

Report on Master Thesis

Institute of Economic Studies, Faculty of Social Sciences, Charles University in Prague

Student:	Alicia Maria Berrios
Advisor:	Milan Ščasný, PhD.
Title of the thesis:	Are Sharks Worth More Alive Than Dead? A Stated Preference Study on Shark Ecotourism in Costa Rica

OVERALL ASSESSMENT (provided in English, Czech, or Slovak):

This thesis presents very well performed empirical research aiming at preferences of tourists for one specific specie (shark) and for several tourism-related attributes. I think that this master thesis is a unique work due to the following reasons.

- (1) Studies as presented here are **extremely important and policy-relevant**. Economic values, measured through the willingness to pay measure, are derived here for the three hammerhead sharks that are listed as *endangered* on the IUCN Red List of Threatened Species or *approaching extinction*. Providing these values is therefore valuable input for recent discussions about nature conservation as well as for evidence-based policy.
- (2) There is only limited number of similar valuation studies that elicited preferences of tourists for nature-based attributes of touristic destinations, however, almost all of them could have addressed the user-value only (using the travel cost method mostly). The presented study is the only one that elicited preferences for conservation of specific shark populations, using a **valuation method that allow to elicit also the non-user values**.
- (3) There are quite many empirical studies that have focused on the attributes linked to ecosystem services or characteristics of tourism infrastructure. But there are very few studies that have analysed marginal rate of substitution between these two groups of attributes. The discrete choice experiments used in this thesis just analysed **a trade-off bewteen the two groups of attributes (ecosystem services, and touristic infrastructure)**, specifically aiming at three attributes linked to ecosystem services (conservation of shark, sea turtle, or coral reef populations) and at another two attributes linked to tourism infrastructure.
- (4) The stated preference studies have been often criticized with respect to **validity of presented benefit estimates**. One way how to justify the validity of this method is to elicit preferences for the same (or similar contingent goods) in diferent sites, in different time, or using different valuation methods. The survey instrument used in the presented research is just eliciting tourist preferences for conservation of shark population **using two different methods – discrete choice experiments with five attributes and the costs, and double-bounded dichotomous choice questions**. Worth to mention, the willingness to pay estimates for shark conservation are very close one to the other that validates both the stated preference method in general as well as the presented research.

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- (5) Most of the studies that analysed preferences of tourists have been conducted *on site* (at beach, in forest, nearby hotels, and similar), or *off site* (at their homes, after their arrival), while tourists were rarely contacted and interviewed at a point of the site arrival/departure. The former studies may thus suffer due to a sample selection and/or limited representativity of sample. The latter sampling (at a point of arrival/departure) may indeed overcome these problems but it is also very difficult to apply. In this research, Alicia were able to interview tourists directly at the San Jose airport – the main entrance/exit point of all tourists visiting Costa Rica. Such sampling is rarely used and hence this study is unique with respect to **sampling since it overcomes the sample selection problem** and has larger potential to yield a sample that is **representative to tourist population**.
- (6) It is quite seldom that students collect their data via a survey by their own, and if they did so, the sample is relatively small. **The sample of tourists in this study includes 801! completed interviews** and this survey was entirely funded and coordinated by the student. This fact may document student's ability to perform empirical study by her own.
- (7) Last but not least, I can't be salient about the great scientific progress that Alicia has made since we met for the first time to discuss her topic. Having her bachelor decree in marine ecology (not being trained in economics before!), she had to work hard to succesfully finish her empirical research embodied in her master thesis. I can say she has met this hard challenge greatly, starting from one of the lowest base (understand, not being trained in economics at bachelor level). On the other hand, **joining these two disciplines – marine ecology and environmental economics** – resulted in the unique valuation research during that I have learnt a lot as well.

Regarding the method, Alicia is using the state-of-the-art valuation techniques and econometric models. These were applied to a field in that these non-market valuation methods have been rarely applied and, according to my best knowledge, this study can deliver the benefit estimates for goods for that such non-market value has been non-existened so far. The presented research therefore contributes greatly to economic valuation literature.

The thesis is very well structured. It consists of seven sections. Section 1 introduces to the problem and provide author's motivation for presented research. Section 2 reviews the valuation literature, going from the top to the bottom, covering studies on valuation of eco-tourism, recreation and wildlife, and then on marine species that are

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the key author's interest. Next section introduces the methodology, describing analytical method, experimental design of both studies, econometric model, and the survey instrument. Section 4 describes the data. The results from the both experiments (discrete choice experiments, and dichotomous choice questions) are presented in Section 5. The following section discussed the results, and last section concludes.

Overall, this thesis is written in high standard, although there are still more typos and uncleaned texts (from older versions of the thesis?) than I would appreciate. The formal issue is therefore the only critical point of my otherwise very positive thesis evaluation (these typos and whole text have been however entirely cleaned in the revised version of the thesis), providing still 15 points only in my grade.

High quality standard of this research may be also supported by the fact that Alicia Berrios received the research grant from CUNI's Environmental Center to perform this study and this thesis also acknowledges a support of the Marie Curie-Sklodowska Actions' GEMCLIME project.

In the case of successful defence, I recommend „výborně“ (excellent, 1).

SUMMARY OF POINTS AWARDED (for details, see below):

CATEGORY	POINTS
<i>Literature (max. 20 points)</i>	20
<i>Methods (max. 30 points)</i>	30
<i>Contribution (max. 30 points)</i>	30
<i>Manuscript Form (max. 20 points)</i>	15
TOTAL POINTS (max. 100 points)	95
GRADE (1 – 2 – 3 – 4)	1

NAME OF THE REFEREE: Milan Ščasný

DATE OF EVALUATION: February 4th, 2017



Referee Signature

