

Image credit: Paul Wray, Iowa State University, Bugwood.org

# Iowa's Forest Resources, 2007

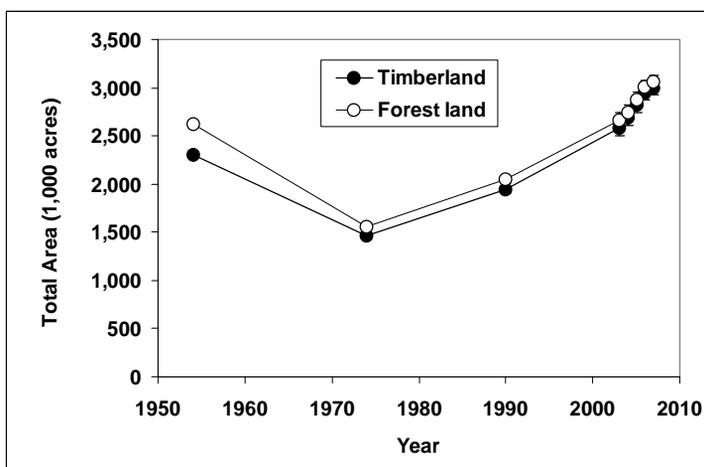
Research Note NRS-33

This publication provides an overview of forest resource attributes for Iowa based on an annual inventory conducted by the Forest Inventory and Analysis (FIA) program of the U.S. Forest Service, Northern Research Station. These estimates, along with web-posted core tables, are updated annually. For more information please refer to page 4 of this report.

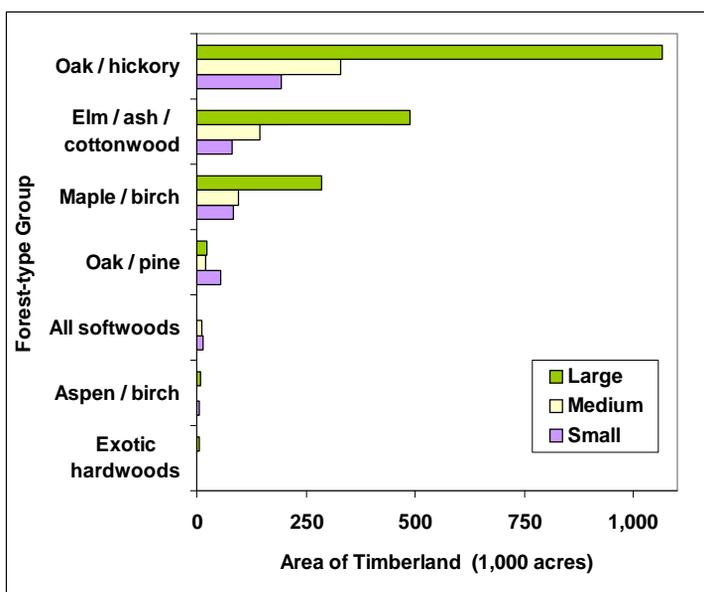
**Table 1.—Annual estimates and sampling errors, Iowa, 2007.**

	Estimate	Sampling error (%)
<b>Forest Land Estimates</b>		
Area (1,000 acres)	3,054	2.2
Number of live trees 1-inch diameter or larger (1,000,000 trees)	1,176	4.0
Biomass of live trees 1-inch diameter or larger (1,000 tons)	118,716	3.7
Net volume of live trees (1,000,000 ft <sup>3</sup> )	4,244	4.5
Annual net growth of live trees (1,000 ft <sup>3</sup> /year)	152,919	9.0
Annual mortality of live trees (1,000 ft <sup>3</sup> /year)	57,310	9.8
Annual harvest removals of live trees (1,000 ft <sup>3</sup> /year)	27,127	24.6
Annual other removals of live trees (1,000 ft <sup>3</sup> /year)	26,400	27.7
<b>Timberland Estimates</b>		
Area (1,000 acres)	2,997	2.3
Number of live trees 1-inch diameter or larger (1,000,000 trees)	1,152	4.1
Biomass of live trees 1-inch diameter or larger (1,000 tons)	114,343	3.6
Net volume of live trees (1,000,000 ft <sup>3</sup> )	4,071	4.3
Net volume of growing-stock trees (1,000,000 ft <sup>3</sup> )	2,986	5.2
Annual net growth of growing-stock trees (1,000 ft <sup>3</sup> /year)	113,577	9.7
Annual mortality of growing-stock trees (1,000 ft <sup>3</sup> /year)	35,576	13.0
Annual harvest removals of growing-stock trees (1,000 ft <sup>3</sup> /year)	19,874	28.0
Annual other removals of growing-stock trees (1,000 ft <sup>3</sup> /year)	47,262	55.7

Note: Sampling errors and error bars shown in the tables and figures in this report represent 68% confidence intervals for the estimated values. Volumes are for 5-inch and larger diameter trees.



**Figure 1.—Area of timberland and forest land in Iowa by year.**

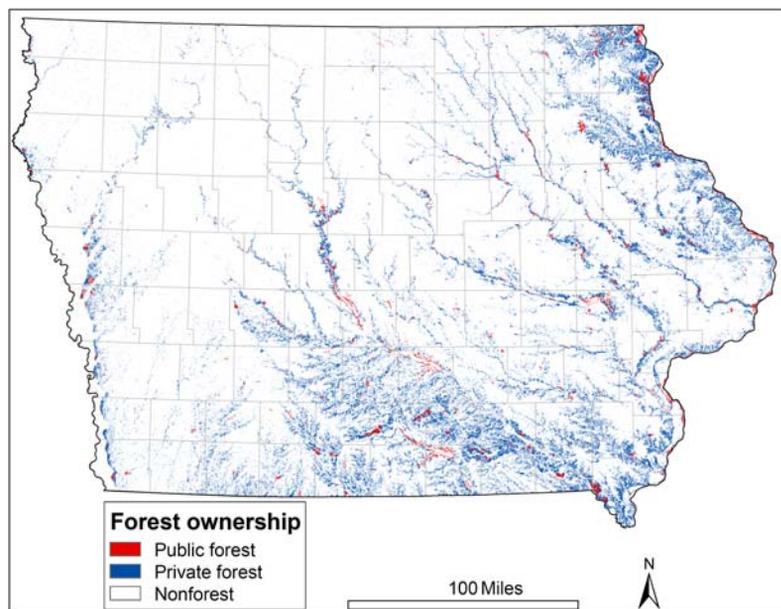


**Figure 2.—Area of timberland by top seven forest-type groups and stand-size class, Iowa, 2007.**

Note: Large diameter trees are at least 11.0 inches diameter for hardwoods and at least 9.0 inches diameter for softwoods. Medium diameter trees are at least 5.0 inches diameter but smaller than large diameter trees. Small diameter trees are less than 5.0 inches diameter. Additional details are available in USDA Forest Service (2005).

**Table 2.—Top 10 tree species by statewide volume estimates, Iowa, 2007.**

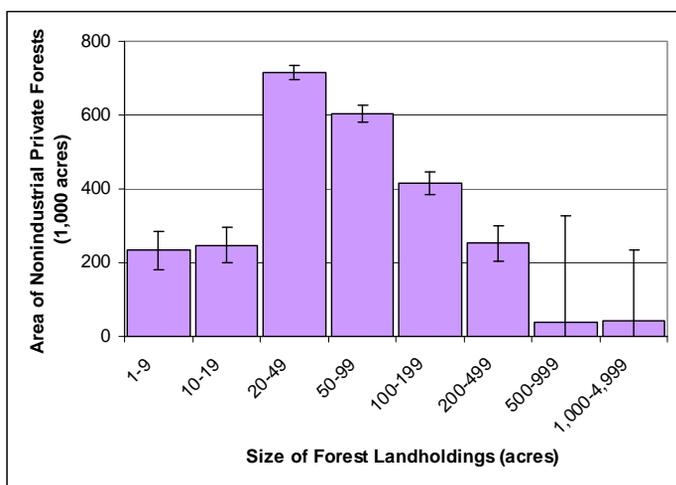
Rank	Species	Volume of live trees on forest land (1,000,000 ft <sup>3</sup> )	Sampling error (%)	Change since 2006 (%)	Volume of sawtimber trees on timberland (1,000,000 board feet)	Sampling error (%)	Change since 2006 (%)
1	Silver maple	516.2	20.2	4.3	1017.8	20.1	-7.2
2	Bur oak	434.6	11.7	-6.7	1015.1	14.7	-7.9
3	Cottonwood	372.2	31.5	2.0	1549.5	31.4	0.1
4	White oak	351.0	13.5	-0.9	1179.1	15.2	-1.1
5	Black walnut	266.9	12.5	2.5	912.2	15.1	2.4
6	Northern red oak	257.1	15.3	-1.2	965.3	17.7	-1.6
7	American elm	245.2	8.0	3.8	359.5	15.6	7.4
8	American basswood	193.0	15.6	0.3	634.8	18.5	-3.5
9	Hackberry	186.5	13.1	0.9	485.6	16.2	1.7
10	Shagbark hickory	159.2	12.0	-2.7	410.0	15.4	-6.5
	Other softwood species	44.8	16.3	-5.9	79.4	23.8	-24.7
	Other hardwood species	1217.2	4.8	2.5	2369.1	7.5	0.7
	<b>All species</b>	<b>4243.9</b>	<b>4.5</b>	<b>0.8</b>	<b>10977.6</b>	<b>6.1</b>	<b>-1.8</b>



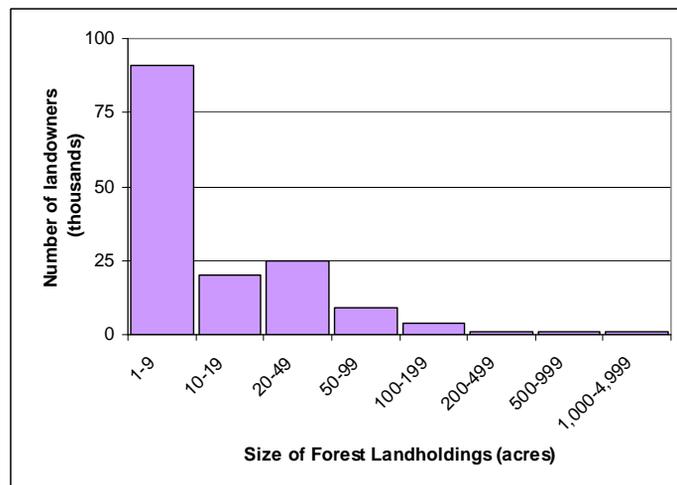
**Figure 3.—Distribution of forest land by public (0.469 million acres) and private (2.586 million acres) owner groups, Iowa.**

Projection: UTM Zone 15N, NAD83.

Data sources: forest/nonforest - U.S. Forest Service, 2001 forest-type groups map, (Ruefenacht et al. 2008); ownership - Conservation Biology Institute, Protected Areas Database, 4.5; basemap - ESRI Data & Maps.



**Figure 4.—Area of nonindustrial private forest land by size of forest landholding, Iowa, 2006. Data were derived from Butler (2008).**



**Figure 5.—Number of nonindustrial private forest landowners by size of forest landholding, Iowa, 2006. Data were derived from Butler (2008).**

# Issue Update: Nonnative Invasive Plants in Iowa

Nonnative invasive plants (NNIP) pose a serious threat to Iowa's forest ecosystems. Undesirable plants reduce ecosystem diversity and degrade wildlife habitat by displacing native plants. More than one-third of Iowa's family forest owners consider undesirable plants as a concern that is either very important or important – the highest ranking forest health concern identified by Iowa landowners in the National Woodland Owner Survey (Butler 2008).

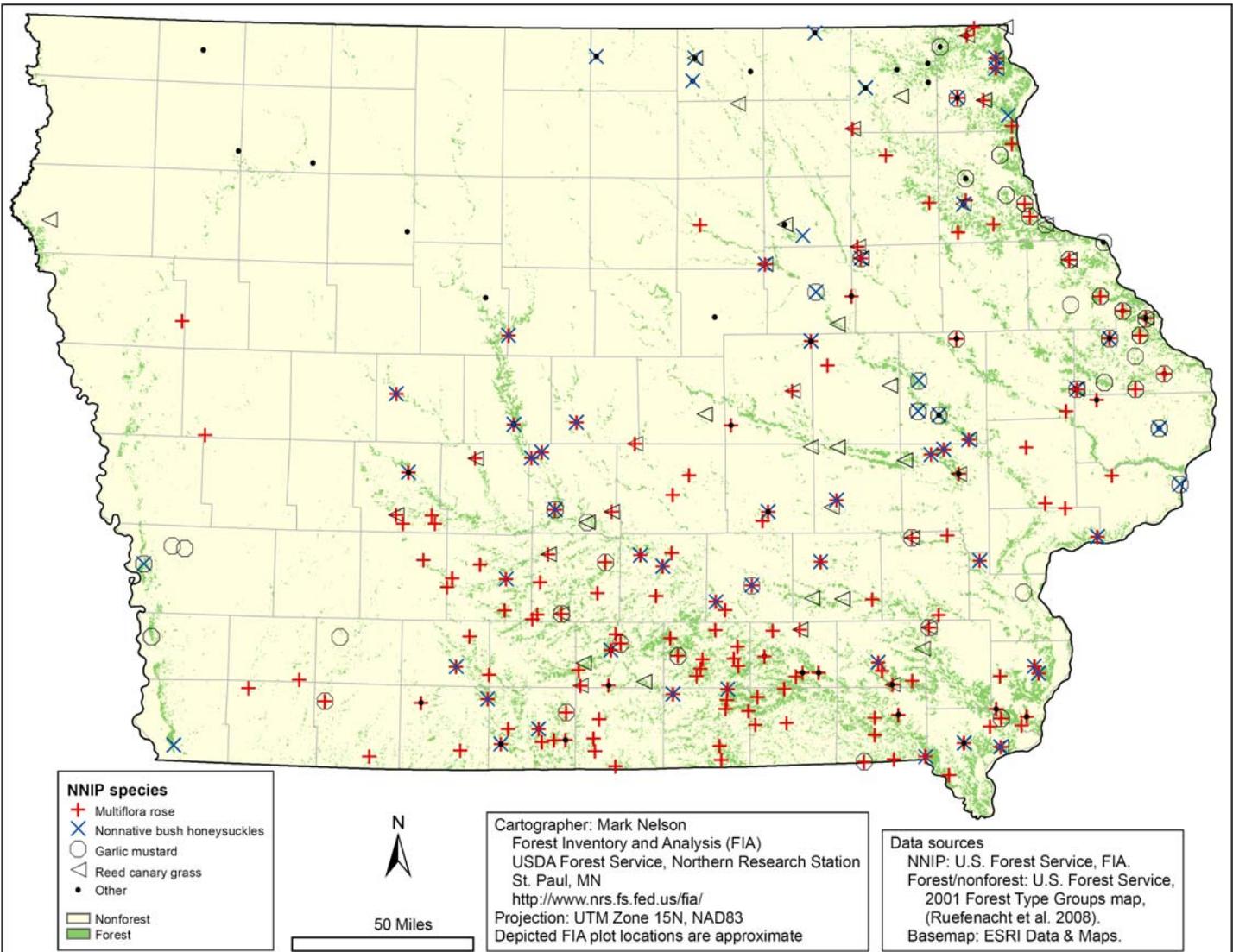
During 2005 and 2006, all FIA Phase 2 forested plots were assessed for the presence and cover of any of 25 NNIP species of plants — woody, herbaceous, grasses, and vines. Beginning in 2007, approximately 20 percent of forested plots were sampled each year for NNIP and the list was expanded to include 43 NNIP species.

During 2005-2007 inventory years, field crews observed 15 species of NNIP, on 76 percent of Iowa plots. Multiflora rose (*Rosa multiflora*) was the most pervasive, recorded on 57 percent of plots. Other commonly observed NNIP species included nonnative bush honeysuckles (*Lonicera spp.*, 20%), garlic mustard (*Alliaria petiolata*, 16%), and reed canary grass (*Phalaris arundinacea*, 16%).



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**Figure 6.—Multiflora rose (*Rosa multiflora*).**  
Photograph by James H. Miller, U.S. Forest Service, Bugwood.org.



**Figure 7.—Nonnative invasive plants observed on forested inventory plots in Iowa, 2005-2007.**

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