

# MONITORING THE INVASION: ENGLISH HOLLY IN NORTHWESTERN FORESTS

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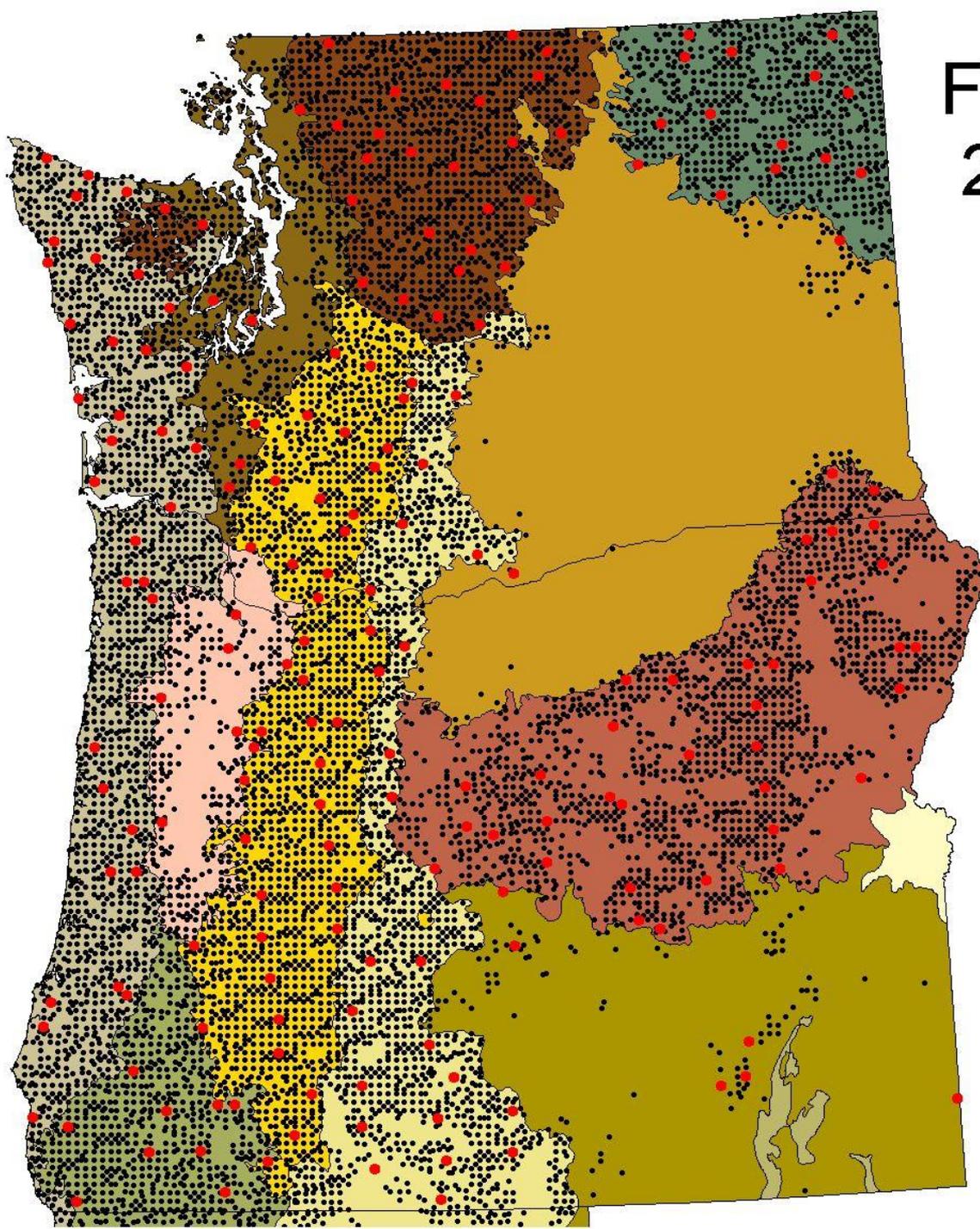


# Outline



- What is strategic vegetation monitoring?
- How is english holly detected and recorded?
- Where has holly been detected so far?
- What explains where it's found?
- What are the options to improve monitoring?

# FIA plots sampled 2001-2005



- Intensive plots (N=201)
- Standard plots (N=4169)

- Blue Mountains
- Cascades
- Central Basin and Range
- Coast Range
- Columbia Plateau
- Eastern Cascades
- Klamath Mountains
- North Cascades
- Northern Basin and Range
- Northern Rockies
- Puget Lowland
- Snake River Basin
- Willamette Valley

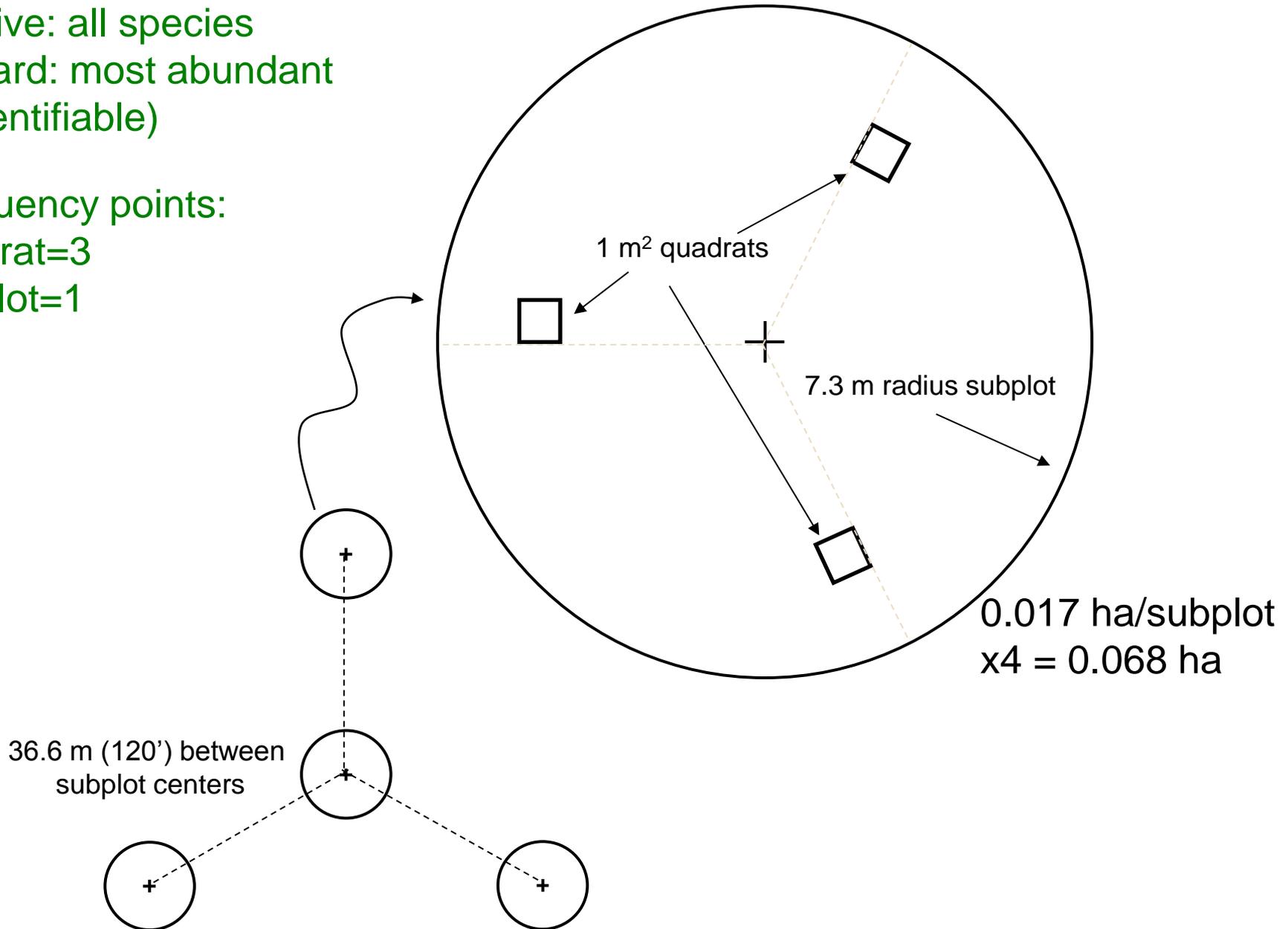
100 0 100 Kilometers

# FIA plot (standard, with intensive plot quadrats)

Intensive: all species

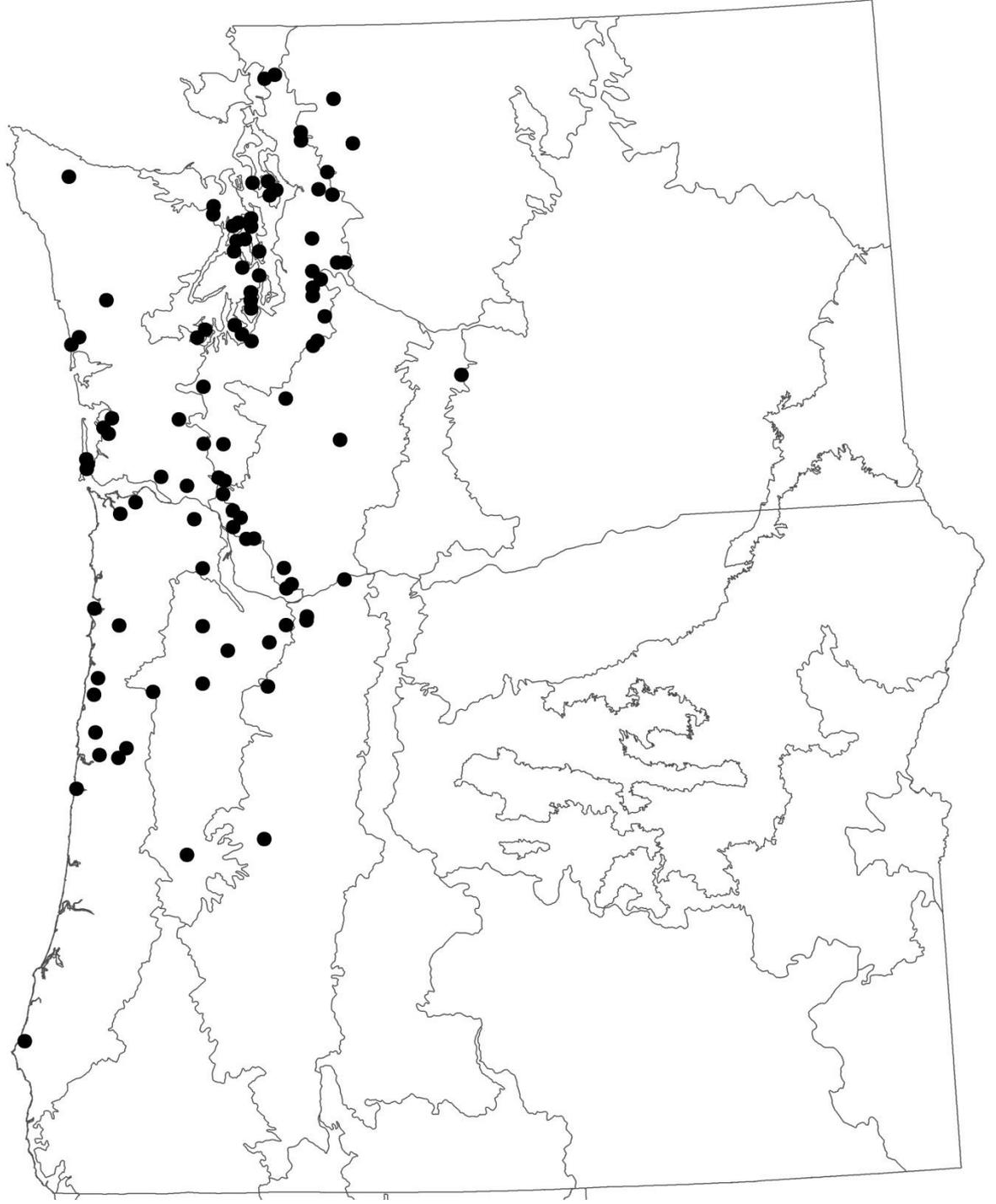
Standard: most abundant  
(+ identifiable)

Frequency points:  
quadrat=3  
subplot=1



Holly on  
forested plots  
in OR+WA

99 plots  
120 subplots





## Holly abundance on subplots

Cover	N_subp	%
1	60	50%
2-3	33	28%
4-5	14	12%
6-10	8	7%
10-25	5	4%
Grand Total	120	100%

## Forest types where holly is found

Forest type	Percent
Douglas-fir	53%
Red alder	17%
Bigleaf maple	8%
Western hemlock	7%
Western redcedar	5%
Nonstocked	3%
Sitka spruce	2%
Other hardwoods	2%
Other types	3%

## Stand size classes where holly occurs

Stand size class	Percent
>9" DBH	66%
5-9" DBH	17%
<5" DBH	14%

Variable Estimate F(1,1124)

# Hypericum

**Hypericum perforatum** (n=31, PRD=0.14)

cancov -0.0288 131.34

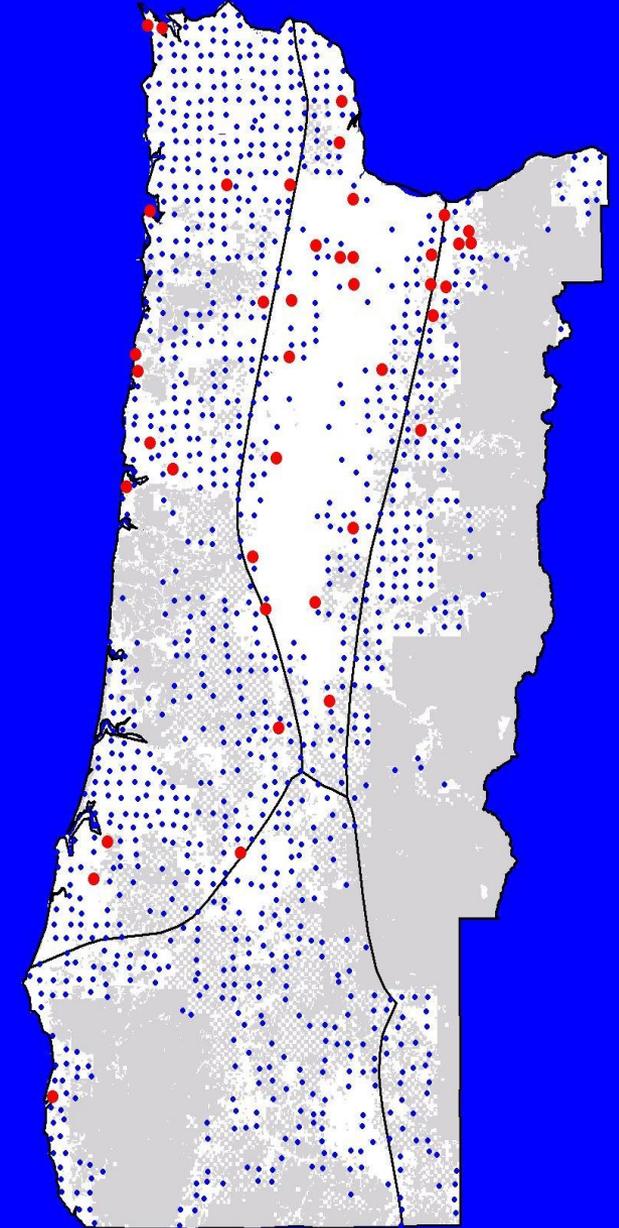
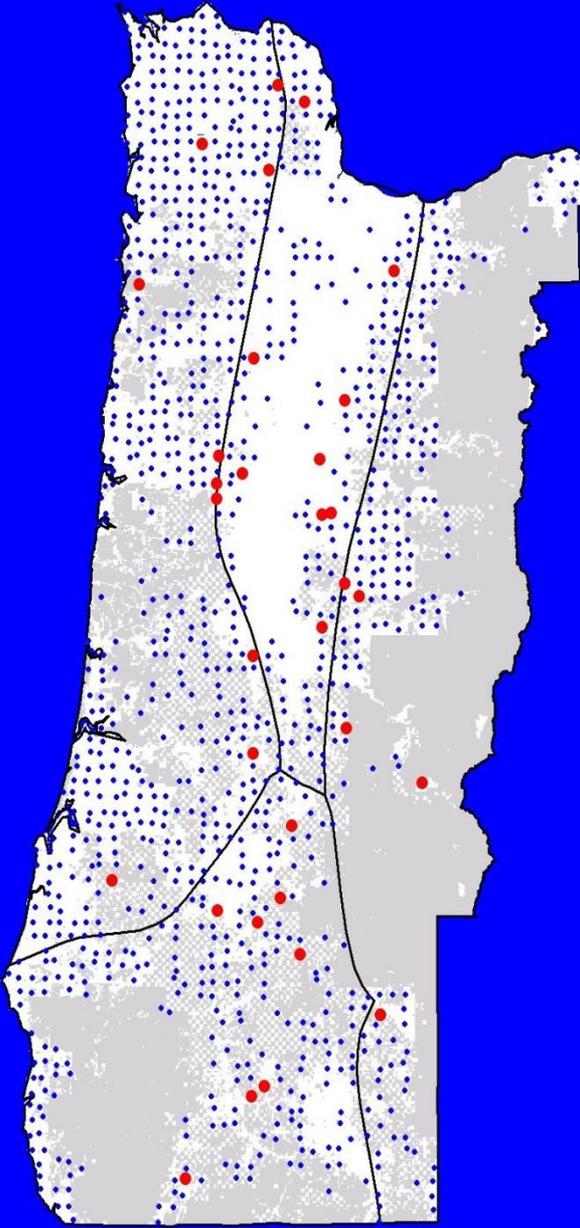
diftmp 0.1727 50.49

**Ilex aquifolium** (n=41, PRD=0.15)

elev -0.0051 124.45

qmd 0.0370 51.52

# Ilex



# Weed ID guide (PNW-GTR-817)

## Nonnative Invasive Plants of Pacific Coast Forests

A Field Guide for Identification



United States  
Department  
of Agriculture

Forest Service  
Pacific Northwest Research Station  
General Technical Report PNW-GTR-817  
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