures for Lucchetti Reservoir tournament trip-related items for both the Municipality of Yauco and the remainder of Puerto Rico in 2009. Average expenditures incurred for various trip-related goods and services for tournament anglers per Lucchetti Reservoir fishing trips were \$77.15/angler/trip in the Municipality of Yauco and \$93.79/angler/trip elsewhere in Puerto Rico. In total, anglers spent about \$170.94 on their last tournament trip (Table 1).

Table 1. Average tournament angler expenditures made in the Municipality of Yauco, elsewhere in Puerto Rico, and in total during their last tournament trip to Lucchetti Reservoir in 2009. Average trip length was 2.0 days.

<b>Expenditure Item</b>	<b>Average amount spent per trip per angler in Municipality of Yauco</b>	<b>Average amount spent per trip per angler Elsewhere in Puerto Rico</b>	<b>Average amount spent per trip per angler Total</b>
<b>Transportation</b>			
Automobile, boat gas/oil	18.13	30.36	48.49
Toll charges	2.35	4.35	6.70
<b>Lodging</b>			
Lodging at hotel or motel	0.54	2.16	2.70
Hotel/motel food	1.99	0.13	2.12
Campground fees	4.17	0.68	4.85
<b>Food and beverages</b>			
Restaurant or take-out meals	11.47	7.46	18.93
Groceries and ice	9.77	8.39	18.16
Non-alcoholic beverages	4.71	3.26	7.97
Adult beverages	4.41	3.44	7.85
Propane and/or cooking fuel	2.53	3.51	6.04
<b>Other fishing related expenditures</b>			
Bait and tackle for trip	7.19	15.58	22.77
Boat and equipment repair	7.86	10.22	18.08
<b>Other non-fishing shopping/services/entertainment</b>			
Casinos., movies, and other entertainment	0.40	0.22	0.62
Retail shopping	0.84	1.55	2.39
Other, miscellaneous expenses	0.78	2.48	3.26
<b>TOTAL</b>	<b>\$ 77.15</b>	<b>\$93.79</b>	<b>\$ 170.94</b>

- Average tournament angler expenditures incurred for equipment and other long-term items in Puerto Rico in 2009 that could be attributed to their trip were \$214.19/angler/trip (Table 2).

Table 2. Average costs incurred for various goods by tournament anglers during their last tournament fishing trip to Lucchetti Reservoir in 2009. Item must have been purchased in Puerto Rico in 2009 and used on the angler's last tournament trip. Average costs were determined by dividing actual cost for each expenditure item by the number of days each angler fished in Puerto Rico in 2009, then multiplied by 2 (the average length of a Lucchetti Reservoir tournament trip).

<b>Expenditure Item</b>	<b>Average amount spent per trip per angler for goods purchased in Puerto Rico in 2009</b>
Club membership	6.68
Personal vehicle (truck, car, or van)	54.83
RV and associated maintenance	17.38
Boat, motor, and trailer	72.87
Boat, motor, and trailer licenses and registrations	23.25
Boat accessories (aeration system, lights)	3.18
Fishing tackle (nets, weights, hooks, lures)	8.58
Electronic equipment (sonar, GPS, radio)	10.56
Fishing rods and reels	3.22
Safety equipment (vests, extinguishers, flares)	0.53
Filet knives, measuring boards, scales	1.32
Coolers, thermos, buckets	1.63
Other equipment (camera, binoculars, sunglasses)	5.17
Clothing (shirts, shorts, waders, vests, hats)	1.03
Other miscellaneous expenses	0.56
<b>TOTAL</b>	<b>\$ 214.19</b>

- The overall economic impact from Lucchetti Reservoir tournament fishing expenditures were derived from total trip and long term expenditure profiles (Tables 1 & 2) and number of tournament trips made to the reservoir in 2009 (n=508). Because an economic model does not exist specifically for the Municipality of Yauco, only island-wide economic impact analysis was conducted. On the island-wide level for 2009, the total sales impact was \$425,981 supporting 6.5 full and part-time jobs in Puerto Rico (Table 3). The SAM multiplier for this analysis was 2.23. This means that for every dollar spent in Puerto Rico on tournament fishing related expenditures at Lucchetti Reservoir there was an economic impact return of \$2.23.
- Value-added impacts totaled \$228,826. This includes employee compensation, proprietary income (e.g., income by the self-employed), other property income (e.g., interest), and indirect business taxes (e.g., sales, excise, and property taxes).

Table 3. Economic impacts (direct, indirect, induced, and total) generated from resident trip and equipment-related fishing tournament expenditures on Lucchetti Reservoir in 2009.

Reservoir	Impact type	Expenditure type	Impact (US \$)			
			Direct	Indirect	Induced	Total
Lucchetti	Output	Trip	85,192	41,271	53,442	179,905
		Equipment	106,187	43,731	96,158	246,076
		Total	191,379	85,002	149,600	425,981
	Value added	Trip	38,155	17,063	29,287	84,505
		Equipment	67,126	23,790	53,405	144,321
		Total	105,281	40,853	82,692	228,826
	Employment	Trip	0.9	0.4	1.0	2.3
		Equipment	1.9	0.5	1.8	4.2
		Total	2.8	0.9	2.8	6.5



### ***OBJECTIVE 3: Tournament Angler Attitudes Tournament Fishing Protocols and Trip Satisfaction***

Prior to this study, both the Lucchetti Reservoir fisheries manager and tournament anglers expressed concerns about current protocols used by managers and anglers during fishing tournaments. Specifically, the fisheries manager expressed concerns about the lack of use of aerated live wells to keep bass alive before weigh-in and trolling practices, and anglers expressed some concerns about the disposal of fish caught during tournaments (alive or dead). A suite of questions was asked to determine attitudes toward these issues (Table 4). Additionally, tournament anglers were asked their overall satisfaction with their last tournament fishing trip (Figure 2), and whether they agreed or disagreed with various statements about their last trip that may affect their satisfaction, including catch-related, PRDNER service-related, and facility-related items (Table 5).

- Most (73%) tournament anglers indicated that live wells should be required in all tournament boats, that they should be able to keep bass that die before weigh-in (55%), or that PRDNER personnel should dispose of dead fish (52%; Table 4).
- A plurality (47%) of tournament anglers agreed that trolling should not be allowed during fishing tournaments (Table 4).
- About 80% of tournament anglers believed that live bass should not be able to be retained by tournament anglers (Table 4).
- When asked to indicate how satisfied they were with their last tournament fishing trip to Lucchetti Reservoir, 26% indicated they were "extremely satisfied", 44% indicated they were "very satisfied", and 24% indicated they were "moderately satisfied". Only 5% indicated they were only "slightly satisfied" and 1% indicated they were "not at all satisfied" with their trip (Figure 2).
- A large majority (87%) of tournament anglers agreed that they thoroughly enjoyed their last tournament fishing trip, that their fishing skills were tested on their trip (82%), that they were satisfied with the service provided by PRDNER personnel (81%), and that they were satisfied with their overall tournament performance (78%; Table 5).
- Most (66%) tournament anglers agreed that their last trip to Lucchetti Reservoir was well worth the money spent, that they were satisfied with the quality (61%) and quantity (60%) of their catch, that they cannot imagine a better fishing trip (58%), and that the fishing facilities they encountered met their needs for this trip (58%; Table 5).
- Only a plurality (41%) of tournament anglers agreed that they caught more fish than expected on their trip, and most (65%) disagreed that they caught a trophy bass on their trip (Table 5).

Table 4. Tournament angler disagreement or agreement with various statements about fishing tournament protocols at Lucchetti Reservoir ranked by the percentage of anglers who responded "agree" to "strongly agree".

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Live wells should be required in all tournament boats	4.4	11.7	11.0	21.2	51.8
When a bass dies before the weigh-in, anglers should be able to keep those fish	19.1	5.9	20.6	34.6	19.9
When a bass dies before the weigh-in, PRDNER personnel should properly dispose of those fish	11.6	15.9	20.3	18.8	33.3
Trolling should not be allowed during fishing tournaments	17.7	16.2	20.6	14.0	31.6
Anglers should be allowed to keep some of the bass they catch during fishing tournaments that are still alive	54.7	24.8	7.3	6.6	6.6

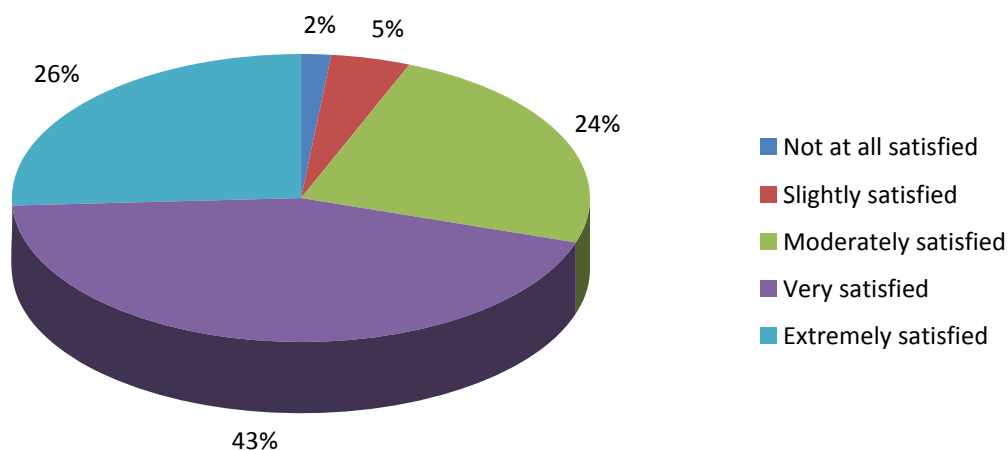


Figure 2. Lucchetti Reservoir tournament anglers' satisfaction with most recent tournament trip.

Table 5. Tournament angler disagreement or agreement with various statements about their most recent tournament fishing trip to Lucchetti Reservoir; ranked by the percentage of anglers who responded "agree" to "strongly agree" to the statement.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I thoroughly enjoyed this trip	0.0	2.3	10.8	40.8	46.2
My fishing skills were tested on this trip	2.3	5.4	10.8	46.9	34.6
I was satisfied with the overall service provided by the PRDNER personnel during the fishing tournament	3.1	1.6	14.0	31.8	49.6
I was satisfied with my overall tournament performance	1.5	6.2	14.6	48.5	29.2
The fishing trip was well worth the money spent to take the trip	6.9	4.6	22.9	41.2	24.4
I was satisfied with the quality of my catch	5.5	7.9	25.2	37.8	23.6
I was satisfied with the quantity of my catch	6.9	9.2	23.7	33.6	26.7
I cannot imagine a better fishing trip	1.5	11.5	29.2	28.5	29.2
The fishing facilities I encountered met my needs for this trip	5.4	13.1	23.9	31.5	26.2
I caught more fish than expected on this trip	7.7	22.3	29.2	25.4	15.4
I caught what I consider a trophy largemouth bass on this trip	26.4	38.8	12.4	11.6	10.8

***OBJECTIVE 4: Tournament Angler Support for Fishing Regulations, Stocking Practices, and Tournament Protocols at Lucchetti Reservoir***

Prior to this study, tournament anglers expressed some concerns about current regulations and stocking practices for largemouth bass at Lucchetti Reservoir. Specifically, anglers expressed some concerns about the daily bag limit, minimum length limit, and stocking protocols at the reservoir. A suite of questions was asked to gauge angler opposition or support for current and possible alternative strategies (Table 6). Additionally, by far the most pre-survey comments that were received from tournament anglers revolved around the quality of the facilities or lack thereof at Lucchetti Reservoir, as well as law enforcement presence at the reservoir, operational hours and the use of electro-fishing sampling methods during the tournament season. A suite of questions was developed to gauge angler attitudes toward these contentious issues (Table 7).

- A plurality (47.4%) of anglers opposed the current daily bag limit of 12 largemouth bass per angler per day at Lucchetti Reservoir; 8.8% were neutral, and 33.8% supported the current daily bag limit. A majority of anglers were more supportive of the alternatives of a "no harvest regulation" or lowering the daily bag limit to 5 fish per angler per day. Almost 64% and 56% of tournament anglers were supportive of these alternatives, respectively. A large majority of anglers (74.4%) were opposed to increasing the daily bag limit on largemouth bass to 15-fish per day per angler.
- A majority (74.3%) of anglers supported the current minimum length limit of 12 inches on largemouth bass at Lucchetti Reservoir, 13.2% were neutral, and only 12.5% opposed the current length limit. Most (88.4%) anglers were opposed to lowering the minimum length limit to 10-inches, and a plurality (41.3%) were opposed to increasing the minimum length limit to 14-inches on largemouth bass.
- About 95% of anglers were supportive of the current practice of stocking fingerling largemouth bass to enhance the largemouth bass fishery at Lucchetti Reservoir, but a similar percentage of anglers were also in favor of enhancing the largemouth bass fishery through the stocking of 8-inch plus fish.
- Between 75% and 93% of all tournament anglers agreed or strongly agreed with statements that involved adding or bettering the facilities at Lucchetti Reservoir. Tournament angler agreed most with increasing illumination around the boat ramp (93%), installing a water heater in the restroom/shower facilities (91%), and providing a receptacle for recyclable materials (91%).
- About 86% of anglers indicated that operational hours should change by season, and 75% and 68%, respectively, agreed that electro-fishing should not be conducted the week prior to

a fishing tournament, and that there was a need for more law enforcement presence at Lucchetti Reservoir.

Table 6. Tournament angler support for current regulations and management approaches at Lucchetti Reservoir related to largemouth bass and possible alternatives.

Statement	Strongly Oppose	Oppose	Neutral	Support	Strongly Support
<b>BAG LIMIT</b>					
The current 12-fish daily bag limit on largemouth bass	27.7	19.7	8.8	21.2	22.6
Reducing the daily bag limit on largemouth bass to 5 fish per day per angler	12.6	17.0	14.1	11.9	44.4
Increasing the daily bag limit on largemouth bass to 15 fish per day per angler	55.4	19.0	13.1	5.1	7.3
Implementing a "no harvest" regulation for largemouth bass	2.9	14.5	18.8	29.0	34.8
<b>LENGTH LIMIT</b>					
The current 12-inch length limit on largemouth bass	6.6	5.9	13.2	30.2	44.1
Reducing the length limit on largemouth bass to 10-inches	65.0	23.4	7.3	2.9	1.5
Increasing the length limit on largemouth bass to 14 inches	18.8	22.5	28.3	15.2	15.2
<b>STOCKING</b>					
Stocking fingerling largemouth bass to enhance the population	0.7	2.2	2.2	20.7	74.1
Stocking 8-inch plus largemouth bass to enhance the population	0.7	0.7	3.7	18.4	76.5

Table 7. Tournament angler disagreement or agreement with various statements about management practices and facilities at Lucchetti Reservoir; ranked by the percentage of anglers who responded "agree" to "strongly agree".

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The PRDNER should increase illumination around the boat ramp	0.7	1.5	5.1	28.3	64.5
The PRDNER should install a hot water heater for the restroom/shower facility	1.5	2.2	5.8	21.7	68.8
The PRDNER should provide a receptacle for recyclable materials	0.0	1.5	8.2	32.6	57.8
The PRDNER should increase the number of camping spots available to anglers	0.7	2.2	10.1	26.1	60.9
The PRDNER should increase illumination around the restroom/shower facility	0.7	1.5	10.9	30.4	56.5
The PRDNER should adjust the operational hours of the facilities at Lucchetti Reservoir by season	3.6	3.6	7.1	14.3	71.4
The PRDNER should install a floating pier near the boat ramp so anglers can dock their boats	0.7	2.2	14.5	33.3	49.3
The PRDNER should not conduct electro-fishing activities during the week prior to a fishing tournament	8.7	6.5	8.7	25.4	50.7
The PRDNER should increase the size of the parking facilities to accommodate more vehicles and trailers	1.5	3.6	19.6	23.2	52.2
The PRDNER should increase its law enforcement presence on Lucchetti Reservoir	2.2	3.6	26.1	23.2	44.9

## Discussion

Largemouth bass tournament anglers fish considerably more in fresh water than salt water indicating that inland reservoirs are filling an important niche for the recreational fishing community in Puerto Rico. Additionally, as is evident by their expenditures at this one reservoir, freshwater tournament anglers are providing economic benefits to Puerto Rico as a result of their largemouth bass tournament fishing activity. Considering that tournament anglers fish multiple reservoirs throughout the island, and assuming that they have similar expenditures on their tournament trips elsewhere indicates that freshwater tournament fishing in Puerto Rico is an important component of the economic base on the island which is likely equivalent to a small to medium-sized business. Nevertheless, until a more in-depth study of tournament angler expenditures can be conducted island-wide, or a fishing license is implemented that allows for a more comprehensive study of all anglers on the island (including tourists), any generalizations about the economic activity of angler expenditures beyond those documented in this study at Lucchetti Reservoir is speculative at this point. Additionally, as a cautionary note, some researchers have discounted using all resident expenditures to derive economic impacts because it is felt that resident expenditures are merely recycling dollars in an economy. However, this study reported on all resident expenditures as they translated into impacts with the understanding that they could potentially be reduced in part if anglers would not travel outside of Puerto Rico to fish. If anglers were to leave Puerto Rico to fish elsewhere, then the monies they spend and the jobs they currently support would also leave resulting in an economic loss to Puerto Rico. Whereas Puerto Rican tournament anglers may not fish elsewhere for largemouth bass as much as they do in Puerto Rico, in the absence of quality freshwater fishing they likely would save their money for a lesser number of more costly trips to the U.S. mainland or Mexico; some already do. Continued and expanded fishing access to inland reservoirs, as well as proper management of those resources will enable angler dollars to stay in Puerto Rico.

Whereas many of the goods and services tournament anglers used are purchased on the island, many anglers indicated that they spend a large amount of money on fishing-related tackle and equipment via the internet from companies on the U.S. mainland. Further economic benefits could likely be generated by Puerto Rican businesses if they were to cater more to the needs of fresh water anglers as the tackle and gear used is different from that used in salt water. Additionally, local municipalities where reservoirs are located could likely benefit by catering to this specific user group with trip-related necessities. Purchases of goods and services are commonly made by anglers at home prior to a trip simply for convenience, time constraints, or price. Nevertheless, some equipment and tackle purchases were most likely made outside of the Yauco area, for example, because these items were not available in the local area or anglers may not be able to locate certain items. Local businesses could likely provide a share of these items along with other outdoor-related services if they consult with anglers about their specific needs for products or services. Additionally, with Lucchetti Reservoir being rated as Puerto Rican



tournament anglers favorite reservoir to fish, the local municipality and businesses can likely capitalize on this finding in two separate ways. First, by marketing local activities, festivals, and attractions to current anglers, they could be induced to stay longer on their trips and generate more economic activity in the local area. Second, by better marketing the quality fishing and other recreational opportunities available at Lucchetti Reservoir to non-local residents and tourists, the local area may be more attractive as a vacation or tourist destination.

Tournament angler satisfaction with their most recent trip to Lucchetti Reservoir was relatively good with about 65% of anglers indicating they were “very” or “extremely” satisfied with their trip. Based on this study, nothing would appear to contribute more to increasing satisfaction with fishing at the reservoir than improving the facilities. With the exception of catching more fish or a trophy bass on their trip (which is primarily out of the fisheries manager control), anglers were least likely to agree that “the facilities met my needs for this trip”. Anglers rated increased lighting, more camping areas, and a hot water heater in restrooms/showers as highly desirable. Whereas anglers also desired increased parking areas and a floating pier, their slightly lower ratings on these items likely reflect the realization that the topography and water level fluctuations at the reservoir would make these improvements problematic. The PRDNER can likely make some of these desires a reality through Sport Fish Restoration Fund grants. Doing so would be quite evident to anglers and show that the PRDNER is being responsive to their needs.

Other managerial improvements could be made by the PRDNER that could increase satisfaction levels of anglers at Lucchetti Reservoir. Specifically, anglers desired changes to the operational hours of the facility based on season, and were opposed to electro-fishing in the week before tournaments. Whereas changing operational hours may create burdens for PRDNER personnel in charge of opening and closing of the facility, alternatives should be investigated that increase fishing opportunities at the reservoir within reason. On-going fisheries research and management activities involving the use of electro-fishing gear should be investigate to determine whether changes to activity schedules would unduly compromise research studies or management activities. For example, if electro-fishing is a necessity during the tournament season, can these activities be scheduled only on Mondays when the facility is closed to avoid possible conflicts with anglers? Finally, 68% of anglers indicated that there should be more law enforcement presence on the reservoir. Whereas anglers agreed less with this than the need for facility improvements and other managerial changes mentioned above, open-ended comments provided by anglers (See APPENDIX C) showed that many are quite concerned about the lack of law enforcement presence at Lucchetti Reservoir. Where I am sure tournament anglers don’t mean they want more enforcement checks conducted on them, additional presence would likely be welcome by all if done in a professional manner. If a fishing license requirement becomes a reality in Puerto Rico, and as fresh water fishing participation grows at Lucchetti Reservoir and elsewhere, increased patrols to inland resources will be a necessity to curtail illegal or unlawful activity.

Tournament anglers also must play a part in improving their satisfaction with fishing at Lucchetti Reservoir. As is the case in many inland resources in the U.S. mainland, Puerto Rico, and at Lucchetti Reservoir, the problem is not that there isn't enough largemouth bass it is that there is too many largemouth bass. When this happens, fish growth slows and stunting occurs in the bass population. Many tournament anglers in this study were supportive of creating a catch and release bass fishery at Lucchetti Reservoir. That would likely only maintain the status quo. Tournament anglers need to be cognizant that requiring catch and release in tournaments is a different issue from what is best for the fish population from a conservation perspective. Specifically, tournament catch and release requirements, requiring live-wells that facilitate live release, and eliminating trolling to further reduce mortality are public relations necessities that show that tournament clubs are not just interested in exploiting fish populations. As such, these practices are in use by most U.S. bass fishing tournament circuits and they also help to create a more sporting environment. Harvesting fish is an essential component in thinning out overabundant bass populations. If anglers desire to improve the quality of the bass they catch at Lucchetti Reservoir, they should encourage and practice responsible, selective harvest of fish outside of tournament competition, e.g., taking enough legal smaller bass to eat while releasing larger bass. Selective harvesting practices may eventually reduce the numbers of fish caught per outing at Lucchetti Reservoir, but that and more larger bass in catches will be a sign that the fish population is becoming healthier and more balanced. That would likely get anglers closer to what their attitudinal orientation suggests they want – larger bass in their tournament bag limits. PRDNER personnel can help in this regard by possibly developing workshops for anglers to inform them of various fish population scenarios that can be achieved by different management regulations and harvest patterns. Through such workshops, perhaps regulations can be developed that are palatable to both anglers and managers that address the concerns for keeping most large bass in the system and removing smaller ones.

Both the PRDNER and tournament anglers should be commended on implementing and participating in this survey process. Results of this study should provide the information needed for meaningful dialogue and compromise. While conflicts will continue to arise on issues related to the management of Lucchetti Reservoir, it is important that managers and anglers continue to provide feedback to one another to improve the fish population and fishing at Lucchetti Reservoir and elsewhere in Puerto Rico.

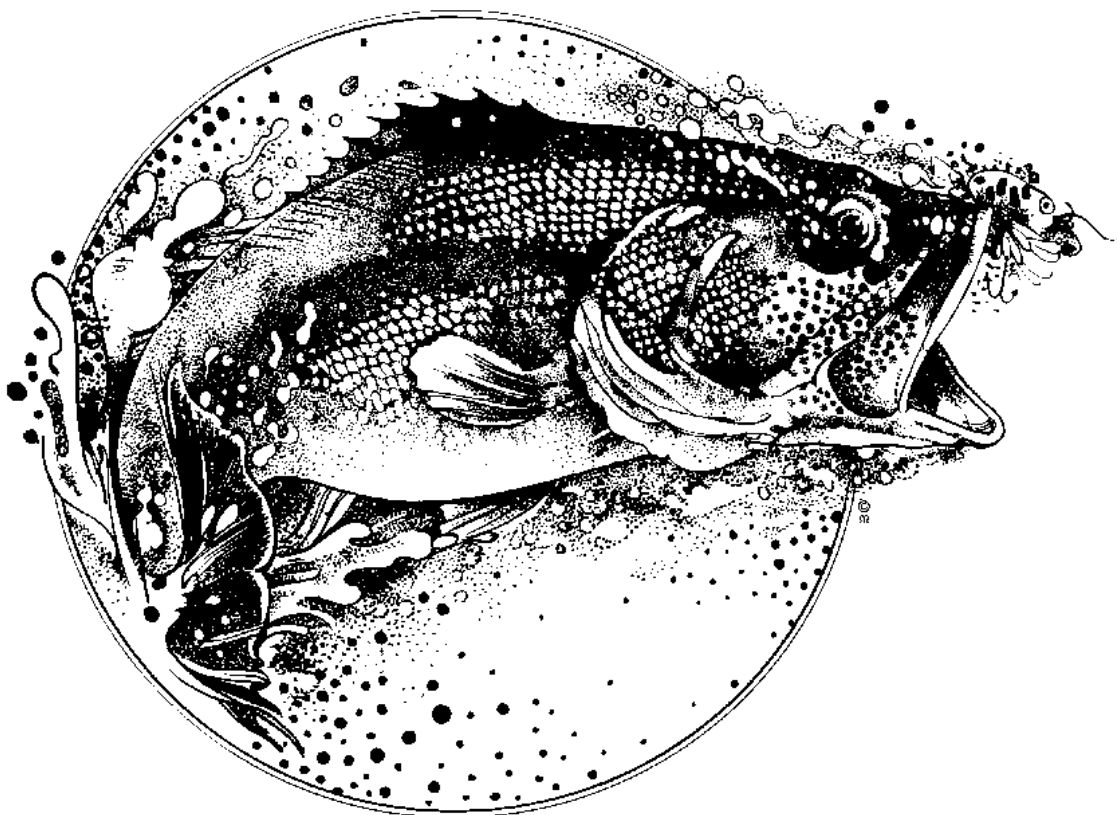
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**APPENDIX A**

**SELF-ADMINISTERED MAIL QUESTIONNAIRE**

# ***LUCCHETTI RESERVOIR TOURNAMENT ANGLER SURVEY***



*Conducted for the  
Puerto Rico Department of Natural and Environmental Resources*

*by the*

*Human Dimensions & Conservation Law Enforcement Laboratory  
Forest & Wildlife Research Center  
Mississippi State University*

*The information you provide in this questionnaire will remain strictly confidential and you will not be identified with your answers. Your responses will be grouped with other respondents in a unidentifiable manner. In Questions #1 through #9, please tell us about your general fishing activity and experience.*

1. In the previous twelve months, how many days did you fish in the following environments?

FRESHWATER IN PUERTO RICO \_\_\_\_\_ DAYS

FRESHWATER OUTSIDE OF PUERTO RICO \_\_\_\_\_ DAYS

SALTWATER IN PUERTO RICO \_\_\_\_\_ DAYS

SALTWATER OUTSIDE OF PUERTO RICO \_\_\_\_\_ DAYS

2. How many years have you been fishing in fresh and saltwater?

FRESHWATER \_\_\_\_\_ YEARS

SALTWATER \_\_\_\_\_ YEARS

3. How do you compare your fishing ability to that of other freshwater anglers in general?

1 LESS SKILLED

2 EQUALLY SKILLED

3 MORE SKILLED

4. In the previous twelve months, how many tournaments did you participate in.....?

FRESHWATER IN PUERTO RICO \_\_\_\_\_ NUMBER OF TOURNAMENTS

FRESHWATER OUTSIDE PUERTO RICO \_\_\_\_\_ NUMBER OF TOURNAMENTS

SALTWATER \_\_\_\_\_ NUMBER OF TOURNAMENTS

5. What species of freshwater fish do you prefer to catch in Puerto Rico?

\_\_\_\_\_ FIRST PREFERENCE

\_\_\_\_\_ SECOND PREFERENCE

\_\_\_\_\_ THIRD PREFERENCE

6. What are your three favorite reservoirs in Puerto Rico to fish for largemouth bass?

\_\_\_\_\_ FAVORITE RESERVOIR  
 \_\_\_\_\_ SECOND FAVORITE RESERVOIR  
 \_\_\_\_\_ THIRD FAVORITE RESERVOIR

7. When not fishing in tournaments, what type of group do you fish with most often? (*Please circle only one*)

- 1 FISH ALONE
- 2 FAMILY
- 3 FRIENDS
- 4 FAMILY AND FRIENDS TOGETHER
- 5 CLUB
- 6 BUSINESS ASSOCIATES

8. Please indicate the extent to which you agree or disagree with each of the following statements about fishing in general.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) The more fish I catch, the happier I am.....	1	2	3	4	5
b) A fishing trip can be successful even if no fish are caught .....	1	2	3	4	5
c) I usually eat the fish I catch.....	1	2	3	4	5
d) A successful fishing trip is one in which many fish are caught.....	1	2	3	4	5
e) I would rather catch one or two big fish than ten smaller fish.....	1	2	3	4	5
f) When I go fishing, I'm just as happy if I don't catch a fish .....	1	2	3	4	5
g) If I thought I wouldn't catch any fish, I wouldn't go fishing.....	1	2	3	4	5
h) The bigger the fish I catch, the better the fishing trip .....	1	2	3	4	5
i) I'm just as happy if I don't keep the fish I catch .....	1	2	3	4	5
j) A full stringer is the best indicator of a good fishing trip.....	1	2	3	4	5
k) I want to keep all the fish I catch.....	1	2	3	4	5
l) I'm happiest with a fishing trip if I at least catch the daily bag limit	1	2	3	4	5
m) I'm just as happy if I release the fish I catch.....	1	2	3	4	5
n) I'm happiest with a fishing trip if I catch a challenging game fish ...	1	2	3	4	5
o) I like to fish where I know I have a chance to catch a "trophy fish".	1	2	3	4	5
p) When I go fishing, I'm not satisfied unless I catch something .....	1	2	3	4	5

9. What length and weight do consider a "trophy" largemouth bass to be?

\_\_\_\_\_ LENGTH  
 \_\_\_\_\_ WEIGHT





16. ON THIS TOURNAMENT TRIP, HOW MUCH DID YOU SPEND ON ANYONE INCLUDED IN QUESTION #15 FOR EACH OF THE FOLLOWING ITEMS "WITHIN THE MUNICIPALITY OF YAUCO" AND ELSEWHERE IN PUERTO RICO" BETWEEN THE TIME YOU LEFT HOME AND RETURNED HOME?

EXPENDITURE ITEM	TRIP EXPENSE (\$) WITHIN THE MUNICIPALITY OF YAUCO	TRIP EXPENSE (\$) ELSEWHERE IN PUERTO RICO
<b>A. TRANSPORTATION</b>		
Automobile and boat gas/oil		
Toll charges		
<b>B. LODGING</b>		
Lodging at hotel/motel		
Hotel/motel food		
Campground fees		
<b>C. FOOD &amp; BEVERAGES (not associated with hotel/motel food)</b>		
Restaurant or take-out meals		
Groceries and ice		
Non-alcoholic beverages		
Adult beverages		
Propane and/or cooking fuel		
<b>D. OTHER FISHING RELATED EXPENSES</b>		
Bait and Tackle		
Boat and equipment repair		
<b>E. OTHER NON-FISHING SHOPPING / SERVICES / ENTERTAINMENT</b>		
Casinos, movies, and other entertainment		
Other retail shopping		
Other: Please specify		

17. PLEASE INDICATE BELOW ANY EXPENDITURES YOU MADE IN THE PREVIOUS 12 MONTHS FOR FISHING-RELATED EQUIPMENT WHICH YOU USED ON THIS LUCCHETTI RESERVOIR FISHING TRIP. ONLY INCLUDE ITEMS PURCHASED IN PUERTO RICO. PLEASE DO NOT INCLUDE INTERNET PURCHASES MADE IN OTHER COUNTRIES OR THE U.S. MAINLAND. IF NO PURCHASE WAS MADE FOR AN ITEM, PLEASE LEAVE BLANK.

EXPENDITURE ITEM	EXPENSE (DOLLARS)	PUERTO RICO MUNICIPALITY OF ITEM PURCHASE	DAYS ITEM WAS USED FOR ANY PURPOSE IN PREVIOUS 12 MONTHS
Club Membership			
Personal Vehicle (truck, car, or van)			
RV and associated maintenance			
Boat, motor, and trailer			
Boat, motor, and trailer licenses and registrations			
Boat accessories (aeration systems, lights)			
Fishing tackle (nets, weights, hooks, lures)			
Electronic Equipment (sonar, GPS, radio)			
Fishing rods and reels			
Safety equipment (vests, extinguishers, flares)			
Filet knives, measuring boards, scales			
Coolers, thermos, buckets			
Other equipment (Camera, binoculars, sunglasses)			
Clothing (shirts, shorts, waders, vests, hats)			
<b>OTHER: Please describe item(s) in spaces below and indicate expense</b>			

18. Many tournament anglers indicate they make a large portion of their fishing-related expenditures on the U.S. mainland or elsewhere either in-person or through the internet. In the previous twelve months, how much did you spend outside of Puerto Rico on fishing-related items that you used in your last fishing tournament at Lucchetti Reservoir?

\_\_\_\_\_ DOLLARS SPENT OUTSIDE OF PUERTO RICO

19. If the price of goods and services were to increase so this tournament trip cost \$ \_\_\_\_\_ more than it did, would you pay the higher price rather than have not gone on this tournament fishing trip?

- 1 YES
- 2 NO

20. How well do the following statements describe your feelings about this tournament trip to Lucchetti Reservoir? Please indicate the extent to which you agree or disagree with the following:

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neutral</i>	<i>Agree</i>	<i>Strongly Agree</i>
a) I thoroughly enjoyed this trip .....	1	2	3	4	5
b) I cannot imagine a better fishing trip .....	1	2	3	4	5
c) I was satisfied with my overall tournament performance.....	1	2	3	4	5
d) I was satisfied with the quantity of my catch .....	1	2	3	4	5
e) I was satisfied with the quality of my catch.....	1	2	3	4	5
f) I caught more fish than I expected on this trip.....	1	2	3	4	5
g) The fishing trip was well worth the money spent to take this trip ....	1	2	3	4	5
h) I was satisfied with the overall service provided by PRDNER personnel during the fishing tournament.....	1	2	3	4	5
i) I was satisfied with the weigh-in process provided by PRDNER personnel during the fishing tournament.....	1	2	3	4	5
j) The fishing facilities I encountered met my needs for this trip .....	1	2	3	4	5
k) I caught what I consider a "trophy" largemouth bass on this trip ....	1	2	3	4	5
l) My fishing skills were tested on this trip .....	1	2	3	4	5

	<i>Not at all Satisfied</i>	<i>Slightly Satisfied</i>	<i>Moderately Satisfied</i>	<i>Very Satisfied</i>	<i>Extremely Satisfied</i>
21. Overall, how satisfied were you with this trip .....	1	2	3	4	5

***For Questions #22 through #27 please tell us about your overall fishing activity, attitudes and preferences for management at Lucchetti Reservoir.***

22. In the previous twelve months, how many days did you go fishing at Lucchetti Reservoir?

\_\_\_\_\_ DAYS FISHING IN TOURNAMENTS

\_\_\_\_\_ DAYS FISHING FOR RECREATION (INCLUDING PRE-FISHING)

23. How many years have you been fishing at Lucchetti Reservoir?

\_\_\_\_\_ YEARS

24. Compared to your previous experiences fishing at Lucchetti Reservoir (if any), what do you believe has happened to the quality of bass fishing in recent years?

- 1 IMPROVED
- 2 STAYED THE SAME
- 3 DECREASED
- 4 IT WAS MY FIRST TIME FISHING THE RESERVOIR

25. Many tournament anglers have indicated that they are concerned with some of the protocols used during fishing tournaments at Lucchetti Reservoir. Please indicate the extent to which you agree or disagree with each of the following statements about tournament protocols.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) Live wells should be required in all tournament boats .....	1	2	3	4	5
b) Trolling should not be allowed during fishing tournament .....	1	2	3	4	5
c) Anglers should be allowed to keep some of the bass they catch during fishing tournaments that are still alive .....	1	2	3	4	5
d) When a bass dies before the weigh-in, anglers should be able to keep those fish.....	1	2	3	4	5
e) When a bass dies before the weigh-in, PRDNER personnel should properly dispose of those fish .....	1	2	3	4	5

26. **Tournament anglers have expressed some concerns about current regulations on Lucchetti Reservoir and their effects on the bass population. Please indicate whether you support or oppose the current regulations and possible alternatives for largemouth bass management at Lucchetti Reservoir.**

	Strongly Oppose	Oppose	Neutral	Support	Strongly Support
a) The current 12-fish daily bag limit on largemouth bass .....	1	2	3	4	5
b) The current 12-inch length limit on largemouth bass .....	1	2	3	4	5
c) Reducing the daily bag limit on largemouth bass to 5 fish per day per angler .....	1	2	3	4	5
d) Increasing the daily bag limit on largemouth bass to 15 fish per day per angler .....	1	2	3	4	5
e) Reducing the length limit on largemouth bass to 10 inches .....	1	2	3	4	5
f) Increasing the length limit on largemouth bass to 14 inches .....	1	2	3	4	5
g) Implementing a "no harvest" regulation for largemouth bass ..	1	2	3	4	5
h) Stocking fingerling largemouth bass to enhance the population... ..	1	2	3	4	5
i) Stocking 8 inch plus largemouth bass to enhance the population....	1	2	3	4	5

27. **Please indicate the extent to which you agree or disagree with each of the following statements about management practices and facility development/improvements at Lucchetti Reservoir.**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) The PRDNER should not conduct electrofishing activities during the week prior to a fishing tournament .....	1	2	3	4	5
b) The PRDNER should increase its law enforcement presence on Lucchetti Reservoir .....	1	2	3	4	5
c) The PRDNER should increase the size of the parking facilities to accommodate more vehicles and trailers.....	1	2	3	4	5
d) The PRDNER should install a floating pier near the boat ramp so anglers can dock their boats .....	1	2	3	4	5
e) The PRDNER should increase illumination around the boat ramp... ..	1	2	3	4	5
f) The PRDNER should increase illumination around the restroom/shower facility .....	1	2	3	4	5
g) The PRDNER should install a hot water heater for the restroom/shower facility .....	1	2	3	4	5
h) The PRDNER should provide a receptacle for recyclable materials ..	1	2	3	4	5
i) The PRDNER should increase the number of camping spots available to anglers .....	1	2	3	4	5
j) The PRDNER should adjust the operational hours of the facilities at Lucchetti Reservoir by season .....	1	2	3	4	5

***The following questions will help us to know more about anglers. The information you provide will remain strictly confidential and you will not be identified with your answers.***

28. Compared to your other outdoor recreational activities (such as hunting, camping, golfing, etc...), would you rate fishing as: ***(Please circle only one answer)***

- 1 YOUR MOST IMPORTANT OUTDOOR ACTIVITY
- 2 YOUR SECOND MOST IMPORTANT OUTDOOR ACTIVITY
- 3 YOUR THIRD MOST IMPORTANT OUTDOOR ACTIVITY
- 4 NONE OF THE ABOVE

29. What is your age?

\_\_\_\_\_ YEARS

30. Are you?

- 1 MALE
- 2 FEMALE

31. What is your approximate annual household income before taxes?

- |                       |                        |
|-----------------------|------------------------|
| 1 Under \$10,000      | 7 \$60,000 - \$69,999  |
| 2 \$10,000 - \$19,999 | 8 \$70,000 - \$79,999  |
| 3 \$20,000 - \$29,999 | 9 \$80,000 - \$89,999  |
| 4 \$30,000 - \$39,999 | 10 \$90,000 - \$99,999 |
| 5 \$40,000 - \$49,999 | 11 \$100,000 and ABOVE |
| 6 \$50,000 - \$59,999 |                        |

32. What is the highest educational level you have attained? ***(Please circle only one number)***

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22+

Elementary                  High school                  College                  Graduate school

33. Which of the following best describes your ethnic background?

- 1 HISPANIC OR LATINO
- 2 WHITE OR ANGLO
- 3 BLACK OR AFRICAN AMERICAN
- 4 NATIVE AMERICAN OR ALASKAN NATIVE
- 5 ASIAN OR PACIFIC ISLANDER
- 6 OTHER ***(Please specify:\_\_\_\_\_ )***

34. Was this survey completed by the person to whom it was addressed?

- 1 YES
- 2 NO



*Is there anything else you would like to share with the Puerto Rico Department of Natural and Environmental Resources about fishing or fisheries management specifically at Lucchetti Reservoir? Please use the space below for your comments.*

***Is there anything else you would like to share with the Puerto Rico Department of Natural and Environmental Resources about fishing or fisheries management in Puerto Rico in general? Please use the space below for your comments.***

***Your contribution of time to this study is greatly appreciated. Please return your completed questionnaire in the postage paid business reply envelope as soon as possible. Thank you.***

Mississippi State University  
Department of Wildlife and Fisheries  
Mississippi State, MS 39762-9690  
9/09

**APPENDIX B**  
**SURVEY CORRESPONDENCE**

October 1, 2009

John Basser  
123 Peacock Drive  
Yauco, PR 00698

Dear John:

In about a week you will receive a request in the mail to fill out a questionnaire on your tournament fishing activity at Lucchetti Reservoir. This research project is being funded by the Puerto Rico Department of Environmental and Natural Resources to determine the economic importance of tournament fishing to the Municipality of Yauco and Puerto Rico and to document your preferences for fisheries management at the reservoir.

The study is designed to collect information on demographic characteristics, your fishing participation patterns at Lucchetti Reservoir and elsewhere, your activities and expenditures on your most recent tournament fishing trip to the reservoir, and your attitudes toward fisheries and facilities management. Although the survey is completely voluntary, we hope that you will take the 20-30 minutes necessary to provide your input, be part of the fisheries management process, and help increase awareness of the importance of recreational and tournament fishing to Puerto Rico..

I am writing in advance because many people like to know ahead of time when they will be contacted. Your responses will be strictly confidential, and you will not be identified with your answers. The survey will have an identification number for mailing purposes only. This is so I can remove your name from the mailing list once I receive it at Mississippi State University. Your answers will be grouped with other respondents in a non-identifiable manner, and there is no way for anyone outside of my laboratory to determine your identity. We will destroy the name and address list at the end of the study.

It's only through helpful people like you that our research can be successful. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153 or by email at [kmhunt@cfr.msstate.edu](mailto:kmhunt@cfr.msstate.edu).

Thank you in advance for your cooperation.

Sincerely,

Dr. Kevin M. Hunt  
Associate Professor & Director

October 8, 2009

John Basser  
123 Peacock Drive  
Yauco, PR 00698

Dear John:

I am writing to ask for your help in a study of Lucchetti Reservoir tournament anglers. This research project is being funded by the Puerto Rico Department of Environmental and Natural Resources to determine the economic importance of tournament fishing to the Municipality of Yauco and Puerto Rico and to document your preferences for fisheries management at the reservoir. You were selected to participate in this study because you are a member of a bass fishing tournament club that holds tournaments at Lucchetti Reservoir. Your club president provided me a list of members.

The enclosed survey is designed to collect information on demographic characteristics, your fishing participation patterns at Lucchetti Reservoir and elsewhere, your activities and expenditures on your most recent tournament fishing trip to the reservoir, and your attitudes toward fisheries and facilities management. Although the survey is completely voluntary, I hope that you will take the 20-30 minutes necessary to provide your input, be part of the fisheries management process, and help increase awareness of the importance of recreational and tournament fishing to Puerto Rico.

You are one of a small number of tournament anglers selected to participate in this study. It is important that YOU and no one else complete the questionnaire. Your responses are important to us whether you fish often or just occasionally. All responses will be strictly confidential, and you will not be identified with your answers. Your answers will be grouped with other respondents in a non-identifiable manner. The survey has an identification number for mailing purposes only. This is so I can remove your name from the mailing list once I receive it.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153 or by email at kmhunt@cfr.msstate.edu. For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994.

Thank you in advance for your cooperation and good fishing.

Sincerely,

Dr. Kevin M. Hunt  
Assistant Professor & Director

**POSTCARD TEXT**

Recently, we mailed you a questionnaire regarding your fishing activity and expenditures at Lucchetti Reservoir. If you have already completed and returned the questionnaire to Mississippi State University, please accept my thanks. If not, please do so today.

If by chance you did not receive the questionnaire, or perhaps misplaced it, please call me at (662) 325-4153 and I will get another one in the mail to you today.

Thank you for your assistance.

Dr. Kevin M. Hunt, Director  
Human Dimensions & Conservation Law Enforcement Laboratory

October 28 2009

John Basser  
123 Peacock Drive  
Yauco, PR 00698

Dear John:

About three weeks ago, I sent you a survey of Lucchetti Reservoir tournament anglers. As of today, I have not yet received your completed questionnaire. If you have recently returned your survey, please accept my thanks. The success and accuracy of our study depends on you and the others who have not yet responded. I ask for your help in making sure our results are representative of all tournament anglers using the reservoir.

In case you misplaced your survey, I've enclosed another. The survey is designed to collect information on demographic characteristics, your fishing participation patterns at Lucchetti Reservoir and elsewhere, your activities and expenditures on your most recent tournament fishing trip to the reservoir, and your attitudes toward fisheries and facilities management. Although the survey is completely voluntary, I hope that you will take the 20-30 minutes necessary to provide your input, be part of the fisheries management process, and help increase awareness of the importance of recreational and tournament fishing to Puerto Rico.

All responses will be strictly confidential, and you will not be identified with your answers. Your answers will be grouped with other respondents in a non-identifiable manner. The survey has an identification number for mailing purposes only. This is so I can remove your name from the mailing list once it is received.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153 or by email at [kmhunt@cfr.msstate.edu](mailto:kmhunt@cfr.msstate.edu). For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994.

Thank you in advance for your cooperation and good fishing.

Sincerely,

Dr. Kevin M. Hunt,  
Associate Professor & Director

November 21, 2009

John Basser  
123 Peacock Drive  
Yauco, PR 00698

Dear John:

During the last two months, I have sent you several mailings regarding a survey of Lucchetti Reservoir tournament anglers. As of today, I have not yet received your completed questionnaire. If you have recently returned your survey, please accept my thanks.

The Puerto Rico Department of Natural and Environmental Resources values your responses. The information collected from this survey can help the agency increase awareness of the importance of recreational and tournament fishing to Puerto Rico, and provide more satisfying fishing experiences. This study is drawing to a close, and this is the last contact that will be made with you. The success and accuracy of this study depends on you and the others who have not yet responded. If for some reason you prefer not to respond, please let me know by returning the blank questionnaire in the enclosed business reply envelope.

If you choose to respond, the survey should take you no longer than 20-30 minutes to complete. Your responses will be strictly confidential, and you will not be identified with your answers. The survey has an identification number for mailing purposes only. Your answers will be grouped with other respondents in a non-identifiable manner, and there is no way for anyone outside of my laboratory to determine your identity. I will destroy the name and address list at the end of the study.

After you complete the questionnaire, please return it to Mississippi State University in the postage-paid, business reply envelope as soon as possible. If you should have any questions about this research project, please feel free to contact me at Mississippi State University at (662) 325-4153 or by email at [kmhunt@cfr.msstate.edu](mailto:kmhunt@cfr.msstate.edu). For additional information regarding human participation in research, please feel free to contact the MSU Regulatory Compliance Office at (662) 325-3994.

Thank you in advance for your cooperation.

Sincerely,

Dr. Kevin M. Hunt  
Associate Professor & Director



**APPENDIX C**  
**OPEN-ENDED COMMENTS**

**10335**

P10: La cantidad de peces que se debe llevar un pescador fuera de torneo debe no mas de 5 y 18" o mas, mas supervisión cuando las personas se llevan la pesca. Mejor el área de acampar de pescadores es pequeña.

The amount of fish that an angler can take home outside a tournament should be no more than 5 of at least 18". More supervision when people take home fish. Better camping site, it is too small.

**10334**

P10: Excelente trabajo el de Darien y el resto del grupo. Felicitaciones y gracias a todos.

Darien and staff do an excellent job. Congratulations and thank you all.

P11: No trasmallos, no tarrayas

No nets

**10326**

P11: Lagos en PR como el de Toa vaca donde las personas pescan en tubos o flotadores pescan de noche y se llevan ensartas de lobinas que pasan de 30 y 40. Estos pescadores están acabando con la lobina como pesca de noche nadie interviene con ellos. Es hora de conseguir un recurso que pueda controlar este problema. En este lago la cantidad de lobinas que se pesca ha disminuido mas de un 70%.

There are lakes in Puerto Rico such as Toa Vaca, where people fish with tubes or floating devices, fish all night and take over 30 to 40 bass. These anglers are exterminating the bass and since they fish at night nobody intervenes with them. It is time to find the resources to control this problem. In this lake the amount of bass that used to be fished has decreased over 70%.

**10324**

P10: Mejorar el sistema eléctrico. Calentador de duchas.

Improve the electric system; water heater in the bathrooms.

P11: Mejorar la población de lobinas en el Lago Guajataca.

Improve the largemouth bass population in Guajataca Reservoir.

**10319**

P10: Intereso que aumente la vigilancia en el embalse, que se siembre tanto alevines como lobinas de 8 pulgadas y ofrezcan mayor educación a los visitantes del embalse. Es importante mejorar las facilidades de los baños y la iluminación, vigilancia. Se debe ser más activo con los

infractores específicamente con los que se llevan todo lo que pescan. Tanto los que tienen bote como los que no. Con honestidad.

I am interested in seeing an increase in reservoir patrolling, to stock bass fingerlings and bass over 8 inches and to increase education to visitors in the reservoir. It is important to improve facilities, illumination and law enforcement. They should be more aggressive with those who break the law and take home everything they catch. Including those who fish from boat or not. With honesty.

P11: La pesquería general en Puerto Rico esta muy descuidada por las agencias pertinentes. La población no es educada en cuanto a la conservación y preservación de los cuerpos de agua. Las entidades gubernamentales encargadas de fiscalizar las actividades en los cuerpos de agua no prestan atención porque políticamente no les interesa. Las generaciones que van en ascenso tienen ignorancia de los beneficios que es participar de estas actividades recreativas.

In general, the fisheries in Puerto Rico are highly abandoned by the agencies. The population is not educated in regards the conservation and preservation of the water bodies. The governmental entities responsible of enforcing the laws at the water bodies, do not pay attention because politically speaking they don't care. The new generation is growing up in ignorance regarding the benefits of participating of recreational activities.

### **10318**

P10: Me gustaría que se hicieran mejoras a la caseta de los pescadores con un fregadero para poder limpiar nuestro equipo de cocina y la iluminación es muy importante para las personas mayores que acampan en el lugar. Por lo menos allí tenemos una buena seguridad de estadía. Urgentemente se necesita luz en la rampa para mayor visibilidad de los pescadores y seguridad para todos.

I will like to see improvement to the anglers' gazebo, to install a sink so we can clean our kitchen equipment, and the illumination is very important for older people that camp out. At least, we have good security. It is urgent to install illumination at the boat ramp to provide better visibility and safety to all tournament anglers.

### **10313**

P10: Debería haber más control en algunos lagos pues la pesca es escasa.

There should be more control on some lakes because the fishing is scarce.

### **10303**

P10: There is no close management of the lakes. Fishing in the lakes in PR has gone downhill for the last 20 years. The lakes need care. Lake maintenance can be found on the internet!!!. I don't fish in Lucchetti very often. The electrical outlets are poorly maintained. The bathrooms are ugly.

### **10298**

P10: There is room for improvement in maintenance the upkeep of property and equipment.

P11: I was told that our bass hatchery at Maricao is at max capacity? Unable to produce the number of bass needed to support the lakes in PR. I think an additional hatchery is needed. To increase the numbers of bass and the size. Stocking fingerlings largemouth is a waste of money, survival rates are very low in most lakes, because numerous varieties of predatory fish in most lakes. I personally suggest all hatchery bass released should be 8" plus, to survive in the lakes of PR. P.S. Thank you for the questionnaire in English.

### 10291

P10: No vale la pena ir a los torneos para en dos días a caso pescar un par de lobinas.

It is not worth it going to a two day tournament to fish at the most a couple of bass.

P11: No hay supervisión en los lagos y ríos de PR en general no hay control de los trasmallos que han acabado con las lobinas, sábalos y robalos. No hay supervisión de los terrenos adyacentes a los lagos y ríos que descargan herbicida y materiales tóxicos. No hay siembra de lobina adecuado y no ha habido buenos estudios de los recursos naturales en PR.

In general, there is no supervision in the lakes and rivers in Puerto Rico. There is no control over illegal nets that has diminished largemouth bass, tarpon and snook population. There is no supervision on adjacent properties to lakes and rivers, responsible of discharging herbicides and toxic materials. No adequate stocking of bass and no good studies on Puerto Rico's natural resources.

### 10286

P10: Todos los lagos de PR deben tener un puesto de vigilancia permanente con facilidades adecuadas con personal del DRNA. Las reglamentaciones para el uso de la pesca recreativa en los lagos de PR deben ser cumplidas por las agencias que están a cargo de estas facilidades. Un ejemplo de estas pueden ser la AAA y la AEE.

All the lakes in Puerto Rico should have a permanent law enforcement staff and facilities. The regulations regarding the use of the recreational fisheries in Puerto Rico should be enforced to those agencies in charge such the AAA (water company) and the AEE (power company).

P11: Actualmente, el Departamento de Recursos Naturales se ve imposibilitado de prestar todos los servicios adecuadamente en los lagos de PR por falta de personal. En el caso del lago Toa Vaca en Villalba la Autoridad de Acueductos y Alcantarillados no permite la pesca recreativa en esas facilidades.

At the present, the Department of Natural Resources is not capable of offering the service in the lakes of PR because of lack of personnel. In Toa Vaca Reservoir in Villalba the AAA (water company) do not allow recreational fishing in this lake.

### 10285

P10: Sugerencia: Por tal razón me dirijo a ustedes la preocupación que tenemos en los lagos de PR especialmente en el Lago de Gurabo. Es una de las preguntas que tienen en el formulario sobre la siembra de lobinas de 8 pulgadas o más, estamos de acuerdo en la sugerencia porque

ahora mismo Recursos Naturales siembra alevines y lobinas de menos medida y son devorados por otros depredadores especialmente en el lago de Gurabo, por eso le sugerimos que en este lago se siembren lobinas de mas medida. Estamos implementando que los jóvenes y niños en nuestro pueblo tengan recreación y pesca en el lago de Gurabo para mejorar la calidad de vida. Gracias por su atención.

We are concerned about the lakes in PR, especially Gurabo Reservoir. In one of the questions about stocking bass fingerlings over 8 inches or more, we agreed because at the moment The Department of Natural Resources stocked fingerlings and they are eaten by other predators, especially in Gurabo and that is why we suggest to stock bigger fish. We are promoting that children and adolescents have recreation and fishing opportunities at Gurabo Lake so their quality of life improves. Thank you for your attention.

**10280**

P10: Fomentar o promover el catch & release en el embalse. Cabildear para que se apruebe por ley y los vigilantes tengan mas poderes de registraci3n.

Promote catch and release in the reservoir. To legislate so the law enforcement officer have more authority when inspecting.

**10278**

P10: Gracias por todo y esperamos que todo se pueda resolver y mi comentario es que en los lagos de Puerto Rico que se practique la pesca deportiva deben existir los muelles de atracar el bote para una mayor facilidad y manejo del mismo. Deben aumentar el caballaje de los motores de los botes de 30HP a mas caballaje.

Thank you for everything and let's hope that everything could be solve and my comment is regarding the need that in all lakes in PR there should be flooding decks to facilitate getting and outside the boat. The maximum horse power regulation should be increase to over 30HP.

**10272**

P10: Prohibir los trasmallos, redes con multas agravantes.

To prohibit the use of illegal nets with higher fines.

**10270:**

P10: Que no se lleven las lobinas 'bass' capturadas por los Pescadores. Por Favor. Que las suelten vivas. Que sea ilegal llevarse las lobinas del embalse Lucchetti y todos los embalses de Puerto Rico

That no anglers should be allowed to keep bass. They should release all the catch alive. It should be illegal to keep bass from Lucchetti Reservoir and all the other reservoirs in Puerto Rico.

P11: Que aumenten la capacidad del motor del bote de 30HP a 50HP o mas.

To increase the motor capacity from 30HP to 50HP or more.

**10261**

P10: Perdonen mi escritura no llegue a escuela universitaria. (1) Bueno, la pesca en Puerto Rico es un amor. Por ser el trópico en el Lago Lucchetti se deben mejorar los baños, hacerlos en cemento, los pisos del baños se esta agrietando frente del baño de los caballeros y damas. (2) La iluminación deben de poner postes con foto celda solar en el camino de las facilidades para la seguridad del personal que vive en el lago. Muy oscuro el camino. (3)En la rampa debería colocar un foco para alumbrar en las noches y hacer una caseta en cemento con el equipo de pesaje, se economiza gasolina y tiempo. Ej. Si el torneo empieza a las 2:00 pm y termina a las 7:00 pm. A las 4:00 pm un pesaje y a las 7:00 pm otro pesaje. Asi la bióloga no tiene que usar el bote: se economiza gasolina. (4) Muy Importante: Los Vigilantes. Tienen que haber establecido un vigilante viernes, sábado y domingo de 7:00 am a 6:00 pm todo el día chequeando botes. Extintor, pito, salvavidas. No bebidas alcohólicas en los botes y que no se lleven vivas las lobinas – se las están llevando. (5) Si el DRNA no puede hacer valer las leyes y todo los concerniente a la pesca en Puerto Rico por favor pasen el batón al Fisher&Wildlife. Seria un éxito rotundo. Yo estuve pescando en los Estados Unidos y me quede sorprendido. Un agente federal de Vida Silvestre te instruía como eran las reglas del lago, la pesca, bueno todos deberían hacerlo como ellos. A la bióloga muchas gracias. Su trabajo es muy bueno, extremadamente bueno. Que Dios la bendiga y mucho éxito.

Excuse my writing but I didn't make to the University. (1)The fishing in Puerto Rico is lovely because is in the tropics. In Lucchetti, the bathrooms should be improved. The bathrooms should be in concrete because the floors are cracking. (2) A post should be installed with a solar panel to provide illumination in the facilities since it is too dark and do not provide security. (3)More illumination is needed at the boat ramp to give more light at night. To built a concrete gazebo with the weigh-in equipment to minimize the gasoline use and time. For example, if the tournament starts at 2:00 p.m. and finished at 7:00 p.m. at 4:00 p.m. a weigh-in should take place and then another one at 7:00 p.m.. That way the biologist, don't have to use the boat and waist gasoline. (4)Very Important: The Law Enforcement Officers. There should be an officer stationed from Friday to Sundays from 7:00 a.m. to 6:00 p.m. checking the boats, fire extinguishers, lifejackets, the use of alcohol and preventing that anglers don't take bass either dead or alive. They are taking them. (5)If the DNR cannot enforce the fishing laws in PR, please transfer the responsibility to the USFWS. It would be a great success. I fished in the United States and was surprised how a federal agent talked to me about the fishing regulations. Everybody should do the same. To the biologist, thank you so much for her work. God bless you and success.

**10260**

P11: Se debería establecer sistema de siembras mas agresivo en los embalses y mejor manejo de los niveles de agua en los embalses.

A more aggressive fish stocking program should be implemented as well as better management of water levels in the reservoirs.

**10244:**

P10: Solo hace falta más vigilancia por parte del DRN ya que hay varios pescadores un poco honestos que abusan con la cuota diaria establecida. Lo otro es el horario dependiendo la época del año ya que en el verano cuando abren a las 6 am ya esta de día y a las 6 pm el sol todavía está caliente, lo que quiero decir es que cuando amanece y cuando llega el atardecer son los mejores momentos de pesca.

Law enforcement should increase, since there are some dishonest anglers that exceed the daily bag limit. Also, the operational hours should be established based on the season because in the summer when they open at 6 am is already sunny and at 6 pm the sun is still hot, what I want to say is that at dawn and at sunset are the best times to fish.

### **10239**

P10: Necesitamos mas personas como la que administra Lucchetti en los otros embalses en PR. Deberían sembrar lobinas adolescentes 5”a 8” en todos los lagos de PR para obtener un mayor disfrute de los mismos.

We need more professional like the administrator of Lucchetti in other reservoirs. Stocking of bass between 5” to 8” in all the reservoirs in PR to obtain more enjoyment from them.

P11: Mas vigilancia nocturna los arponeros y trasmalleros nos están dañando el único área de entretenimiento y paz.

More enforcement, especially at night since people fish with nets and harpoons, and are damaging our only area of entertainment and peace.

### **10238**

P10: El lago de Toa Vaca en Villalba es considerado por mi el mejor lago de pesca de lobinas en Puerto Rico. Hace cerca de 3 años la pesca ha disminuido a tal punto que solo participo del lago en torneos. Pienso que la entrada de botes por rampas clandestinas, la falta de vigilancia y la no siembra de alevines ha contribuido al pobre rendimiento del lago. Personalmente encontré nasa en el lago el pasado año. En los lagos de PR se debe ser mas estricto con los llamados tuberos, ellos aportan muy poco y se llevan todo lo que atrapan sin importar el tamaño. Se debe autorizar al personal del DRNA y a sus biólogos a registrar botes y nevera cuando haya sospecha de violaciones. Aprovecho la ocasión para agradecer a los biólogos de Lucchetti, Cerrillos y La Plata por su colaboración, amistad, cortesía, especialmente a Darien y Gaspar. Lamento decir que no pienso lo mismo de los vigilantes del DRNA en la pesca y la caza. Tratan a todo el mundo como si fueran violadores de ley y no personas decentes. No están para orientar y prevenir sino para castigar.

I considered Toa Vaca Reservoir the best bass lake in PR. Since about 3 years ago the fishing has decrease to a point that I only fish there in tournaments. I think that the use of illegal access, the lack of law enforcement and no bass stocking are some of the reasons for the poor fishery in this lake. I found illegal nets in this reservoir last year. In the lakes in PR the Officers should be tougher with angler in floating devices because they do not contribute much and take home everything without considering how much or the fish length. The DRN biologists should be authorize to inspect boats and coolers when they have reason to believe that there some law

violations. I would like to use this opportunity to thank the biologist from Lucchetti, Cerrillos and La Plata for their help and courtesy, especially Darien and Gaspar. Unfortunately I don't think the same way toward the law enforcement officers. They treat everybody as violators, and a lot of us are decent people. They should concentrate in education and prevention.

### **10237**

P10: El problema no es que se cambie la cantidad de 12 lobinas diarias a 15 o a 5 lobinas es respetar la que tenemos. O sea hay que verificar a los pescadores porque se están llevando mas de 12. Especialmente las personas que se quedan 2 o 3 días consecutivos. Se podría bajar a 8 diarias.

The problem is not to change the current bag limit but to enforce it. The anglers that take home more than 12 fish should be penalize. For those that camp for 2 or 3 days, the daily bag limit should be 8.

### **10236**

P10: Muchos Pescadores se llevan mas lobinas del límite de DRN en especial los que pescan de noche. Deberían limitar los días a estos pescadores que pescan de noche, ejemplo: 2 dias cada 2 meses. Muchos de estos pescadores venden la pesca.

Many anglers take more bass than what is allowed by the DNR, especially those who fish at night. The DNR should limit the camping permits: for example only 2 days every 2 months. Many of these anglers sell the catch.

### **10234**

P10: En Lucchetti aunque la pesca de lobina no es igual que 15 o 20 años atrás, sigue siendo uno de los primeros tres embalses que ofrece los mejores resultados. Ofrece seguridad en nuestra estadia para equipo, vehículos y pescadores. Hay buen control de acceso.

Even though the fishing at Lucchetti is not the same as 15 or 20 years ago, it is still one of the top three reservoirs in PR. It offers good fishing success, safety for the equipment, vehicles and anglers. There is good access.

P11:

P11: Es notable la falta de controles para evitar la mala práctica de pescadores y personal que capturan peces con trasmayos, redes, día a día y en ausencia del personal del DRNA en los embalses de nuestra isla PR. Se llevan todo sin importar el tamaño. Se han desarrollado diferentes variedades de peces aumentando su población y alterando la conducta de la lobina.

The lack of enforcement to control illegal fishing is noticeable. Because of the lack of DNR personnel in the reservoirs, some anglers take home everything. Finally, An increase in different variety of other fish had caused en alteration of bass behavior.

### **10230**

P10: Respetuosamente les sugiero que cierren el lago Lucchetti para la pesca de botes por 6 meses.



With respect, I suggest that Lucchetti reservoir should be closed to fishing for at least 6 months.

**10217**

P10: Vigilancia en todos los lagos. Vedas en los lagos con problemas de población. Programas para instruir a las personas sobre el uso correcto de lagos y ríos.

Patrolling and enforcement in all reservoirs. Closed seasons in those reservoirs with population problems. Implementation of educational programs regarding the correct use of lakes and rivers.

**10226**

P10: La autoridad de acueductos de PR tiene una demanda contra nuestro club impidiendo la pesca.

The PR aqueduct and sewer authority (AAA) has a lawsuit against our club and don't let us fish.

**10225**

P11: ¿A quien pueda interesar? Me gustaría que me enviaran un mapa de todos los lagos de PR. Copia en grande. Gracias. Empecé a pescar de los 7 años y ese es mi deporte favorito.

To whom it may concern?: I will like you to send me a map of all the reservoirs in PR. A large copy. Thanks. I started fishing when I was 7 years old and this is my favorite sport.

**10198**

P10: Nos gustaría añadan un área provista para cocinar. Que haya una inspección mas rigurosa al pescador salir del embalse en su bote, vivero. Se nos permita mas acceso de las facilidades fuera de torneo para pernoctar.

We would like to have a kitchen area. To increase boat inspections, especially when leaving and with emphasis on the live wells. More access to enjoy the facilities outside of tournaments (camping).

**10195**

P10: El mejor lago administrado en PR. Los demás deberían ser como este, y la pesca estaría garantizada en el futuro de PR. Mejoren lo que puedan pero sepan que nos hacen la vida feliz cuando los visitamos.

Lucchetti is the best managed lake in PR. The others should be like this one, and the fishing would be guaranteed in the future. Improve what you can, but know that you make our lives happier when we visit.

P11: Por favor, terminen de llevar a cabo los planes para las facilidades en Toa Vaca. Necesitamos que este lago sea manejado y controlado por ustedes. Este lago esta al garete y son ustedes los únicos que pueden resolver la situación.

Please, finish the plans to open facilities in Toa Vaca. We need this lake to be managed and controlled by your agency. This lake is a mess and your agency is the only one that can resolve this problem.

**10194**

P10: Debería haber mas personal para verificar la pesca de los asistentes al terminar su salida y otorgarle poderes para registrar la embarcación y tomar la acción necesaria en caso de que haya violación.

There should be more authorized personnel to inspect the boats when leaving, and give the power to register boats and take the necessary actions if needed.

**10187**

P10: Que el cuerpo de vigilantes no intervenga durante torneos, solo los biólogos que son los que intervienen en el pesaje de las lobinas.

That the law enforcement officers do not intervene during tournaments, only the biologists when doing the weigh-in.

**10181**

P10: Es uno de los mejores lagos que se pueden pescar.

Is one of the best lakes to fish.

**10171**

P11: Hay otros embalses que tienen facilidades de recursos naturales pero las mismas no estan preparadas para que los clubes de pesca de PR las utilicen para realizar torneos tales como: Embalse Guajataca, Embalse Cerrillos, Embalse La Plata. Me gustaría que esas areas se desarrollaran para acampar en ellas y llevar a cabo torneos.

There are other reservoirs that are managed by the DNR and do not have facilities for the clubs to have their tournaments such as: Guajataca Reservoir, La Plata Reservoir and Cerrillos Reservoir. I would like to see the development of facilities in these reservoirs so we can have our tournaments.

**10168**

P11: Soy maestro y me gustaría tomar más cursos de pesca en E.U. para asi mejorar mi clase de pesca en la escuela.

I am a teacher and I would like to learn more about fishing in the US so I can incorporate that to my fishing class in PR.

**10164**

P10: El control de la pesca fuera del lugar ocupado por recursos naturales y en horas nocturnas desde no puede ser supervisado por recursos naturales esto con el uso de tarrayas y trasmallos en

todos lagos. La aplicación de un reglamento de agua salada en los embalses de agua dulce. Esto respecto a uso de embarcaciones.

More fishing control outside the DNR facilities, especially at night when people fish with nets. The application of the marine regulations in the reservoirs, regarding the use of boats.

### **10163**

P10: Creo que deben vigilar mas a los pescadores que asisten al lago y se llevan todo lo que capturan porque la pesca ha disminuido considerablemente los últimos años. No tan solo vigilar el lago Lucchetti sino todos los embalses de PR.

Increase patrolling and law enforcement, since the fishing had decrease considerably through the years because some anglers keep everything they catch. This also should be applied to other reservoirs in PR.

P11: Vigilar mas los lagos y multar a los Pescadores que capturen lobinas y se las llevan y no protegen la especie. No introducir peces depredadores en los lagos de PR. Vigilar por la contaminación en los lagos y orientar a la ciudadanía mas sobre la conservación.

Increase law enforcement in the lakes and penalize those anglers that keep bass and do not protect the species. No introductions of predatory fish in the lakes. More attention to lakes contamination, and increase on education efforts towards conservation.

### **10162**

P10: Se necesita mas supervisión en el lago, para controlar la extracción desmesurada de lobinas.

More supervision is needed to control the over harvest of bass.

P11: Lo mismo que para Lucchetti.

The same for Lucchetti

### **10158**

P10: Implementar el sistema de conservación y supervisión del Embalse Lucchetti en los demas embalses. Permitir la pesca nocturna en el embalse Cerrillos. Promover la vigilancia para los pescadores que utilizan redes (Trasmallos)

To implement in other reservoirs the same conservation and supervision system that is in Lucchetti. To allow night fishing in Cerrillos. Increase law enforcement for those that fish with nets.

P11: La vigilancia mas activa en los embalse La Plata por la gran practica de la pesca prohibida con redes. La vigilancia en los embalses Carite en Cayey y Carraízo por lo peligroso en el uso de armas de fuego en contra de los pescadores. En el embalse Toa Vaca facilitar la entrada que esta clausurada para el uso de los pescadores.

Increase law enforcement in La Plata Reservoir, fishing with nets is very popular. Increase law enforcement in Carite in Cayey and Carraízo reservoirs because the use of guns against the anglers. To open a fishing access in Toa Vaca Reservoir.

**10157**

P10: El DRNA debe construir facilidades en todos los lagos que no las tienen. El DRNA debe aumentar la vigilancia en todos los lagos de PR.

The DNR should build fishing facilities in the lakes that have none. The DNR should increase law enforcement in all reservoirs in PR.

**10151**

P10: Deberían establecer una licencia de pesca para el embalse y utilizar los fondos para el mantenimiento y desarrollo del Embalse y regular la pesca.

To establish a fishing license for the reservoir and use the money for the maintenance, development and control of the fishing activity.

**10149**

P10: Se necesitan muelles flotantes. Más infraestructura para los Pescadores deportivos. Más siembras de alevines de lobina en todos los lagos de PR. Mas de 15 años y todavía no tenemos un muelle en la rampa. Muchas estadísticas y pocos resultados. Preocupado por las personas con impedimentos no tienen muelles para pescar y a ellos también les gusta pescar.

Floating piers are necessary. More infrastructure for sport anglers. More stocking of bass fingerlings in all lakes in PR. More than 15 years and we still don't have a pier at the ramp. A lot of statistics but few results. I'm worried about handicap people that don't have fishing piers and they also enjoy fishing.

P11: Gracias por la oportunidad de expresarme. Buena suerte en la encuesta.

Thank you for the opportunity of expressing myself. Good luck in your survey.

**10144**

P10: Empecé pescando camarones para el 1925 con anzuelo de alfiler ya que estos los hacíamos nosotros cuando el camarón lo cogía si no se mantenía la línea tensa se escapaba. Este sistema se usa comúnmente en agua dulce, ya que en agua salada el pez se engancha comúnmente. Para el 1936, de curioso en el Yunque y estaba el DRNA recibiendo huevos de truchas para desarrollar esta especie aquí que no dio resultado y luego trajeron lobinas, gatos, blue gill y otros que son gran éxito se han desarrollado para el bien del turismo de PR. Hoy día lo conceptúo el mejor deporte en PR. Por eso soy un colaborador de recursos naturales desde 1936 me muevo cooperando con esta organización. Admiro el Departamento de recursos naturales de los Estados Unidos y al gobierno federal en PR. Dios bendiga a América y a todo aquel que pueda cooperar con el bien del mundo.

In 1925, I started fishing for shrimp with hooks made out of needles by ourselves. Back then the line had to be tight because the shrimp could escape. This system is still used today in freshwaters but not at sea. In 1936, I went to The Yunque and encounter DNR personnel receiving salmon eggs to develop that species in PR, however, this attempt did not work. Then they brought largemouth bass, catfish, blue gills and other species to develop the tourism in PR. Today is the best sport in PR. I'm a collaborator of the DNR since 1936 and I move around trying to help this important organization here. I admire the DNR of the United States and the federal government in PR. God bless America and those who work for the world well being.

#### **10143**

P10: Durante los torneos desarrollados en ese lugar cuando tenemos que pernoctar si de repente surge una emergencia, siempre debe haber una forma o alguien que pueda abrir el portón principal para tener acceso a la carretera principal. Sugerencia: tratar de implementar algún mecanismo manual que de adentro se abra el portón.

During the tournaments, we camp out. In case of emergencies, they should always have a person to open the gate. I suggest trying to implement a system that allows us to open the gate manually.

#### **10142**

P10: Personalmente he tenido la oportunidad de compartir mis preocupaciones con los vigilantes tales como el mal uso que se le da a los embalses en horas no laborables 6:00 pm en adelante. Llegan personas ajenas a tirar trasmallos y no tienen consideración al igual que cuando hay buena picada se las llevan todas. La inspección de los botes es necesaria pero también a los que pescan de orilla ya que he visto como las acaban. Espero que les sirva de mucha ayuda y espero que continúen con el interés de los embalses de PR.

Personally I have had the opportunity to share my concerns with the enforcement officers. I worried about the abuse on the resource, especially outside the working hours (after 6:00 pm). Shoreline angler fish with nets with no consideration and when there is good biting they keep all fish. Boat inspections are also necessary because I've seen how they take everything. I hope this help you and please continue with your interest in the reservoirs in PR.

#### **10141**

P10: Se debe limitar la cantidad de peces que los pescadores se llevan a su casa. Debe haber control a la hora en que los pescadores se van del lago y se debe inspeccionar los botes para limitar la cantidad de lobinas que se llevan a su casa.

The bag limit should be decrease. There should be more control and inspect all boat when departing in order to minimize the amount of bass kept.

#### **10132**

P10: Que se considere aumentar el caballaje de los motores ya que una embarcación de 17 o más con un motor de 30 caballos no la mueve bien y por lo tanto la ola que levanta es mayor. Comprobado por los pescadores con dichas embarcaciones. Se necesita aumentar un poco más el caballaje para nivelarlo con el tamaño de la embarcación. Muchas gracias por sus intereses en mejorar este deporte y la comodidad de nuestros embalses y pescadores.

Consider to increase the horse power of the motors, because a boat 17 feet or more with a 30 HP do not navigate well and caused a bigger wave, as proved by anglers. They need to increase the HP to make it appropriate with the size of the boat. Thank you so much for your interest in improving this sport in our reservoirs.

**10129**

P10: Que este accesible al público los 7 días de la semana.

To be accessible to the public 7 days a week.

**10129**

P11: Quisiera añadir que debería de haber mas vigilancia en otros lagos rurales como lo es el lago Guayo del poblado Castañer de Lares. Personas inescrupulosas no respetan la ley y no siguen el reglamento de pesca establecido por el DRNA e incurrn en prácticas de pesca ilegales y que no son con cañas de pescar.

There should be more patrolling in other reservoirs such as Guayo in Castañer, Lares. Some people do not respect the law and do not follow the fishing regulations established by the DRN and fish illegally with other gears that are not rod and reel.

**10126**

P10: Si hay algo. Recursos naturales de PR son muy violentos no estan bien preparados en ejercer la ley. Por ejemplo, en un torneo de pesca un empleado de recursos naturales me dio un boleto de \$50.00 por no tener la luz de bengala y aunque le explique que la ley no obliga a tener luz de bengala en el embalse, sino mas bien la luz de bengala se usa a dos millas fuera de tierra después otro boleto de \$50.00 por no tener la luz prendida al llegar a la orilla del lago. Estuve un año sin poder ir a pescar haciendo gestiones en las oficinas y no me dieron la razón. Pague los \$100.00 injustamente. Esta situación desanima al pescador por la inexperiencia de un ranger de recursos naturales.

The DNR law enforcement officers are very violent. They are not prepared to enforced the law. For example in a tournament a DNR officer gave me a ticket of \$50.00 because I didn't have flairs. I try to explain that the law does not require the use of flairs in reservoirs, the flairs are used 2 miles off shore. Then he gave me another fine of \$50.00 for not having the lights on when I got shore. I spent a year trying to request an investigation of these fines but I received no answers. I end up paying \$100.00 unfairly. This situation discourage anglers just because of the natural resources ranger's inexperience.

**10122**

P10: Si el DRNA pudiera coordinar mas efectivamente los niveles del embalse, (ej. Mantener niveles altos durante el año) creo que sería beneficioso en el momento del desove y crecimiento de alevines. Entiendo que esto sería en coordinación con la AEE.

If the DNR could coordinate more effectively the reservoir's water levels, It will be beneficial to the spawning and growth of bass (ex. Maintain higher water levels throughout the year). I believe this coordination should be with the Power Company.

### **10121**

P10: Se debe tener más vigilancia dentro y fuera del embalse, para los pescadores que se llevan cantidad de lobinas indeterminadas para venderlas y lucrarse de las mismas, hacer una mejor inspección de los botes a los pescadores fuera de torneos regulares, para que la pesca deportiva y nuestros niños puedan disfrutar la captura de lobinas como lo disfrutamos los que pescamos hoy día.

There should be more law enforcement officer in and out the reservoir so those angles that take undetermined amount of bass in order to sell them and profit could be caught. A better boat inspection should be done to anglers outside tournaments so our kids can enjoy sport fishing and catching bass the same way we fished today.

P11: Esta encuesta se debe hacer en todos los embalses de PR para mejorar la calidad de la pesca en esos embalses y mantener la crianza de lobinas para poder disfrutar la captura de las mismas y devolverlas al agua para en el futuro poder disfrutar el volverlas a atrapar.

This survey should be done in all reservoirs in PR in order to improve the fishing quality and maintain bass reproduction so we can enjoy fishing this species and releasing them so in the future we can enjoy catching them again.

### **10119**

P10: Favor dar atención muchos opinan igual. No cerrar portones después de las 6:30 pm. Deben permitirnos disfrutar de la pesca en las noches aunque no estemos acampando. Porque en ocasiones la pica o pesca es mejor en la noche. Uno sacrifica un día para pescar Lucchetti y durante la mañana y tarde no hay pesca y cuando cae la tarde a las 5:30 o 6:00 comienza la pica o pesca buena. Uno tiene que irse porque los portones tienen que cerrarlos con eso uno se desalienta y se enfurece.

Please pay attention, many think the same way. Do not close the gate at 6:30 pm, we should be allowed to fish at night even if we are nor camping. Sometimes, the best bite is at night. One sacrifices a day to fish in Lucchetti and there is no good fishing during the mornings nor afternoons. Around 5:30 – 6:00 the fish starts biting and we have to go because the gates will be close. This discourages me and made me angry.

P11: Favor hacer esta encuesta en el Lago Guajataka, que es mi preferido y para mí el mas lindo de Puerto Rico y con la mejor geografía para un lago y me preocupa porque no hay tantas lobinas en el mismo como antes, deben dar mayor atención a las personas que pescan en la orilla que no discriminan y se lo llevan todo lo que pescan aunque sea muy pequeño.

Please do this survey in Guajataka reservoir, for me is the prettiest in PR, has the best geography and I worried because there aren't as many bass as before. Pay more attention to shoreline anglers that take everything without considering the size.

**10116**

P11: En otros embalses en Puerto Rico el departamento de Recursos Naturales debería tener vigilantes fijos para hacer cumplir la ley en cuanto a tarrayas y trasmallos.

In other reservoirs in PR, the DNR should have permanent officers to enforce the law when fishing with nets.

**10114**

P10: Mi visita al lago Lucchetti es poca debido a la distancia desde mi hogar hasta el embalse ya que son casi tres horas de viaje y la carretera tiene muchas curvas además la gasolina que se gasta pues lo que tengo es una van. Los lagos que mas frecuento son Dos Bocas y Caonillas ya que el primero me queda como a ½ hora y el segundo a una hora de donde Yo resido, aunque ya mis visitas a estos no son tan frecuentes como antes.

I don't visit Lucchetti very often because the reservoir is about 3 hours from home. In addition the road has many curves and I spend a lot of money in gasoline because I have a van. I frequently fish at Dos Bocas and Caonillas reservoirs because the first one is about ½ hour from my house and the other about 1 hour. However I don't visit them as often as I used to do.

P11: Quisiera añadir en el manejo de la pesca que al pescador deportivo se le asignen 12 piezas por día por pesca mientras que los trasmalleros se llevan mucho mas a menudo y nadie interviene con ellos.

I will like to add that the management of the fishing allows a limit of 12 fish per day per angler. However, shoreline anglers fish with illegal nets and no one intervenes with them.

**10108**

P10: Felicidades a todos ustedes y mucha paz. Perdonen que si hay algún inconveniente en esta pregunta. Como los kilómetros desde mi casa a Lucchetti negativo, no lo se.

Congratulations to all and peace. Please excuse me if there is an inconvenient with my answers. I don't know the kilometers between my house and Lucchetti.

**10104**

P10: Verificación de todas las embarcaciones y/o vehículos que entre y salga del embalse evitando se pesque con equipo ilegal (redes u otras) y se lleven más piezas de la permitidas por ley evitando así el comercio de las especies.

To inspect every boat and vehicle that comes in and out the lake; to prevent the use of illegal equipment (nets) and that people keep more fish than what is permitted by law and this way prevent the commercial fishing.

P11: Vigilancia y patrullaje en los los embalses.

Patrolling in all reservoirs.



**10097**

P10: En los últimos meses no he podido visitar Lucchetti por cuestiones de horario de trabajo.

In the last few months I haven't been able to go to Lucchetti because of my work schedule.

**10085**

P10: Específicamente en este embalse se abusa de nuestro recurso pesca (lobina) por Pescadores inconscientes que se llevan todo lo que pescan. La vigilancia dentro y fuera del embalse es muy importante. Es días de buena pesca estos pescadores llenan sus viveros y sus neveras y al otro día salen como Juan por su casa y no hay quien inspeccione sus botes. Por lo tanto en ausencia de vigilantes que se le de mayor autoridad a los biólogos residentes para terminar con esta práctica que ha mermado la población de lobinas. Quiero recalcar que este embalse es muy saludable y productivo.

In this reservoir the fishing resource is highly abuse by anglers that keep everything they catch. During full moon, they filled up the live wells and the coolers in the boat and then they leave, like nothing has happened because there is no one to inspect their boats. Because of the lack of rangers, the DNR should give the resident biologist more authority to control this practice that has cause a decrease in bass population. I want to emphasize that this reservoir is very healthy and productive.

**10084**

P11: Me gustaría ver a los vigilantes del DRNA estar mas atentos a la pesca de las personas en botes o de orilla y no solo dar boletos a los escadores con embarcaciones. Les agradezco se interesen en nuestro deporte y espero que las contestaciones les ayuden a entender un poco mas del deporte que nos apasiona.

I will like to see the DNR rangers to pay more attention to the harvest of both shoreline and boat anglers rather than given tickets to anglers with boats. I appreciate your interest in the sport and I hope the answers help you understand the sport that we love.

**10069**

P10: Deberían eliminar la electropesca. Afecta a muchos peces pequeños y a la población marina. La información y las muestras la pueden tomar de los torneos. El DRNA debería tener viveros en la rampa y en sus embarcaciones para poder recibir la pesca de todos los pescadores, conservarlas por varios minutos u horas y así tomar toda la información disponible. Los pescadores de clubes somos guardianes de los embalses y no enemigos del DRNA. Limpiamos el embalse (2 veces al año), velamos por el uso ilegal de aparejos de pesca y se lo indicamos. Tenemos que trabajar en armonía. Hemos profesionales y personas con mucho amor a los embalses.

They should eliminate electrofishing. It affects the small fish and the marine population. The information can be obtained from the tournaments. The DNR should have live wells at the ramp and in their boats so they can keep the fish longer and get all the measurements. Anglers from clubs are guardians of the reservoirs and no enemies of the DNR. We clean up the reservoir

twice a year, look after the use of illegal gears and then informed it to the rangers. We need to work in harmony. We are professionals and love the reservoirs.

### 10060

P10: Categorizar Lucchetti como un lago estrictamente catch & release. Law enforcement: presencia de rangers para proteger el recurso no para dar boletos a pescadores que cumplen. Abogar por mantener niveles del lago más altos, aparentan mantener niveles muy bajos aun sin aparente necesidad. Siembra de peces más frecuentes (lobinas y shad). Mejorar condiciones de los baños.

Lucchetti should be considered a catch and release only. More presence of law enforcement officers to protect the resource and not to give out tickets to anglers that comply. Negotiate to maintain higher water levels, they seem to keep the levels too low with no apparent reason. More stocking (shad and bass). Improve the bathrooms conditions.

P11: La sobre pesca de lobinas ha sido inminente. Es frecuente para mí ver el deterioro en general que ha sufrido la pesca (Guajataca, La Plata, Caonillas, ect). Que pueden hacer para mejorar: (1) Mejoramiento del recurso, (2) Promover la pesca deportiva y no de subsistencia, (3) he tenido experiencia en muchas ocasiones con el personal de RN preguntar sobre marbete, extinto, pito, ect. Jamás he visto personal de RN revisando o cuestionando # y tamaño de lobinas en viveros, cadenas o neveras.

Bass overfishing has been imminent. It is frustrating for me seeing the general deterioration of the fishing (Guajataca, La Plata, Caonillas, ect). What can be done to improve this?: (1)Improve the management of the resource; (2)Promote sport fishing, no commercial fishing; (3)I had the experience with the rangers to ask me about my boat registration, fire extinguisher, ect, but I had never seeing them inspecting the size and amount of bass in the live wells, stringers or coolers.

### 10059

P10: Que se le chequee la pesca a los orilleros. Que no se permita la carna viva a los orilleros o a todos los Pescadores. Me refiero a los pecesitos de ríos. Recursos Naturales debe de orientar mas a la población a cerca de la pesca y la importancia de esta en todos los embalses de PR. Se debe sembrar mas peces a todos los embalses.

To check all the people fishing from shore. Do not allow shoreline anglers or other anglers to fish with live bait. I refer to fish from rivers. The DNR should educate the general population regarding the importance of reservoirs in PR. To stock more fish in all the reservoirs.

### 10055

P10: Sin Comentario

No comment

### 10049

P10: Mantener mejor control de los pescadores que van durante la semana y se llevan enormes cantidades de peces por falta de supervisión, incluyendo a los que van a acampar que guardan peces en neveras y se llevan todas las que pueden.

To maintain a better control of those anglers that camp out during the week and keep enormous amounts of fish because of lack of supervision. They stored the fish in coolers and take home everything they can.

P11: Evaluar la siembra de otro tipo de sardina mas grande como la que existe en EU.

Evaluate the introduction of a different type of shad, a bigger one, such as one that exists in the US.

#### **10048**

P10: Debería haber alguien en la rampa en la hora que los botes van a salir para sus casas, para chequear la pesca. Porque he oído muchos cuentos de pescadores que se llevan todo lo que cogen.

There should be someone at the boat ramp when boats are departing and inspect the catch. I heard a lot of stories about anglers that keep everything.

#### **10041**

P10: Problemas con el agua, el torneo termina a las 7 de la noche, el agua está muy fría para bañarse de noche.

There is a problem with the water. The tournament finished at 7:00 pm and the water is too cold to take a shower.

P11: En el lago de Utuado (Dos Bocas) utilizan redes para atrapar lobinas. Se lo comunicamos a los vigilantes pero no se mueven para hacer nada la televisión esta mejor y la música. Se viene un pescador, viene a chequear el bote para dar boletos

In Utuado's lake (Dos Bocas), some used nets to catch bass. I have told the rangers but they don't do anything. The television and the music are better. Instead they check our boats to give us tickets.

#### **10040**

P10: Vigilar y controlar lago Toa Vaca.

Patrol and control Toa Vaca Reservoir

#### **10034**

P10: Se debe coordinar con AEE y AAA sobre los niveles del lago y de la manera en que estos son realizados pues ciertos tipos de dreña el lago causa perdida de areas de desove. Este lago debe ser estudiado para ver la viabilidad de un dragado pues ya este ha perdido bastante capacidad. Se deben de hacer estudios para indicar poblaciones de lobinas "spotted bass" pues

presión que son la mayor población y tratar de reintroducir la lobina “red eye bass” (cosae) a este lago.

There should be coordination between the power and water companies regarding water levels because the way they do it, depletes the lake and causes lost of spawning grounds. The possibility of dredging the lake should be study because it has lost a lot of capacity. Studies should be made on spotted bass population and to reintroduce the red eye bass or Coosa.

P11: Se debe tener más vigilancia en los cuerpo de agua, incluyendo estuarios, debido a que se está pescando indiscriminadamente y no permiten que las pesquerías puedan regenerarse y resulta en un declive de pesca. Se debe tener más atención a la sedimentación de los embalses pues esto afecta, entre otras cosas, los desoves y por con descendiente las poblaciones de pesca.

There should be more patrol in the water bodies including the estuaries because they have been fished intensively and do not allow the fishery to recover and results in a decrease in fishing. More attention should be pay to reservoir sedimentation because among other things this affects the spawning and the fish populations.

### **10032**

P10: Deberían mantener el Lago Cerrillos abierto miércoles a domingo hasta la 9:00 pm. El Lago Lucchetti debería estar abierto de miércoles a domingo hasta la 9:00 pm. Dar más vigilancia preventiva utilizando embarcaciones de recursos naturales en el lago Castañer (Guayo) para evitar el uso de tarrayas y trasmallos.

Cerrillos reservoir should open from Wednesday to Sunday until 9:00 pm. Lucchetti reservoir should open from Wednesday to Sunday until 9:00 pm. More preventive patrol at Guayo reservoir in DNR boats to avoid the use of illegal nets.

P11: Mucho mas vigilancia a los lagos y siembra de lobinas.

More patrolling to the lakes and bass stockings.

### **10031**

P10: Deberían en otro lago sembrar mas lobinas. Porque pesca en Lucchetti está demasiado brutal.

Stock more bass in other lakes. Because the fishing in Lucchetti is brutal.

### **10027**

P11: Disculpen por la tardanza. Gracias por hacer esta encuesta y espero que se le de mas importancia a los embalses existentes y que se les pueda otorgar incentivos \$ al DRN de PR para lograr sus objetivos.

Sorry for being late. Thank you for doing this survey and I hope that more attention is paid to the existing reservoirs and that incentives \$ should be given to DNR in PR to achieve their goals.

**10026**

P10: Lo único que puedo decir es que el Lago Lucchetti es el mejor lago que Yo voy y participo de buena pesca y oficiales y personal de buen carácter , facilidades siempre en excelentes condiciones.

The only thing I can say is that Lucchetti Lake is the best of those I visit, good fishing, personnel and officers of good character, facilities in excellent conditions.

P11: Lo único que puedo indicar son los baños un poco más reparación y agua caliente.

I can only say small repairs of bathrooms and hot water.

**10022**

P10: El horario de pesca en el embalse Lucchetti debe ser de 6:00 am a 8:00 pm.

The fishing time in Lucchetti Reservoir should be from 6:00 am to 8:00 pm.

**10012**

P10: Proteger mas las lobinas y tucunares de Puerto Rico.

More protection for largemouth bass and peacock bass in Puerto Rico.

P11: Regular la lobina y tucunares a 5 por pescador y registrar los bote al salir que no tengan mas de 5 por pescador.

Regulate largemouth bass and peacock bass to 5 per angler and inspect the boat when departing so they don't keep more than 5 per angler.

**10011**

P10: Debería de haber mas control diario a la salida de los pescadores, se llevan más de la cuota asignada diaria sobre todo cuando hay picada. Hay abuso excesivo de esto es ese lago. El registro o chequeo debe ser enérgico sin distinción de personal.

There should be more daily control of anglers when leaving, some take more that the daily bag limit when the biting is good. There is an excessive abuse of this in the lake. The inspection needs to be energetic to all people.

P11: Los embalses deben ser más protegidos por el DRN y sembrar más lobinas, ya que los que pescan de orilla no dejan progresar al pez y se los llevan muy pequeños. Esto eliminaría el abuso actual.

The reservoirs should be more protected by the DNR and more bass should be stock because the shoreline anglers don't allow fish to progress and taken them too small. This will eliminate the current abuse.

**10010**

P10: Soy socio del Club Lobinero Lareño con sede el Lago Guajataca. Me fascina la pesca y lo hago todos los fines de semana y tengo que admitir que de todos los lagos en PR que he visitado el mas que me gusta es el Embalse Lucchetti de Yauco, aunque me tarde 3 horas ida y 3 horas de vuelta hasta mi residencia en Vega Baja, PR. El personal de Recursos Naturales tratan muy bien a uno en especial la Sra. Bióloga que residen en el lugar. Sera bueno que el gobierno asignara fondos para mejorar este hermoso lugar de PR donde nos desconectamos de los problemas del diario vivir. Se que esta gestión va dirigida a esto.

I am a member of Club Lobinero Lareño with a clubhouse at Guajataca Reservoir. I enjoy fishing and I do it every weekend and I have to admit that from all the reservoirs in PR that I had visit, Lucchetti is my favorite even if it takes me 3 hours to go and 3 hours to get back home since I live in Vega Baja, PR. The DNR personnel treat us very good, especially the biologist, who lives there. It should be good that the government assign more money to improve this beautiful place of PR where we can disconnect from the daily life problems. I know this effort is directed toward that.

#### **10009**

P10: Abrir los portones más temprano para poder disfrutar de la pesca al amanecer y cerrar mas tarde para poder disfrutar de la pesca nocturna.

To open the gates earlier in the mornings so we can enjoy the dawn fishing and to close the gates later so we can enjoy night fishing.

P11: Embalse Cerrillos, Ponce: (1) eliminar el rotulo de llevarse 15 lobinas/por pescador; (2) abrir mas temprano y cerrar mas tarde las facilidades para disfrutar de la horas pico de la pesca.

Cerrillos Reservoir, Ponce: (1) take away the sign of keep 15 bass/per angler; (2) open earlier and close later so the peak fishing hours can be enjoyed.

#### **10007**

P10: Lo único con lo que no estoy de acuerdo es con el caballaje de los motores en agua dulce. En vez de 30HP debería ser hasta 75HP y el DRNA implementar reglas de velocidad en los embalses.

I only disagree on the horse power regulation for fresh water. Instead of 30HP it should be 75HP and the DNR should implement velocity rules for the reservoirs.

#### **10006**

P10: Mucha más vigilancia a la pesca ilegal y siembra y cuidado de lobinas pero enfatizar a la pesca ilegal en los embalses de Puerto Rico.

More patrol toward the illegal fishing and stocking and care of bass with emphasis on illegal fishing in Puerto Rico's reservoir.

#### **10002**

P11: La responsabilidad, el respeto y el interes que tiene el DRNA con nuestro embalse hay que reconocer que es perfectamente indispensable y necesaria para continuar cuidando nuestros embalses.

The responsibility, respect and interest that the DNR has with our reservoirs is needed to continue taking care of our reservoirs.

**10000**

P10: Entiendo que se debe chequear la pesca a los Pescadores que salen del lago de Yauco en la rampa al salir porque los comentarios son que los que no pescan salen con las neveras llenas y Yo no estoy de acuerdo con eso y la mayoría no son socios de clubes. Entiendo que Darien está haciendo un buen trabajo y esperamos que cada día el Señor le dé más fuerza para que lo haga mejor entendemos que no es fácil pero se puede. Muchas gracias por velar nuestras lobinas es importante.

I think that the anglers catch should be check at the boat ramp when leaving because the comments are that those who no fish leave with coolers full and I don't agree with that, and the majority does not belong to a fishing club. Darien is doing a good job and we hope that God gives her strength to make it better; it is not easy but possible. Thank you so much for looking after our bass, it's important.

P11: Dios los Bendiga

God Bless you