

Effects of stress on the singing performance of common mynas

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BACKGROUND

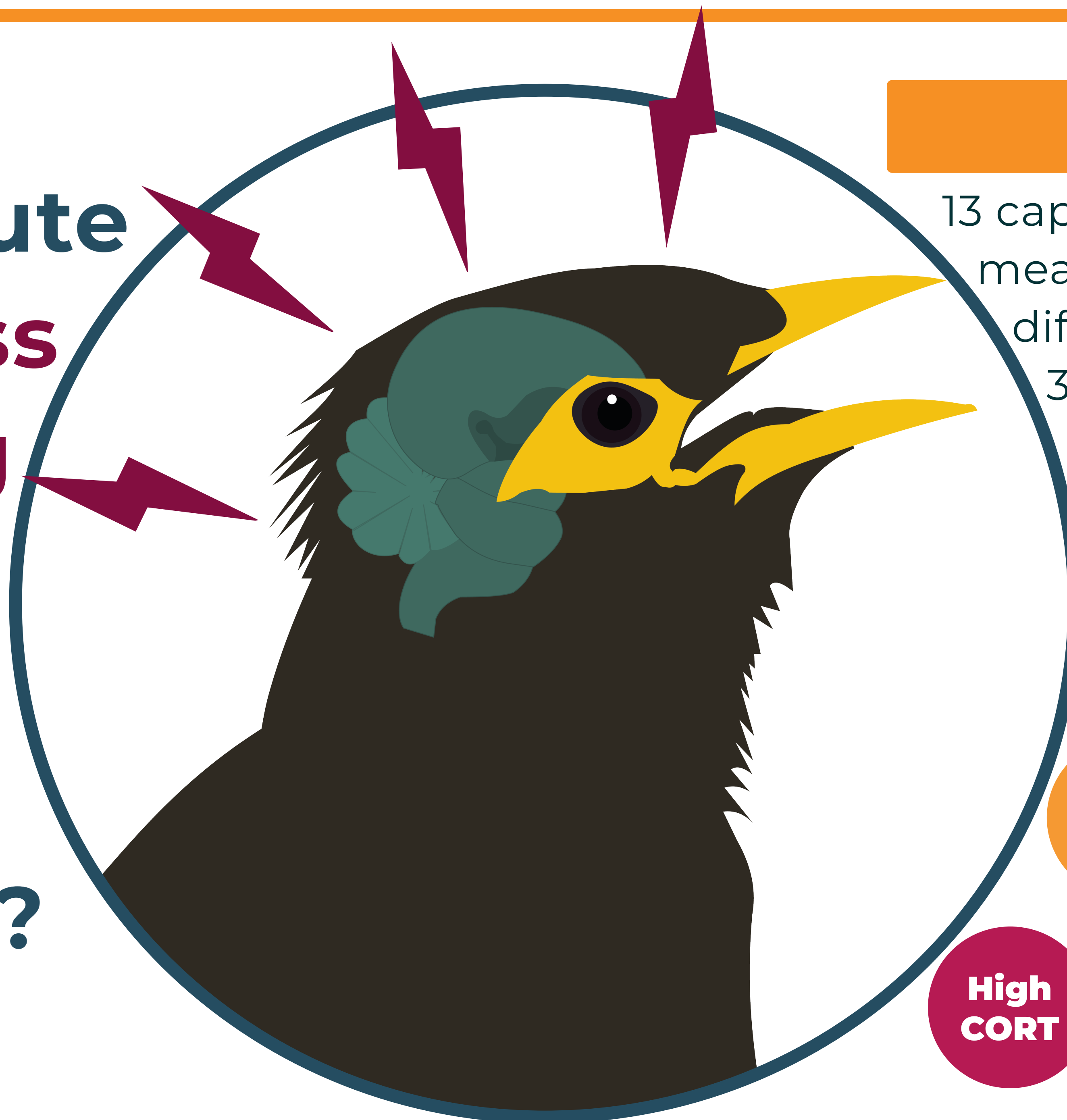
Birds can be subjected to many sources of **stress**: predation, competition, temperature fluctuations and pollution.

When stressed, birds **increase** the production of the **stress hormone** corticosterone (**CORT**).

Stress can impact **survival**, **reproductive success**, and **vocal learning**.

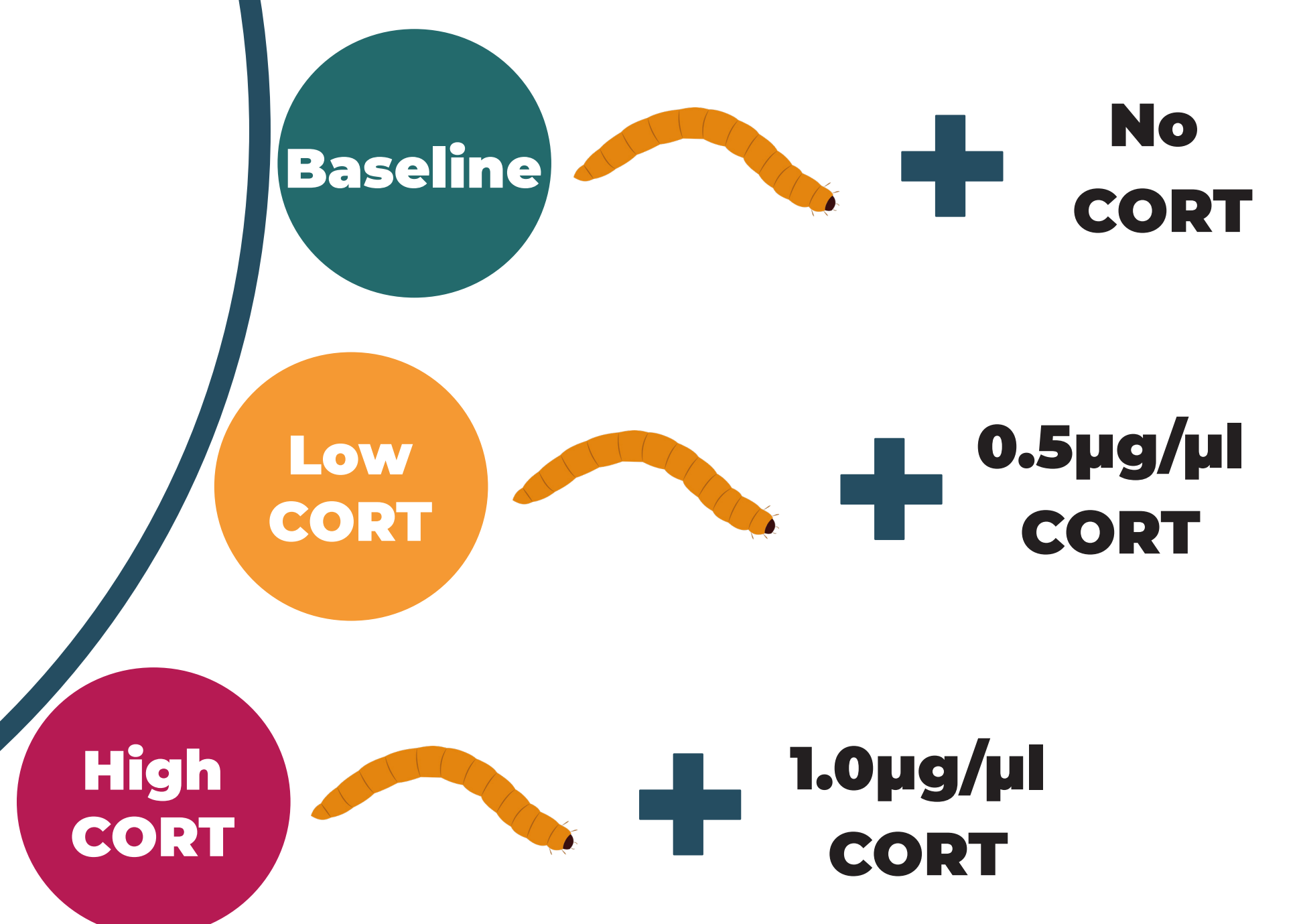
However, little is known about how acute stress in **adult birds** affects their **vocalisations**.

Does acute stress affect song performance of adult common mynas?

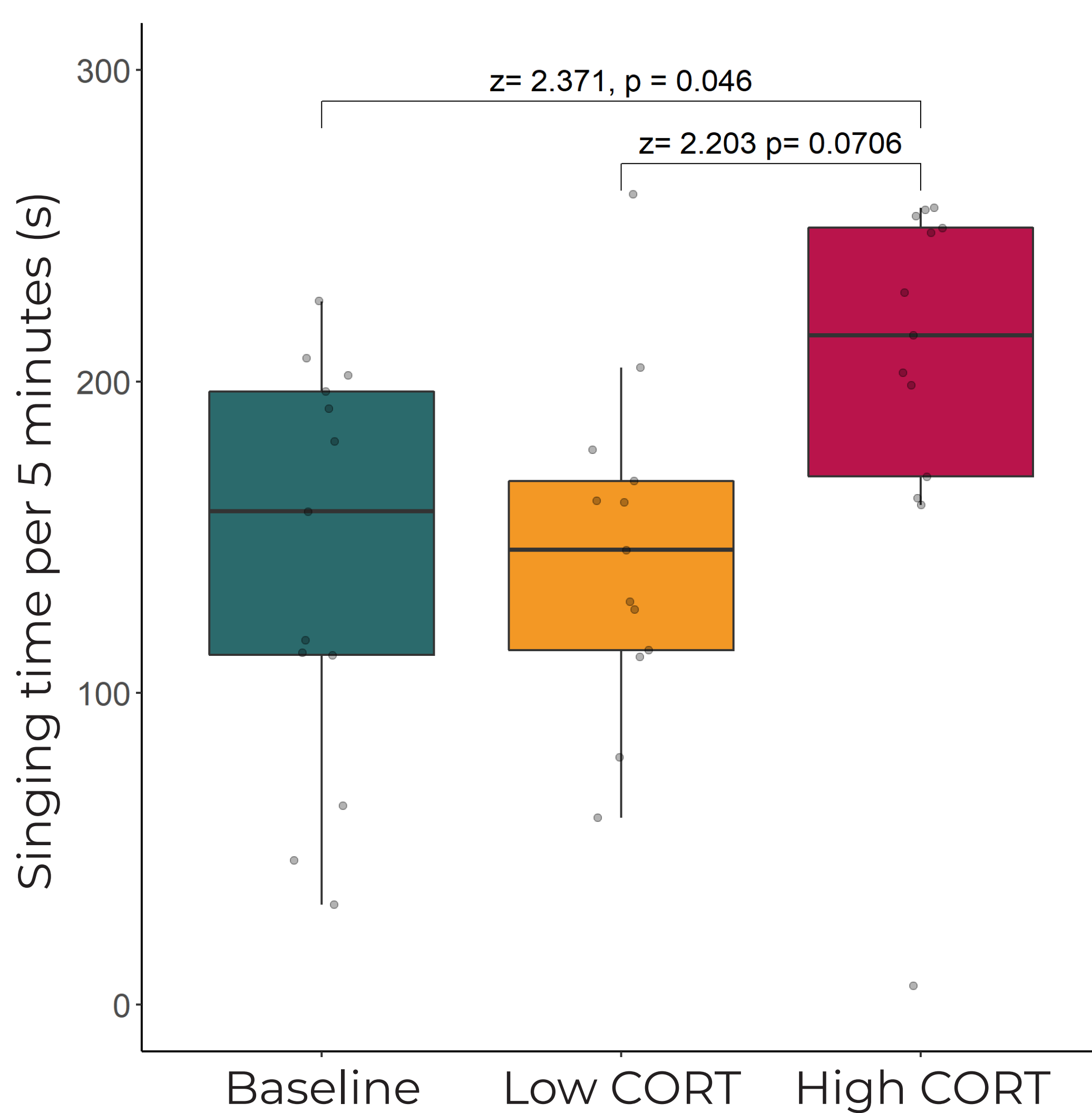


METHODS

13 captive mynas were fed mealworms injected with different CORT levels over 3 days. Their songs were recorded for 1.5 hours after ingestion.



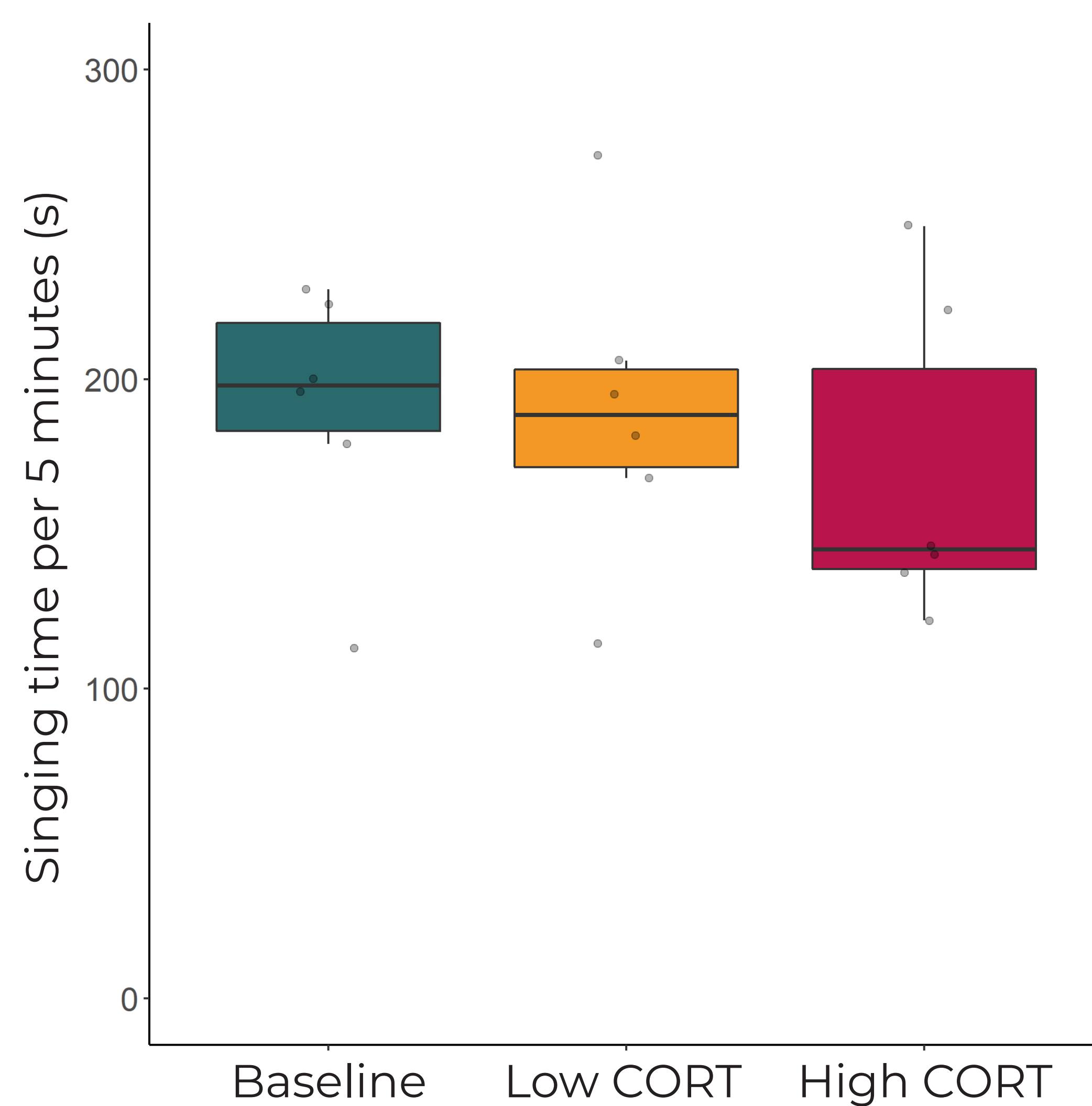
Singing during the first hour since mealworm ingestion



- Mynas sang more during high CORT treatment compared with baseline.

- They sang slightly less during low CORT compared with high CORT, but not different from baseline.

Singing after the first hour since mealworm ingestion



- Singing duration is not different to baseline in all treatments.

- Circulating levels of CORT are likely back to normal.

These results show that acute stress can affect how birds communicate. Birds use vocalisations to attract mates, defend territories and signal to conspecifics. Therefore, stress is likely to have important consequences on their social interactions.