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Riparian Areas: Conditions, Implementation and Effectiveness

Oregon Plan Habitat Team

Habitat Factors For Decline

- Channel Form
- Substrate
- Roughness
- Estuaries and Wetlands
- **Riparian Areas**
- Water Quality
- Stream flow
- Passage
- Habitat Elimination

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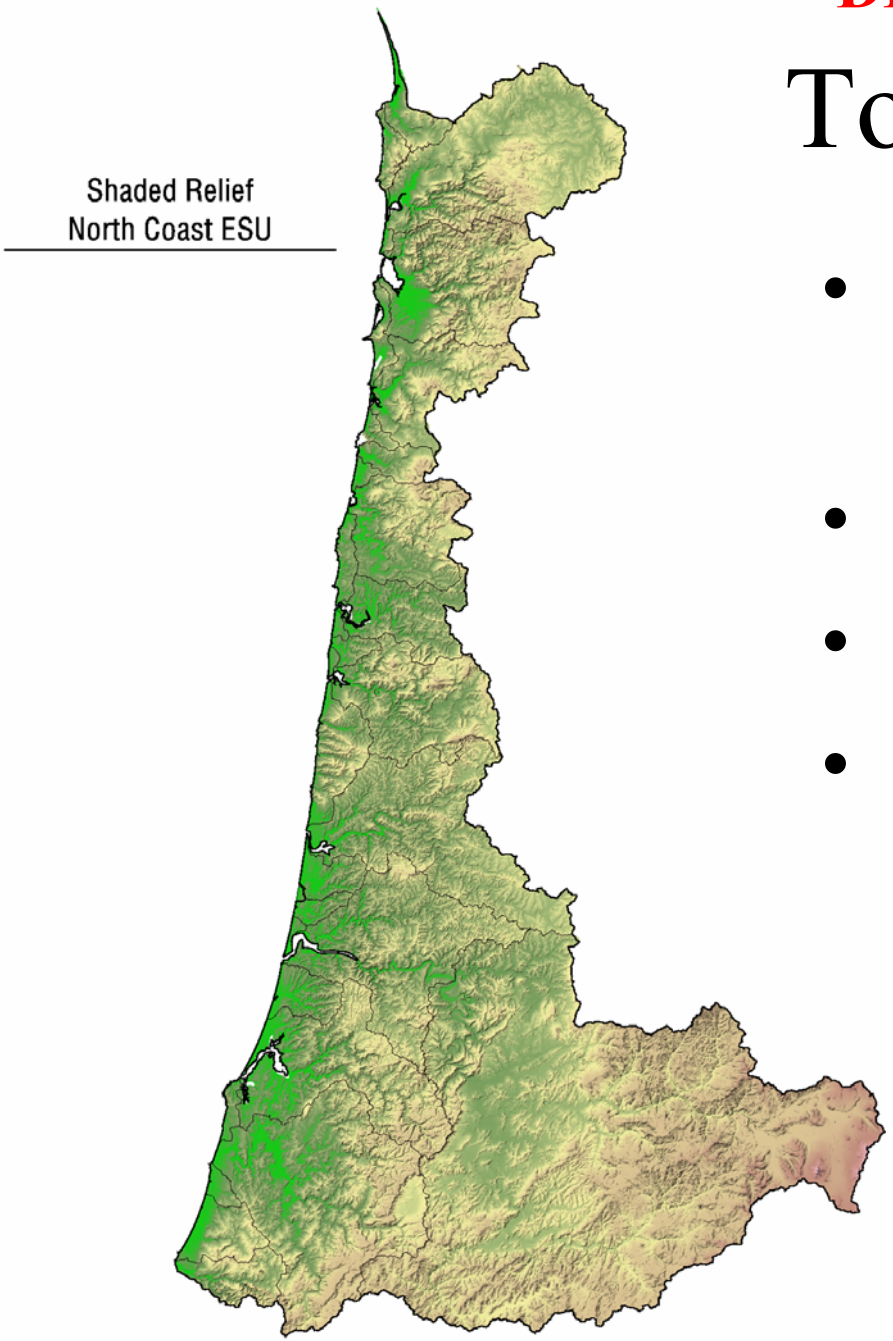

Today's Presentation

- Status and Trend Analysis
  - Findings
- Implementation
- Effectiveness
- Conclusions

Status and Trend Analysis

- ODF&W Aquatic Habitat Surveys
- Data Sources and Methods have been described

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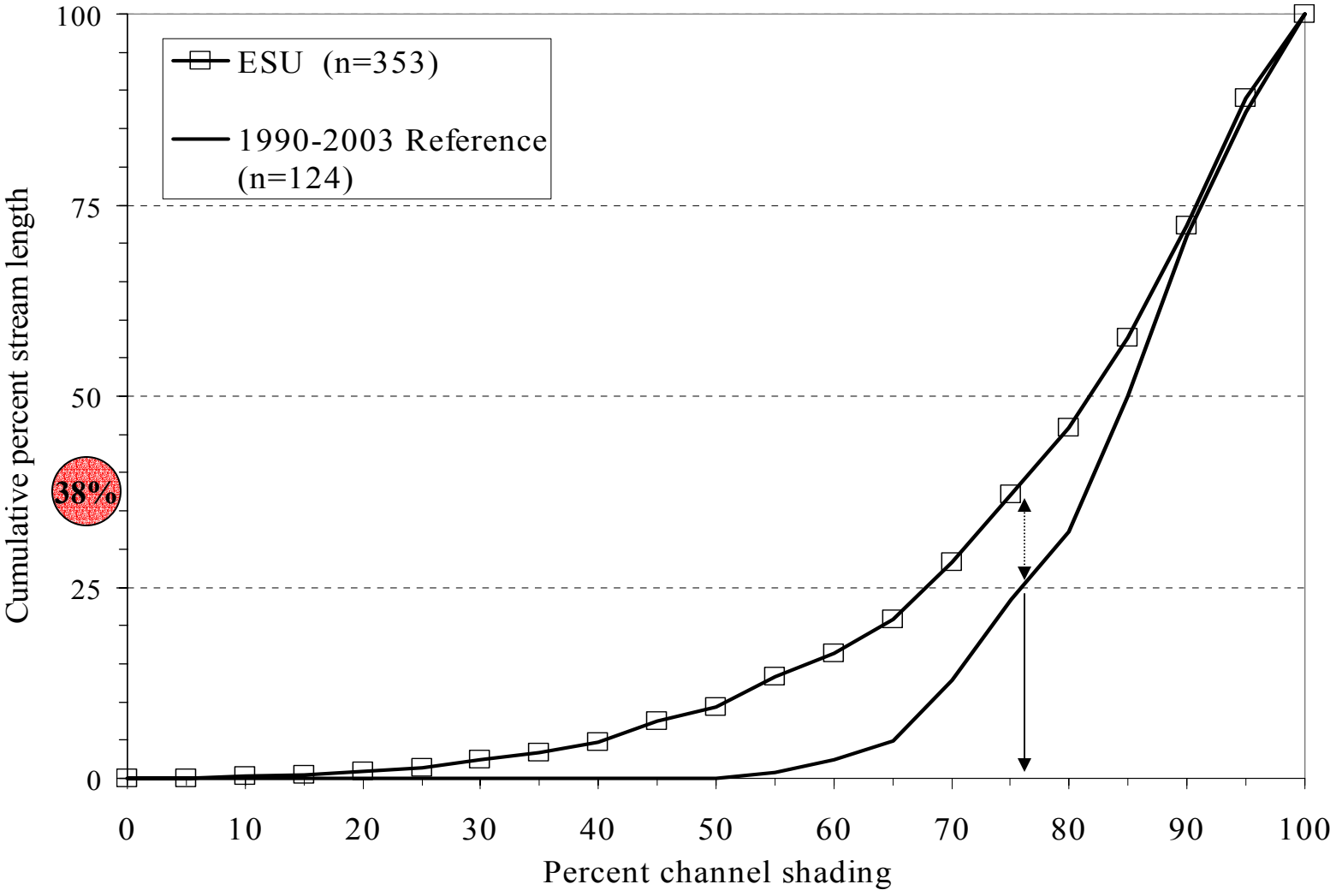
Shade Conditions: Random And Reference



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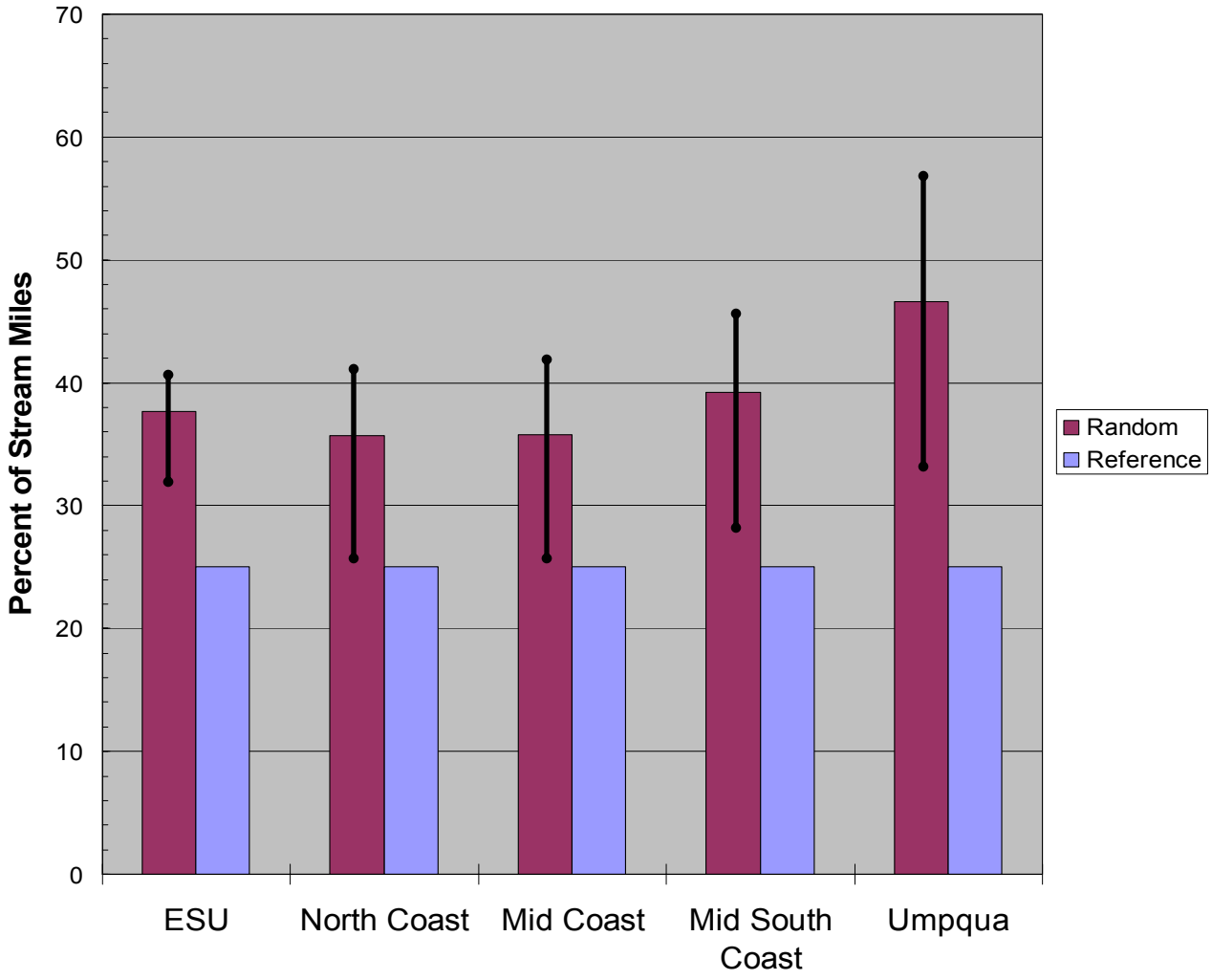
Percent of Streams in "Lower" Shade Conditions: Monitoring Unit



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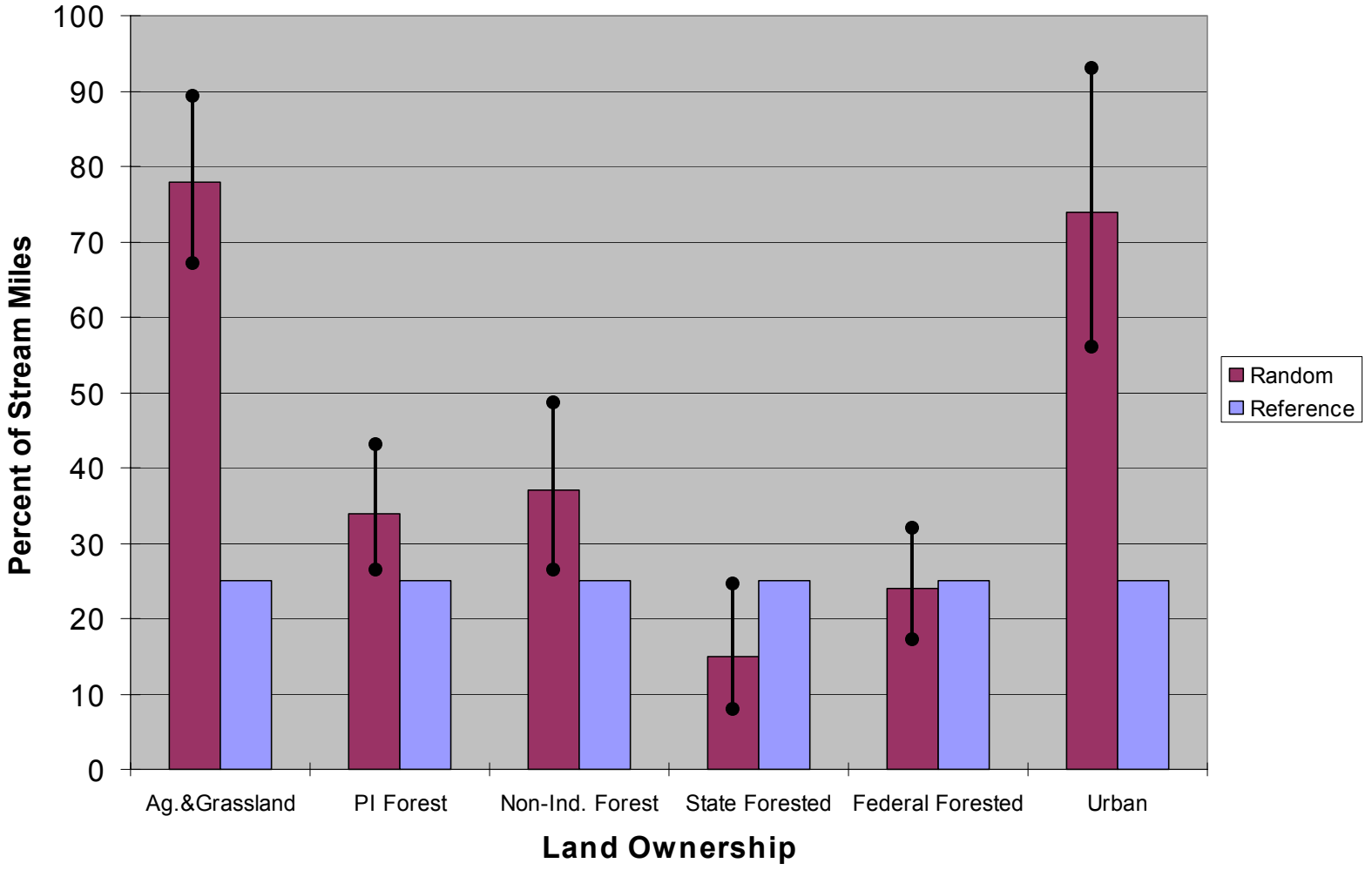
Percent of Coho Stream Miles in "Lower" Shade Conditions: Land Ownership



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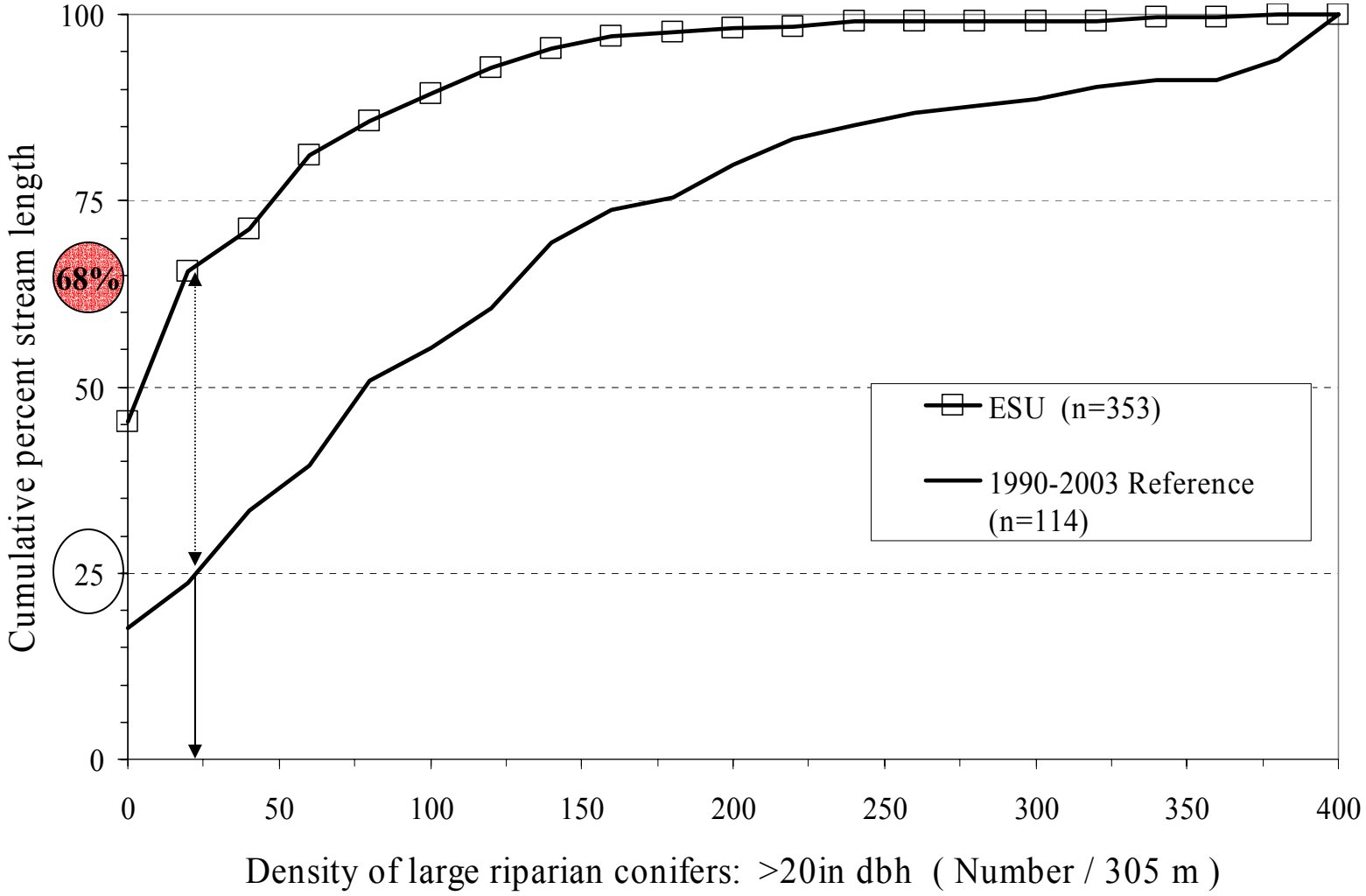
Density of Large Riparian Conifers



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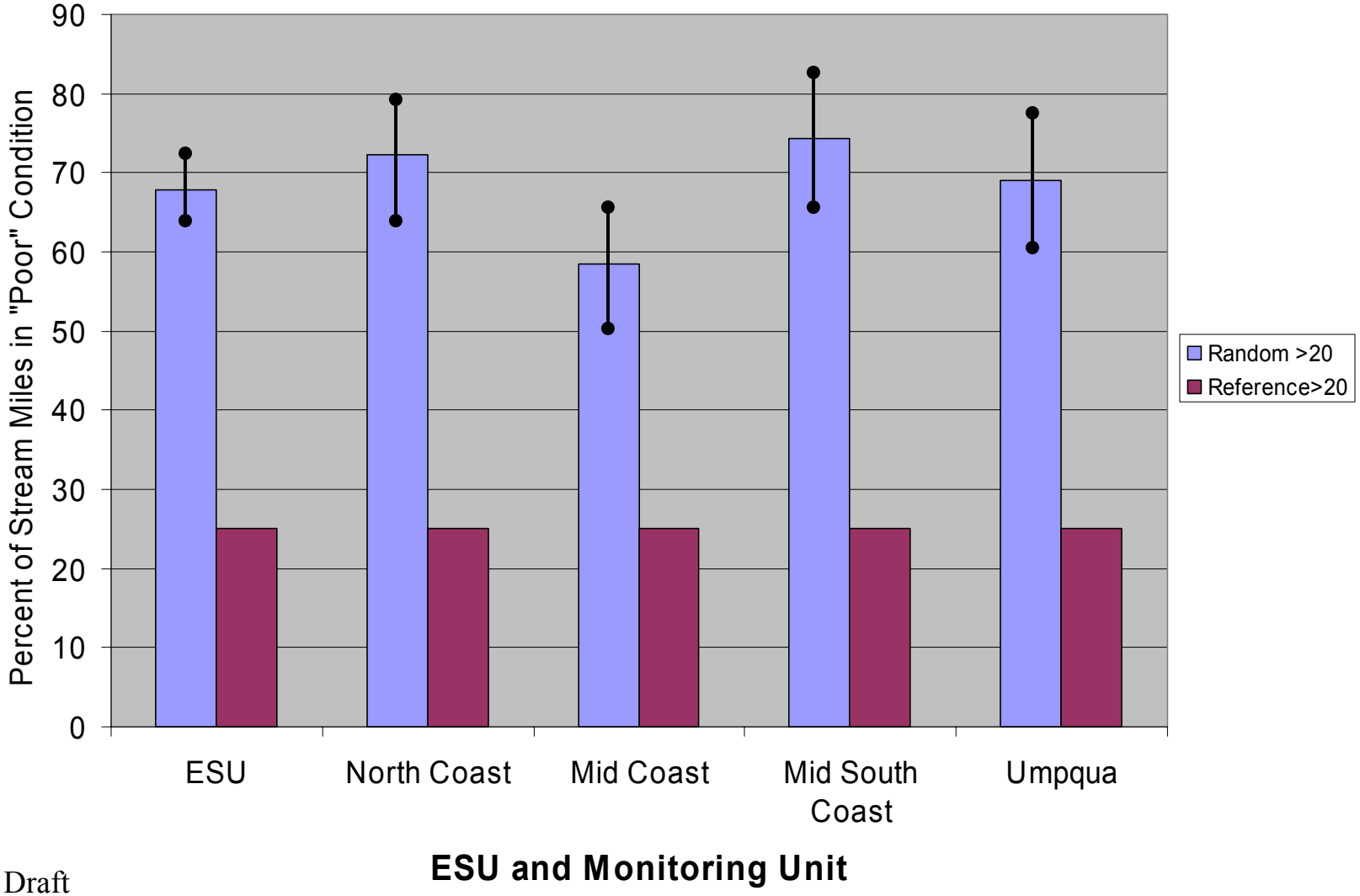
Percent of Streams with “Low” levels of Large Conifers (>20”) By Monitoring Unit



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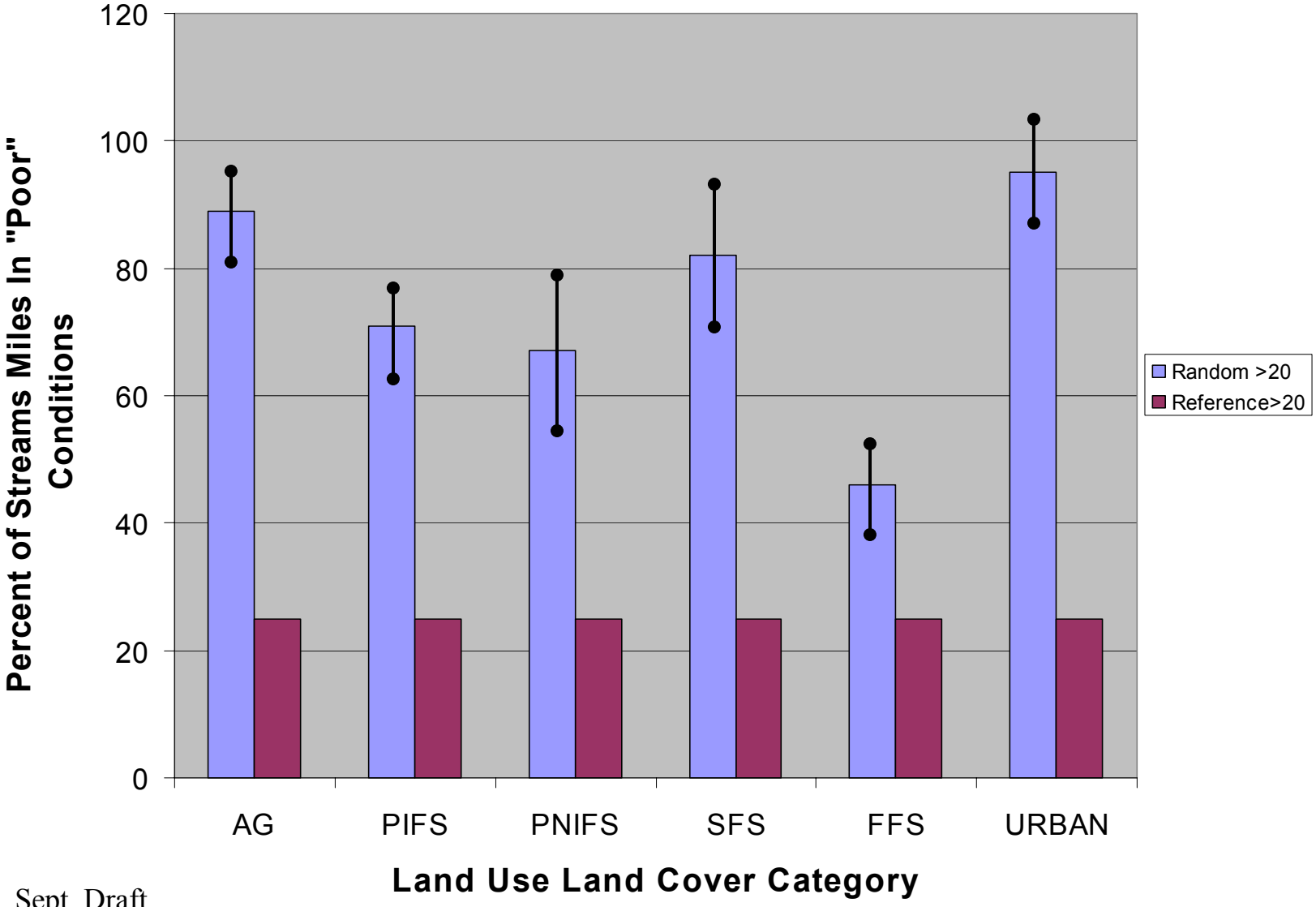
Percent of Streams with Low Levels of Large (>20") Conifer Trees: By Land Ownership



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Status of Riparian Conditions in the Coastal ESU

Spatial Scale	% Shade	conifer >20 in	conifer >30 in
ESU			
North Coast			
Mid Coast			
Mid-South Coast			

Color Key

Significantly Better Than Reference Conditions

Similar To Reference Conditions

Significantly Worse Than Reference Conditions

Status of Riparian Conditions in the Coastal ESU: By Land Use

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Landuse	% Shade	Con>20	Con>35
Ag.&Grass			
Federal Forested			
PVT Forested			
PVT NonInd Forest			
State Forested			
Urban			

Color Key

- **Significantly Better Than Reference Conditions**
- **Similar To Reference Conditions**
- **Significantly Worse Than Reference Conditions**

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Restoration Actions: Implementation

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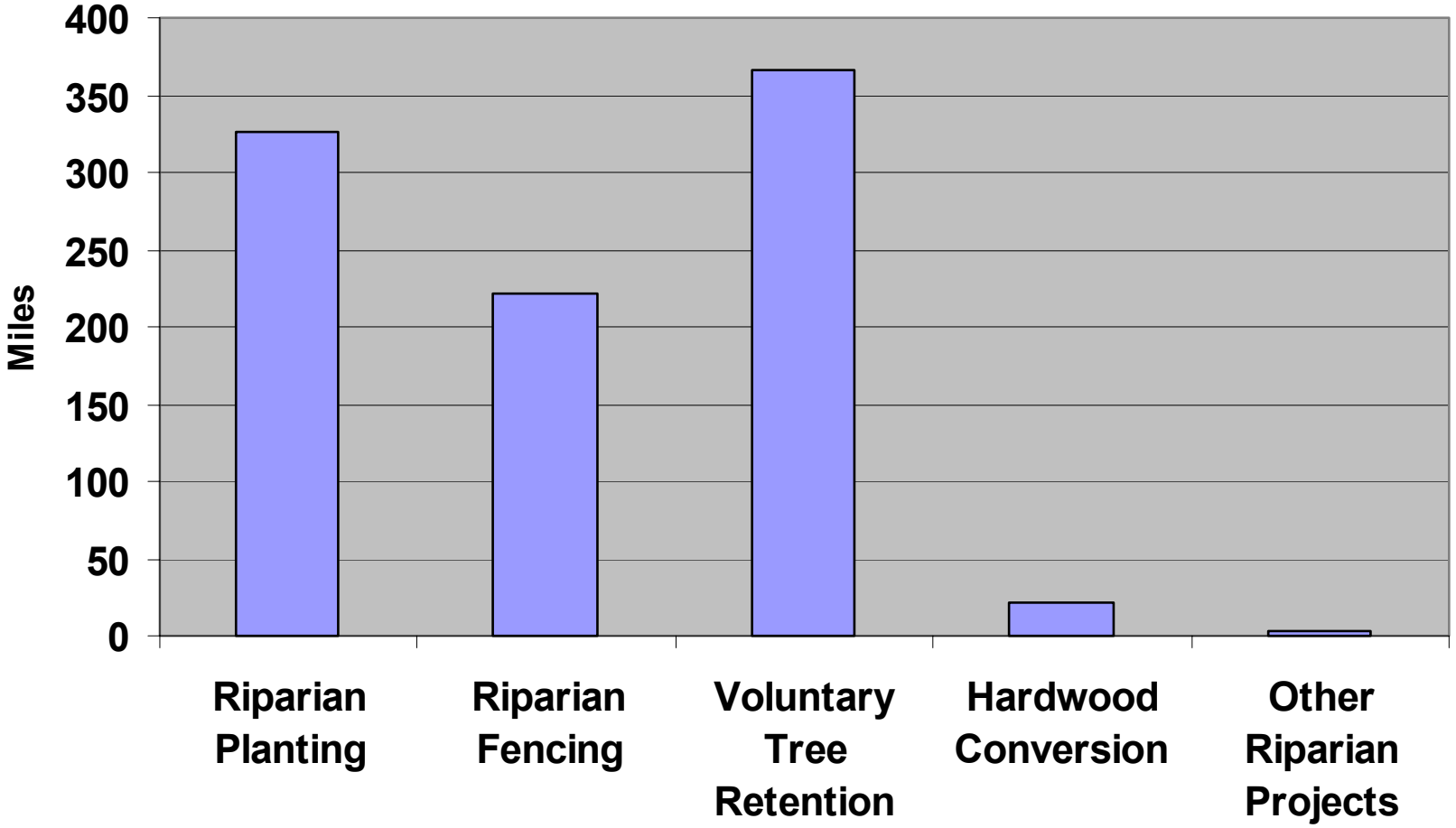
Riparian Restoration Projects

1372 projects, 938 miles



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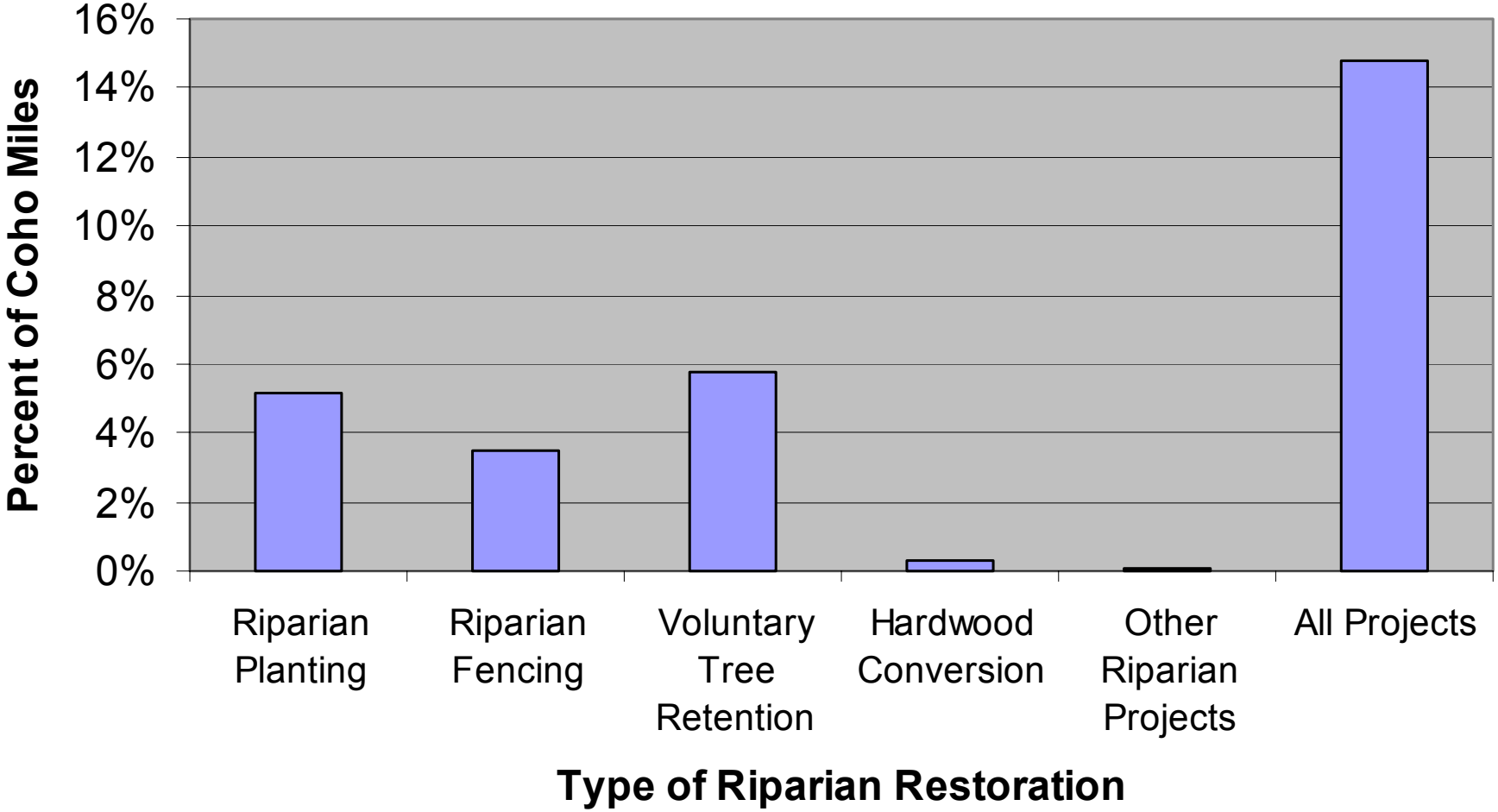
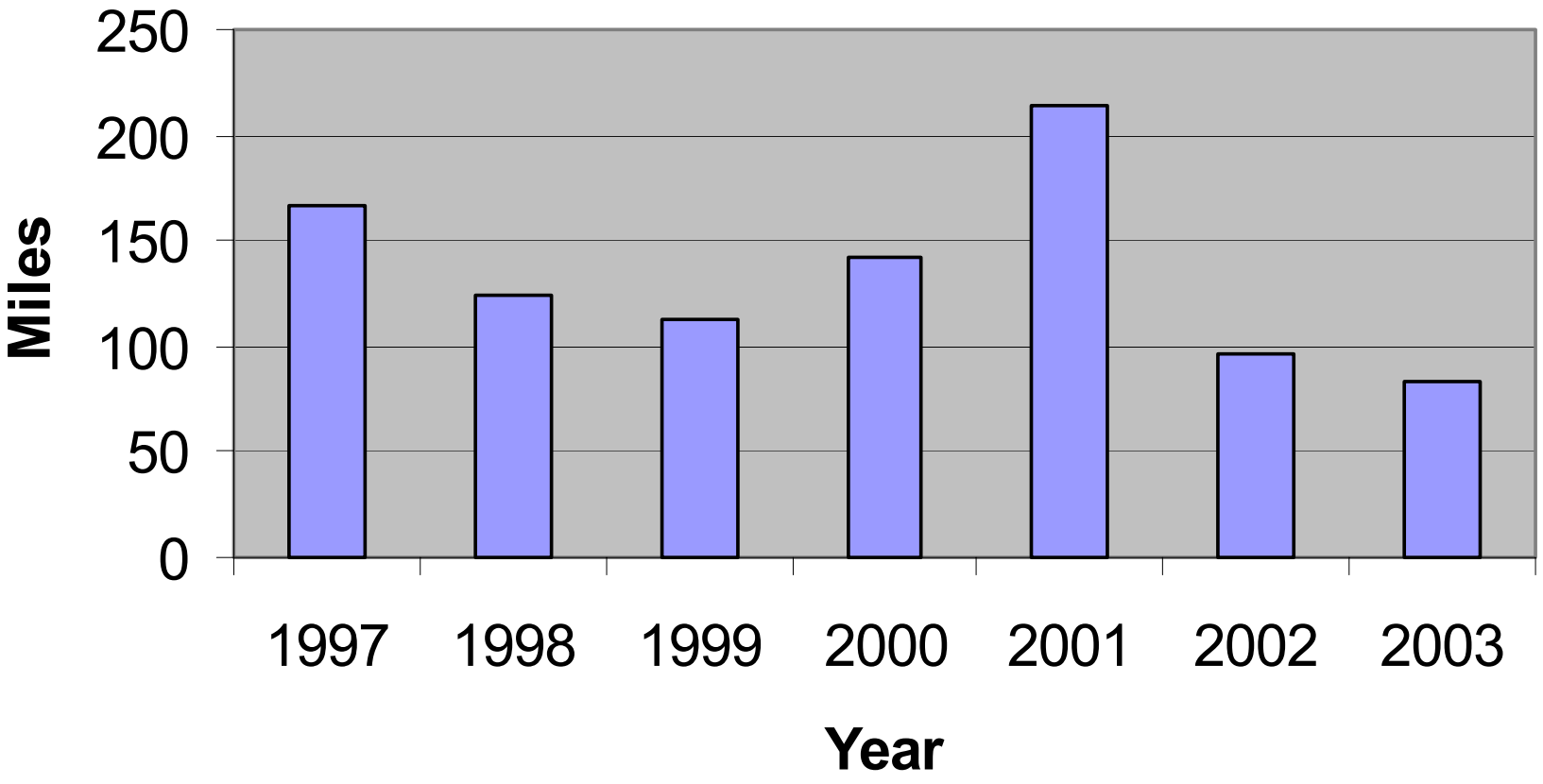
Riparian Restoration as a Percent of Coho Miles



Riparian Restoration Actions By Year



Effectiveness of Riparian Restoration

Riparian Planting

- 45% high survival rates
- Sources of Mortality
  - Plant Competition
  - Animal Damage
- Increasing Success
  - Site preparation (increasing over time)
  - Post-planting maintenance
  - Tree Protection

Riparian Planting Continued

- CREP projects had higher rates of site prep and post-planting maintenance
- In general sites with low survival are being abandoned

Riparian Fencing

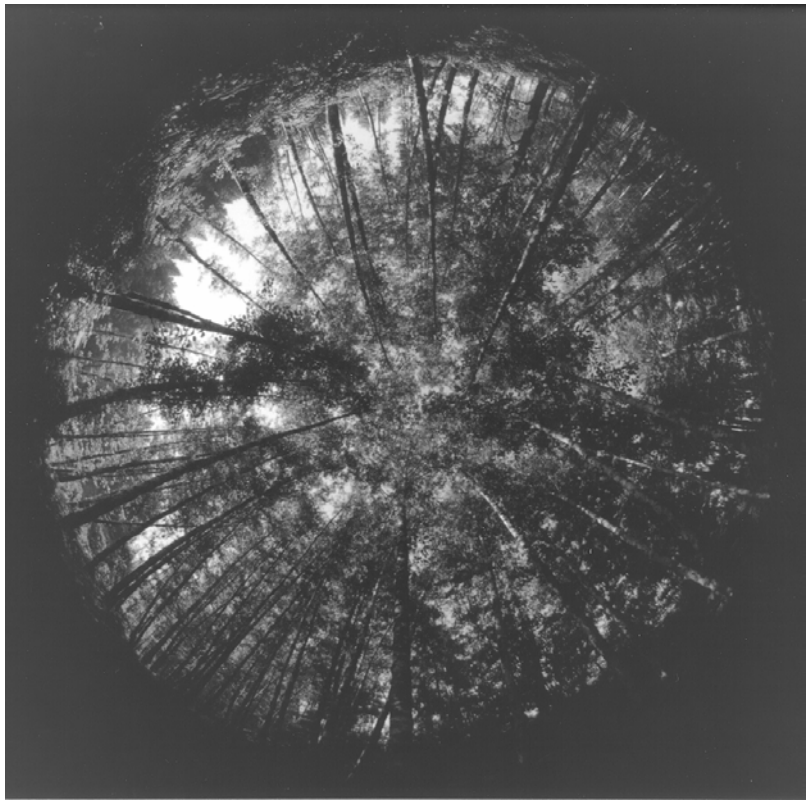
- 83% of fences were intact
- Of those with failing fences, less than 20% had high tree survival rates

Beaver Creek
Riparian Restoration Study

- Shading increased
  - 2 - 6 years with wider planting
  - 4 -7 with single row
- Decreased bank erosion within 1 year after fencing out cattle

Conclusions: Riparian Condition

- Lack of large conifer trees across all land uses and throughout the ESU
- Lower shade levels are more common on random sites



Conclusions: Riparian Conditions

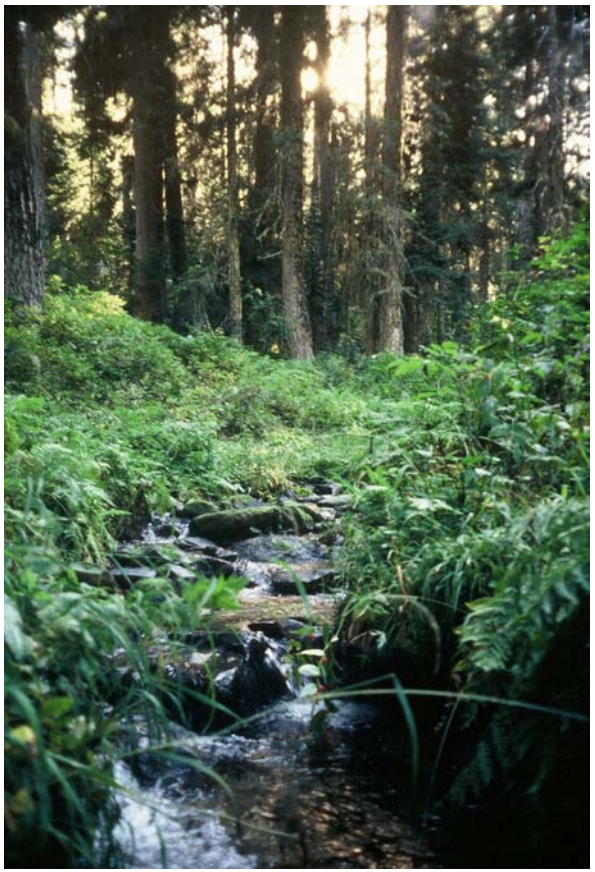
- The lower shade trend is strongest in the Umpqua monitoring unit and on agricultural, shrublands, and urban lands.
- State and Federal forested lands have shade levels better than or equal to reference sites.
- Lack of large conifers is consistent throughout the ESU and across land uses.

Conclusions: Implementation of Riparian Restoration

- Miles treated equate to 14% of coho miles
- Mostly
  - Planting
  - Fencing
  - Voluntary Retention

Conclusions: Effectiveness of Riparian Restoration

- Effectiveness has mostly been gauged by survival
  - Increases with site prep and maintenance
- Need to evaluate function and diversity



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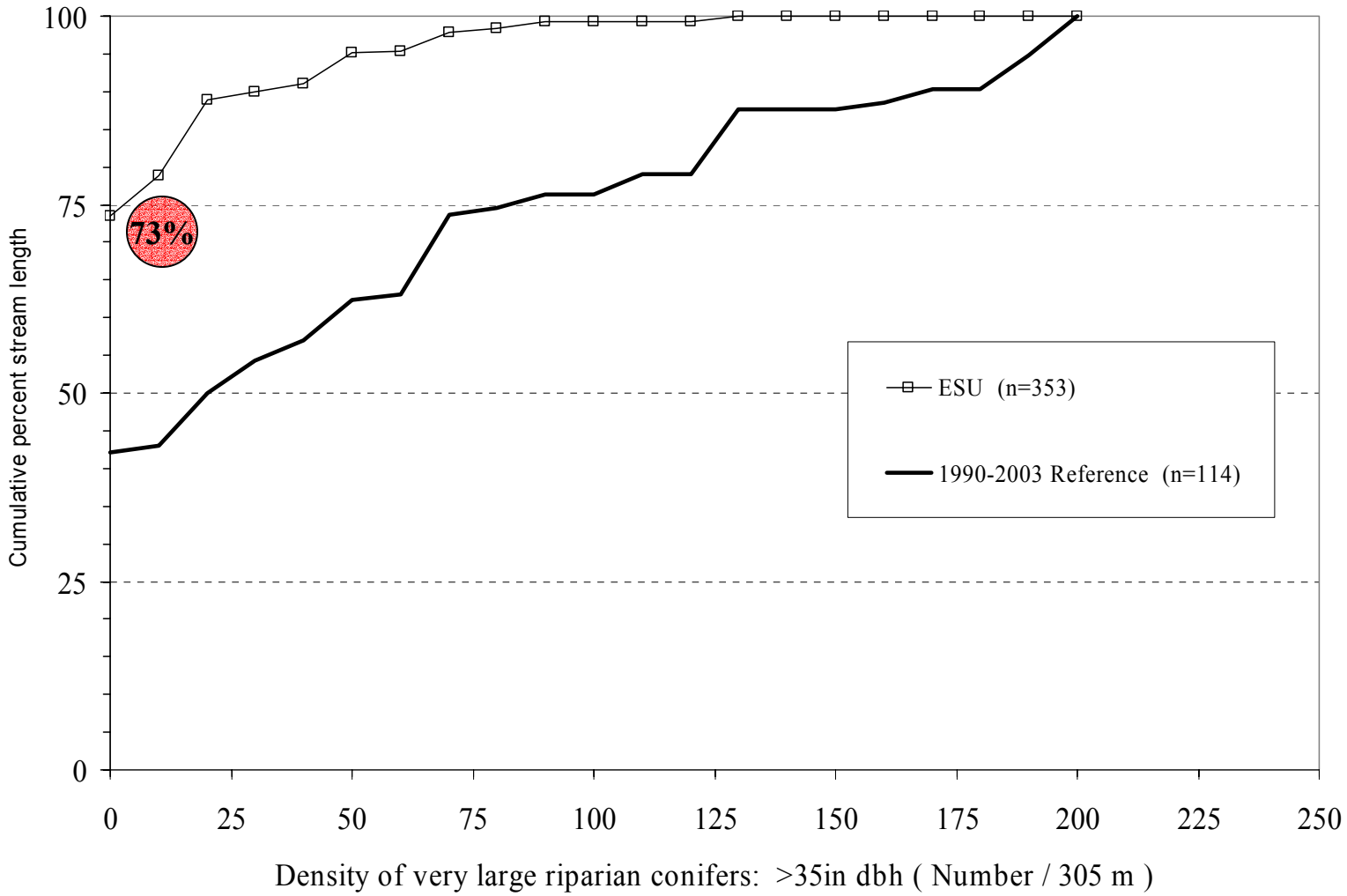
Density of Very Large Conifers



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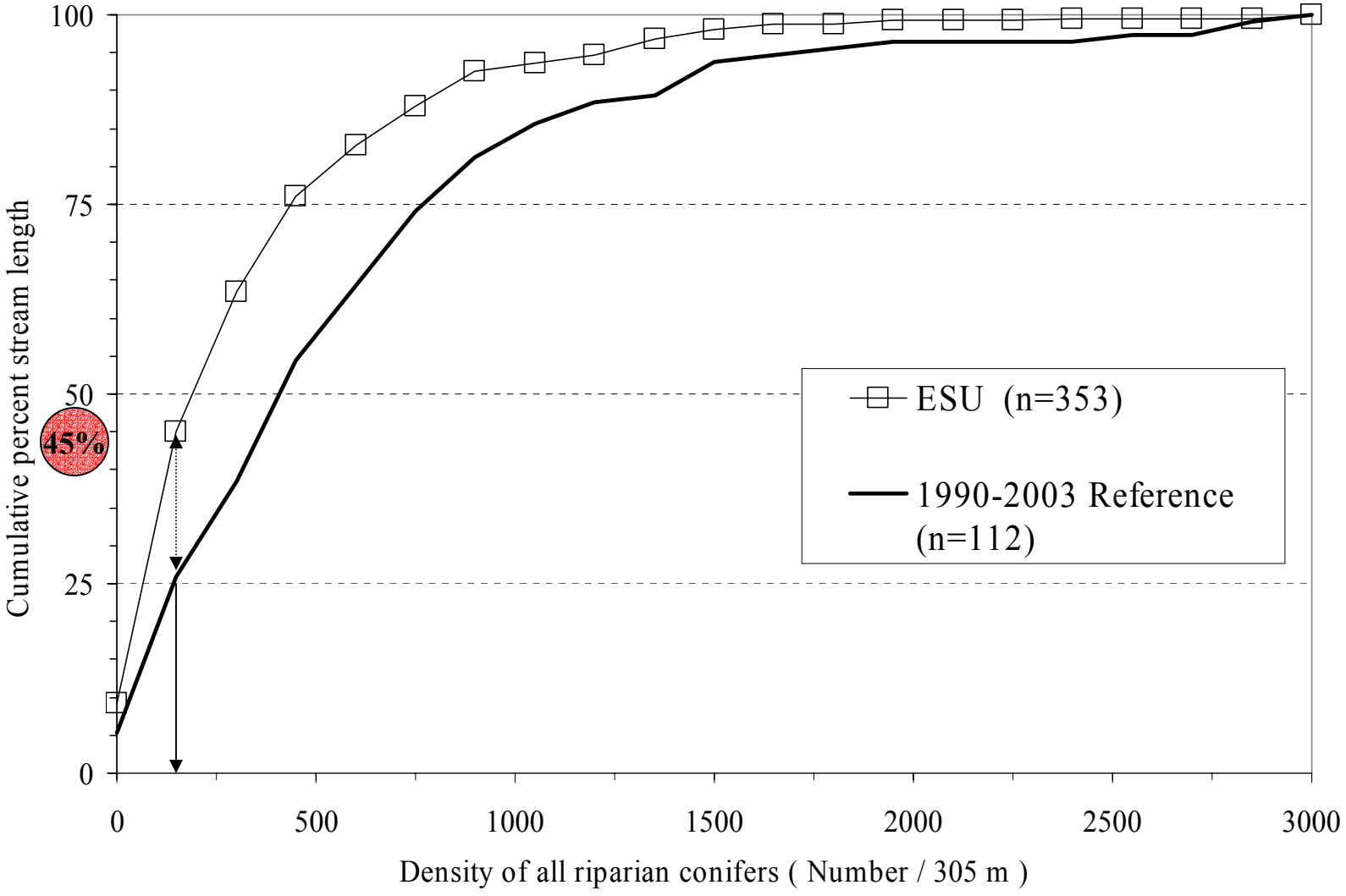
Density of All Riparian Conifers



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