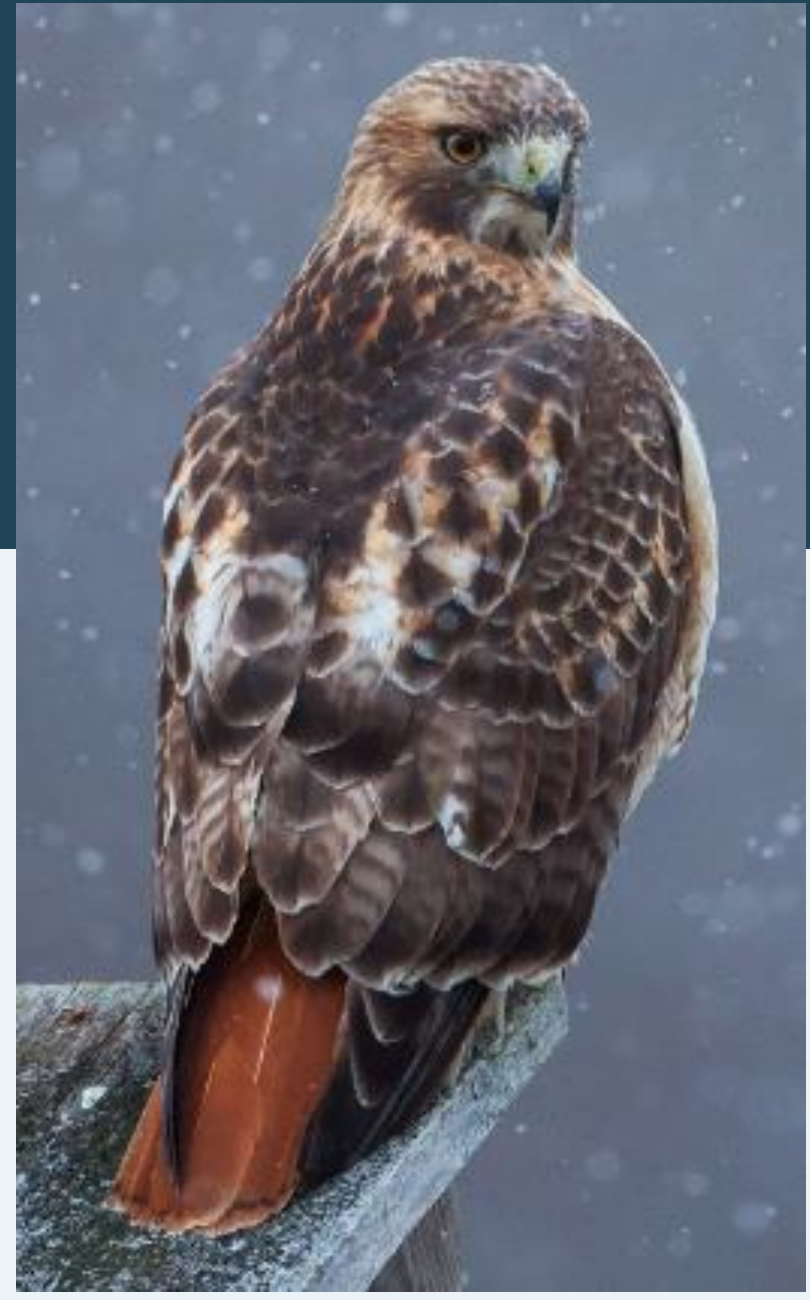


Red-Tailed and Red-Shouldered Hawk Habitat Usage Throughout Humboldt County



An adult Red-Tailed Hawk left, and juvenile right. Photo by Christopher N. Ciccone and Kim Smith



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Adult Red-Shouldered Hawk left, and juvenile right. Photo by Herb Elliott and Clifford Cathers

INTRODUCTION

- Red-Tailed (RTH) and Red-Shouldered Hawk (RSH) habitat use in relation to the age of the bird.
- RTHs prefer open habitat, while RSHs prefer forested habitat
- Adult RTHs prefer more open habitat, while adult RSHs prefer forested environment
- Immatures of both will be in less favorable habitat, such as urban for both and forest for RTHs and open for RSHs.

METHODS

- I conducted haphazard searches throughout Humboldt County.
- Four main habitat types: Open Water, open habitat, urban and forest.
- Used plumage characteristics to define age, as well as species.
- A 1.5 mile diameter polygon was used as the territory size for habitat analysis.
- **Independent Variable:** Habitat/ land cover makeup
- **Dependent Variable:** Hawk age

RESULTS

- **72** total individual hawks observed
- Red-Tailed Hawks:
 - No significance, forest almost significant
- Red-Shouldered Hawks:
 - No significance



Interior Humboldt County. Photo by Humboldt community services district

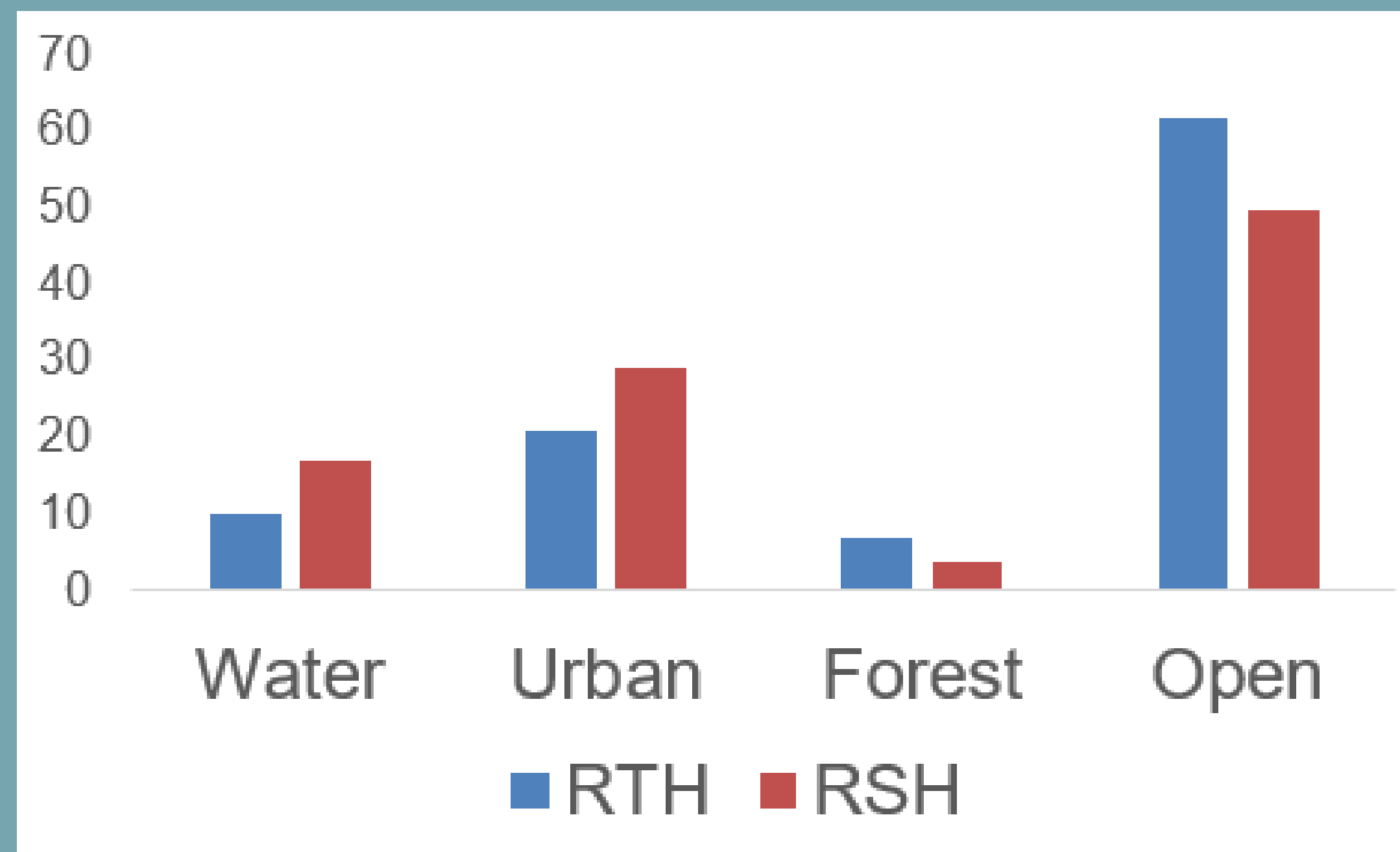


Fig 1. Average percentage land cover for Red-Tailed Hawk and Red-Shouldered Hawk for 1.5 mile diameter territory sizes

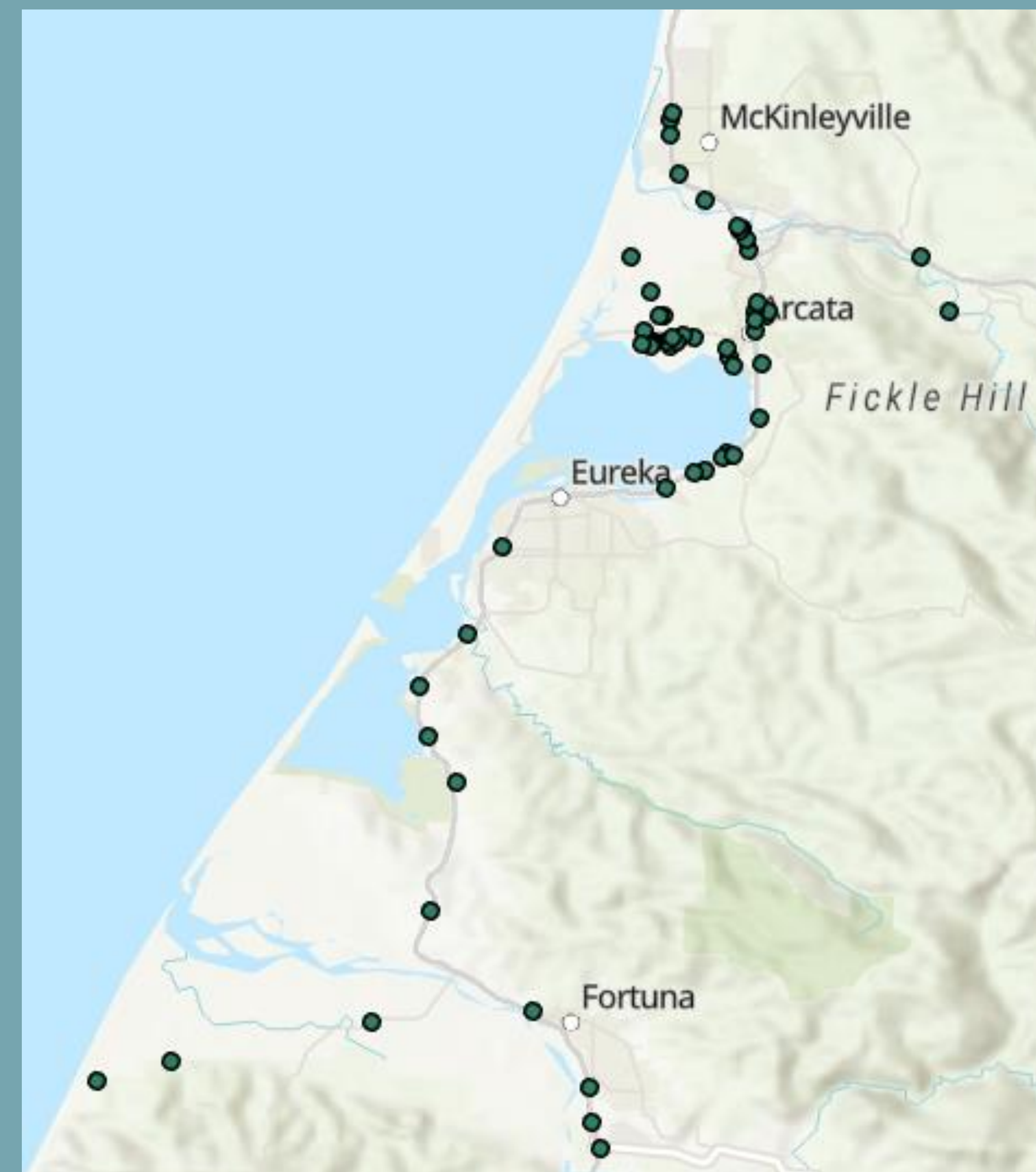


Fig 2. 71 out of the 72 Hawk sightings throughout Humboldt county.

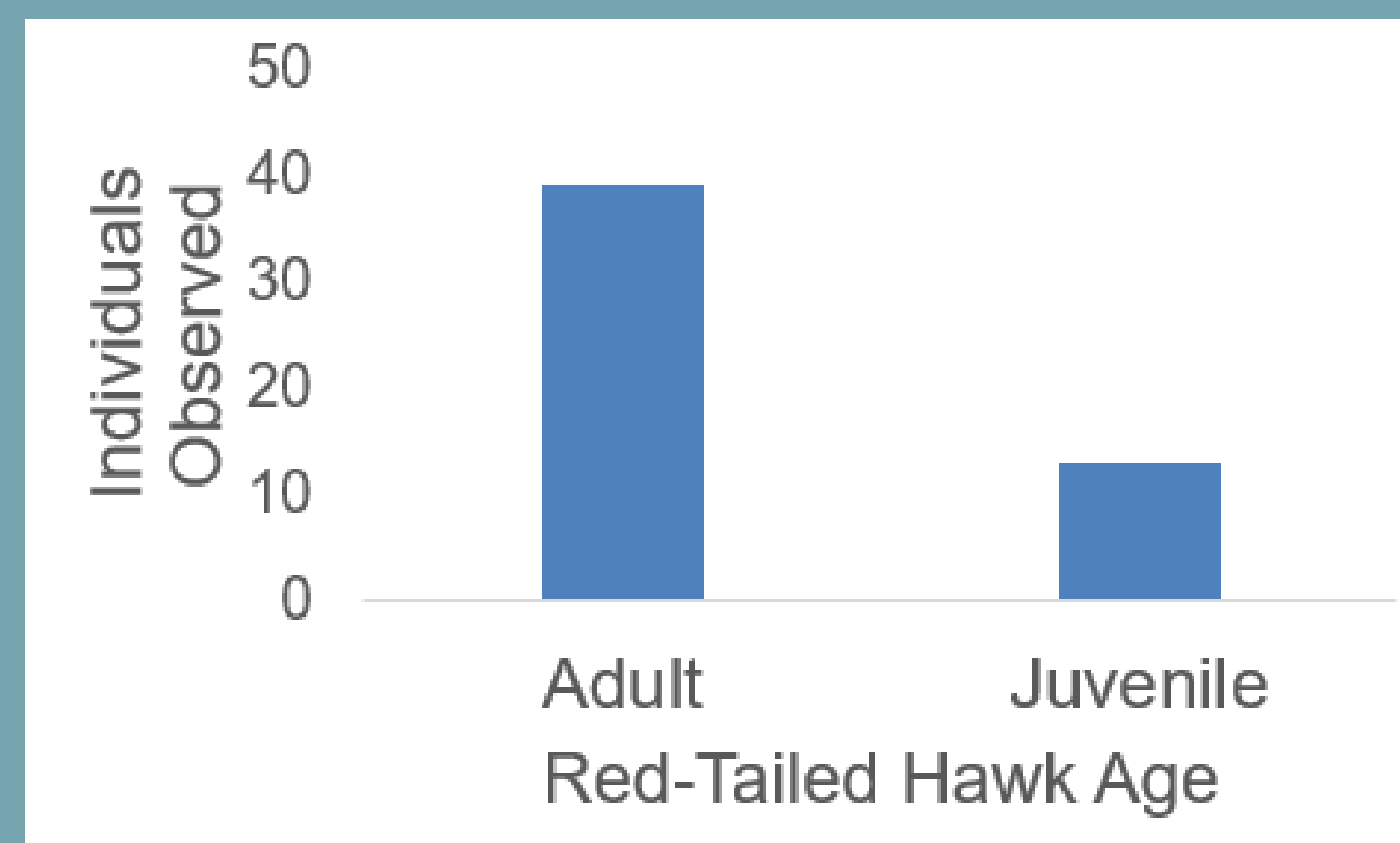


Fig 3. Age distribution of observed Red-Tailed Hawks

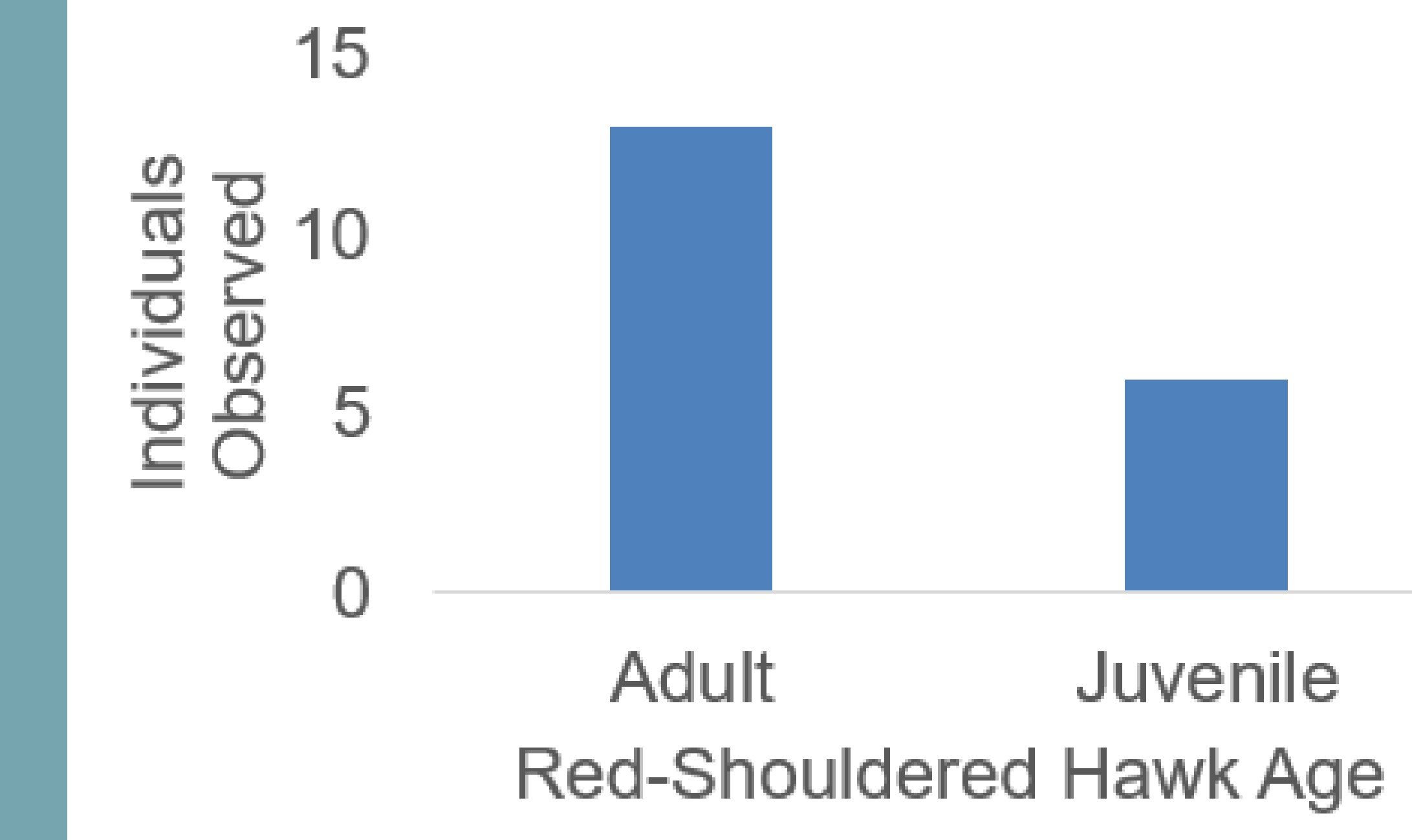


Fig 4. Age distribution of observed Red-Shouldered hawks

DISCUSSION

- My hypothesis was **not supported**
- The habitat does not influence on if it will be used by an adult or juvenile Red-Tailed or Red-Shouldered Hawk
- **Challenges:** detection accuracy, recounting, identification of age, site accessibility
- **Confounding variables:** time of day, time of the year, weather, human activity, site accessibility
- **Improvements:** larger sample size, more sites, shorter time period
- Further research into different raptors habitat usage should be done, ie Kestrels, Harriers, Peregrines.
- Much of the used habitat is agricultural land, or open habitat which should be protected, not developed.

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