

Ancient DNA Species Barcoding of Avian Remains from the Caribbean

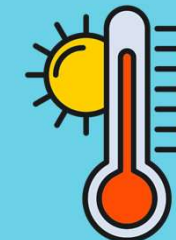
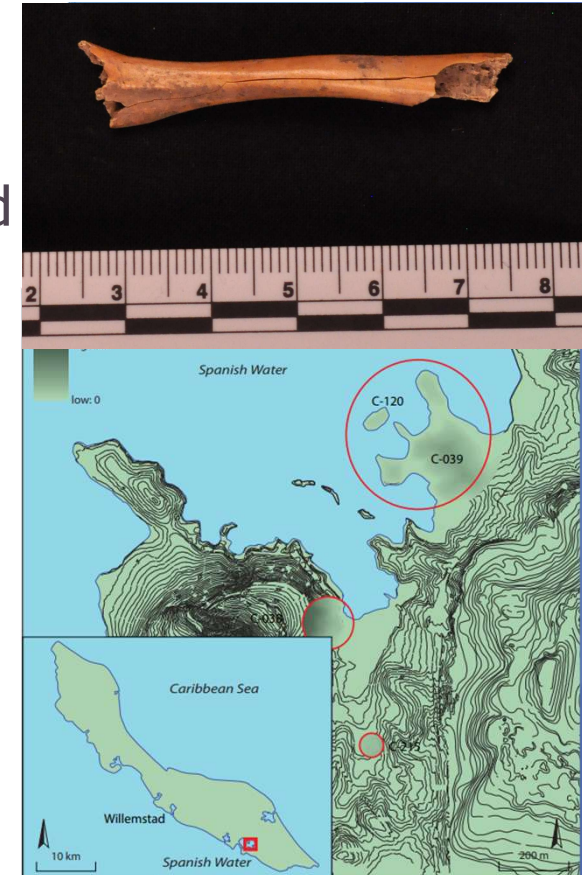
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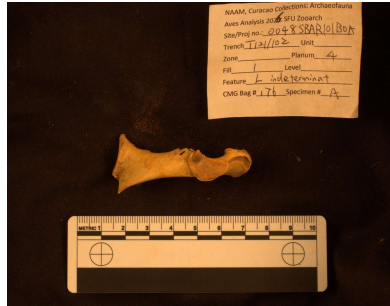
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Background & Problem

- ▶ European Colonization has greatly altered the landscape and ecosystem of Curaçao, the Caribbean
- ▶ Archaeological bird remains from Santa Barbara, Curaçao. (800-1200BP)
 - ▶ Tropical DNA degradation
 - ▶ Bird bones are thin and weak
- ▶ Successful DNA analysis for species identification
 - ▶ Indigenous subsistence
 - ▶ Paleoenvironmental reconstruction



Method- Procedure



1. Sample Selection and Identification



2. Sample Preparation and DNA Extraction



3. PCR Amplification

Universal Primer 1

Success Rate:
0/6



Universal Primer 2

Success Rate:
3/6
Non-specific

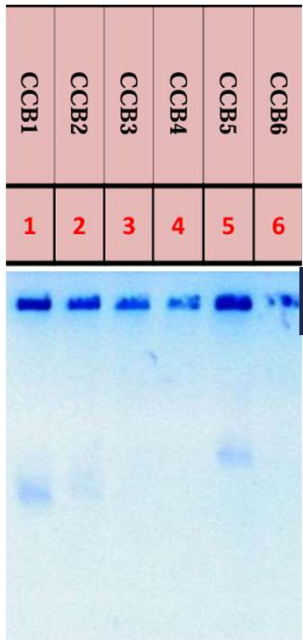


Curaçao Region
Specific Primer

Success Rate:
6/6

Results and Implications

W078 Ambig F1/R1



Unsatisfactory
Results



X077: BirdCOI_F639/R771



Satisfactory
Results



Methodological Contribution:

Region-specific primers can significantly improve the success rate of aDNA analysis of highly degraded zooarchaeological material.

Future Directions:

Subsistence strategies
Paleoenvironmental reconstruction

Acknowledgement

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