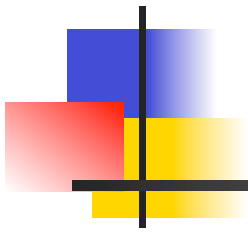


PROTECTING BIODIVERSITY IN WASHINGTON STATE

Analysis, Paralysis, and the Path to Extinction



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The views expressed are those of the authors and not necessarily those of the USGS
or the University of Washington



Presentation Outline

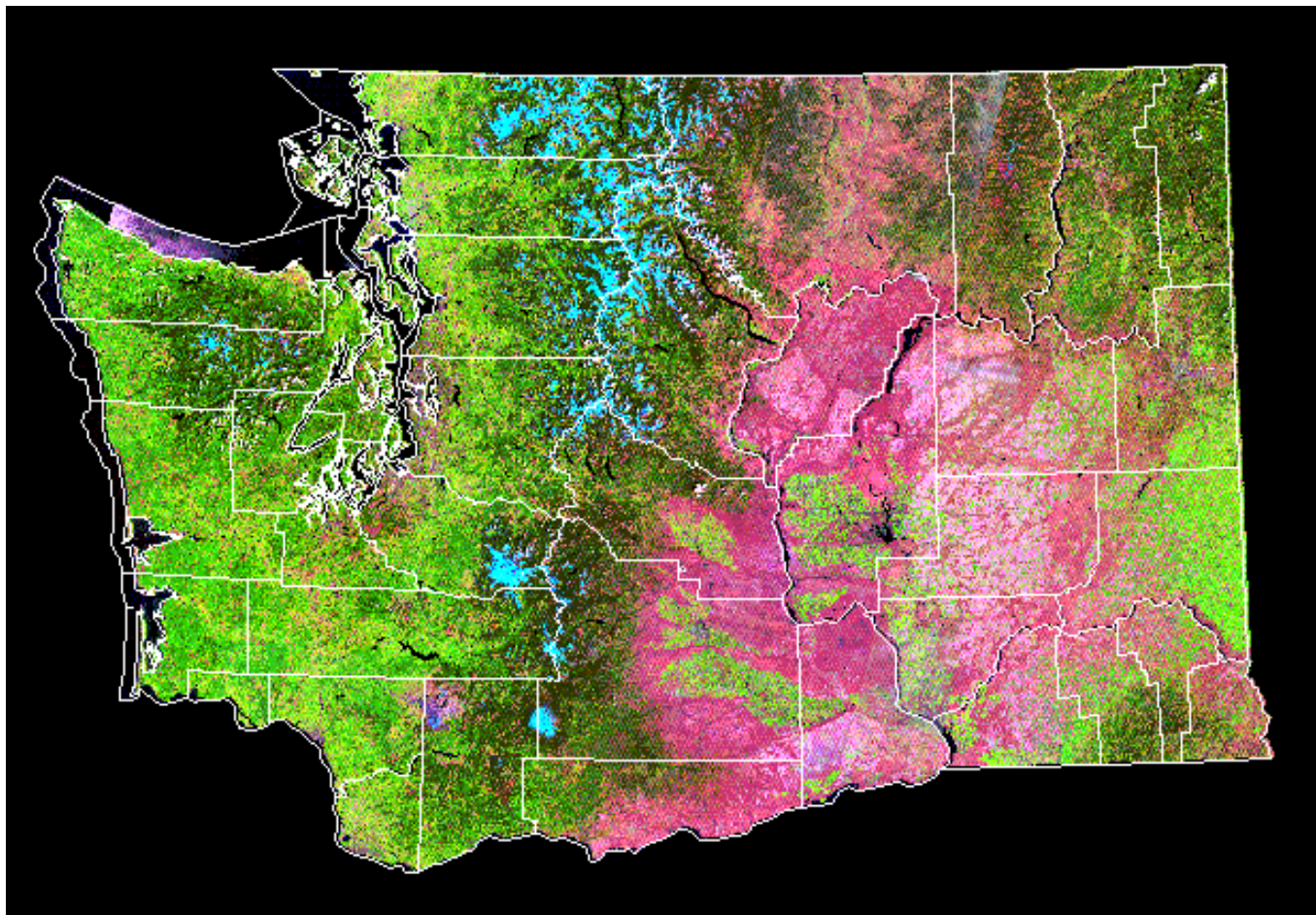
- Current status
- Historical perspectives
- The “Protected Lands Paradox”
- Richness vs representation
- Not another list!
- Where the rubber meets the road
- “Zugunruhe” and “Nature-Deficit Disorder”
- Why citizen science and citizen action are the answer



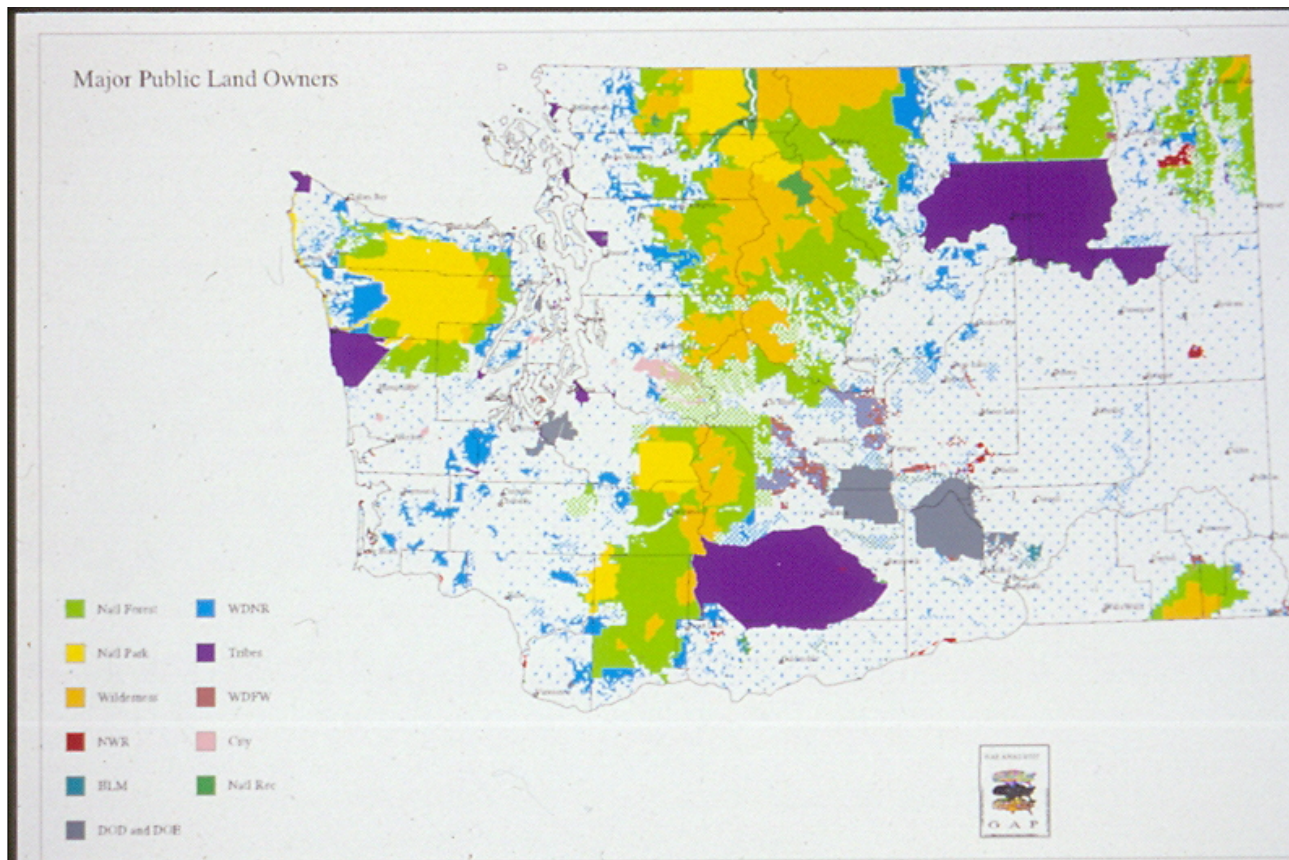
Current Status

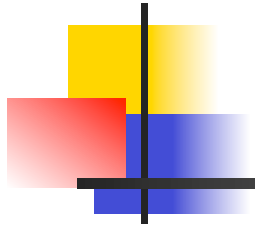
- Currently 173 vertebrate species of conservation concern in WA (excluding fish)
- Of these, 73% = State or Federal status; 56% have Action Plans
- 64% of WA = private lands, 24% State with extractive uses, 12% = protected
- Land cover types unequally represented
- Population growth in WA = 36% by 2030

Habitats are not equally distributed across the landscape



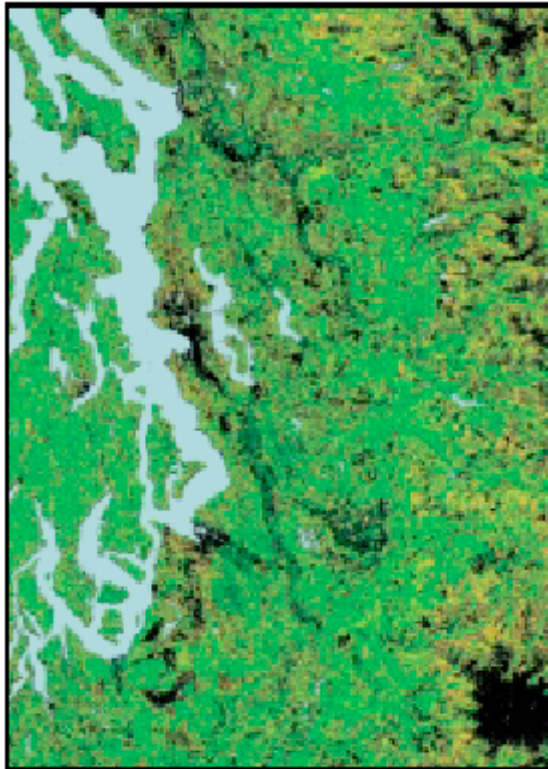
Protected lands are not equally distributed across the landscape



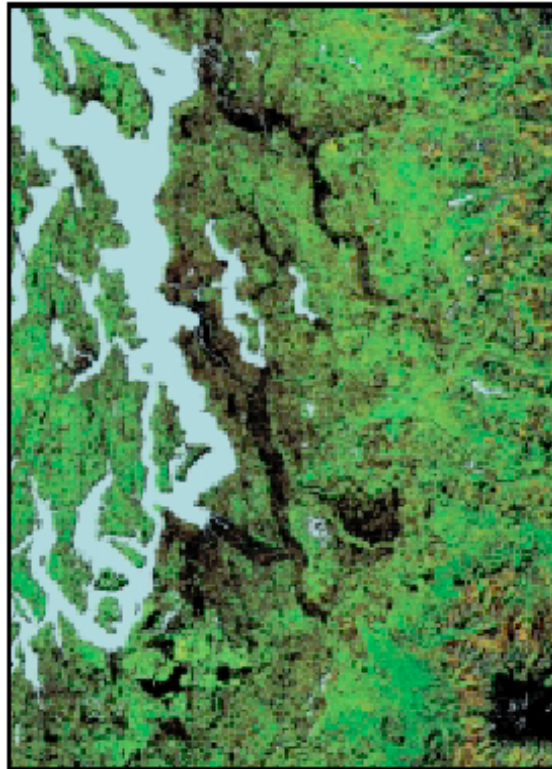


Time marches on ...

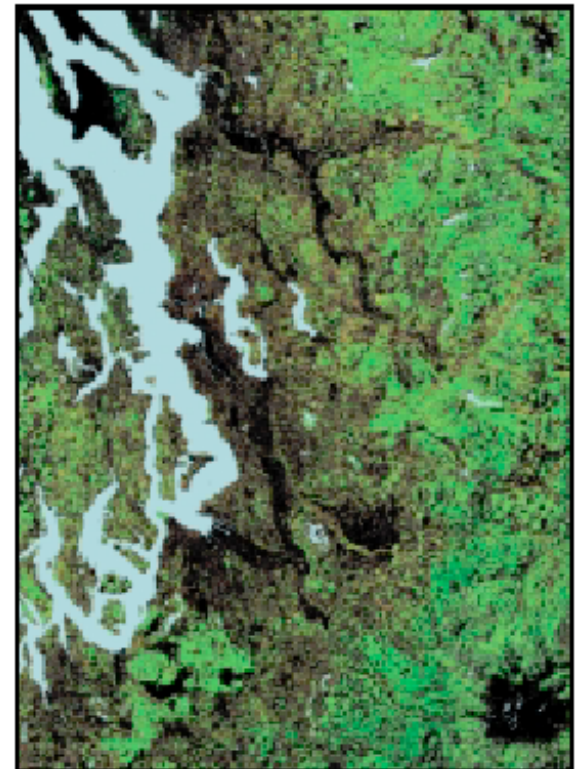
Puget Sound Trough



1972



1986



1996



Time marches on ...





Historical Perspectives

- In 1997, we identified 159 “species at risk”; 52% were “Species of Concern”
- Today, 83% are “Species of Concern”
 - Amphibians: 75 vs 100%
 - Reptiles: 43 vs 87%
 - Birds: 53 vs 74%
 - Mammals: 48 vs 88%
- Current levels of protection are failing
- We know the landcover types (habitats) and species of greatest concern

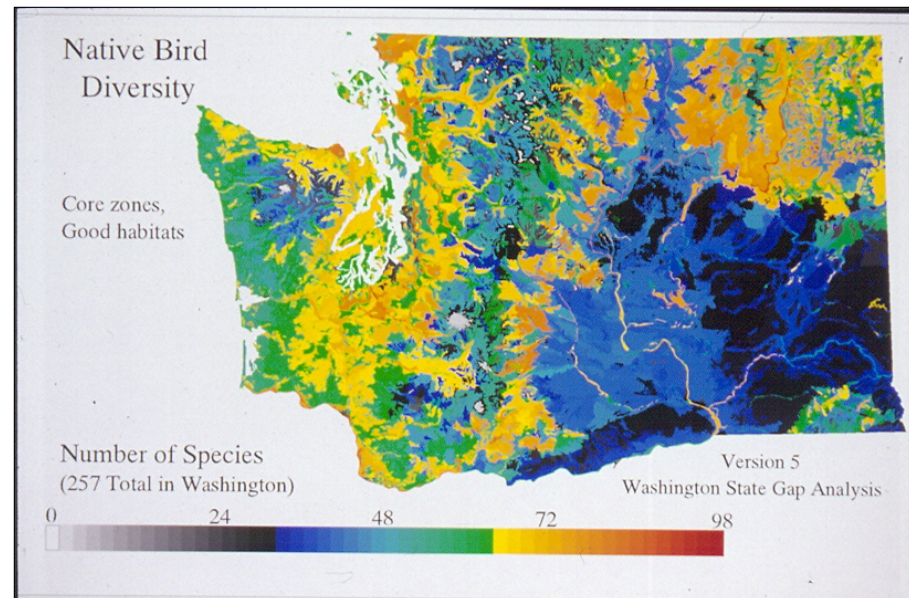


“Protected Lands Paradox”

- Protection of biodiversity is continually increasing ... using the measure of the proportion of a species distribution on protected lands
- Lowland and steppe dependent species will be lost leaving only those species occupying higher elevations where protection is greatest

Richness vs Representation

- Diversity hotspots must be evaluated within the context of the landcover (habitat) types they represent
- Representation is important





Where the rubber meets the road ...

- County land use planning and action by local jurisdictions
- Bottom-up vs top down
- Federal and State umbrella that provides the conservation targets and directly supports actions by counties and local jurisdictions
- Citizens working to promote and participate in action locally on areas important to them

Inventory Monitoring Political Action



Not Another List!

- Lists and strategies do not by themselves translate into action
- Scientifically and politically safe
- Lends itself to repeated analyses using latest technology
- Suggests that results will be different
- Gives the impression of action, but leads to paralysis

In the meantime, land use decision-making proceeds



“Zugunruhe ...

- The Inner Migration to Profound Environmental Change” Jason McLennan
- Restlessness and anxiety associated with the desire to make a difference in terms of the environment
- Less connection to the natural world and fear of action
- Analogy: “Frog in a pot of boiling water”



“Nature-Deficit Disorder”

- “Last Child in the Woods – Saving Our Children from Nature-Deficit Disorder” Richard Louv

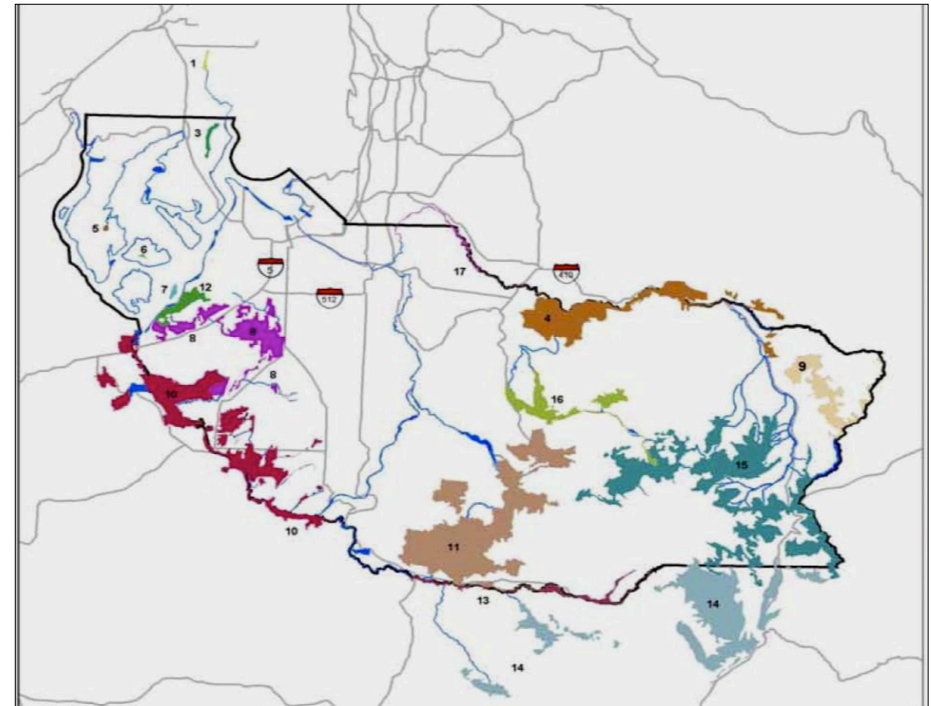
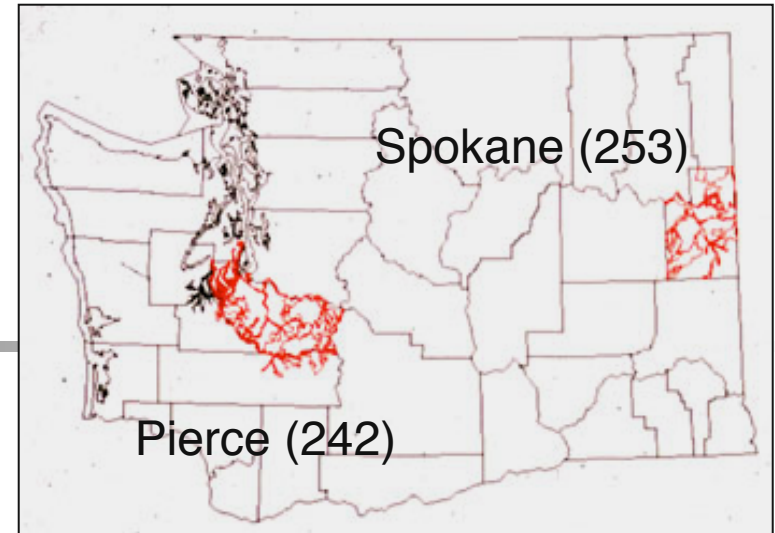
“If educators are to help heal the broken bond between the young and the natural world, they and the rest of us must confront the unintended educational consequences of an overly abstract science education, ecophobia, and the death of natural history studies”



What if we could...?

- Design a network of biodiversity management areas and corridors for each WA county
- Build the network upon the existing skeleton of protected lands and open space within each county
- Implement the network through local action
- Use citizen scientists to inventory and monitor the species within the network and elsewhere
- Incorporate the inventory and monitoring into K-12 science education
- Implement in a short period of time and at relatively little cost

WE CAN... become “doers”





What is stopping us?

- **FEAR**
- Fear of making a mistake
- Fear of action without all of the data
- Paralysis in lieu of perfection: “We would rather succeed and make little difference than fail trying to make significant change” Jason McLennan



What is stopping us?

- Fear of citizen science
- Questions related to the credibility of citizen science
- Fear of relinquishing responsibility
- Fear of sharing
- Fear of change: A NEW PARADIGM FOR PROTECTING BIODIVERSITY



The realities are...

- Inadequate State resources even in better economic times
- Tools available
- General public anxious to help
- Credibility of data can be validated
- Changing science education complements opportunity
- Greater control by the general public is going to occur
- Political framework for action is in place - GMA



The Vision ...

- Within 5 years ...
- Design a network of biodiversity management areas and corridors for each WA county
- Build the network upon the existing skeleton of protected lands and open space within each county
- Implement the network through local action
- Use citizen scientists to inventory and monitor the species within the network and elsewhere
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It' s time to walk the walk vs talk the talk



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