

Management for Healthy Forests

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The Importance of Forests

- Soil quality
- Water quality
- Crucial habitat



The Threat of Suburbia

- Human tendency to move outward
- Need for energy
- Ecosystem fragmentation
- Impervious surfaces
- Soil disturbance





Boston Globe

CT Post

Science 360 News

Living in the Anthropocene

- (Anthro-pocene) Human-age
- Human actions shape most natural ecosystems

How do we promote forest health in an the age of humans?



Forest Management

- Passive management
 - Relying on natural processes
- ACTIVE management
 - Identifying crucial ecosystem services
 - Mimicking natural processes





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The Forest Management Plan

- Based on *objectives*
 - Timber production
 - Wildlife
 - Recreation
 - Forest health
- Current condition of forest resources
- Prescriptions to meet objectives



Managing for Forest Health

- Vigorously growing trees
 - Height and growth habit
 - Robust crown foliage
- Native vegetation
- Low instance of disease and harmful insects
- Presence of beneficial insects
- Density and stand structure



Managing for Forest Health

A forest that is capable of sustaining its native species composition and ecosystem services.



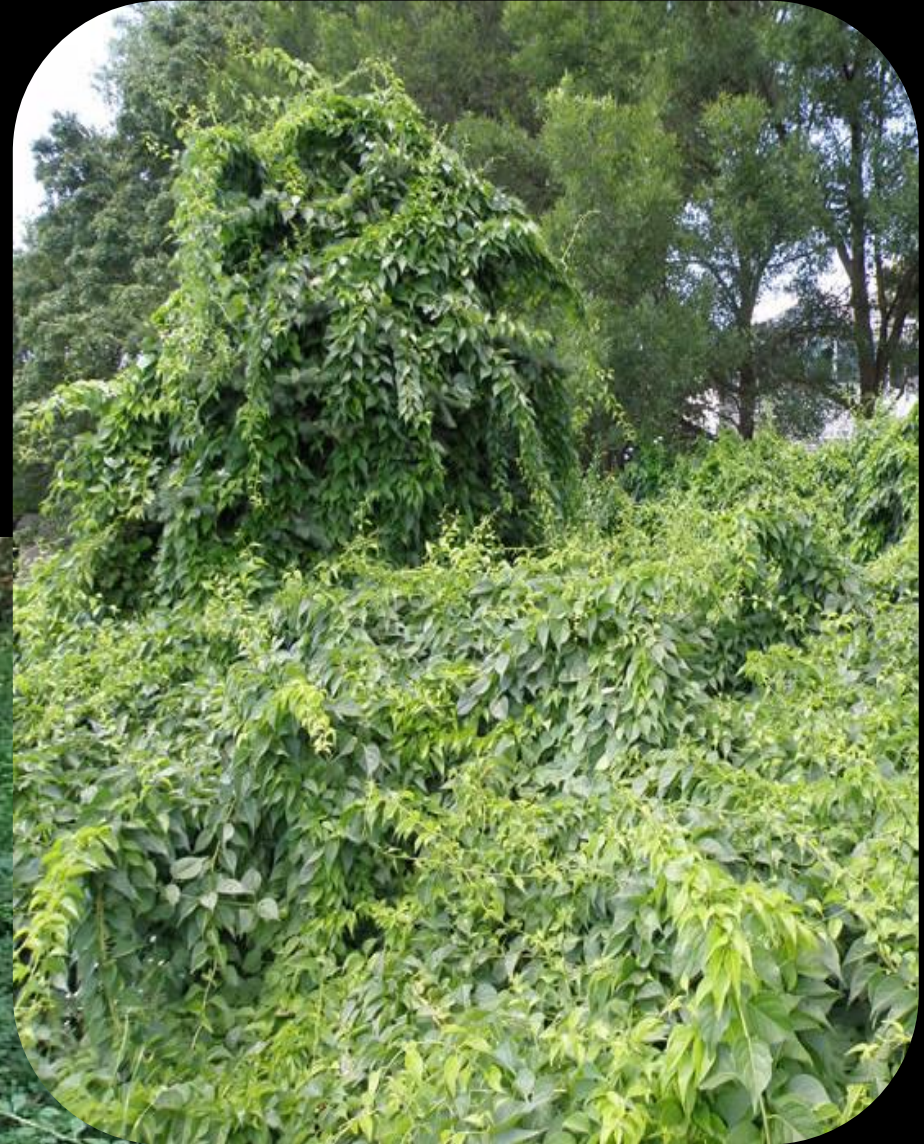
Actively Managing for Forest Health

- Eradicate invasive species
- Use silvics to understand forest species
- Promote native wildlife
- Be aware of new insect and disease threats
- Monitor results



Invasive Species

- Early colonizers
- Grow in monoculture
- Nutritionally poor
- Difficult to eradicate





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Forest Health and Wildlife

- High-quality habitat and forage
 - Mammals & birds
 - Reptiles & amphibians
 - Insects (including pollinators!)



Native Bees of New England



Virginia Herpetological Society



The New York Times



USDA - APHIS



XERCES SOCIETY

for Invertebrate Conservation

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USDA-NRCS



NC State Extension



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