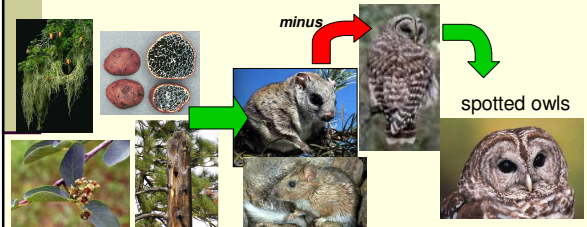


Small Mammals in Eastern Cascades Dry Forests

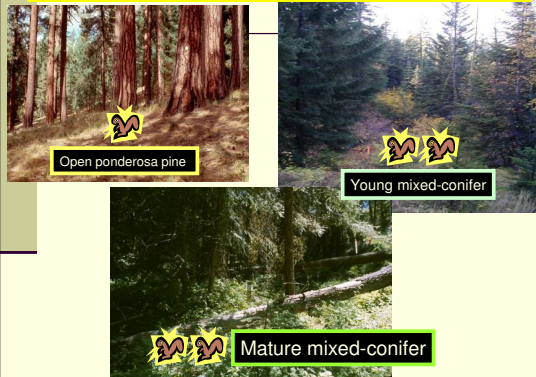
John Lehmkühl
USFS, Pacific NW Research Station
Wenatchee, WA

Spotted owl ecological web

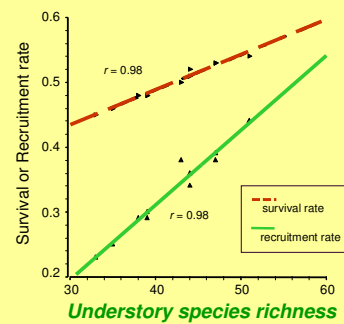
- Truffles + lichens + fruits + cover = rodent prey
- Subtract barred owls = spotted owls



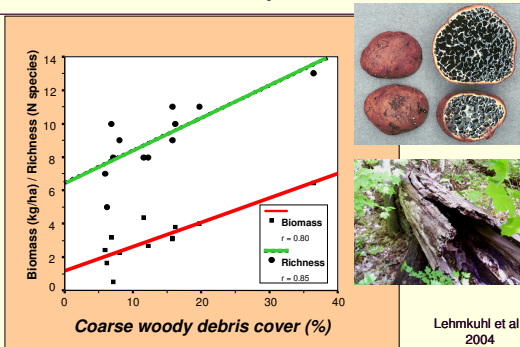
Flying squirrel abundance varies among dry forest types...



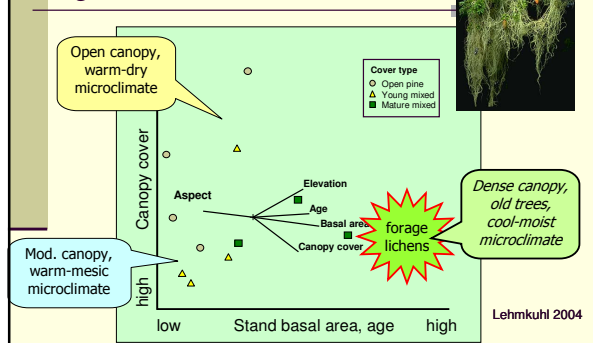
"Flyers" do best where there are diverse plant understories...

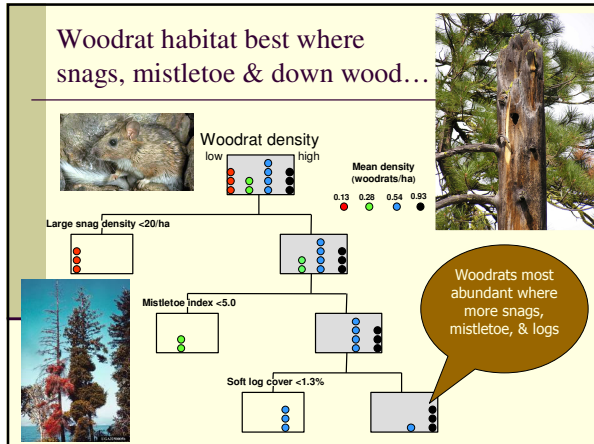


Truffle food richness & biomass increases with woody debris...



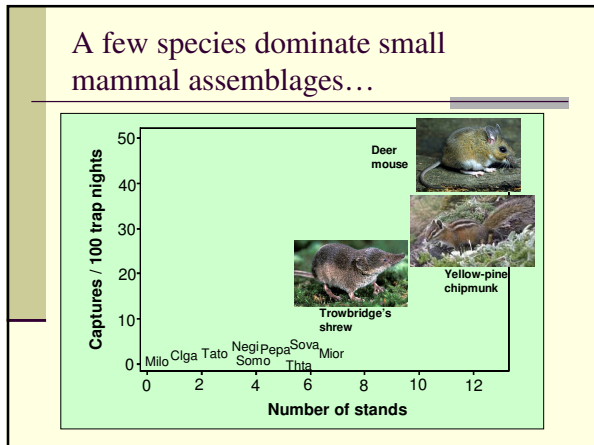
Lichen food biomass & diversity highest in dense old stands...





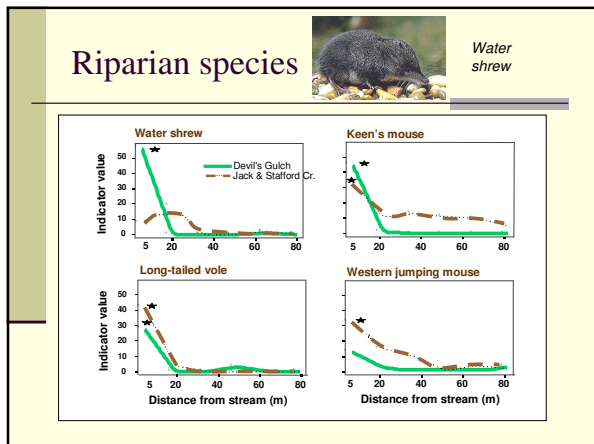
Small mammals as biodiversity indicators...

- Dry forest experimental studies
- Riparian observational studies



Species sort by stand's mesic vs. dry habitat...

Species	Mesic stands	Dry stands
southern red-backed vole	1	
long-tailed vole	1	
montane shrew	1 1 1	
Townsend's chipmunk	1 1	
creeping vole	1 1 1 1 1 1	
American shrew-mole	1 1 1	
deer mouse	3 3 3 3 2 2	1 1 1 1 2 1
Trowbridge's shrew	1 2 2 1 1 1	2
northern pocket gopher	1 1 1 1	1
Great Basin pocket mouse		1 1 1 1
vagrant shrew	1 1	1 1 1
yellow-pine chipmunk	1 1 1 1 1 1	1 1 2 2 2 1



FuelSolve: Optimal planning solutions for integrating fuels reduction and ecological values

- Do we want myopic fuels solutions like SPLATS, SPOTS, & DFPZS...
- Or solutions to manage fuels for restoration of ecological values (e.g., spotted owl habitat)?