

Findings Abstracts

Event Quality versus Event Quantity: An Evaluation of Fishing Experiences

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Events are often evaluated based on what they provide (Gibson, 1986). When applied to fishing success, catching colorful rainbow trout offers high aesthetic value on a per event basis (event quality). Alternatively, catching a large trout provides an unfolding of events such as pumping and lifting the rod while simultaneously reeling in the fish (event quantity). We propose that “event quality” and “event quantity” are different evaluation measures of trout fishing experiences. 15

Data were collected at Bluestone River located at Pipestem Resort State Park and Harmon’s North Fork Cottages (both in West Virginia) during six trout fishing seasons starting in 2007 and ending in 2011. A total of 142 adult anglers completed the onsite creel survey. Respondents were asked “how eventful would you consider your fishing experience on this river during this trip?” Responses were recorded on a 7-point scale (1 = not much happened or uneventful to 7 = a lot happened or very eventful). Respondents were also asked “how do you rate the overall quality of your fishing experiences on this river during this trip?” Responses were recorded on a 7-point scale (1 = poor to 7 = excellent). The acceptability of five catch-related indicators were measured on a 7-point scale (–3 = very unacceptable to +3 = very acceptable). The specific catch-related indicators included “total number of fish caught per hour,” “proportion of catch consisting of rainbow trout that are greater than four pounds,” “size of the largest trout caught,” “variety of species caught,” and “color and health of rainbow trout caught.” 20 25

Evaluations of event quality (5.92 ± 1.17) were higher (paired t -test = 4.07, $p < .001$) than evaluations of event quantity (5.47 ± 1.56). Event quantity may be a more sensitive measure. The correlation between event quality and event quantity ($r = .601$, $p < .001$) was below the $r = .85$ cutoff value for discriminant validity (Bagozzi & Phillips, 30

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1982). A percentile bootstrap procedure with 1,000 data sets was used to estimate the 95% confidence interval for the Pearson correlation coefficient (95%CL: .235 to .685).

Regression analyses were also used to examine event quantity and event quality. The five catch-related independent variables (e.g., acceptability of total number of fish caught per hour, proportion of catch consisting of rainbow trout that are greater than four pounds) operated differently when regressed on event quality ($R^2 = .355, p < .001$) and event quantity ($R^2 = .371, p < .001$). There were two significant predictors of event quality: (a) color and health of rainbow trout ($\beta = .363, p = .001$) and (b) number of fish caught per hour ($\beta = .336, p = .004$). There were three significant predictors of event quantity: (a) number of fish caught per hour ($\beta = .353, p = .002$), (b) proportion of catch consisting of rainbow trout greater than four pounds ($\beta = .273, p = .026$), and (c) color and health of rainbow trout ($\beta = .222, p = .029$). Proportion of catch consisting of rainbow trout greater than four pounds was a stronger predictor of event quantity.

One of the most common sources of information used to assess the status of fish stocks is catch per unit effort (CPUE). Although this information may be problematic from a biological standpoint (Maunder et al., 2006), it was the best indicator of fishing success in our study. The “number of fish caught per hour” had a similar and significant effect size in both event quality and event quantity models. CPUE, however, does not explain the full story. “Color and health of rainbow trout” was a better predictor of event quality and may have added aesthetic value to fishing events. Colorful trout appeal to anglers, but synthetic pigments carry a stigma in today’s market. Given the desire of customers for natural feed ingredients, there is demand for other ways to add color to salmonids. Igene Biotechnology has developed a natural product (i.e., *Phaffia rhodozyma*) to add color to salmonids based on a culture of a red yeast. Based on our research, improving the external appearance of the fish may improve the marketability of trout in the recreational market.

On the other hand, the importance of “proportion of catch consisting of rainbow trout greater than four pounds” should not be overlooked. It was a better predictor of event quantity and provides an unfolding of events associated with landing a large fish. Providing anglers with more things to see and do (e.g., stocking fish with a variety of sizes and offering fishing packages) may enhance the quantity of their experience, too. We recommend adding both event quality and event quantity measures in future creel surveys to expand the generalizability of the findings.

References

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