



# Testing for the Presence of Endangered Shark Species in Cat Food

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## Introduction

- Popular cat foods often advertise “seafood” flavors, but the contents are frequently mislabeled or ambiguous.
- We sampled an array of cat foods, testing for the presence of endangered shark species.
- $\frac{1}{3}$  of shark species are listed as critically endangered, endangered, or vulnerable by the International Union for Conservation of Nature (IUCN)

## Methods

DNA Extraction



PCR via Multiplexing

Primers: VF2-tl, FishR1-tl, FishR2-tl, Shark 150R, and Shark 474 F



Sanger Sequencing & BLAST Database

## Results

N = 63

- Of 5 dry cat foods, 1 came back to Scalloped Hammerhead (*Sphyrna lewini*), a species listed as endangered by the IUCN
- Of 58 wet cat foods tested, few returned chromatograms, but 3 came back to Scalloped Hammerhead

Species	#	Endangerment Status
Scalloped Hammerhead	4	Critically Endangered
Chicken	6	Least Concern
Walleye Pollock	1	Least Concern
Gafftopsail Catfish	1	Least Concern
Spotfin River Goby	2	Least Concern

## Implications

- Exploitation of endangered species is dangerous to humans and pets, as shark products can contain heavy metals like arsenic and mercury. This also poses a threat to global conservation efforts.
- A significant number of samples returned no chromatograms. We suspect this was due to preservatives in our samples. A PCR cleanup step is needed to draw conclusive results.