Scandinavian Forest Economics
No. 44, 2012

Proceedings of the Biennial Meeting of the Scandinavian Society of Forest Economics
Hyytiälä, Finland, May 2012

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Determinants of demand for forest recreation.

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The determinants of the recreational value of forest include the site quality, including their accessibility, and the distribution of alternative forest and non-forest sites which may serve as substitutes or complementary recreational sites. Compared to previous studies, we focus on local context variables (urbanization and urban green space) in the demand for forest recreation. We carry out a web-based survey on a sample of residents in Lorraine (North-East of France). In particular, we test the compensation hypothesis, suggesting that people with less green space in their own residential environments make more frequent trips to parks or nature reserves. Respondents who had visited at least one forest during the last twelve months were asked to identify the most visited forest on an interactive map integrated in the online questionnaire. They participated also in a choice experiment where they were asked to choose between hypothetical forests and the most visited forest during the last 12 months. An extensive database describing the more than 5000 forests (recreational forest units) in Lorraine by recreational facilities, forest structure and ecological variables are established. The demand is estimated using the so-called linked-model, i.e. combining a site selection model and a count model for trip demand. Both the stated and revealed preference data indicate that visitors have an additional willingness to pay for forest with parking and picnic places, marked trekking paths, lakes or rivers, and forest dominated by broad-leaf tree species or mixed tree species compared to coniferous forests without recreational facilities and waterbodies. While we did not find a significant effect of urban green space on the demand for forest visits we showed that the number of visits in urban park decreases with an increasing expected utility of a forest visit, indicating substitution between forests and urban parks in the demand for high-frequency outdoor recreation.