

Control of Invasive Plants on the ORR

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16 November 2006

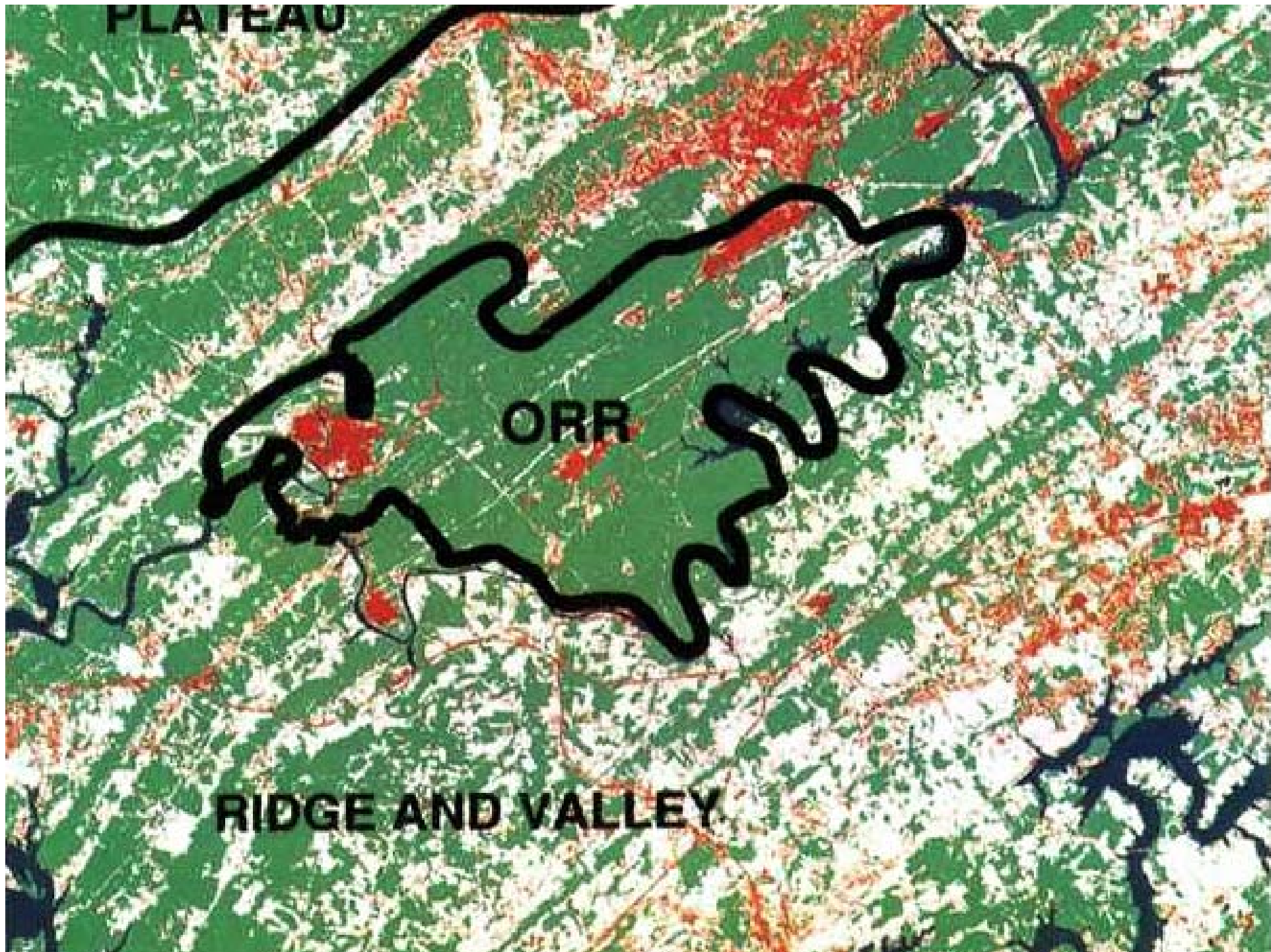


(ORNL photo)

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(All photos by Harry Quarles unless indicated otherwise.)


November 2006 (1)



Ancient Forest



(Photo by Mike Ryon)

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November 2006 (3)

Cedar Barrens



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(ORNL photo)

Limestone Bluffs



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(ORNL photo)

Throughfall displacement experiment



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UT-BATTELLE
November 2006 (6)

An invasion is underway by autumn olive, a species alien to the ecosystem



Kudzu invades edge of forest



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November 2006 (8)

Kudzu onshore in winter



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(Photo by Mike Ryon)


UT-BATTELLE
November 2006 (9)

Japanese stilt grass spreads through the ORR



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(ORNL photo)

Chinese privet occupies the edge.



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(Above photo by James H. Miller, USDA Forest Service. Invasive Plants of the Eastern United States CD-ROM. 2003.)



November 2006 (11)

ORR Invasive Plant Management Plan

↪ Surveys and Monitoring

↪ Targeting Strategy (species, dispersal corridor, area)

↪ Prioritization

↪ Control (by ORNL, contractors)

- 98 acres treated in '03
- 136 acres treated in '04
- 125 acres treated in '05
- 240 acres treated in '06

↪ Restoration / Maintenance - as necessary

Tree-of-heaven



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**(Photo by David J. Moorhead, The University of Georgia.
Invasive Plants of the Eastern United States CD-ROM. 2003.)**

Tree-of-heaven is stimulated by cutting.



A high volume herbicide application



Some lower volume techniques . . .



(Photo to left by Elizabeth Wright.)

Thorny olive selectively removed from edge of woods



Selective control for Chinese yam



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November 2006 (18)

Removal of invasive plants along the Y-12 security boundary



Princess tree damages pavement



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(Y-12 photo.)


UT-BATTELLE
November 2006 (20)

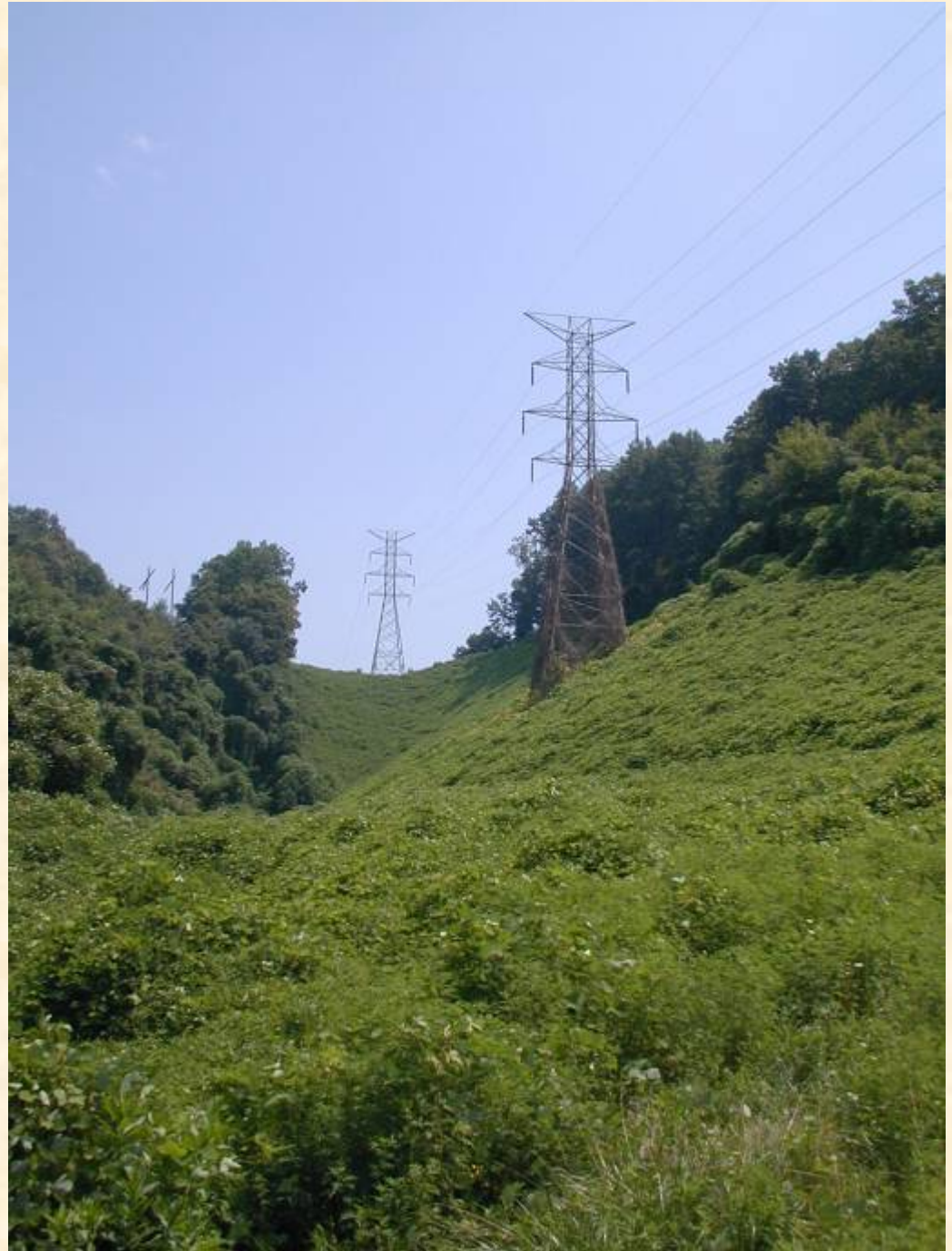
Kudzu encroachment on K-25 railroad spur



Operations problems caused by kudzu; note growth up base of large tower.



(Photo at right by Pat Parr.)



K-25 Patrol Road



A sea of kudzu. Note hose in foreground, spray personnel in background



Reclaiming this . . .



As this . . . a work in progress



Controlling invasive plants at the Wheat Community African Burial Ground



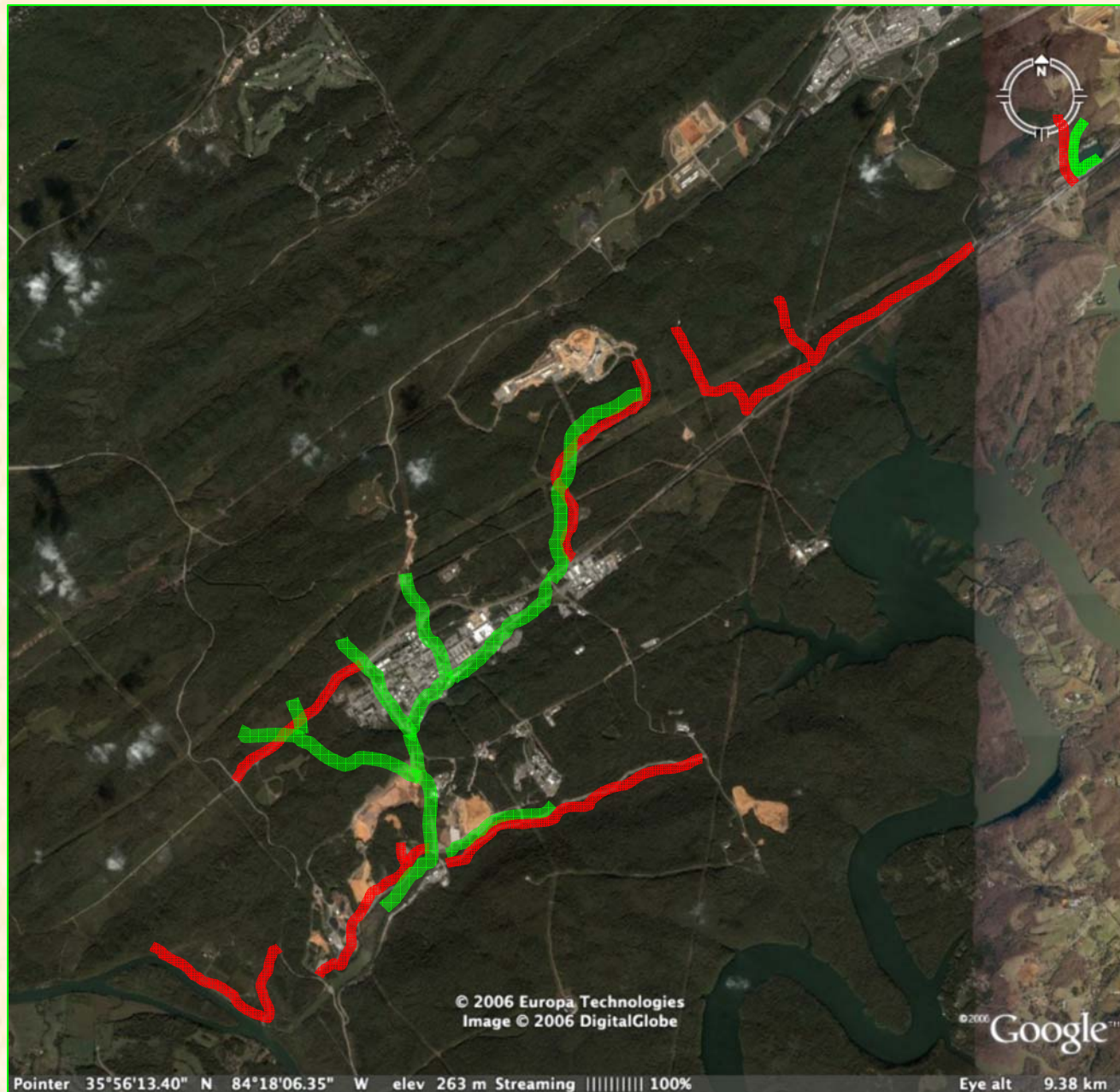
**Watershed
&
Roadside
Treatment
in Summer
2006**

**Spray applied
= 1,160
gallons**

**Streambank
miles treated
= 13.6**

**Roadside
miles treated
= 15.9**

**Aerial Photo
by
Google
Earth**



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(modified by Harry Quarles)

Water courses spread invasive seeds.



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White Oak Creek through central ORNL before treatment



White Oak Creek riparian zone after treatment



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A current focus: retard the spread of autumn olive



Controlling invasive and promoting native species



(Photo at left
by Mike Ryon)

