Recreational Fishing in the Southeast United States: A Demand Projection Analysis

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Abstract

The objective of this paper is to first develop an economic model of demand for recreational fishing in the Southeastern United States, and then project the demand for fishing in the region during the next few decades. The findings from this study will be useful to understand the factors behind declining people's participation and also to forecast the license sales as well as revenue in the future.

Introduction

Recreational fishing is a major outdoor activity in the southeastern United States. Similar to participation in other consumptive outdoor recreation activities, demand for fishing is dropping regionally and nationally. The National Survey of Fishing, Hunting and Wildlife-Associated Recreation Activities concluded that participation in fishing significantly declined from 2001 to 2006, (US Fish and Wildlife Services, 2007). From 1996 to 2006, the nation experienced declines in both the number of anglers (15%) and their spending (16%).

Declining demand for fishing has several implications in ecology, economy, and society. Fishing is not only a recreational activity for general public, but also a tool for population management of fish species. Further, the revenues from the sale of fishing licenses are an important source of operating funds for conservation agencies (Floyd and Lee, 2002). More importantly, a decline in fishing might limit the role of fishing as a social platform to bring people together and preserve social, cultural, and traditional values In order to preserve fishing as a recreational activity and to increase public participation, it is necessary to understand the factors that influence the demand for fishing. Although earlier studies developed various fishing demand models based on surveys of anglers and the general public, forecasting the future of people's participation in fishing has not been a focus of those studies. The purpose of this study was to develop an economic model of demand for recreational fishing among residents in Southeast USA, and then forecast the resident demand for recreational fishing for next few decades.

This study used the total resident fishing license sales to measure the county-level demand. This demand was modeled as a function of county sociodemogrpahic characteristics such as population, income, age, race, and poverty and ecological characteristics such as availability of water areas, climatic conditions, and coastal adjacency. A cross sectional model for 2000 was estimated using a log-linear functional specification. Data for the dependent variable (i. e. total demand of fishing licenses) were obtained from the state agencies. Similarly, the data for independent variables including sociodemogrpahic characteristics, fishable water resources and fishing facilities were obtained from the National Outdoor Recreational Supply Information System (NORSIS)

The estimated model parameters were combined with the projected scenarios of demographic and natural resource variables to predict future fishing demand. Results indicate that the region will see an 18% decline in the demand for licenses through 2030. Despite rapid population growth, the overall demand for fishing in the region will drop because the per capita decline in demand will more than offset the positive influence of population growth in the region. The expected decline in fishing license demand would be primarily driven by structural shifts in region's population such as "browning", "graying" etc. and to

some extent a decrease in fishable water areas that are currently positively related with the fishing demand.

Even though the demographic changes are beyond the control of state agencies, encouraging youth and non-white population to fish, and providing additional public fishing areas and facilities could increase sales of fishing licenses and revenue.

References

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