Examining the variation in innovation of Asian elephants across human-dominated and protected environments in Kanchanaburi, Thailand

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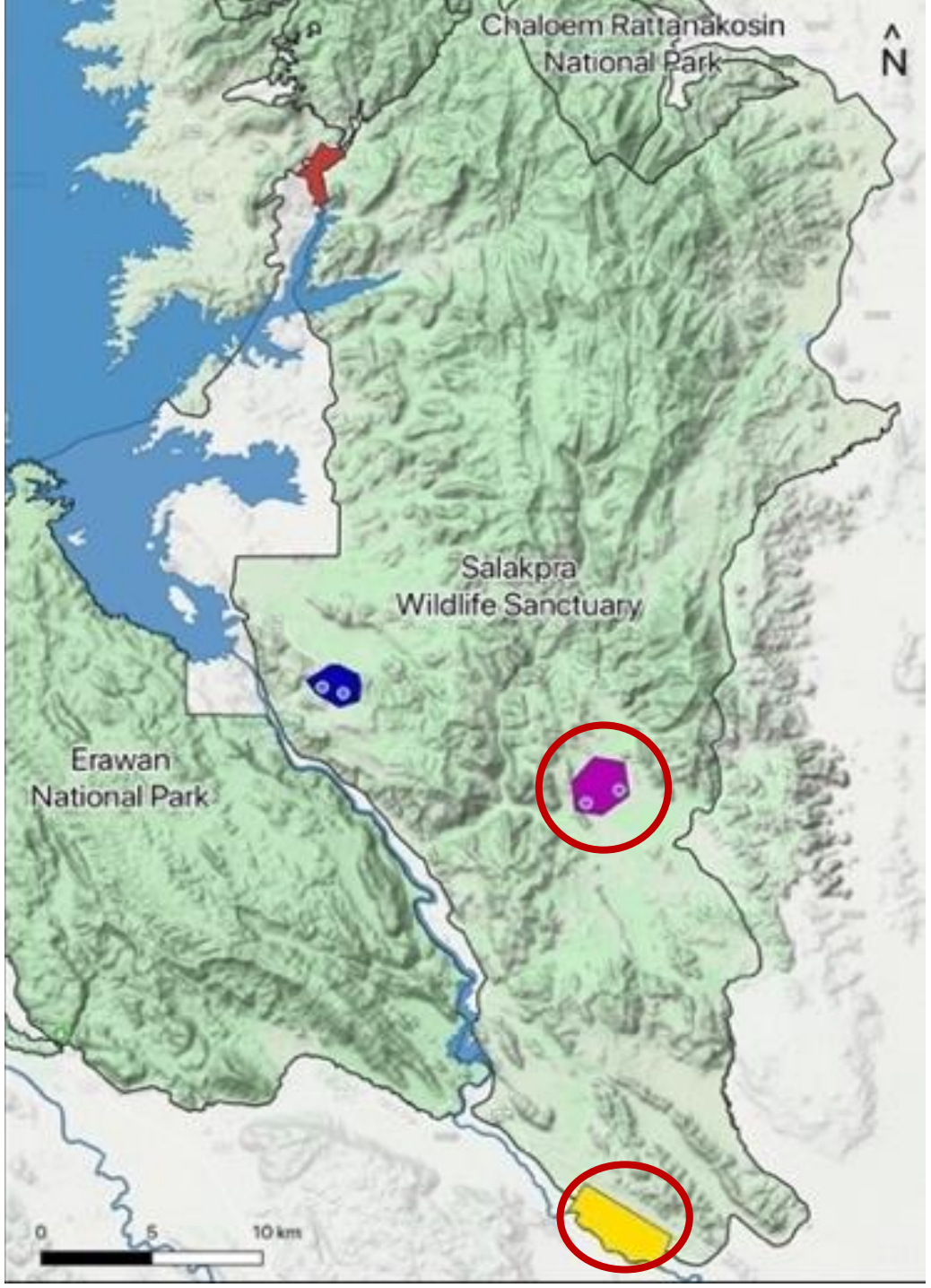
Thailand


Kanchanaburi
Salakpra


Chaloem Rattanakosin
National Park
N
Salakpra
Wildlife Sanctuary
Erawan
National Park
0
5
10 km

Measures= Success, innovation, neophilia, exploratory diversity, persistence

Questions & Results

- Variables associated with interaction on first visit?
  - Location
  - ~~Sex~~
  - ~~Age class~~
  - ~~Group~~

Logistic regression:
β = 0.98, *p*=0.02

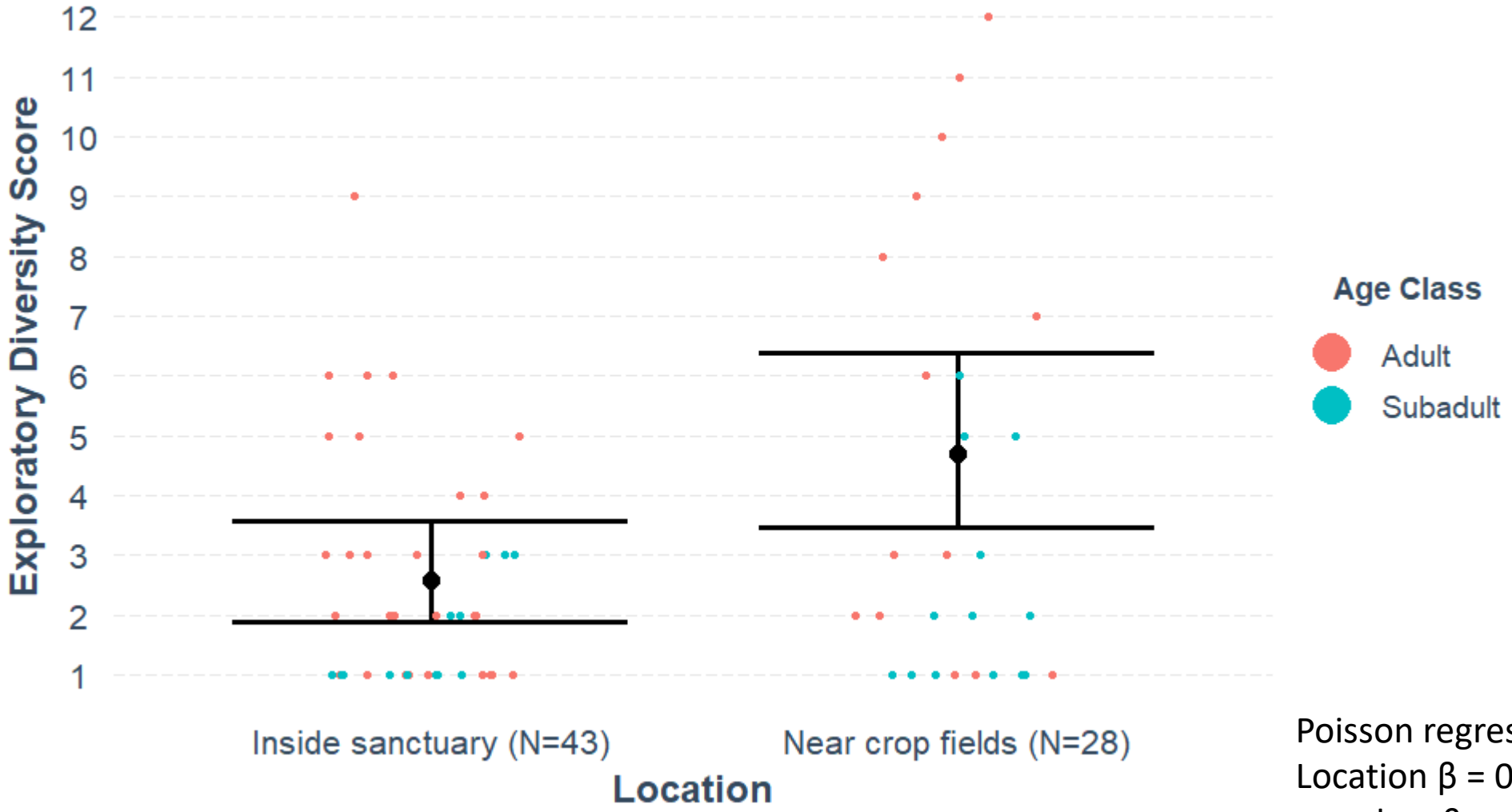
- Variables associated with success in first interaction?
  - ~~Location~~
  - Sex
  - Age class

Logistic regression:
Sex β = 1.03, *p*=0.04
Age class β = -1.77, *p*<0.001

- Variables associated with behavioral measures in first interaction?

  Neophilia ~ ~~Location + Sex + Age class~~

Location ~~Sex~~ Age class



Poisson regression:
Location β = 0.60, $p<0.001$
age class β = -0.76, $p<0.001$

- Variables associated with behavioral measures in first interaction?

Persistence ~ **Location** **Sex** **Age class**

Logistic regression:
Location β = 0.10, *p*=0.01
Age class β = -1.03, *p*<0.001
Sex β= 0.40, *p*<0.001

- Variables associated with overall innovation across all interactions?

~~Location Sex Age class~~

Conclusions

- Differences based on location, sex, and age class in initial exposure
  - No relationship with innovation when considering performance in multiple interactions
- Knowledge about variation in innovation across landscape informs about elephants likely entering crop fields

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Thanks!

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