

Crowdsourced Travel Cost Method

Understanding values and visitation patterns of nature areas can provide incentives for conservation and help inform sustainable management of sites. The use of geo-tagged social media photographs to estimate the recreational value could provide a simple and low-cost alternative to on-site surveys. My thesis investigates how metadata from the platform Flickr can be used for travel cost-based valuation in a Danish context, by applying a recently developed crowdsourced travel cost method (TCM) to Jægersborg Dyrehave, a deer park north of Copenhagen. An individual TCM is estimated using pictures taken between 2004 and 2021 and (geo)tagged with reference to the park. Travel costs are calculated based on predicted home locations, which were assigned to visitors by analyzing the geographic distribution of photos uploaded by the respective user.

The study finds that it is feasible to conduct a TCM study entirely based on data from Flickr and other freely available sources. A truncated Negative Binomial model shows that visitation decreases significantly with travel cost to the study site, and increases with travel costs to the closest substitute. Benefits as well as restrictions and challenges of the method are discussed, by comparing visitation structure and resulting value estimates with results from on-site studies.