Sage-grouse Brood Detection Techniques

DAVID DAHLGREN
TERRY MESSMER
MIKE GUTTERY
ERIC THACKER

UTAH STATE UNIVERSITY

Brood Detection Methods

- Walking

- Spotlighting

- Pointing Dogs

Photo by Les Flake

Past Research

- Schroeder 1997
- Aldridge and Brigham 2001

Photo by Les Flake

"My dog, by the way, thinks that I have much to learn about partridges"

A. Leopold

Notice the breed of dog the "Father of Wildlife Science" chose!!!!

Detection Methods

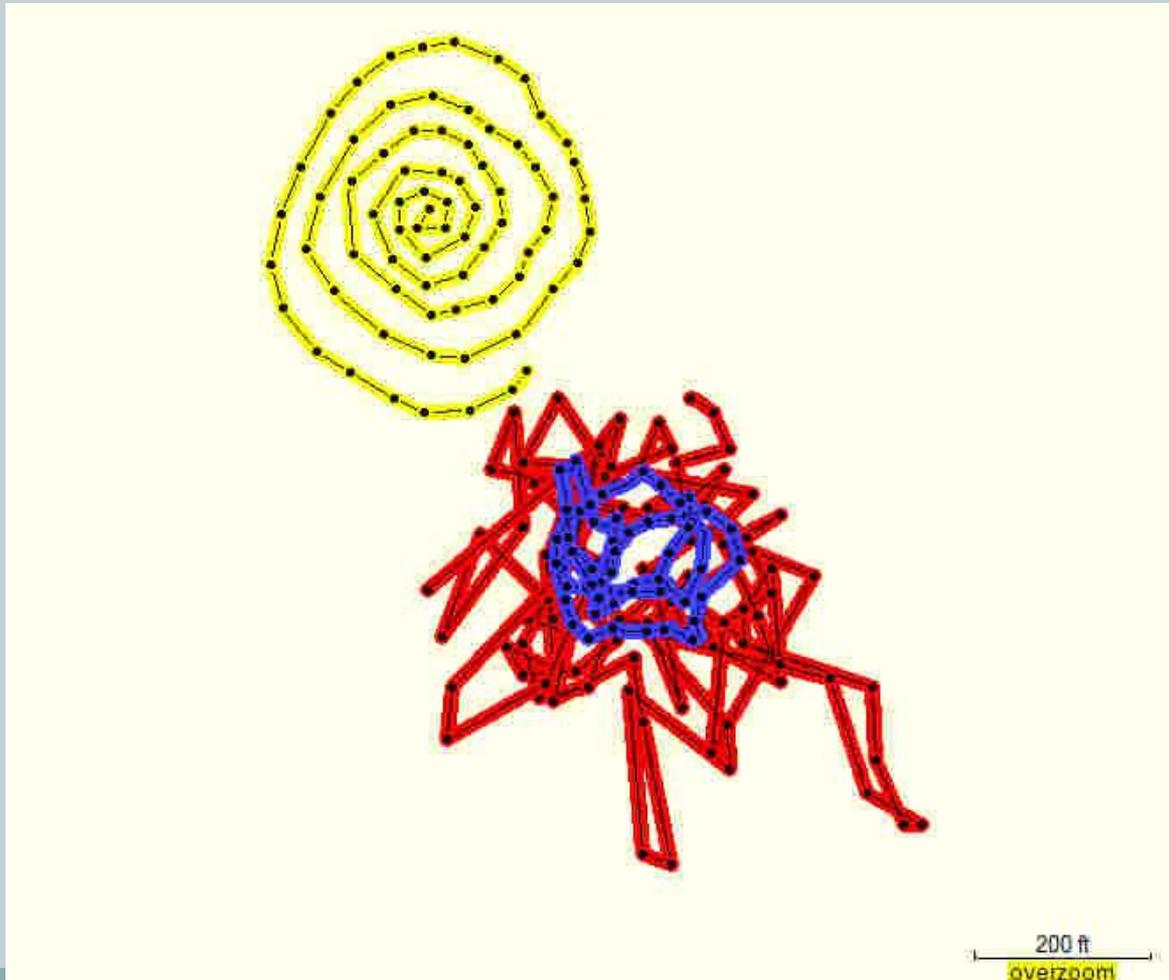- Study Area

- Methods

Broods: N=21

Photo by Todd Black

Spotlight

Walker et al. 2006 (WAFWA, Rapid City, South Dakota)

Walking and Bird-dog Counts

Garmin™ Astro

2 Analyses

- All Chicks

- Marked Only
  - Absolute Detection

All Chick Analysis

• **Overall difference ($F = 7.89$, $P = 0.001$)**
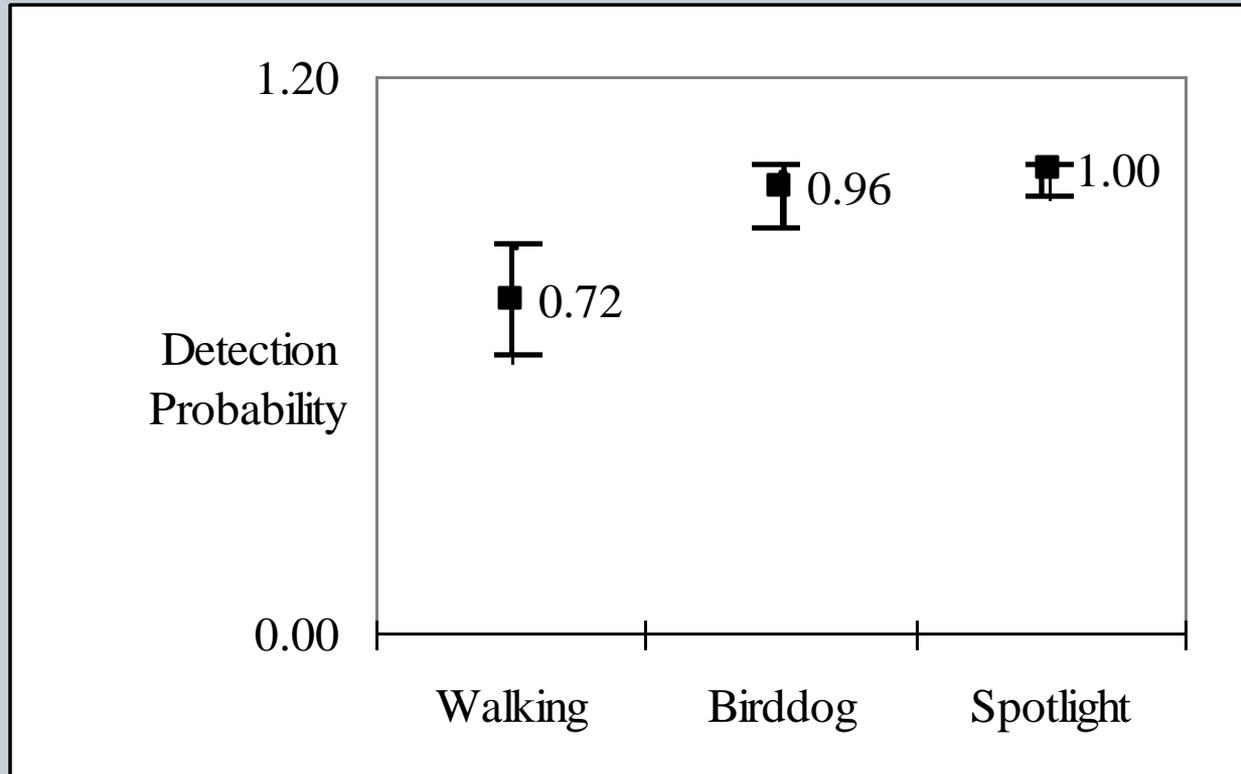
Pair-wise comparisons

Walking differed from Bird-dog and Spotlight
($t = 3.85$, $P = 0.001$ and $t = 2.90$, $P = 0.02$)

Bird-dog flush and Spotlight counts did not differ
($t = 1.03$, $P = 0.56$)

Marked Only Analysis
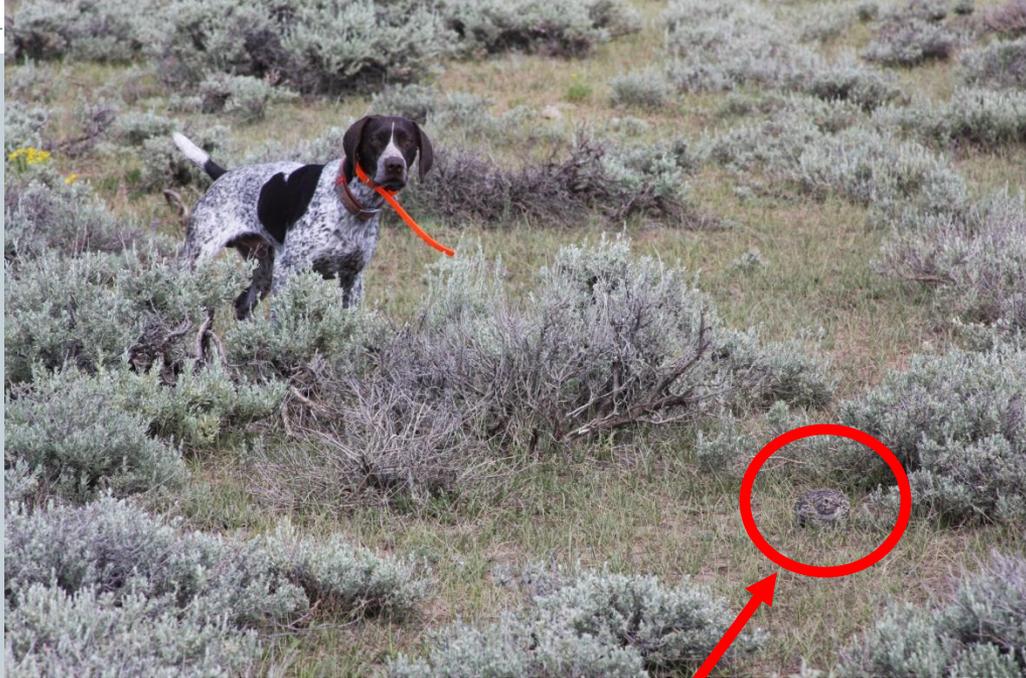
Management Implications

Photo by
Les Flake

Notice the Chicks

Acknowledgments

- Technicians
- Grad students
- Committee
- PARM
- Jack H. Berryman Institute

- Other Funding Sources
- UCWF
- UDWR
- USFS
- NRCS
- SITLA
- Farm Bureau