

Determining Demand and Describing a New Market Segment: Hybrid Bluegill and Recreational Pay Fishing

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Introduction

Phase One

Phase Two

Method

Conducted: Summer of 2002 (pre-stocking)

Study Sites: Three West Virginia pay fishing businesses (no hybrid bluegills were stocked)

Instruments: On-site interviews and mail-back questionnaires

Variables: Two dichotomous choice contingent valuation questions on customers' willingness to pay for catch-and-keep and catch-and-release hybrid bluegill fishing opportunities. Ten incremental bid amounts, ranging from \$5 to \$50, were randomly selected for questions.

Sampling: Randomly selected customers
N=220 (65% response rate)

Analysis

Logit models were developed for both catch-and-keep and catch-and-release fishing opportunities to show estimated demand. Differentiation of the models that predict consumer expenditure was conducted to determine the market price per unit that would result in the greatest consumer expenditure.

Results

The optimum prices for maximum consumer expenditure for catch-and-keep and catch-and-release fishing opportunities are similar (about \$30 per 10 fish or \$29 per 1 hour) (Table 1).

Table 1. Estimated demand models and consumer expenditure optimization (DF=8).

Question	Constant	Coeff.	p	Opt.
Keep 10 fish	.71	-.03	.095	\$30
One hour fishing	.49	-.03	.326	\$29

Method

Conducted: Summer of 2003 (post-stocking)

Study Sites: Three West Virginia pay fishing businesses (hybrid bluegills were stocked)

Instruments: On-site interviews and mail-back questionnaires

Sampling: Customers targeting hybrid bluegill
N=41 (90% response rate)

Results

Table 2. Selected characteristics of hybrid bluegill anglers

Variable	N	%
Visitation		
Repeat visitors	23	56.1
First-time visitors	18	43.9
Gender		
Male	29	70.7
Female	12	29.3
Traveling Group		
Family with children	13	31.7
Couple	9	22.0
Family and friends	7	17.1
Two or more families or relatives together	7	17.1

Table 3. Hybrid bluegill angler motives

Recreation experience	N	Mean*
Spend time with my family	38	2.68
Experience fishing excitement	38	2.66
Enjoy the natural scenery	38	2.53
Tell others about my visit	38	2.50

*Means reflect responses based on a scale from -3 (very undesirable) to 3 (very desirable)

Table 4. Importance of services and facilities

Services and facilities	N	Mean*
Clean and attractive restrooms	38	2.63
Bait and tackle sales	38	2.42
Facilities were maintained	38	2.29
Facilities were accessible	38	2.18
Fishing contests	38	2.13

*Means reflect responses based on a scale from -3 (not at all important) to 3 (very important)

Discussion

Phase One of this study strongly suggests that hybrid bluegill could be a profitable alternative species for pay fishing businesses in West Virginia. Previous research suggests that the production cost for 3.3 pounds of hybrid bluegill is less than \$10—a cost much lower than the \$30 that 43 percent of anglers were willing to pay under a catch-and-keep format.

Phase Two findings indicate that the primary market segment for hybrid bluegill at West Virginia pay fishing businesses is families with children whose goal is to enjoy the fishing experience together. Businesses can enhance the family experience by maintaining clean and accessible facilities, and offering the convenience of bait and tackle sales. Fishing contests can add to the fishing excitement. Unlike fishing public waters, these additional pay pond services make it easier for families to enjoy fishing.

Pay fishing involves paying a fee for the privilege of fishing a body of water where fish populations are enhanced by stocking fish. Bluegill is among the species of fish most preferred at pay fishing businesses (Logar, Ponzurick & Semmens 2001). A relatively new product at these pay ponds, however, that has several advantages over the bluegill is the hybrid bluegill. A hybrid bluegill is a cross between a male bluegill and female green sunfish. This fish has a popular flavor and is stockier and more aggressive than bluegill. The consumer demand for this fish remains unclear, as do the characteristics and motives of hybrid bluegill anglers.

The purpose of this two-phase study was to determine angler characteristics as well as effective pricing structure and program format for hybrid bluegill in order to better understand how West Virginia pay fishing businesses and anglers can best utilize farm-raised hybrid bluegill. Phase One was conducted prior to the hybrid bluegill stocking project to determine anglers willingness to pay for this new fishing opportunity. Phase Two was conducted following the stocking project to better understand this new market.

