

### III. TIMBERING AND MICHIGAN FORESTLAND

#### A. Timber Management Trends

The forests of Michigan have long been a source of timber products. The nature of the forests has changed dramatically over the past 150 years and continues to change, and the timber products industry will evolve in response.

On the 18.6 million acres currently classified as timberland, several trends are worth noting. In the current forest, softwoods represent 25% and hardwoods 75% of the total acreage. Among forest types, maple-birch and aspen are predominant; pine, oak-hickory and elm-ash-soft maple follow in abundance. In terms of timber classes, sawtimber stands represent 46%; poletimber stands represent 30%; and seedling/sapling stands represent 24% of the total timberland acreage (MDNR 2002).

Forests are, in general, aging, and early successional species are giving way to late-successional species. Of note, aspen forests have declined from 4.2 million to 2.7 million acres between 1966 and 1993. Continued demand for aspen pulp and for management of wildlife species that prefer aspen should slow this decline. Overall, the growing stock has increased by roughly 35% to 27 billion cubic feet since 1980. Among forest types, red pine had the greatest average growing stock volume per acre over this period (U.S. Forest Service, 2002).

Annual timber growth has exceeded the volume of timber extracted from the forests for over 30 years, representing a “surplus” of wood. Michigan’s surplus is one of the largest in the country (USDA, Forest Service, North Central Research Station 2002), and if considered from a timber products perspective, represents an opportunity for increased output of products and an increase in economic benefits. The growth in volume also relates to the aging of the forest that creates additional opportunities for management for older forests and for conservation of large, unfragmented forest blocks and the associated species that proliferate only in large, mature forests. These two seemingly contradictory opportunities are both at risk of diminishment due to a number of threats and concerns.

#### B. Timber Product Output

Timber product output varies among counties, depending on the type, quality, and accessibility of timberlands and the demand for products. The output from any single county varies from year to year in response to these and other factors, but the relative amounts of output stay roughly the same. Total output of sawlogs in nine selected years from 1969 to 1994 varied considerably, from 4 MMBF in Bay County to 219 MMBF in Gogebic County (**Map 9**; USDA, Forest Service, North Central Research Station 2002). Total pulpwood outputs from 1970 to 1996 showed a similar but slightly different pattern among counties (**Map 10**). Six counties, all in southeast Michigan, had no recorded production of

pulpwood for this period. Marquette County, in contrast, produced over 5 million cords.

Timber products are a significant value derived from Michigan's forests. Michigan's potential to produce timber products, based on an increasing trend in volume, could increase or at least remain the same, if the oppositional trends of fragmentation and development can be avoided or prevented. The relative productivity of sawlogs and pulpwood is thus included in the criteria for Forest Legacy Areas.

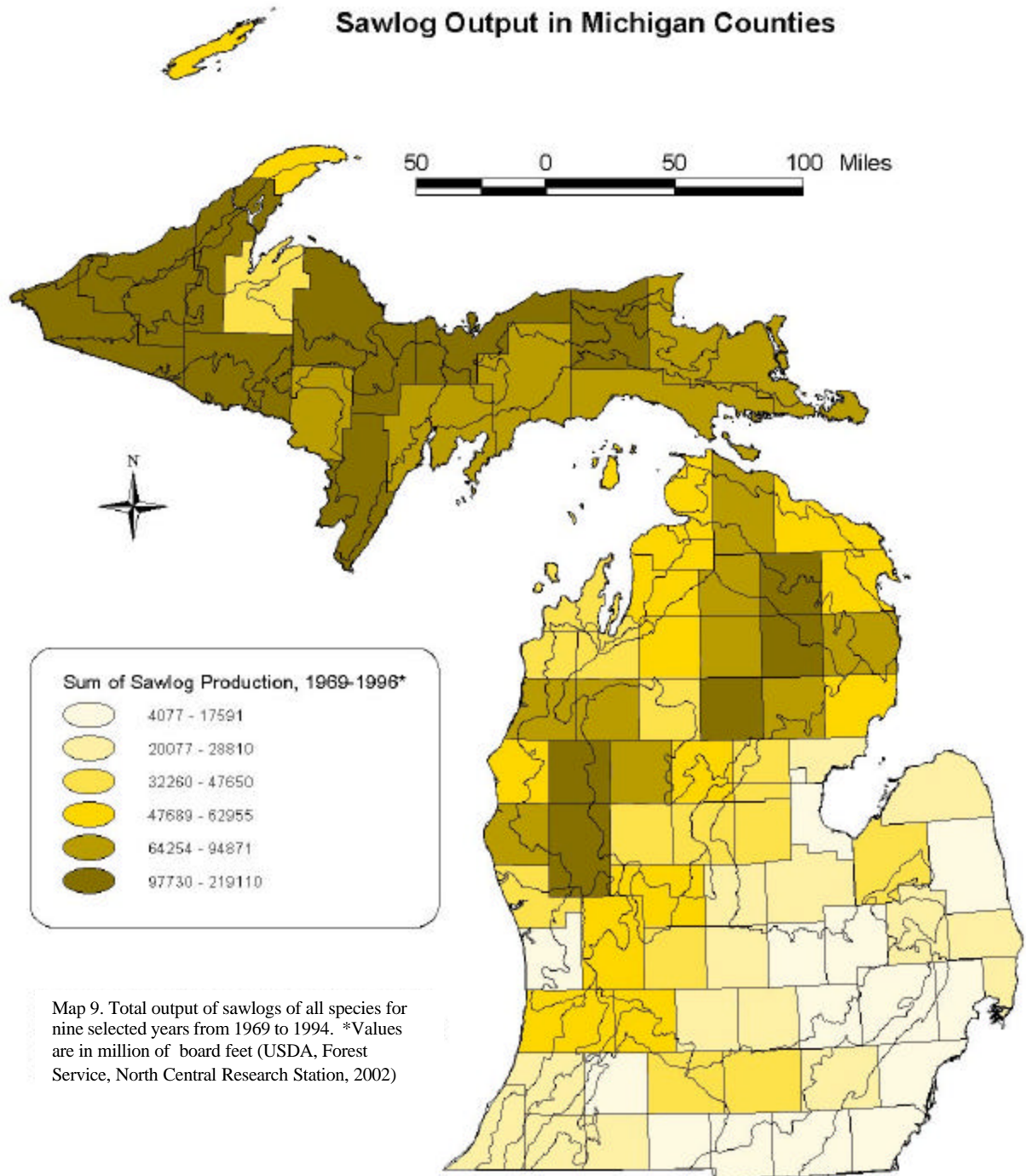
### **C. Economic Importance of Forests in Michigan**

Michigan's growing, aging forests contribute significantly to the economy of the State. The total estimated benefits (including recreation and tourism) to the economy exceed \$9 billion, and forest-based industry supports 150,000 jobs in the State (Moore and Rockwell 2001). Over 2,600 businesses in Michigan are engaged in this industry, including five firms with over 1,000 employees (MDNR 2002) and nearly 400 companies with annual sales in excess of \$1 million. Included among these businesses are mills of various types: 273 sawmills, 4 veneer mills, 8 pulp mills, 4 particleboard mills, 10 post, pole, and piling mills, and 19 other mills scattered around the State (USDA, Forest Service, North Central Research Station 2002).

The extent to which an economy depends on wildland resources varies among counties but is, in Michigan, a fairly good indicator of the importance of forests to the State's economy, especially in counties that are mostly forested. Economic dependency in the form of direct benefits varies from 0 percent in Genesee and Midland Counties to 49 and 50 percent in Alger and Ontonagon Counties, respectively (**Map 11**; Stewart et al. 1996).

Economic dependency is a good indicator of the importance of forests and other wildlands to a *local* economy. The criteria for selecting Forest Legacy Areas include the percentage of this economic dependency (see section on criteria for details).

## Sawlog Output in Michigan Counties



## Pulpwood Output in Michigan

