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**Title:** The Natural Capital of the Southern Lake Michigan Coastal Zone: First Steps Toward an Economic Valuation

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**Abstract:**

This paper focuses on the Southern Lake Michigan Coastal Zone (SLMCZ), which includes 45 miles of shoreline in Indiana and 63 miles in Illinois. This consists mainly of Chicago and the nearby smaller cities. This is a very diverse region with several different landforms and biological species present, as well as a major state park and a national lakeshore. However, it is under threat of environmental degradation by urban expansion and economic development. In response, this paper attempts to assign a value to the natural capital of this area, which addresses the inability to put an efficient price on these areas that ultimately lead to their undervaluation and exploitation. This paper analyzes all three major environmental economics models (contingent valuation, travel cost, and hedonic pricing) and provides an extensive literature review of related articles to analyze the previous use of these models and the summarized results. Ultimately, due to a lack of directly relevant data from previous literature, the report focuses on what people are willing to pay just to know that the biodiversity and ecosystem functions remain intact and maintained.

The paper finds that biodiversity of the SLMCZ is a major non-use factor in natural capital valuation, based on values given to specific species in other literature that are also found in the SLMCZ. The non-use value to households in the region is between \$319 and \$537 annually, with a total net present value between \$3.1 and \$5.3 billion. While this report lacks specific data from this region, these values are significant and indicates it is likely economically efficient (would pass a cost-benefit analysis) to maintain biodiversity in this region. This also indicates that more detailed and specific studies are justifiable to place a more precise value on biodiversity and ecosystem functions.