

RECREATION AND TOURISM

study conducted by

*John D. Lindeberg
Center for Environmental Policy, Economics and
Science (CEPES), Ann Arbor, Michigan*

Recreation and tourism in the Great Lakes region incorporates a variety of activities ranging from outlet mall shopping to ice fishing. Some of the activities that were reviewed with particular attention for this study include: fishing (both inland and lake); snowmobiling; skiing; pleasure boating; leaf peeping; bird watching; hiking; sightseeing (driving); hunting; gambling; and shopping. The region's significant natural beauty and cultural features combine to attract tourists from all over the Midwest.

Current Stresses

Tourism is an important portion of the region's economy. However, it also has significant stresses with which it is already coping. Some of these stresses are specific to the industry and others are specific to the region.

Industry Specific Stresses

Perhaps the greatest current stress to the tourism industry is its own inherent instability. Tourism is primarily a service industry that is seasonal and highly dependent on low wage and benefit-free positions to staff its busy times at both eating and lodging establishments. Economic prosperity or woe during any given season is frequently dependent on normal weather fluctuations and other variables like gas prices and general consumer confidence. For instance, skiing and ski

resort operation in the Great Lakes is more economically threatened by small snowfall fluctuations than its competitors in the Far West. So, relatively minor changes in snowfall can significantly reduce skiing days and total industry revenue generation.

Region Specific Stresses

Regionally specific current stresses to the economy include ongoing water quality concerns about the Great Lakes (primarily Lakes Michigan and Erie) and continuing difficulties with the influx of invasive species. Both of these factors negatively affect the attractiveness of the biggest resource in the region – the Great Lakes. There are clear linkages between water quality and the appeal of water recreation. Areas that are perceived to be contaminated because of lowered water quality may reduce the attractiveness of fishing and pleasure boating. Additionally, tourism in the region continues to grow significantly across the board. This in turn is leading to resource overuse and will ultimately lessen growth of this sector unless additional resources (hotel rooms, campsites etc.) can be developed in response to demand.

With the exception of tourism drops in Minnesota during 1992-93 due to flooding and an exceptionally cold summer, the region has seen healthy growth in tourism during the 1990s. Even issues of concern like Great Lakes water quality have shown improvement from their difficulties twenty years ago [8-13].

Climate Change Related Stresses

Climate change in the form of rapidly rising temperatures over the next century will likely have significant effects on tourism in the upper Great Lakes region. Consider the following effects:

- Lengthened Tourist Season – Higher average temperatures translate into longer tourist seasons in the fall and spring. It is likely this will result in a longer season, especially in the fall, with increased economic activity.
- Warmer Lakes/Rivers: Reduced Fish Stocks – Both diversity of fish and total amount of fish is likely to decline as lakes and streams warm between 4-14°F [8-11].
- Great Lakes Whitefish – Less ice cover could cause rapid decline in whitefish population because of increasingly unprotected spawning areas
- Leaf Color Viewing Reduction – Higher temperatures (which may challenge species by pushing them beyond their preferred climate envelope) suggest a reduction of the quality of the leaf-related color tourism in the region through premature leaf fall off and overall species die-off [8-15].
- Winter Sport Reduction – Reduced ice coverage and snow depth will harm the ice fishing, snowmobiling and skiing industry [8-16].
- Increase in Exotic Species – Because colder winter temperatures have kept some of the exotic species at bay, increased temperature could greatly increase invasion of exotics [8-14].

It seems likely that a superposition of the impacts of climate change on top of current stresses will ultimately result in the greatest impacts. Therefore systemic responses will be the most important to understand and project. For instance, the combination of climatically challenged ecosystems within the most popular tourist destinations in conjunction with increased tour-

ist pressure could result in sudden and dramatic degradation of the sensitive ecosystems. In the long run, significant degradation of the region's tourist attractions could have economic consequences.

Similarly, increased development pressure in rural areas, particularly in areas around inland lakes and rivers, has led to more concentrated and more polluted storm water run-off. The added effect of dramatic warming of these water bodies will then more quickly drive the cold and cool-water species out of existence. Alleged replacement of these fish stocks with other angler-friendly species (e.g. walleye, pike) remains for the most part unsubstantiated.

Coping Strategies

During a review of the current stresses and impacts of future climate change a number of critical areas were identified that might need extra special coping strategies. Some of these strategies include:

- 1) Examine ecosystems carefully for stress impacts to look for indicators that growth and warming will have compounding negative consequences;
- 2) Manage tourism growth in areas that will benefit from climate change and in areas that will be hurt. For example, make sure that facilities are sufficient to take advantage of longer warmer summers while helping communities that are hurt by losses in winter sports;
- 3) Create policy initiatives that offset economic dislocation in areas and populations especially hard hit by the negative effects of lost tourism through climate change.