In conservation, should we care about the behavior and psychology of the animals under threat?

Bringing behavior and cognition into conservation: assessing the behavioral and cognitive traits of Asian elephants in Kanchanaburi, Thailand

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What's the problem?

- Most deterrent methods used to manage human-elephant conflict have had limited success
- We hypothesize that this is due to a human-centric perspective on developing solutions that often rely on barriers and fear

What are we going to do?

- We plan to research the elephant perspective, in terms of their **behavior** and **cognition**, in order to better understand this conflict
- Specifically, we are interested in looking at different behavioral characteristics of elephants which decide to forage in risky agricultural areas and non-risky protected areas
  - We will compare between **sites inside** Salakpra Wildlife Sanctuary (860 km^2), Kanchanaburi Thailand and **agricultural sites bordering** the protected area

- We will collect video footage of elephants from camera traps and live observations from watchtowers

How are we going to study elephant behavior?

- We are interested in elephant behavior across contexts:
- How do elephants interact with each other?
  - Do these interactions differ between and within groups, and between and across landscapes?

- How do elephants respond to humans and different deterrents used by farmers in agricultural areas?

How are we going to study the elephant's mind?

- Provide puzzle boxes for elephants in both contexts
- Assess individual variation in interactions with the puzzle

- Their initial responses to the puzzle may predict innovation, problem solving, and risk-taking
- We hypothesize that individuals which crop raid will be more attracted to, exploratory, and innovative with this puzzle box

How might this aid conservation?

- Behavioral characteristics of risk-taking elephants can help inform how deterrents could be used more effectively
- We can identify the social networks of crop raiding elephants in order to know more about how this risky behavior spreads within and across social groups
- This research could help in the development of new mitigation strategies that take individual differences in behavior and decision-making into account

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