



**CAN WE
SAVE THEM?**



YES !!

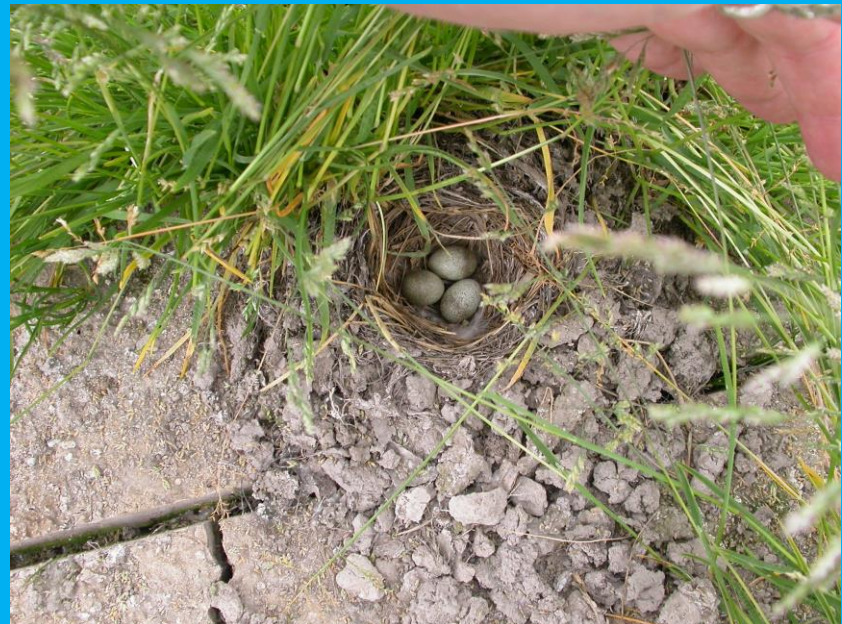


BUT....



BBS Trend
-5.4%/year

Extirpated British Columbia
Extirpated North Puget Lowlands
< 300 South Puget Lowlands
< 200 Coast and Columbia River
> 60% Willamette Valley
Extirpated Klamath Mountains





BBS Trend
-5.0%/year

Extirpated British Columbia
Extirpated North Puget Lowlands
< 300 South Puget Lowlands
< 700 Willamette Valley
> 50% Umpqua Valley
< 200 Rogue Basin
Extirpated Northwest California



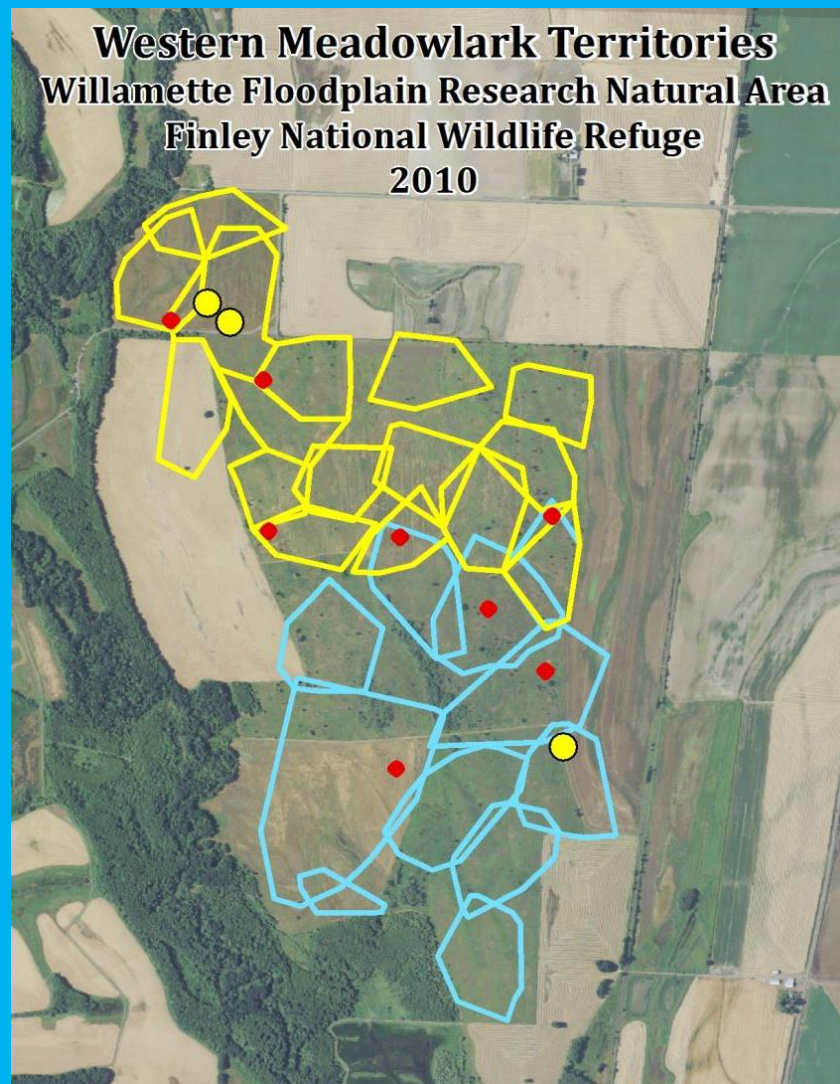
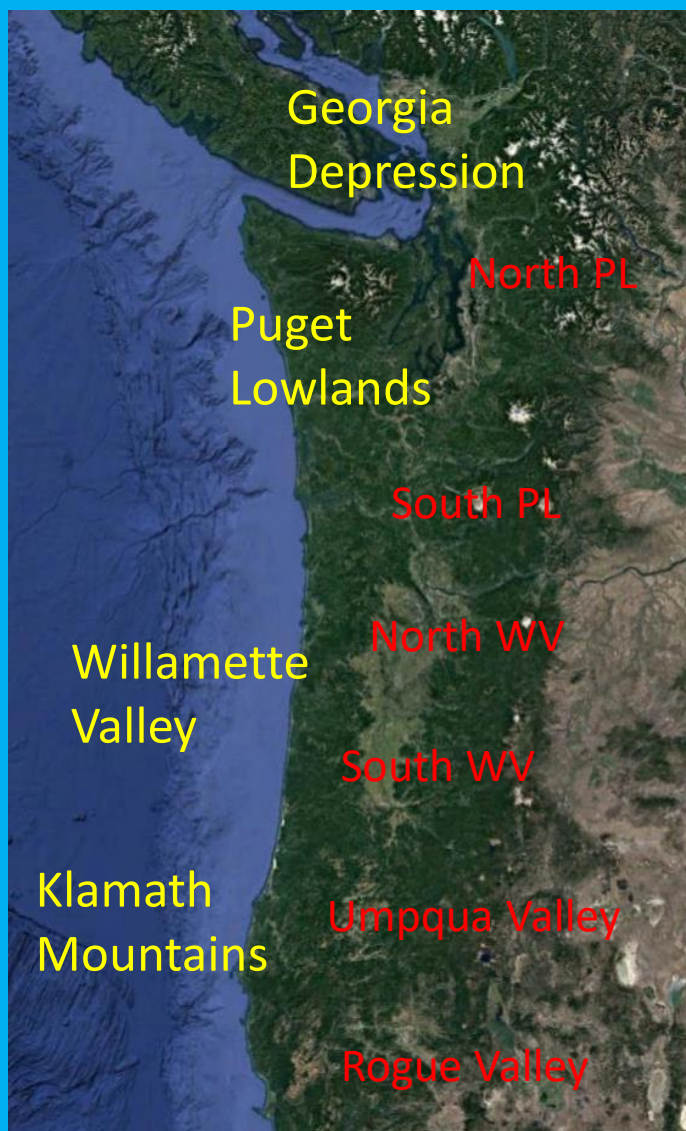


BBS Trend
-5.5%/year

Extirpated British Columbia
Extirpated North Puget Lowlands
< 1,000 Puget Lowlands
< 2,000 Willamette Valley
> 50% Klamath Mountains



Geography



Scale: Large Breeding Populations



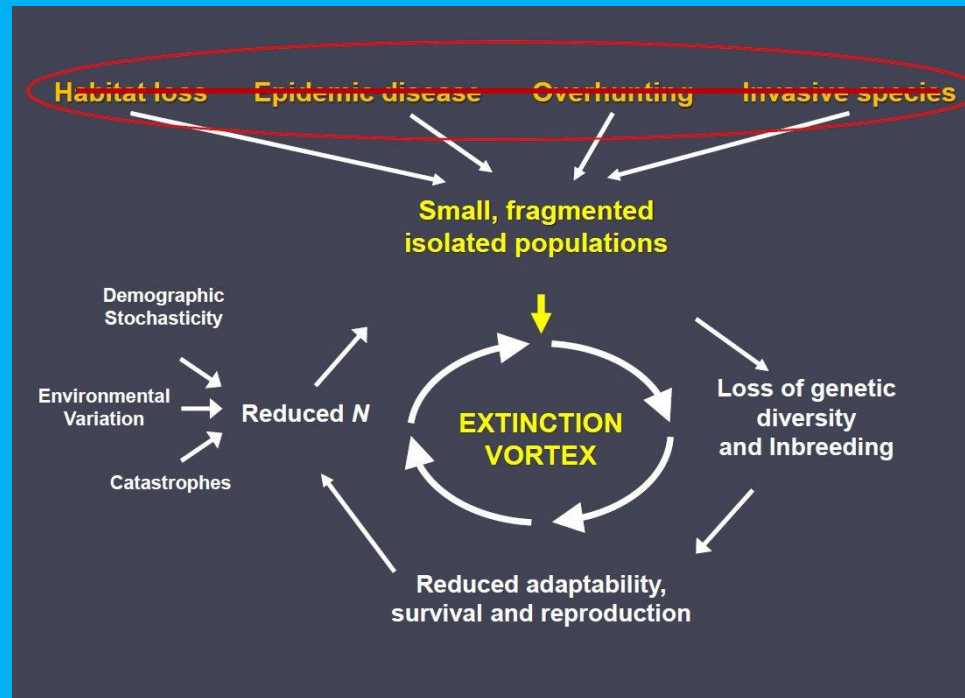


Ecological and Conservation Biology Principles

1. Small Population Paradigm and its Consequences
2. Area Requirements and Integration of Other Conservation Values
3. The Role of Working Lands
4. Site Fidelity and its Consequences



Small Population Paradigm



Genetic issues

Exacerbation of rate of local extirpations

Greater susceptibility to stochastic events

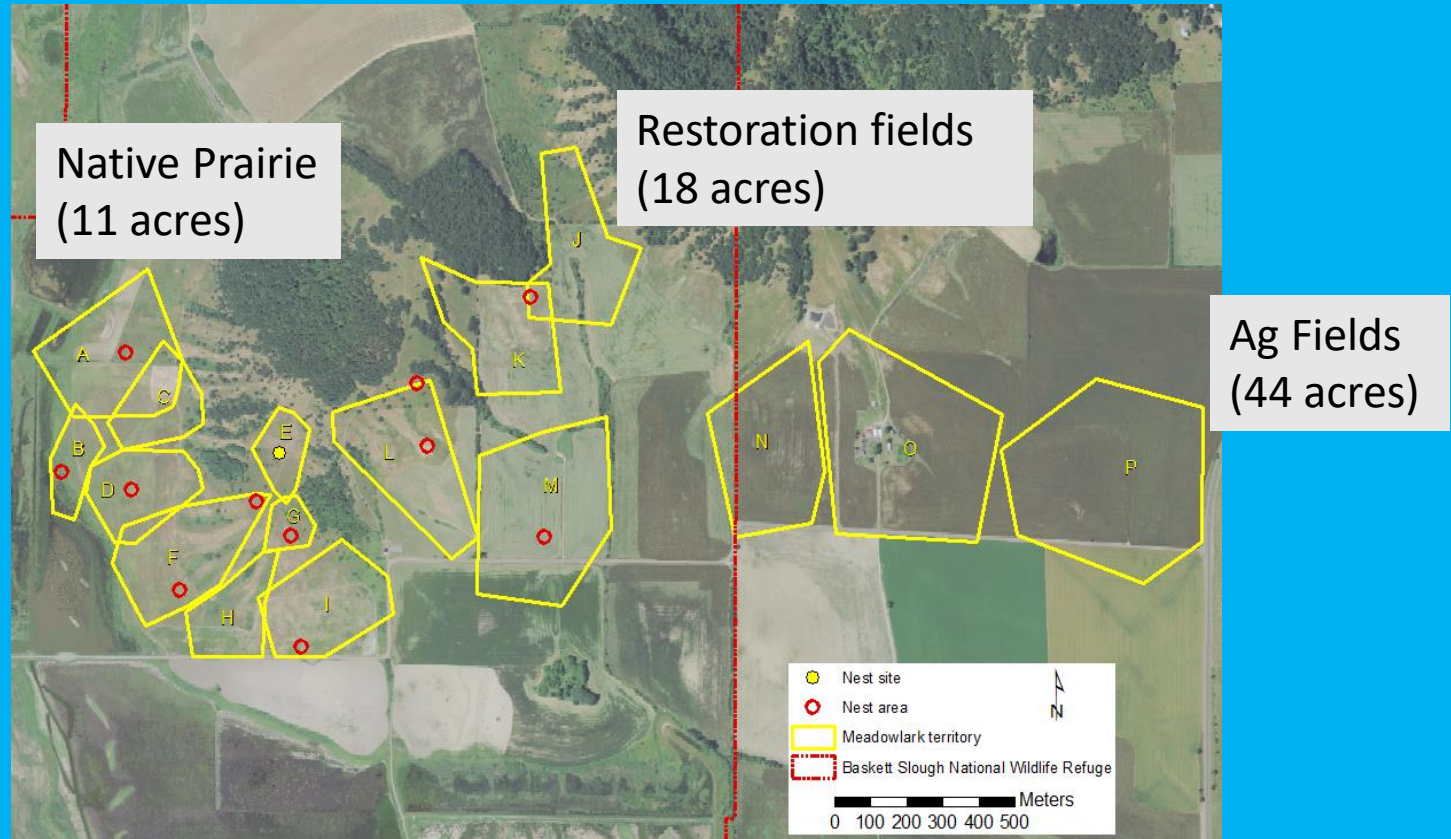
“Numbers Game”

Margin of error for population variability is smaller

Each individual bird becomes more important

Challenges of recruitment as populations become smaller and more isolated

Area Requirements and Integration with Other Conservation Values



Need large landscapes (hundreds of acres)
Historic landscape accommodated all
Few of them, mostly smaller isolated fragments
Prioritize birds in larger landscapes

Role of Working Lands



Most populations on working lands
Positives and negatives
Wide range of degrees of impact
Uncertainty and thus secondary
Agreements to avoid or minimize



Site Fidelity and its Consequences



High breeding site fidelity

Losses are forever

“If you build it, they may not come”



Postage stamp conservation



First Priority; establish, maintain, or expand the largest populations

Second priority; protect the small isolated populations at the edge of the ranges

GD and NPL need reintroductions and northern WV tenuous

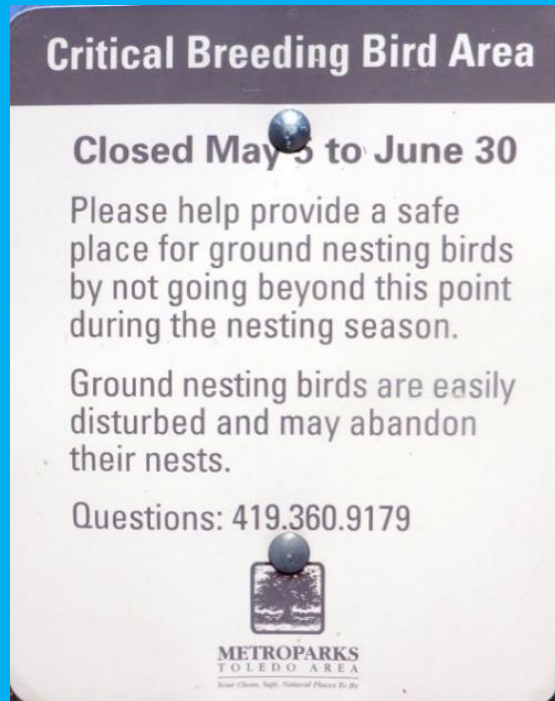
Heavy-handed Population Management

Nest protection

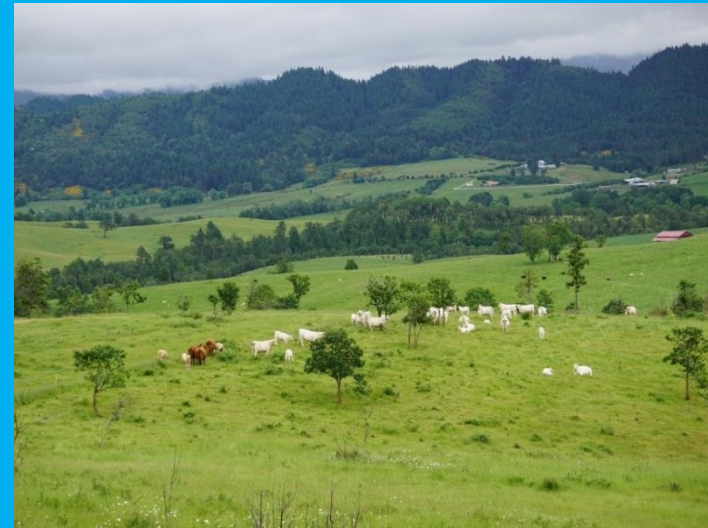
Conspecific attraction

Reintroductions

Restrictions on operations and field management



Financial incentives for farmers to “grow birds”



Reduce negative impacts on reproduction
create habitat and manage populations





Questions ?

