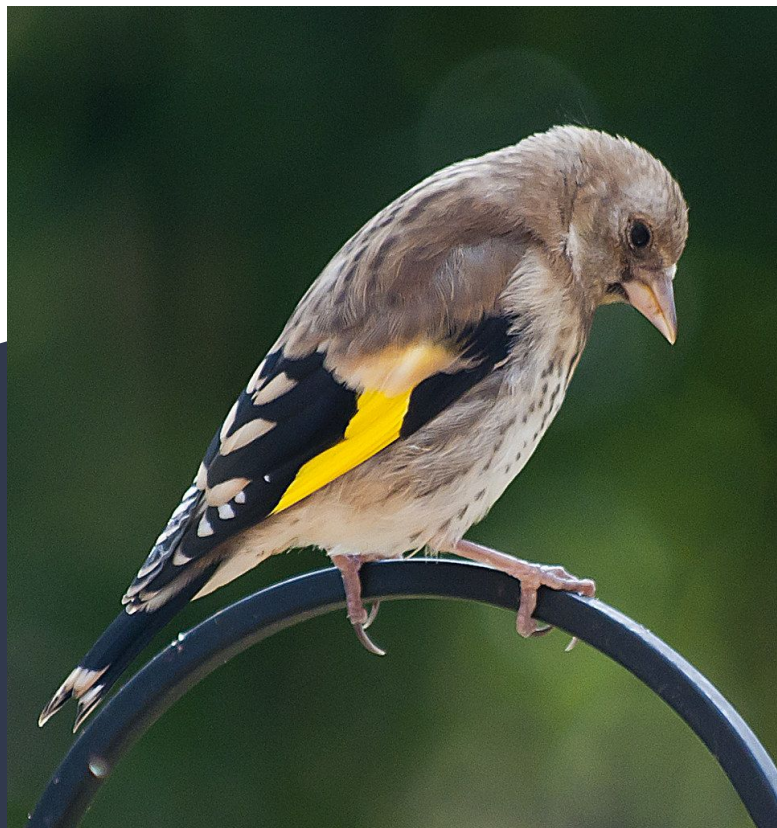


Rooster AI on Evaluating the Threat to Bird Species

Andrew Whitman
Scott Schumann

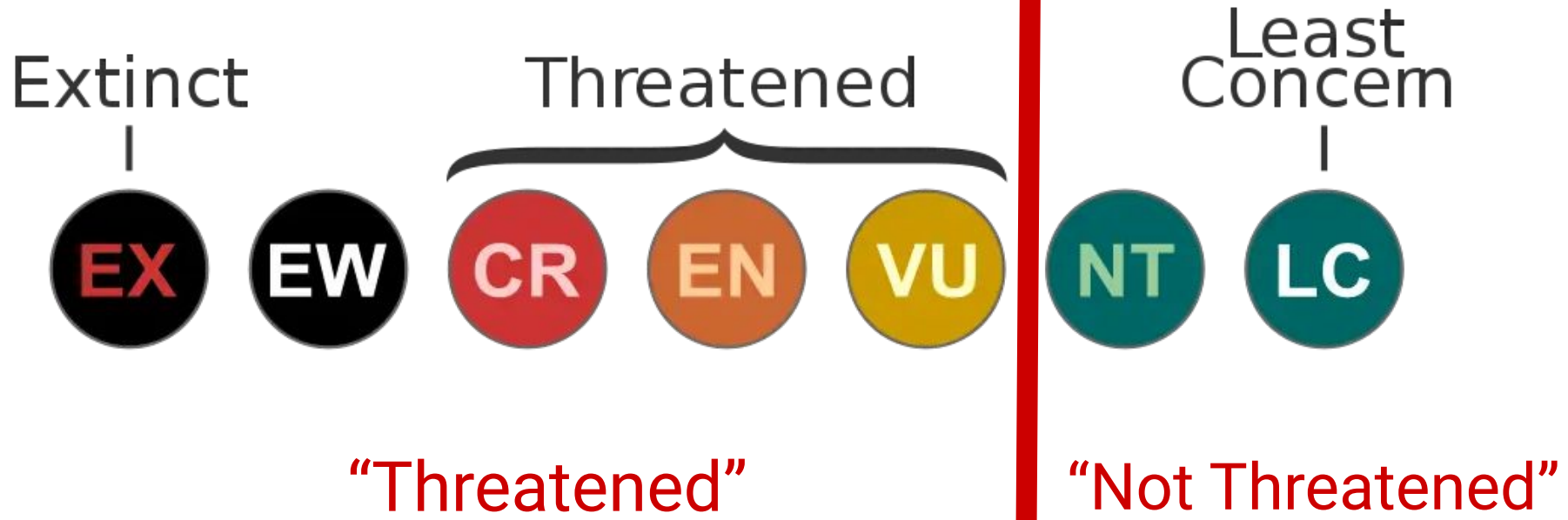


Overview

- Business Understanding
- Data Understanding
- Modeling and Evaluation
- Recommendations
- Next Steps

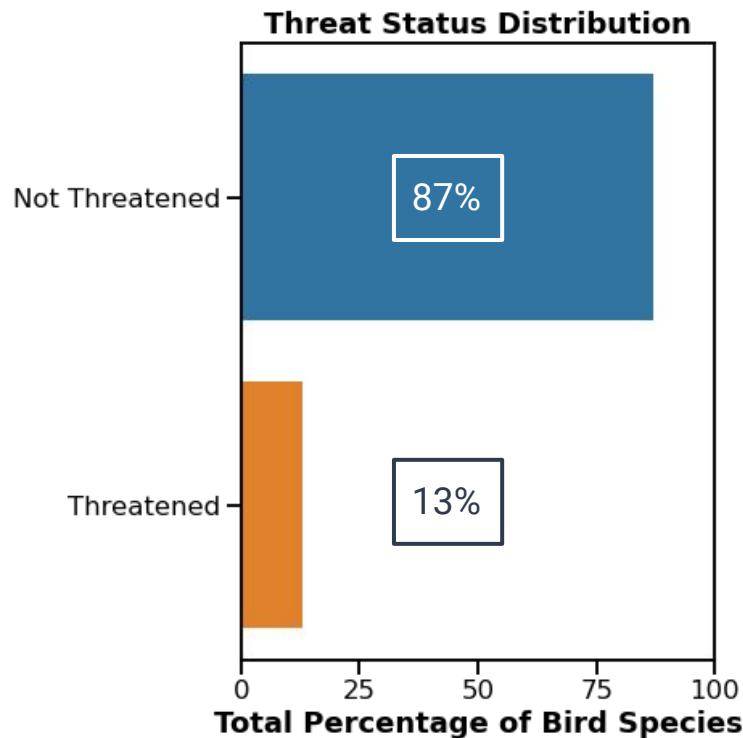


Business Understanding



Data Understanding

- 9,597 bird species
- Imbalanced Data
- “Data Deficient” (DD)



Modeling and Evaluation

- Final Model Predictions

True Negatives –	712	119	– False Positives
False Negatives –	4	121	– True Positives

Modeling and Evaluation

- 97% Recall

True Negatives –	712	119	– False Positives
False Negatives –	4	121	– True Positives

Modeling and Evaluation

- 50% Precision

True Negatives –	712	119	– False Positives
False Negatives –	4	121	– True Positives

Modeling and Evaluation

- Feature Importance
 - Agricultural Threats



Modeling and Evaluation

- Feature Importance
 - Invasive Threats



Courtesy Nga Manu Images

Recommendations

- Species Prioritization
- DD Predictions
- Threat Types Focus



Next Steps

- Additional Data
 - Species Population
 - Geographic Range
 - Threats
- Time Series Analysis
 - Population trends
 - Geographic changes



Thank You!

- <https://github.com/andrewwhitman/BirdConservation>

