WINTER ECOLOGY OF THE RUSTY BLACKBIRD IN THE Lower Mississippi Alluvial Valley

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WINTER PLUMAGE

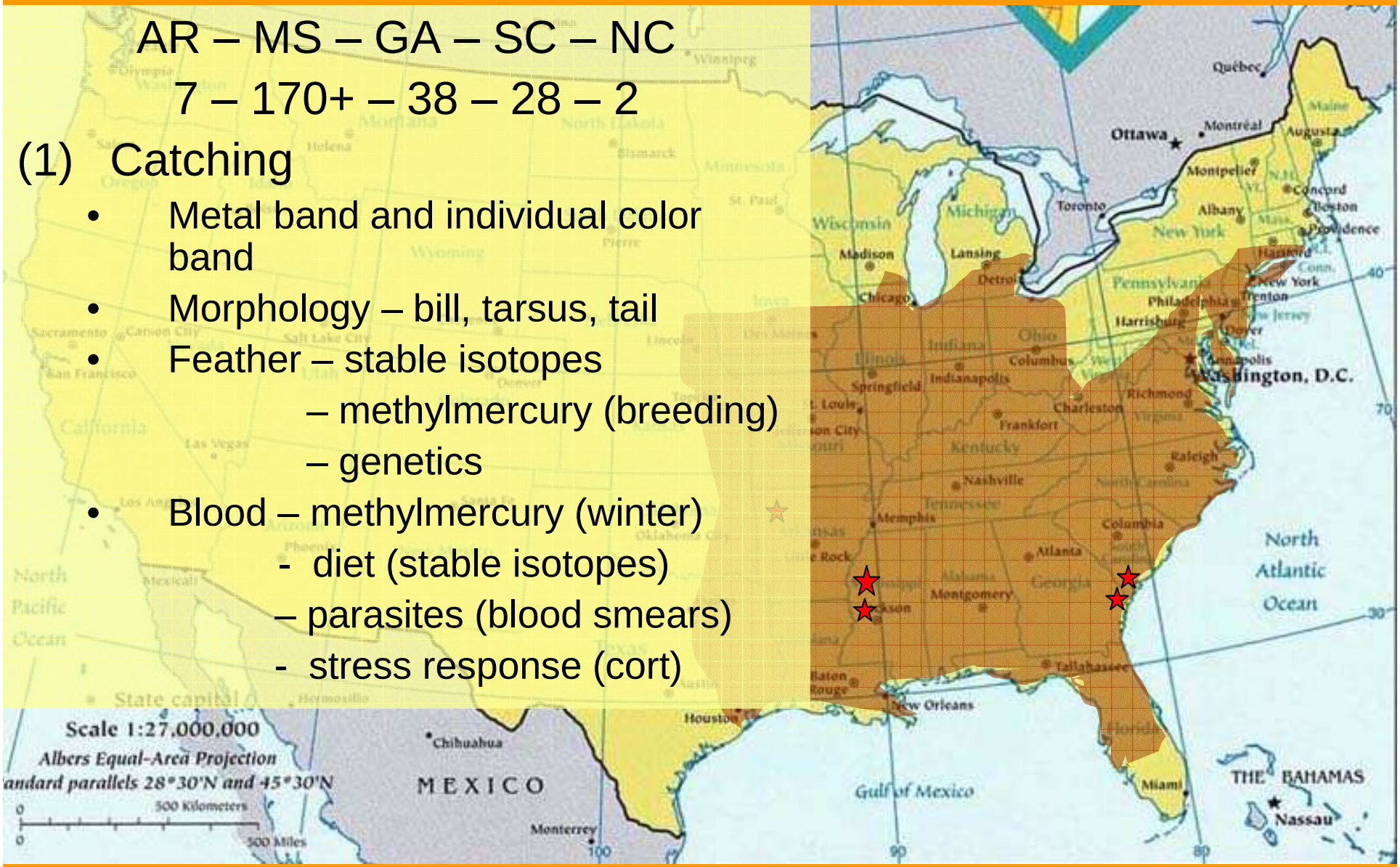
Sampling Sites

AR – MS – GA – SC – NC

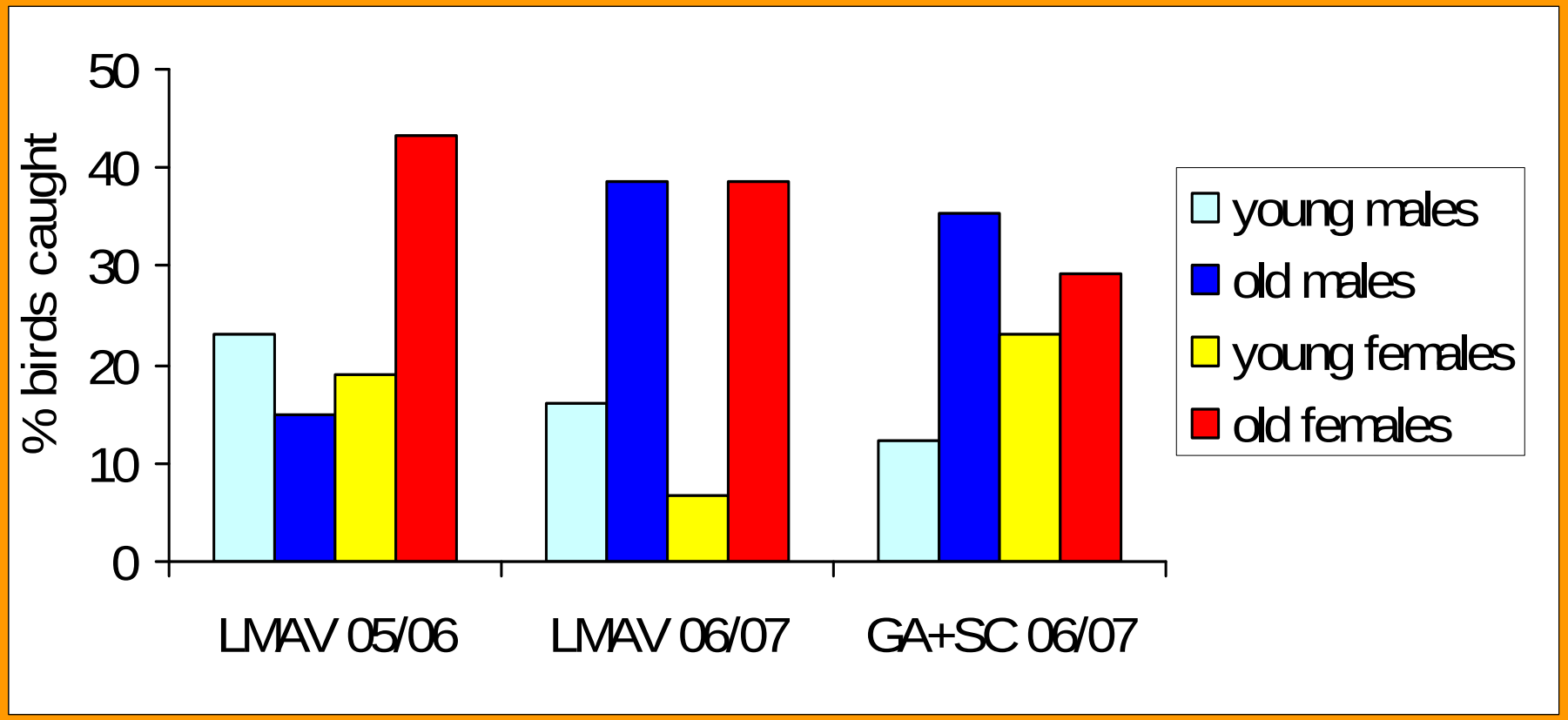
7 – 170+ – 38 – 28 – 2

(1) Catching

- Metal band and individual color band
- Morphology – bill, tarsus, tail
- Feather – stable isotopes
  - – methylmercury (breeding)
  - – genetics
- Blood – methylmercury (winter)
  - - diet (stable isotopes)
  - – parasites (blood smears)
  - - stress response (cort)



Overall Abundance



- variation across years
- few young females in LMAV
- higher abundance of young females along coast

FUTURE SITES

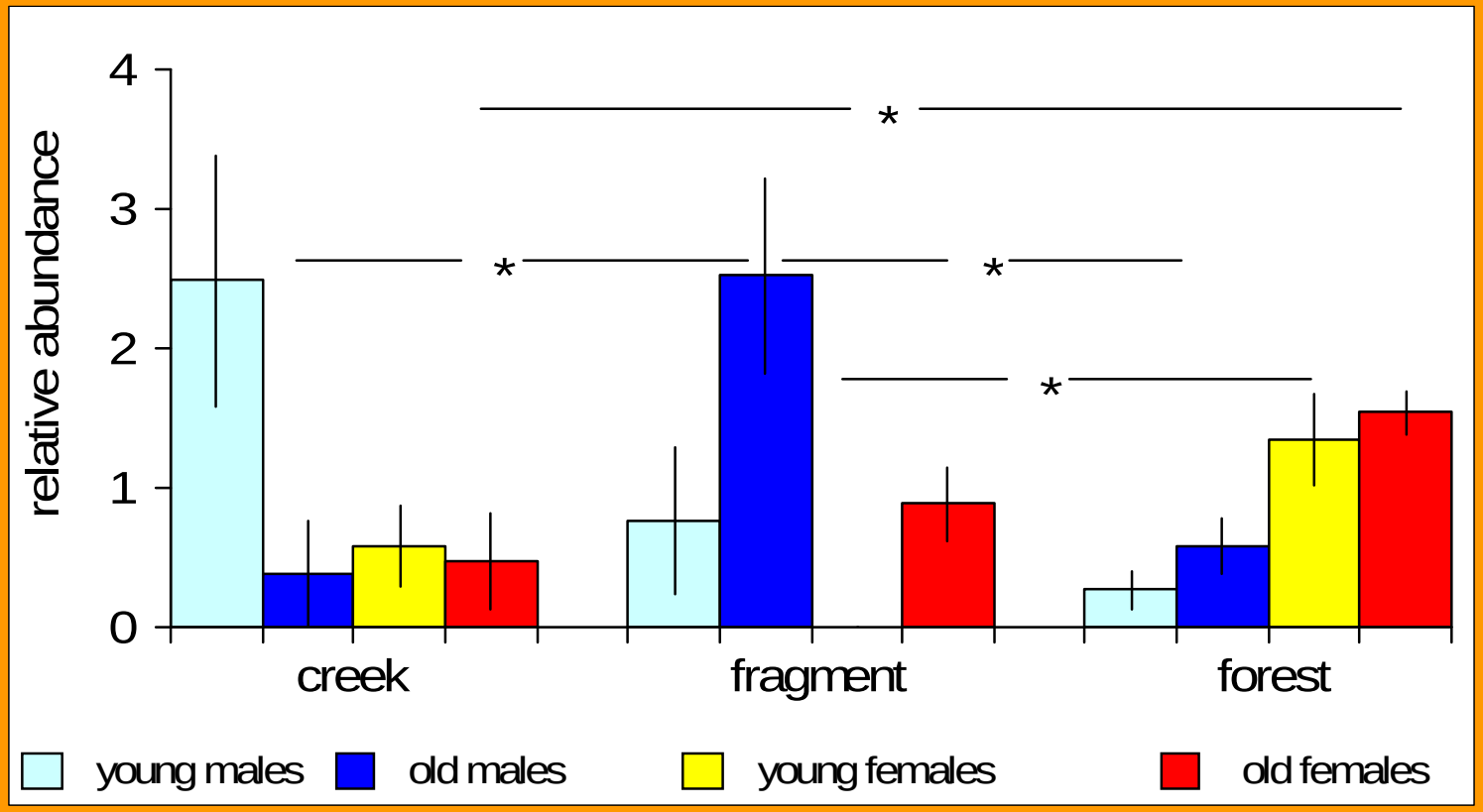
Day-time Habitats

Habitat	Field	S
Veget		
Distar to wa		
Wetness	Dry	

HABITAT CHARACTERISTICS

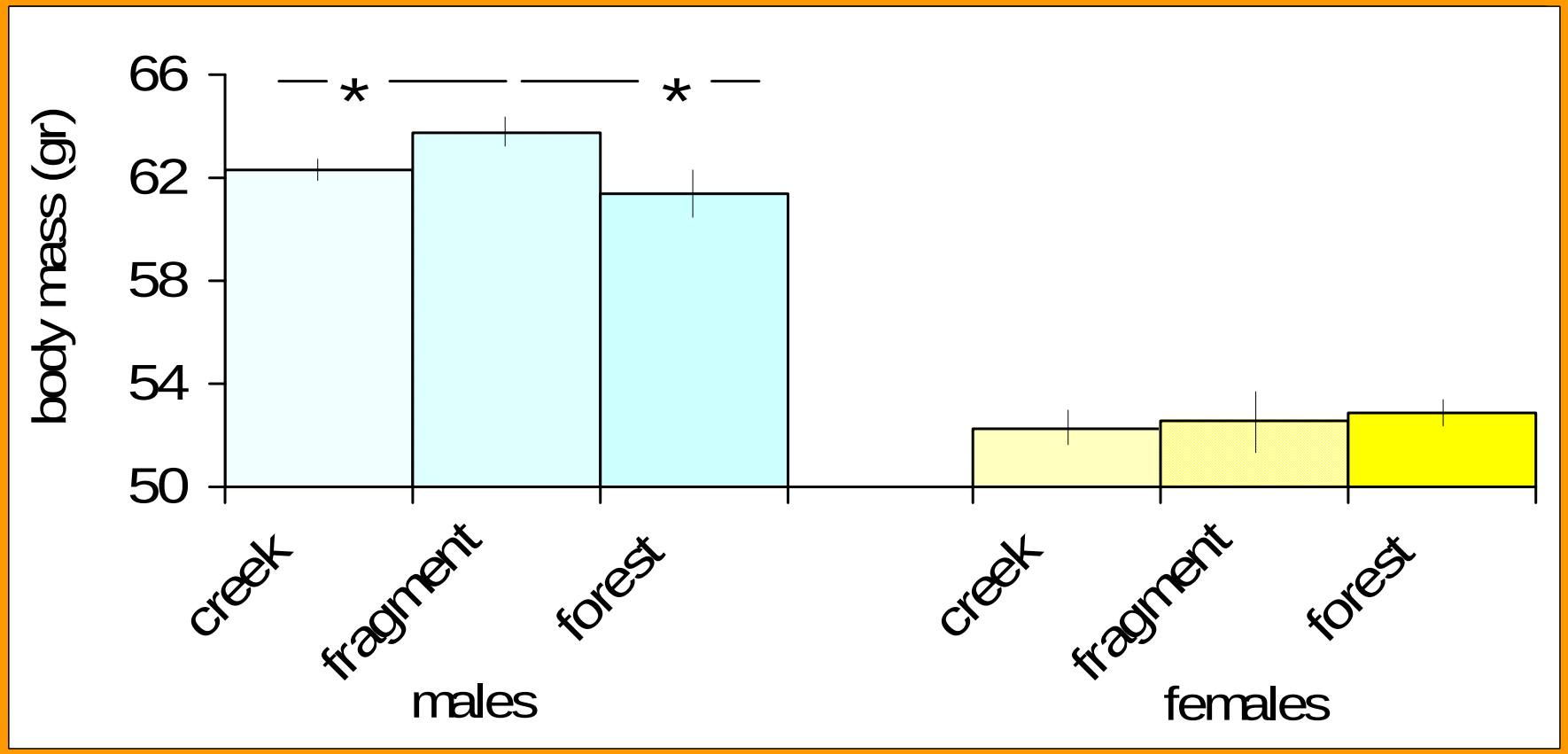
- From highly degraded forest fragments along creeks to forests
- Medium to dense understory
- Near water
- Mixed wetness

How are Rusty Blackbirds Distributed Among These Habitats?



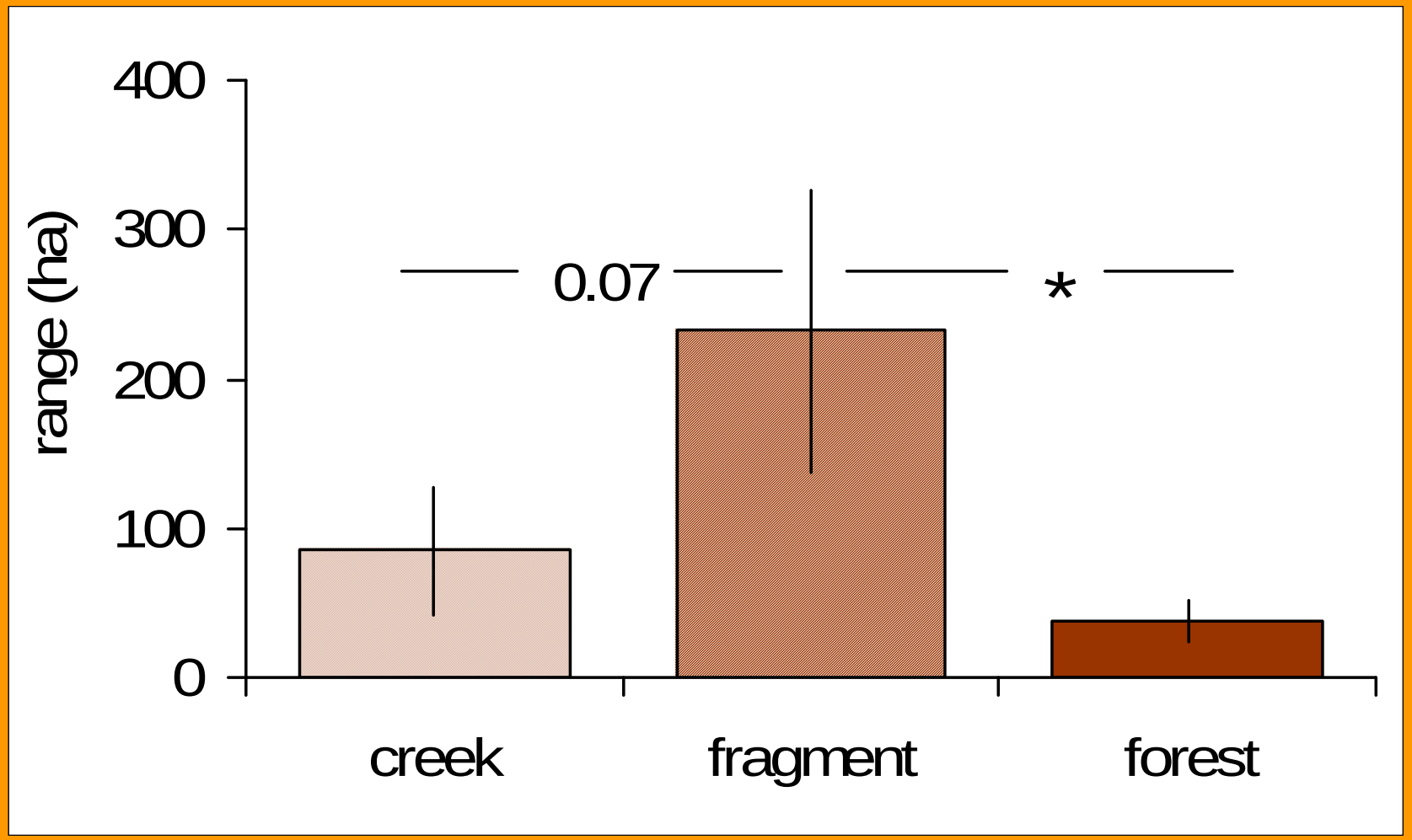
- Old females are in the forest
- Old males are in fragments (orchards)
- Young females avoid fragments

Condition Index



- **Males have a better condition than females**
- **Males are heavier in forest fragments (orchards) than along creeks or in forests**

Feeding Range



- Rusties in fragments have a larger feeding range than Rusties feeding along creeks or in forests

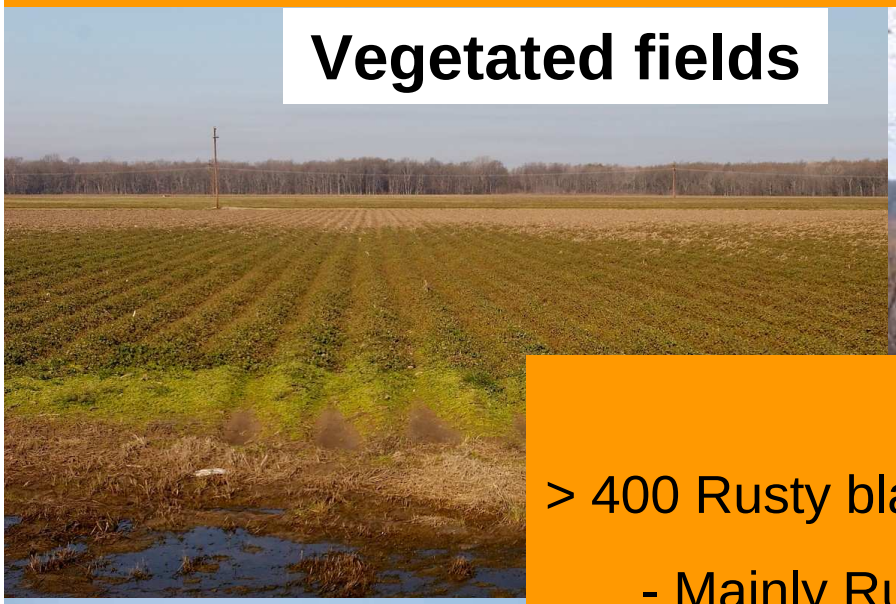
Summary Habitat Use

- Forest important for females
- Orchards alternative for males?
  - Competition in orchards
  - Larger range
    - Lower quality?
    - Single patches?

Future work:

- compare habitat quality via triglycerids
- Analyze stress samples => competition

Night Roosts



Vegetated fields

Afforestation areas

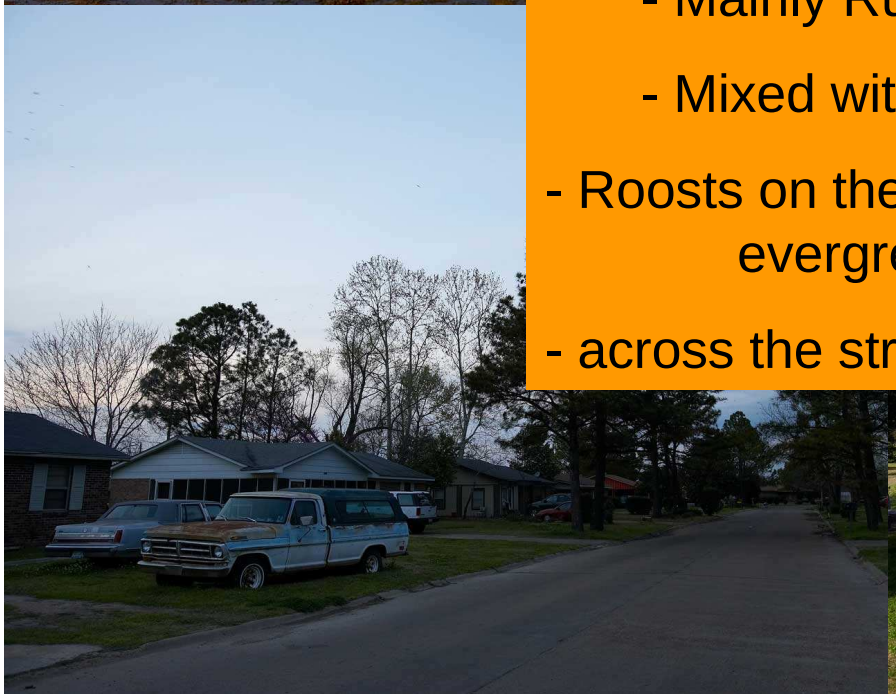
> 400 Rusty blackbirds

- Mainly Rusties

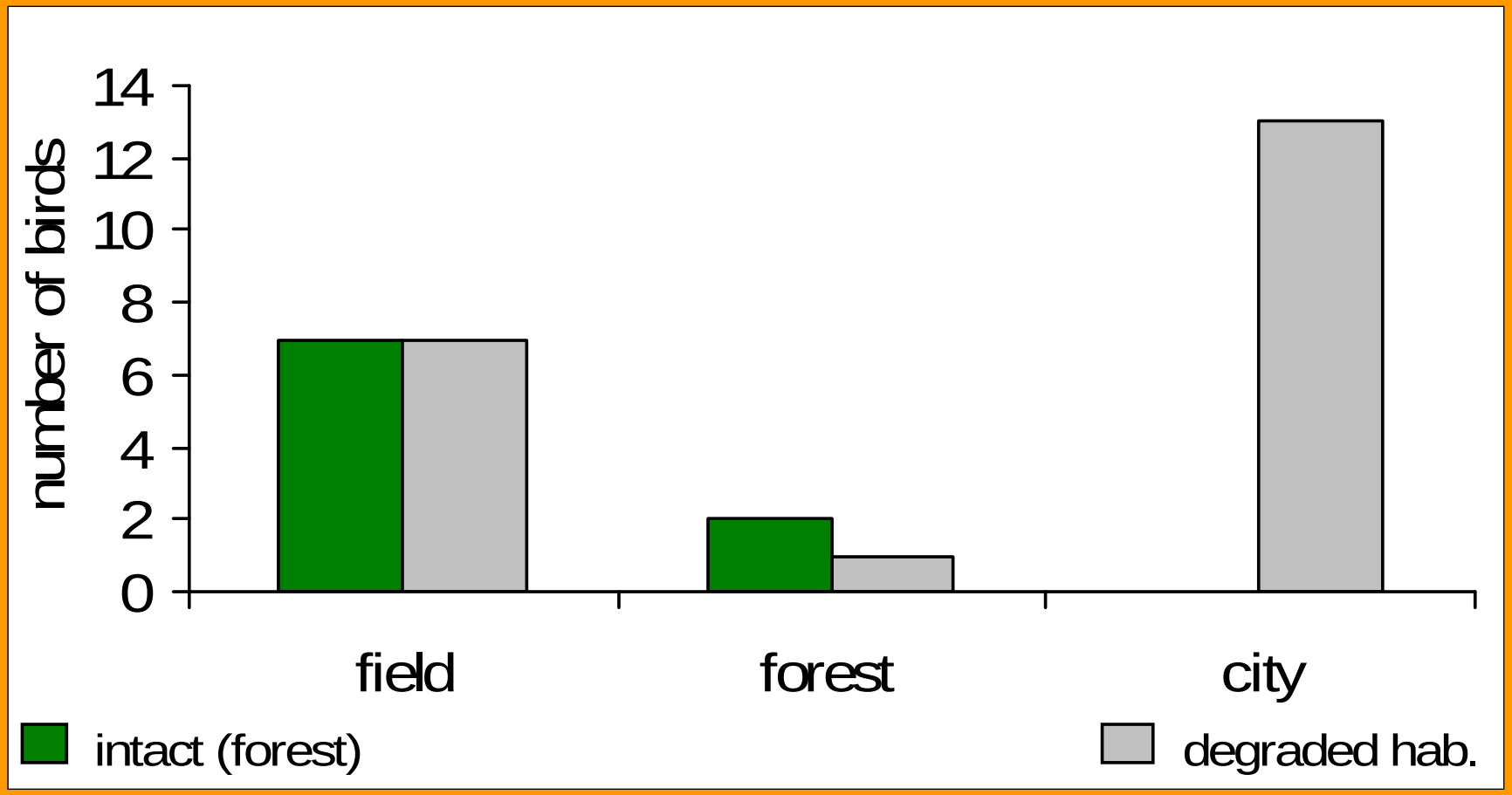
- Mixed with Red-winged

- Roosts on the ground or in evergreen trees and bushes

- across the street – 11 miles away

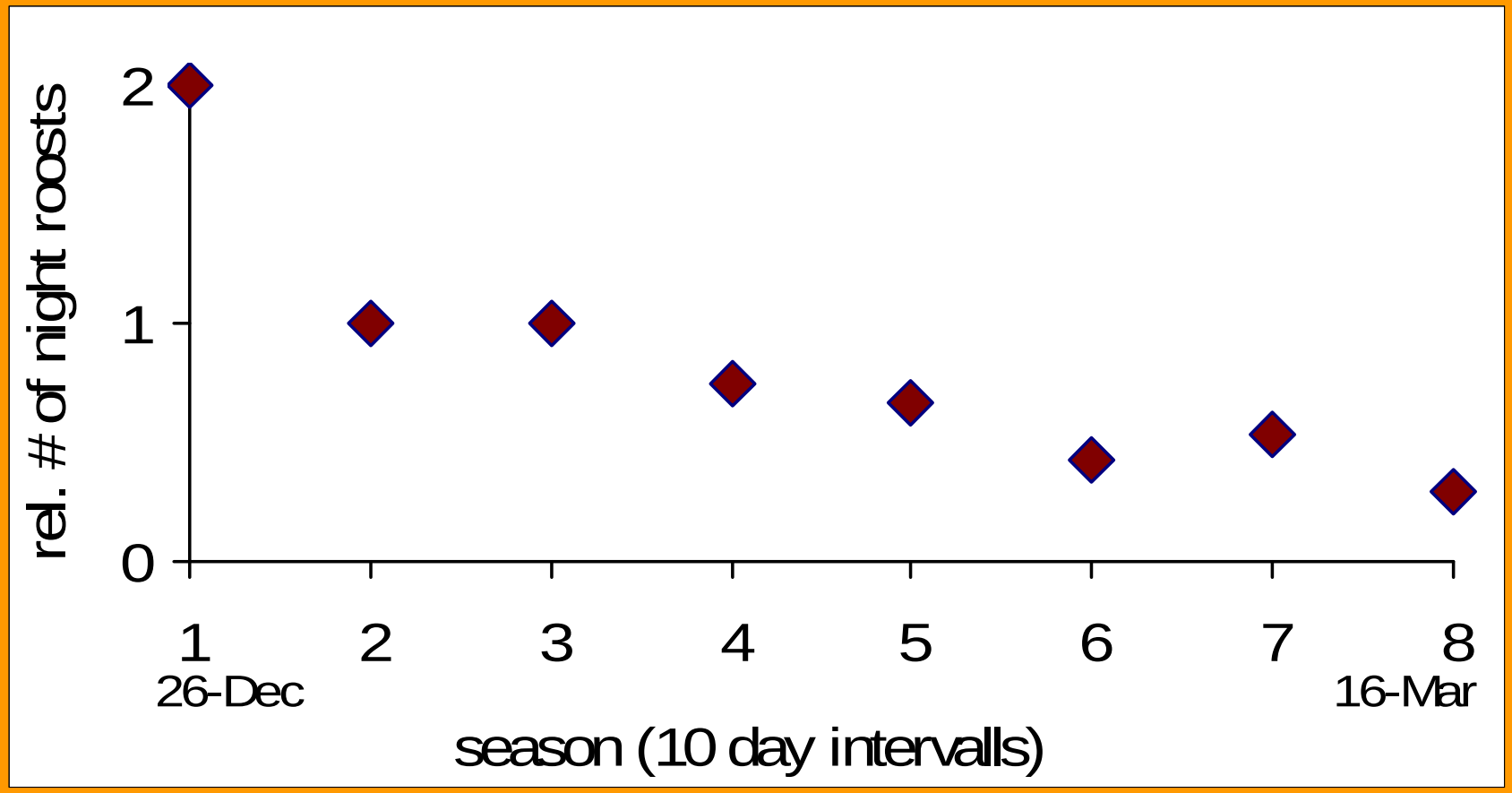


Who Sleeps Where?



Forest birds stay away from the cities

Seasonal Changes in Use of Night Roosts



Rusties concentrate in few night roosts later in the season (especially in cities)

Summary Night Roosts

- Birds feeding in disturbed areas use huge night roosts of other blackbirds
  - Blackbird control can impact RUBL
  - Exposed to shooting/poisoning

=> Providing more natural forests keep Rusties away from cities

- Birds concentrate in large night roosts later in the season
  - Disturbance at natural sites
  - Preparation for migration

=> Blackbird disturbance late in the season may have a huge impact on RUBL

Future Research and Recommendations

Research

- Cover the winter range more completely
  - Florida, Lousiana, Texas, Tennessee, Carolinas, Georgia
- Assess habitat quality (creek, orchards, forest)
- Investigate importance and function of large night roosts later in the season

Preliminary recommendations

- Extensive use of pecan orchards
- Establish corridors between patches
- Support more afforestation
- Restrict blackbird roost disturbance to early in the season

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Feeding behavior