

Stress in birds

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Stress in birds

What is stress?

How do we measure stress?

Grey-faced petrels

Responses to a predator

Emperor penguins

Stress

Stress is a state when an animal

- perceives a situation to be a threat
- activates the HPA axis
- has increased corticosterone or cortisol secretion

Emotional stimulus



Perception of threat



Corticosterone or cortisol
response

Loss of control

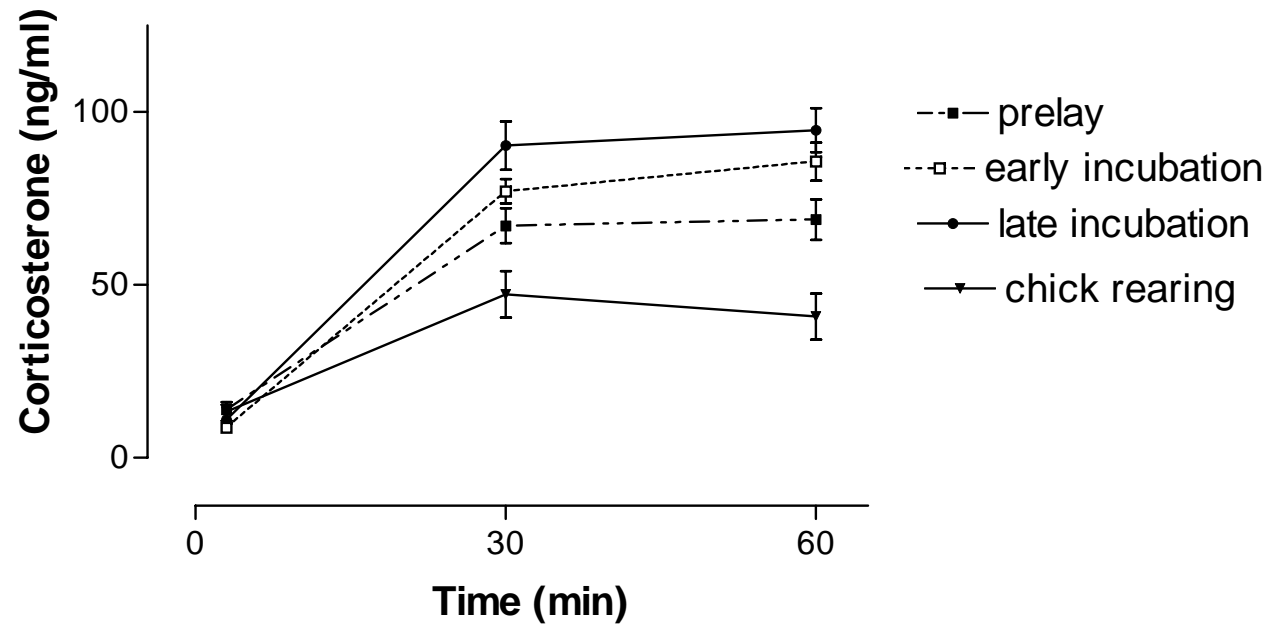
How do we measure stress?

- collect blood (or faecal) samples and measure hormone levels

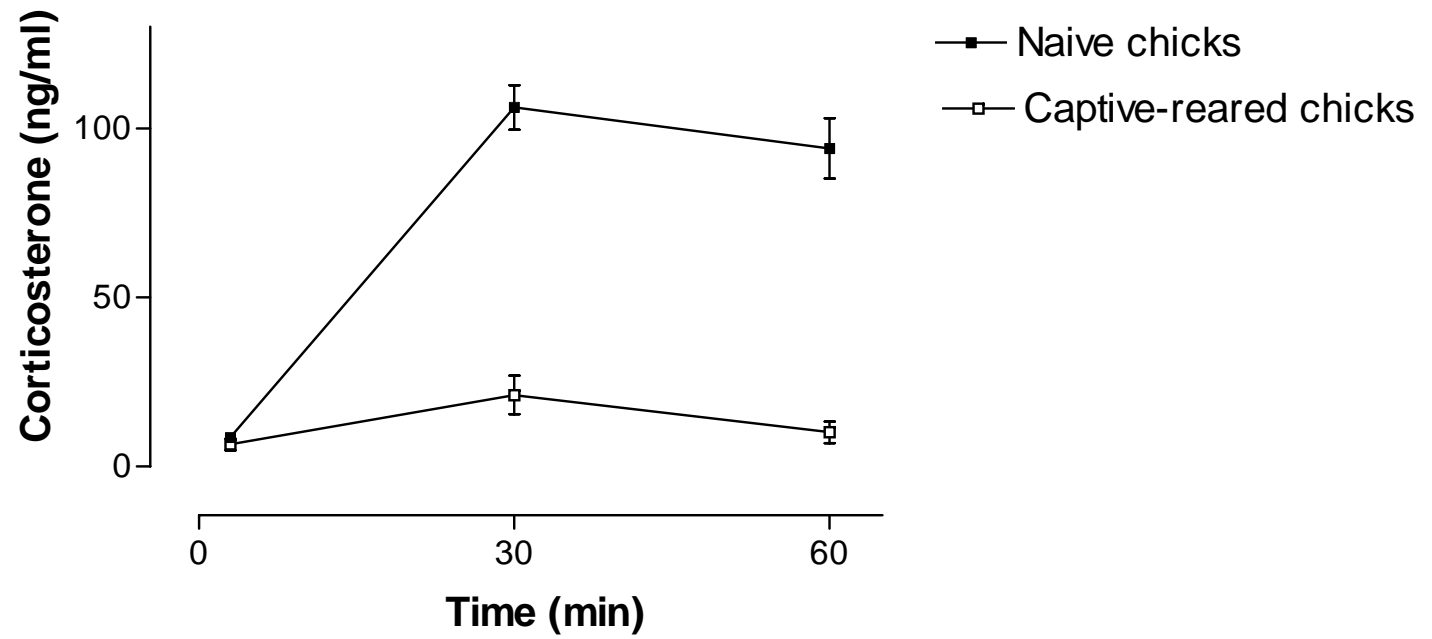
Grey-faced petrel



2001



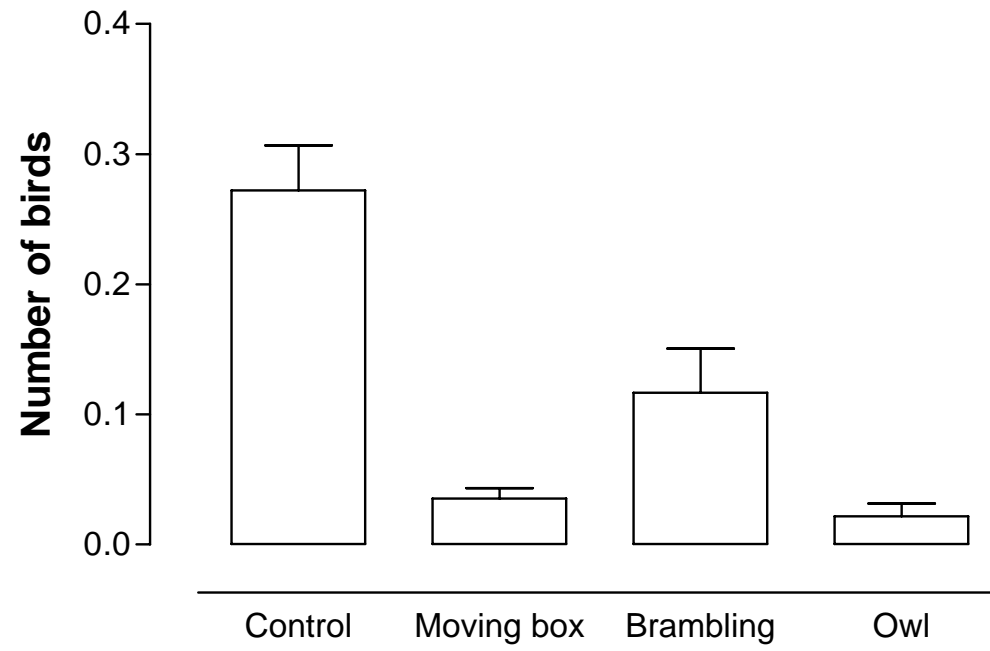
Grey-faced petrel

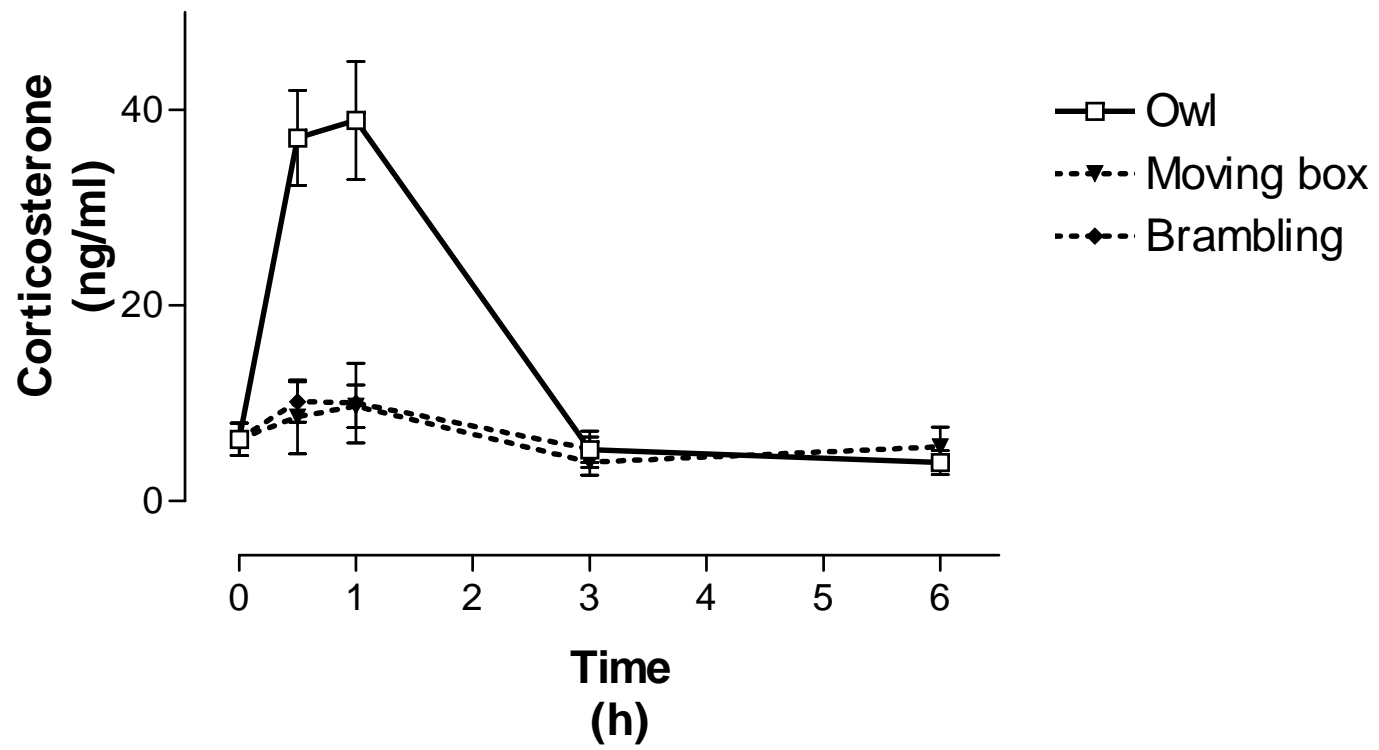


Great tit (Parus major)



Feeder

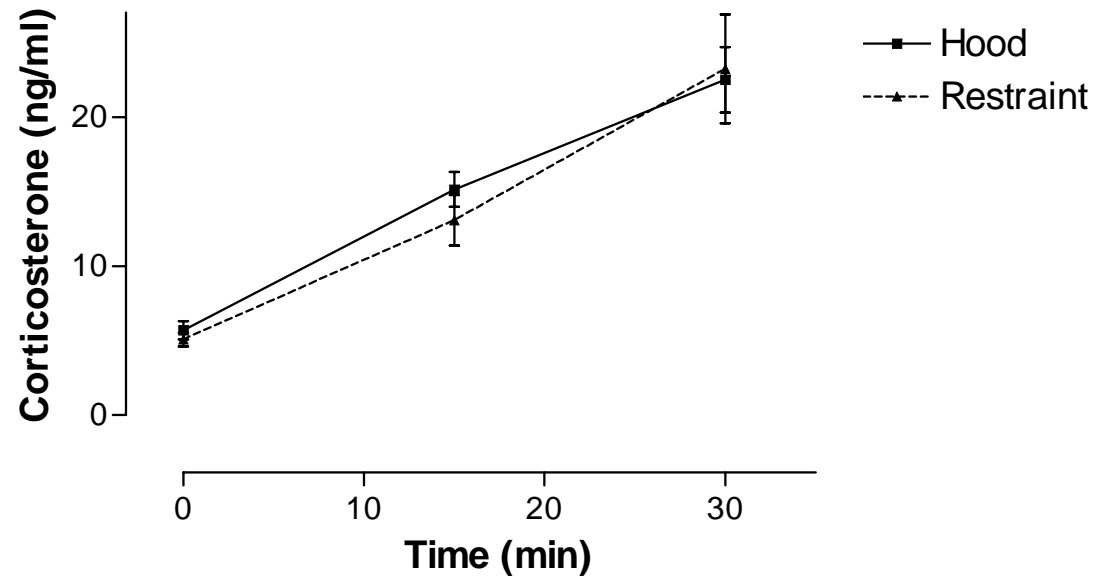


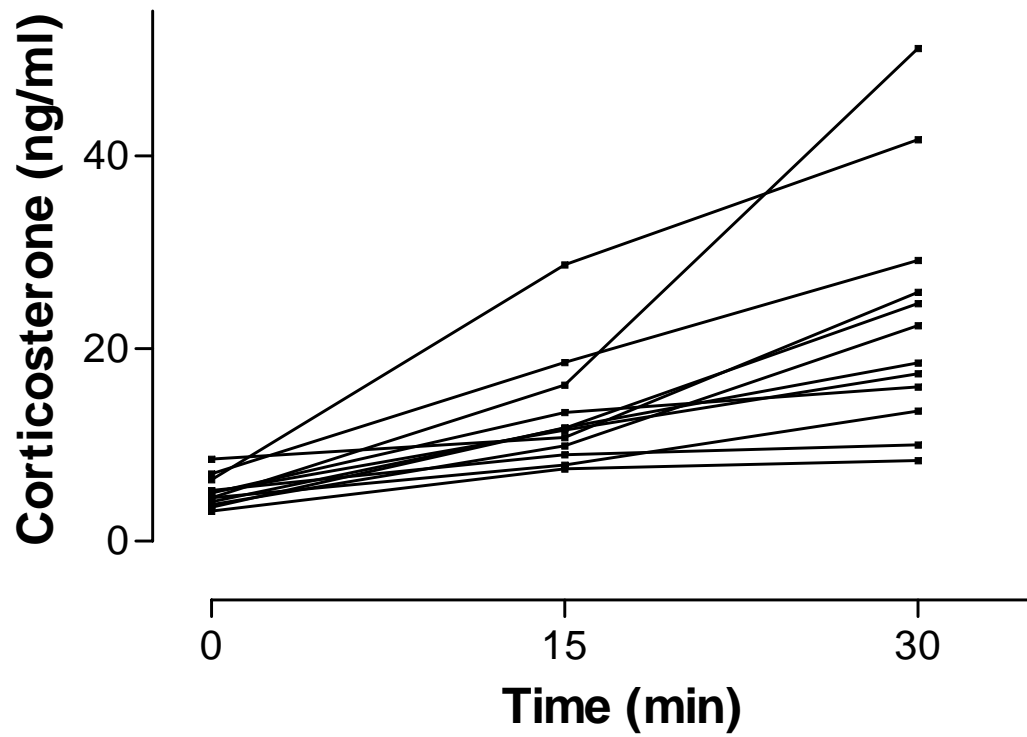








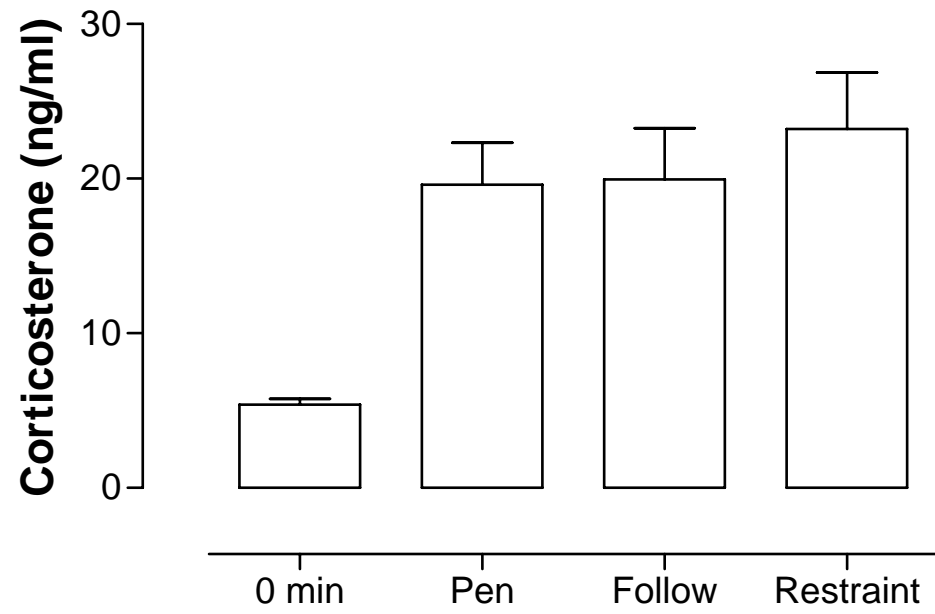








30 min



Conclusions

Animals experience stress when they perceive a threat

Stress responses involve increased secretion of corticosterone or cortisol

Behaviour is not a reliable indicator of stress

Animals vary in their stress responses

The amount of stress experienced by animals during different translocation procedures could be determined from hormone measurements