USDA Forest Service - LTER Cooperation

- Six LTER sites
- MOU current thru FY2000
- Long history
- Mutual benefits
- Future plans
History

• 1897: Forest Service mandated to provide:
  • “favorable conditions of water flows”
  • “continuous supply of timber”

• Experimental forests established

• Long-term studies of forestry & hydrology

• Evolved into integrated ecosystem studies
H. J. Andrews Experimental Forest
# 50 years of H.J. Andrews Experimental research and its context

<table>
<thead>
<tr>
<th>Year</th>
<th>Theme</th>
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<tbody>
<tr>
<td>1948</td>
<td>Blue River Experimental Forest established 1948 named H.J. Andrews Experimental Forest 1953</td>
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<td>IBP LTER 1 LTER 2 LTER 3 LTER 4</td>
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## Research Areas

- **Biodiversity/Arthropods**
- **Decomposition/C dynamics**
- **Soils**
- **Vegetation Succession**
- **Hydrology/small watersheds**
- **Forest-stream interactions**
- **Disturbance Landscape**

## Key Dates

- **1948**: Blue River Experimental Forest established 1948, named H.J. Andrews Experimental Forest 1953
- **1950s**: IBP LTER 1 LTER 2 LTER 3 LTER 4
- **1960s**: IBP LTER 1 LTER 2 LTER 3 LTER 4
- **1970s**: IBP LTER 1 LTER 2 LTER 3 LTER 4
- **1980s**: IBP LTER 1 LTER 2 LTER 3 LTER 4
- **1990s**: IBP LTER 1 LTER 2 LTER 3 LTER 4
- **1998**: IBP LTER 1 LTER 2 LTER 3 LTER 4

## Research Themes

- Management efficiency
- Environmental protection
- Clearcutting cumulative effects of management
- Old growth
- Species conservation
- Global change

## Research Context

- Forestry research
- IBP LTER 1 LTER 2 LTER 3 LTER 4
Experimental Forest LTER’s

- Five experimental forests competitively selected as LTER’s:
  - Coweeta, NC
  - H. J. Andrews, OR
  - Hubbard Brook, NH
  - Bonanza Creek, AK
  - Luquillo, PR
New Addition: Baltimore Urban LTER

- New departure for the FS
- FS support of $800K per year
- Social science a major emphasis
- Diverse partnerships
Benefits of Forest Service-LTER Cooperation

- Magnets for support
- Incubators of scientists
- Basic knowledge & informing the public
- Model of networking
- Validated ecological models
- Science base for management & policies
- High Quality
Future Plans

- Renew MOU
- FS Partnerships in RFP’s
- Inter-site comparisons
- Networks of index sites
- Landscape experiments
- Regional-scale assessments
- Monitoring-research framework
Framework for Integrating the Nation’s Environmental Monitoring and Research

- National Forest System Inventories for Projects & Plans
- Inventories & Remote Sensing Programs
- National and Regional Resource Surveys
- Research
- Res.
- Intensive Sites

Integration Through Research
Integration Through Modeling
Increasing Numbers of Sites
Increasing Spatial Representation
Increasing Site Characterization