

## **GEOLOGY AND GEOGRAPHY**

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### **Abstracts**

**Pontoon Boats: An Indiana Recreational Industry.** THOMAS P. GRIMES, Ball State University, Muncie, Indiana 47306.——Pontoon boats, popular recreation craft on sheltered inland lakes in the United States, have been built in Indiana for over a quarter of a century. More firms manufacturing pontoon boats are located in Indiana than in any other state. Investigation suggests that current pontoon boat fabricators were in business manufacturing farming equipment or subassemblies for farming equipment before adopting pontoon boats as a product. This paper will discuss the pontoon boat manufacturing industry in Indiana in terms of its history, location, local impact, and national output. Pontoon boats will also be considered within the context of other waterborne recreational vehicles as to their effect on the environment and as to their requirements for water space.

**Soil Assessment Basis for Tax Determination in Delaware County.** BENJAMIN MOULTON, Indiana State University, Terre Haute, Indiana 47809.——The celebrated reassessment of Indiana mandated to be completed a year ago and now delayed until this year with the tax to be paid in 1980 caused considerable difficulties for local assessors. In Delaware County the difficulties resulted in court action to determine the direction and personnel to carry out the evaluation. The procedures and results are the substance of this paper. The resources available to the researchers consisted of first, a new type soil survey, and secondly a new style tax parcel map on a scale of 1":400' for most of the county with a few maps on a scale of 1"-100'. The research workers identified farms by number only and were known to the map worker by number only. The instrument used for calculation of acreages was a Numonic #1224 digitizer. The acreage of each soil type on each farm was measured. The assessed value was analyzed further with production ratings of soil types determined by the staff at Purdue University and a computer program designed to determine the assessed value of a farm with allowances being made for home sites and areas of non-production (drain ditches etc). The bottom line of the computer program is the total assessed value for each farm, each township, and finally a county total of all farms and farm land.

**An Ecosystem Inventory of the Indiana Dunes National Lakeshore.** WAYNE E. KIEFER, Central Michigan University; CARL KREKELER, Valparaiso University; GAYTON MARKS, Valparaiso University; MARK RESHKIN, Indiana University-Northwest; NEIL WEBER, Indiana University-South Bend.——An ecosystem inventory has been compiled for the Indiana Dunes National Lakeshore. The

inventory covers the following: climatology, flora and fauna, geology, land use, and soils. The geology, land use, and soils have been mapped at a scale of one inch to four hundred feet. Climatological information has been presented in statistical and cartographic form. Lists have been prepared of the flora and fauna found within the Lakeshore boundaries. The inventories, along with supporting text, have been prepared for the National Park Service and are intended to provide a base line from which ecological change can be measured as well as a data base from which ecologically sound management plans can be developed.

**The Flood Hazards of the St. Joseph River in North Central Indiana.** KENNETH R. BREHOB, Department of Earth Sciences, University of Notre Dame, Notre Dame, Indiana 46556. \_\_\_\_\_ Flood prone areas along the St. Joseph River within Elkhart and St. Joseph Counties were identified and residents of these areas were interviewed to determine their flood hazard perception. Five flood prone residential areas were selected for questionnaire interviews using a slightly modified version of the standard natural hazard questionnaire. Selected interview results are presented. Lack of awareness of a flood hazard was typical of the 78 questionnaire respondents. Possible reasons for the low perception level of the flood hazard includes: lack of major floods since 1950, high residential mobility, and confidence that "river flow" dams control water levels during flood events.