Habitat Preference and Activity Pattern of Wels Catfish (*Silurus glanis*)

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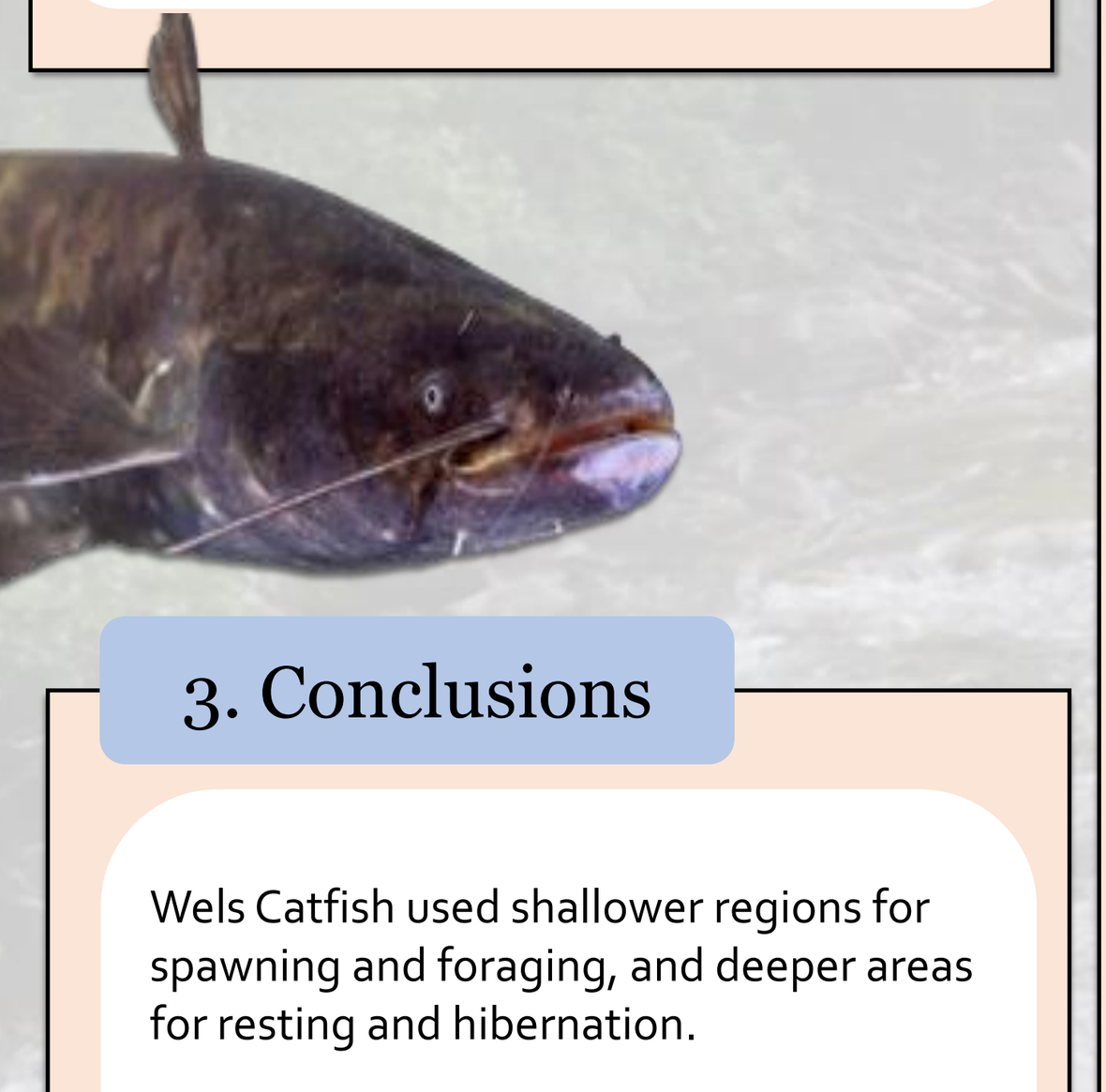
1. Introduction

Wels Catfish is threatened in Sweden. It has proven difficult to aid the fish as knowledge is lacking on even basic behavioral traits.

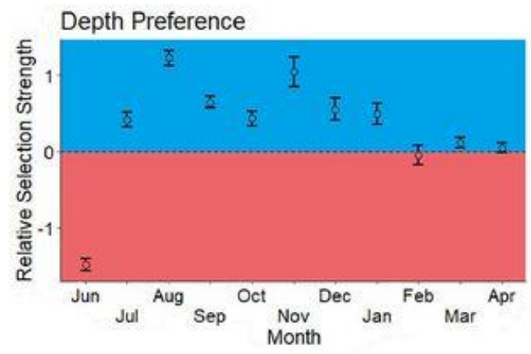
Aim
This project aims to improve conservation efforts for Wels Catfish by exploring its preferences for depth, and daily or seasonal variations in activity.



2. Results

Depth Preferences

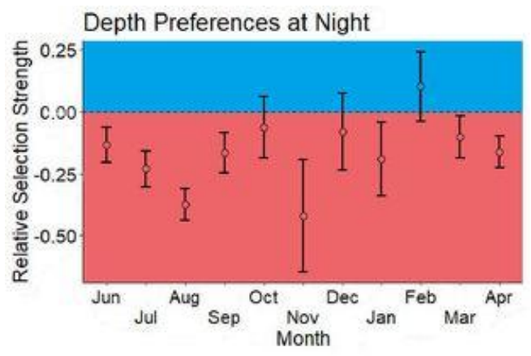
Wels Catfish **preferred deeper areas** than randomly expected. The only exception occurred in June, when the species preferred shallower areas.



Wels Catfish preferred **shallower areas during the night** compared to daytime.

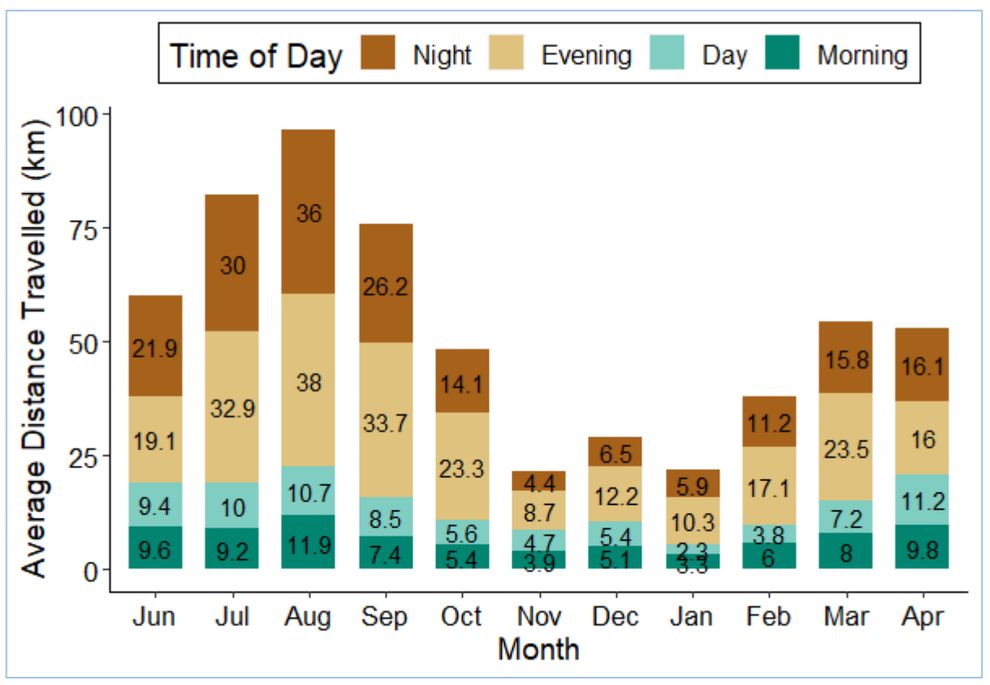
Preference for deep areas

Preference for shallow areas



Activity

Wels Catfish had a shifting activity pattern, with **low and slightly nocturnal activity during winter, and high, distinctly nocturnal activity, during summer.**



3. Conclusions

Wels Catfish used shallower regions for spawning and foraging, and deeper areas for resting and hibernation.

Conservation efforts should therefore focus on protecting and restoring shallow areas with a lot of vegetation and food items adjacent to deeper areas with underwater structures.

4. Methods

I used acoustic telemetry to track ten adults during a year in a small lake, resulting in 476 729 valid observations. To examine depth preferences, I gathered environmental data using an echo sounder. I used a conditional logistic regression model to explore depth preferences, and descriptive statistics from the telemetry system to display daily and seasonal variation in activity.