



The Biology and Ecology of the Lesser Prairie-Chicken

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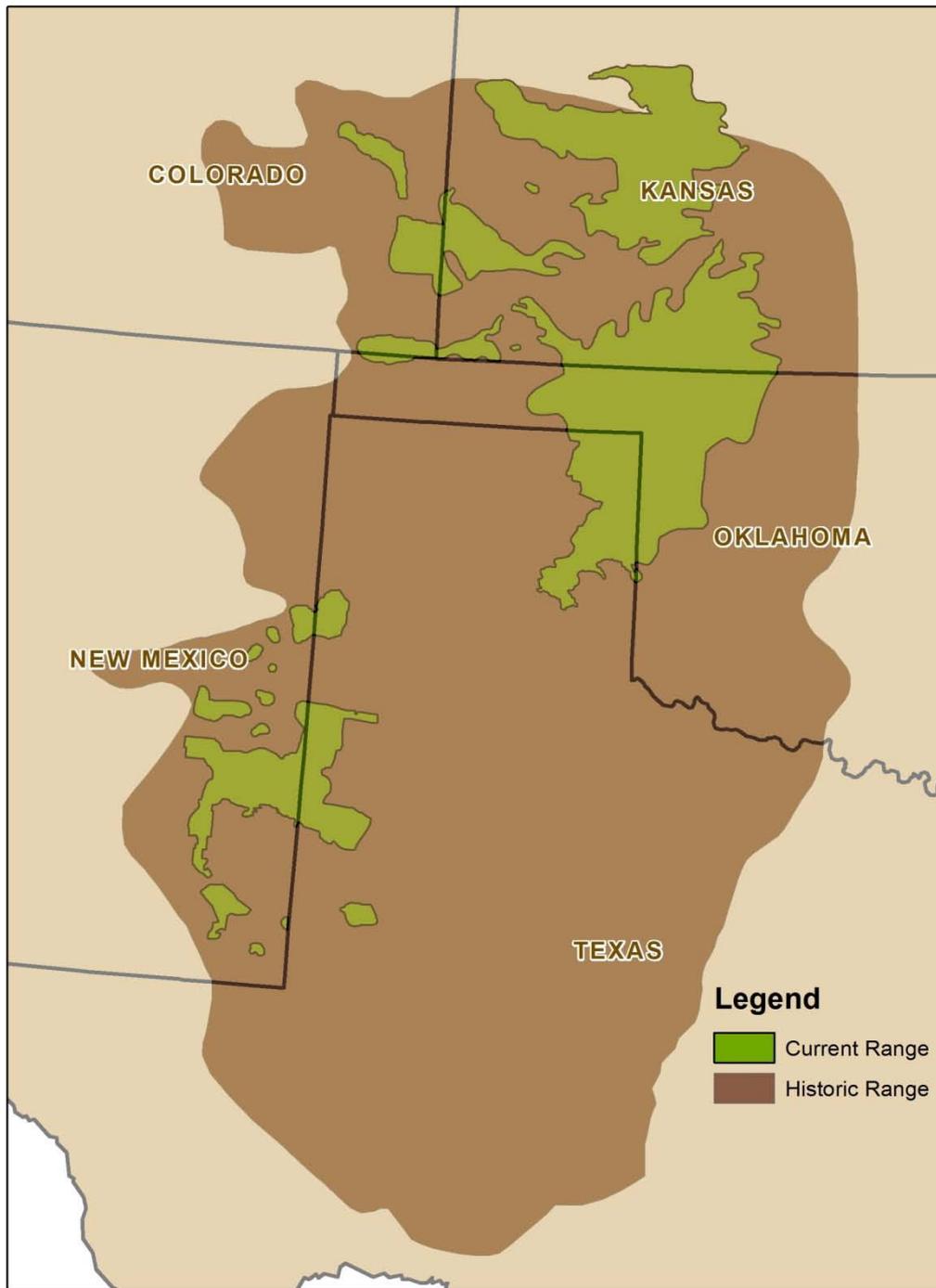
- 1 of 5 prairie grouse that require native grasslands for:



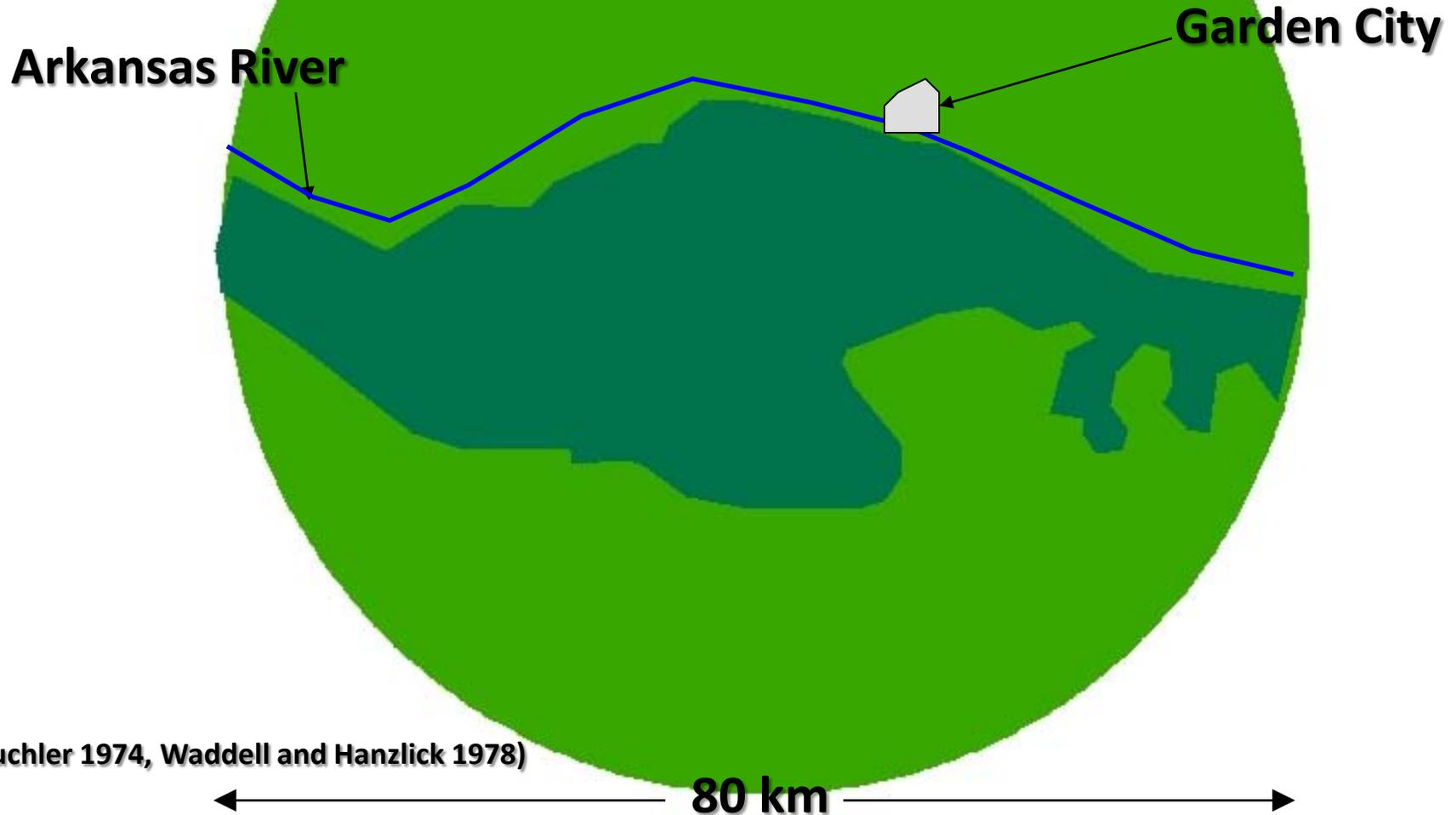
> **90% of habitat lost, population distribution and abundance followed**

“warranted but precluded” from federal listing as threatened

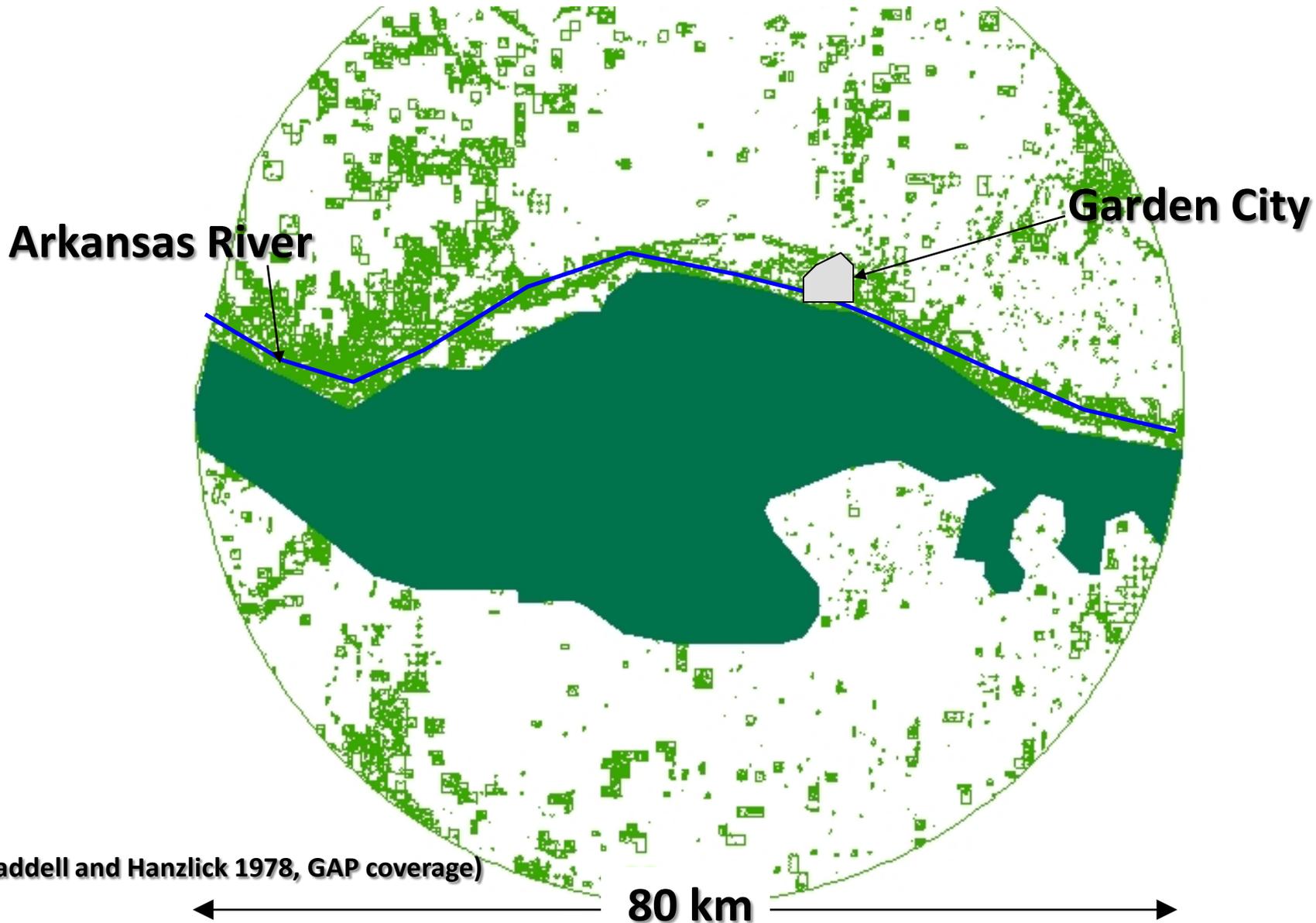




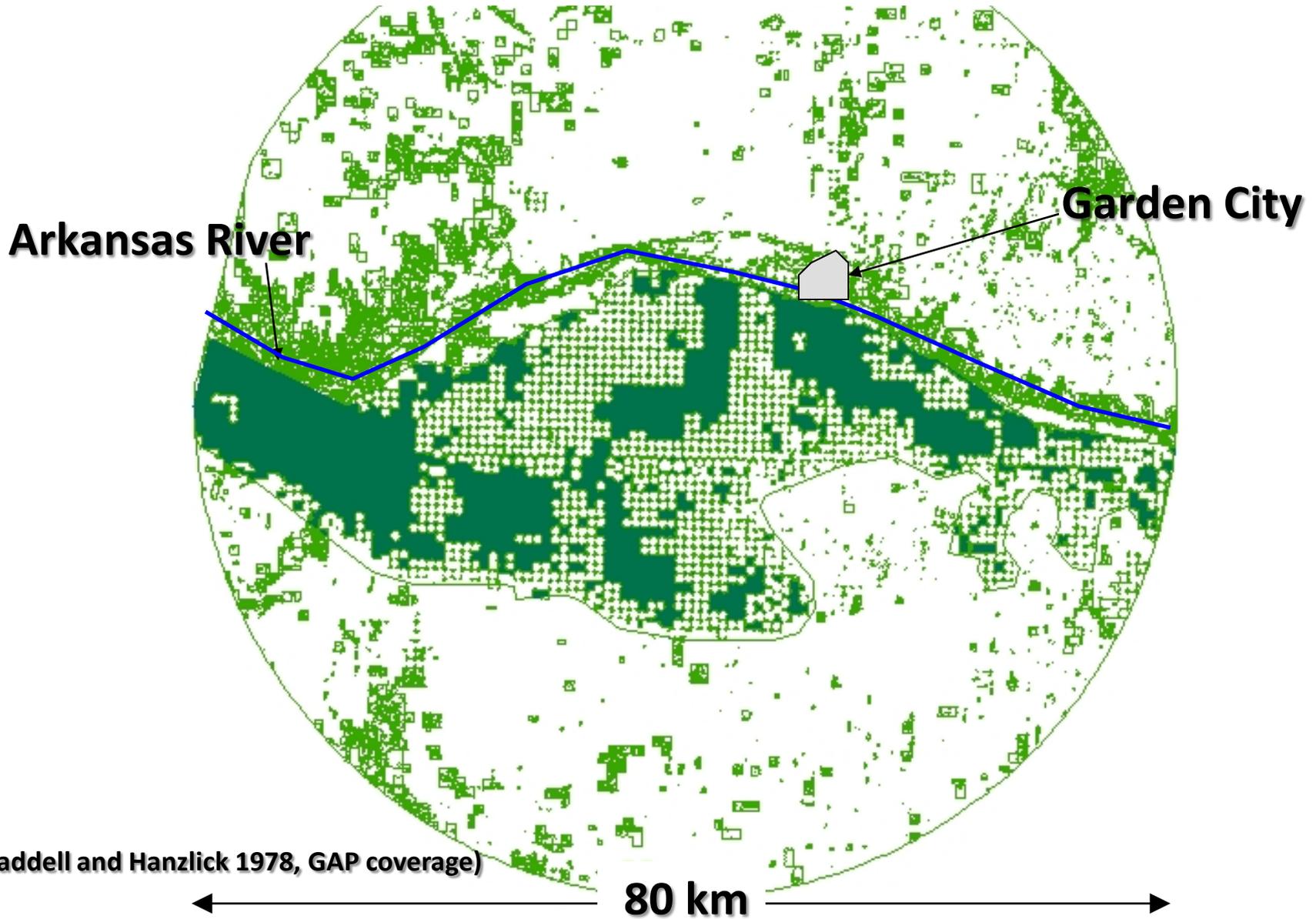
Presettlement Distribution of Mixed-grass (light green) and Sandsage Prairie (dark green) Near Garden City, KS



Postsettlement - 1960 Distribution of Mixed-grass (light green) and Sand Sage Prairie (dark green)



Current Distribution of Mixed-grass (light green) and Sandsage Prairie (dark green) Near Garden City, KS



Basic Biology

- High productivity
- Moderate survival
- Landscape species
 - Proximate to leks
- Evolved largely treeless landscapes



Basic Biology

- Season movements
- Dispersal
- Anthropogenic disturbances



Mortality

- **Predators**

- **Harvest**

- **Collision**



Habitat Characteristics

- **Breeding**
- **Brood rearing**
- **Winter**
- **Water?**
- **Structure, structure, structure**



2011-02-23 6:37:19 PM M 1/1

83°F



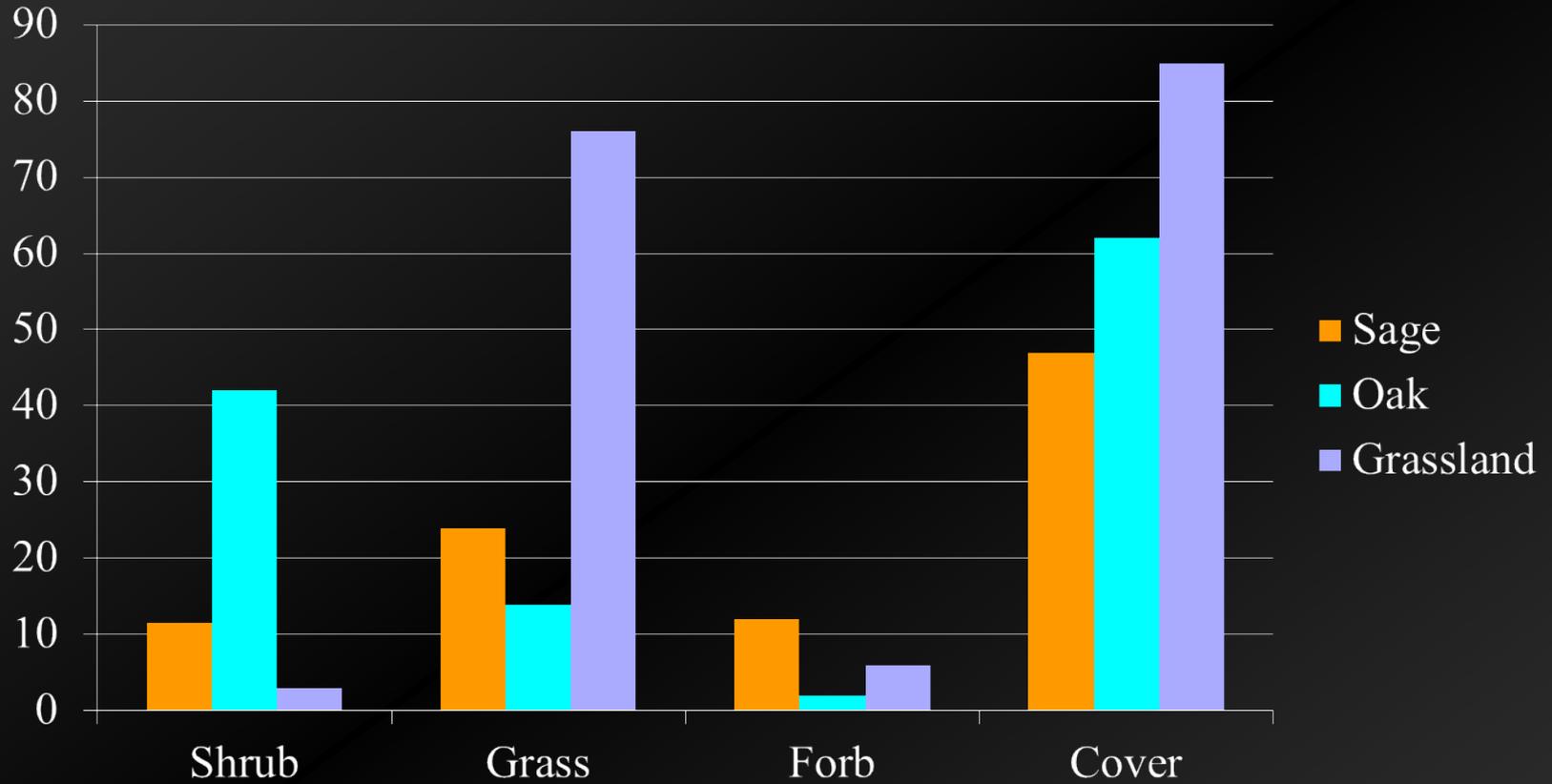
RC55 RAPIDFIRE



Photos: Philip Borsdorf, TTU



Nesting Cover



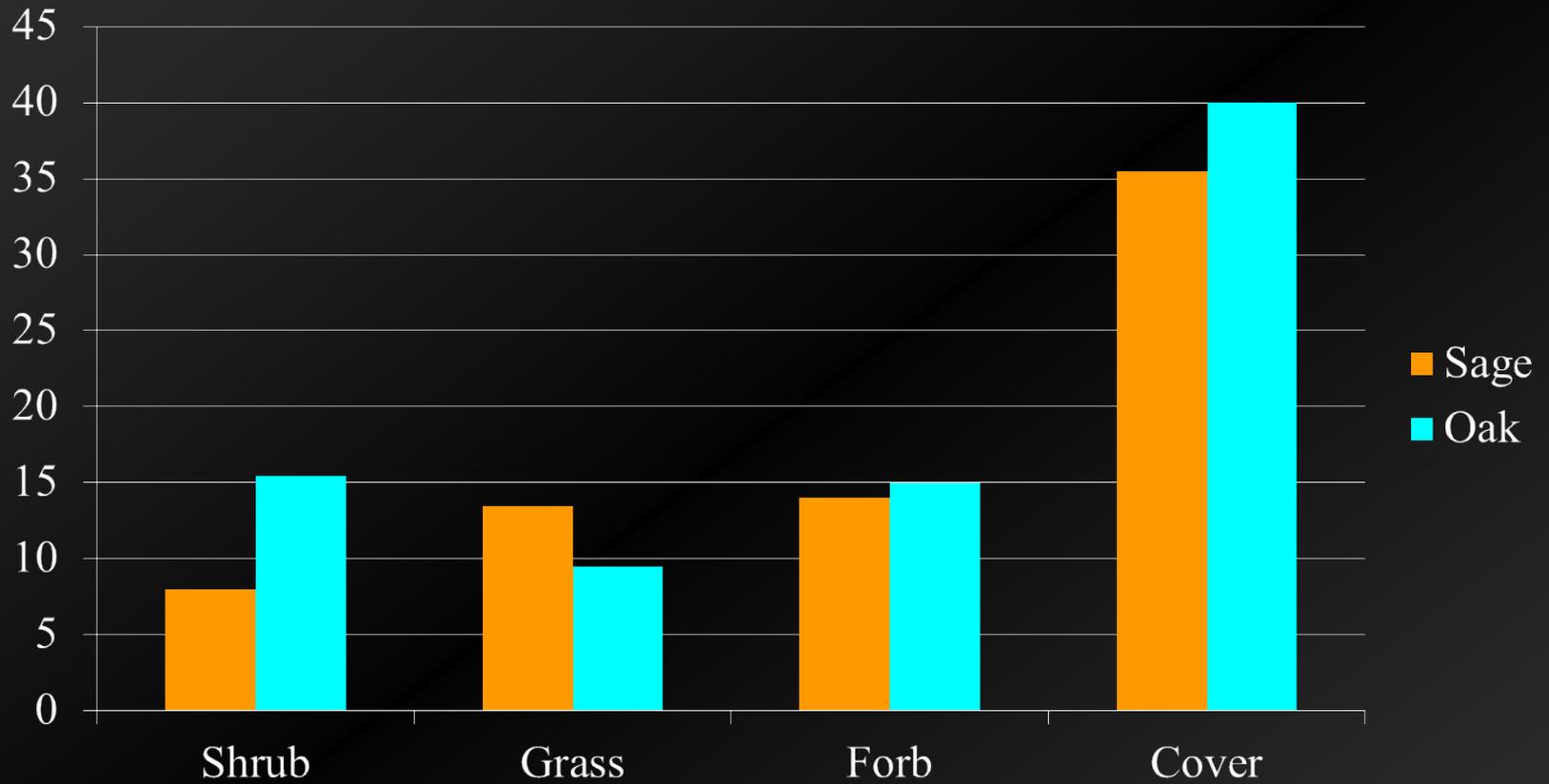




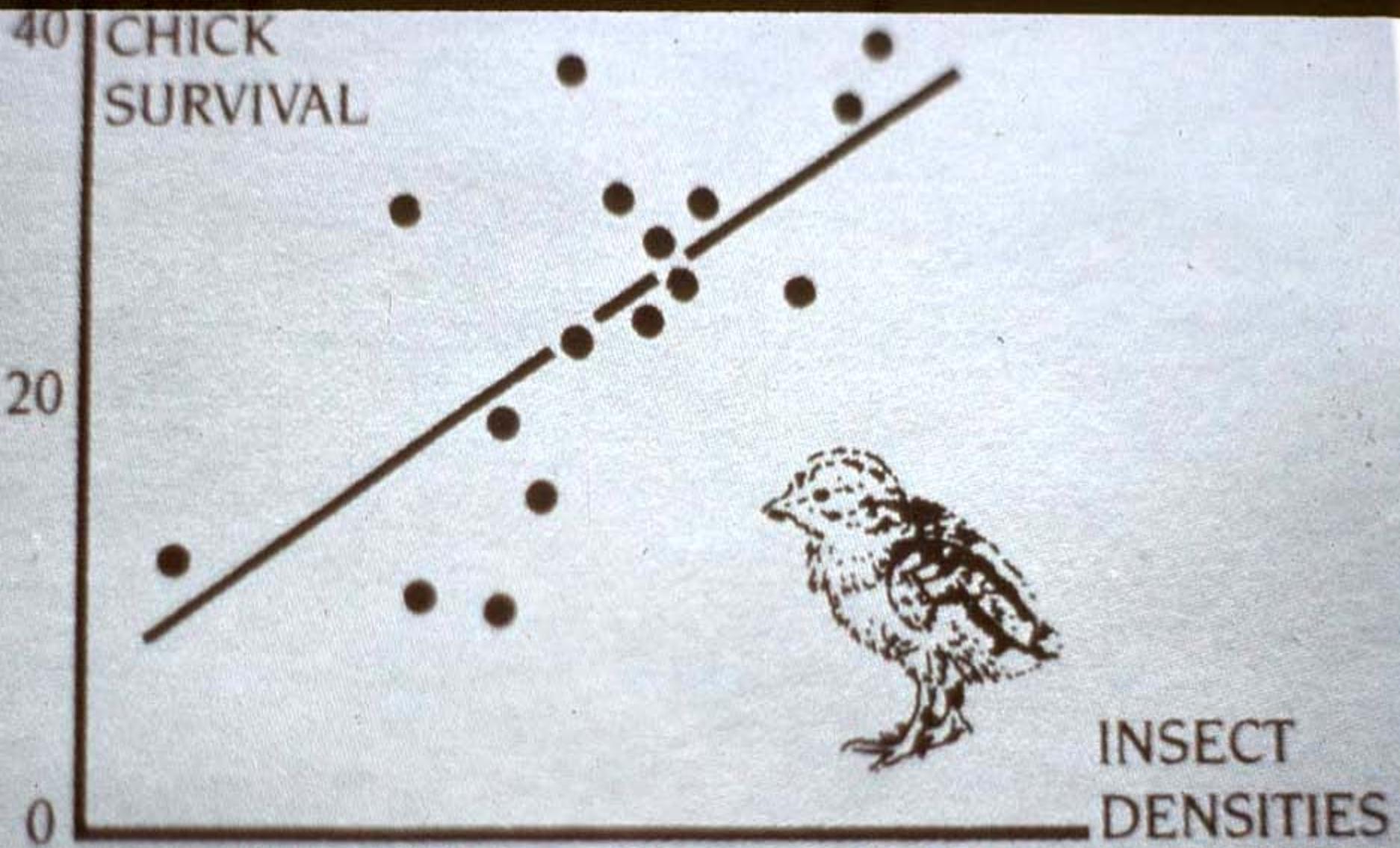


9,030
(763)

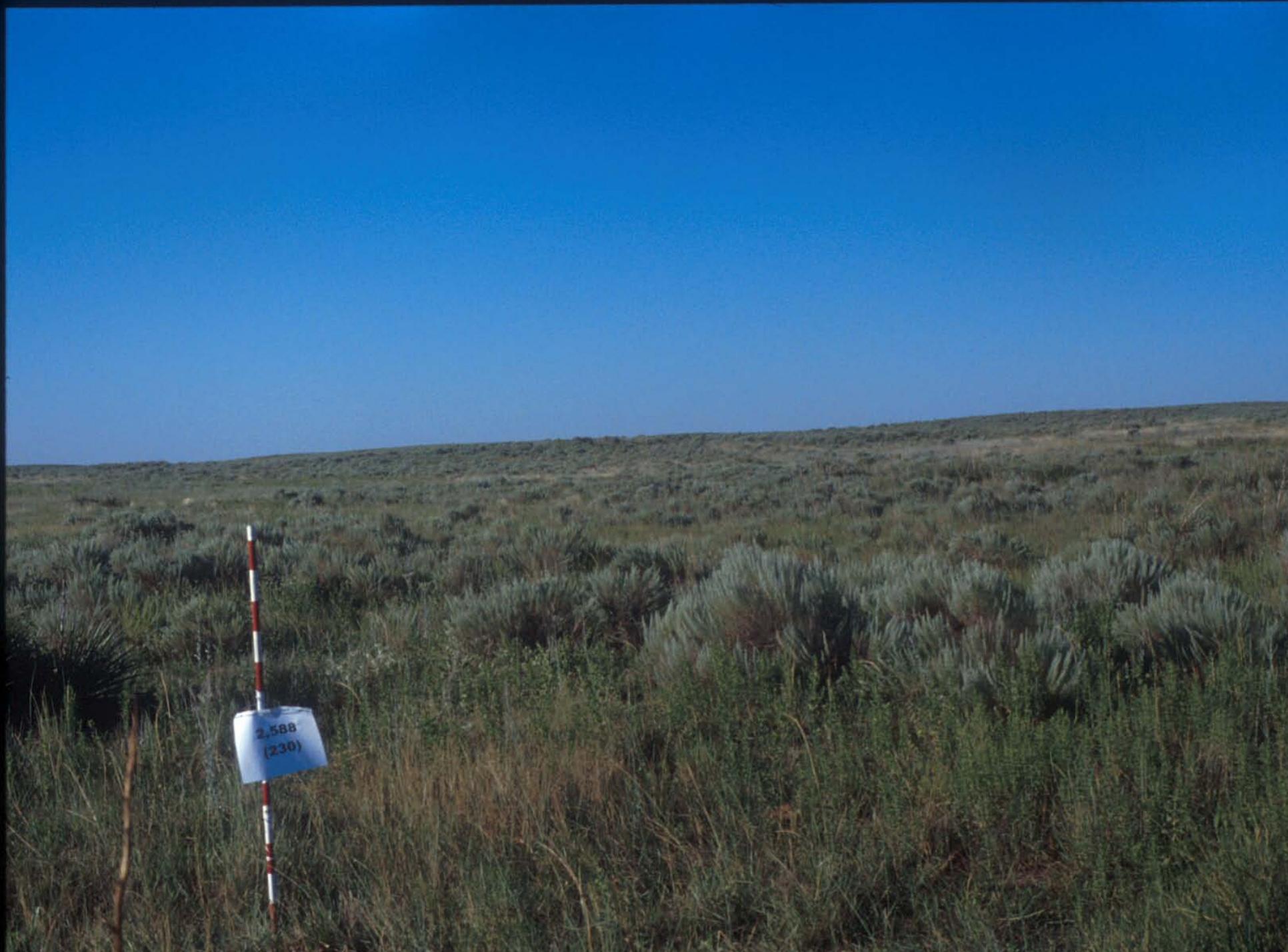
Brood Rearing Cover







CHICK SURVIVAL IS DIRECTLY RELATED TO INSECT DENSITIES



2,588
(230)

Fall and Winter

- Row grains
- Acorns
- Riparian



Take Home Message...

- **Landscape scale species**
 - Maintaining working landscapes paramount!
- **Shrubs provide “stable” cover**
 - ↑ Invertebrate biomass ↑ chick survival
- **Grazing prescriptions or rates**
 - ↑ reproductive output

Take Home Message...

- **Drought is inevitable**
- **Need a mosaic**
 - Still not exactly sure what that mosaic is...
 - Until then use 2/3– 1/3 rule
 - Where 2/3 provides nesting cover
 - and 1/3 more open cover