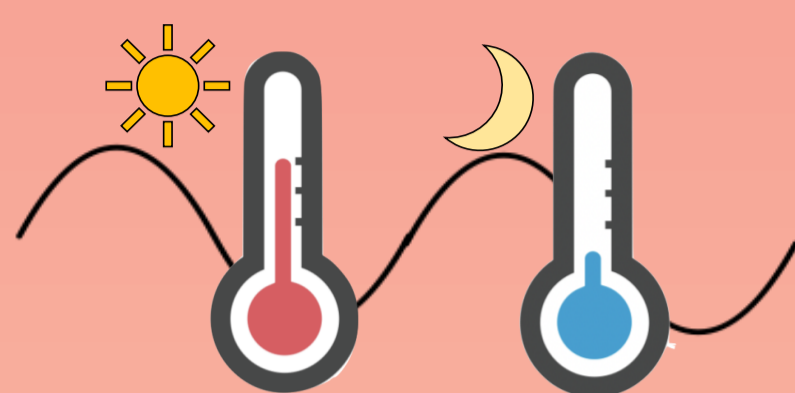


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INTRODUCTION

+ Fish, being ectothermic animals, display a thermal preference in their natural environment [1].

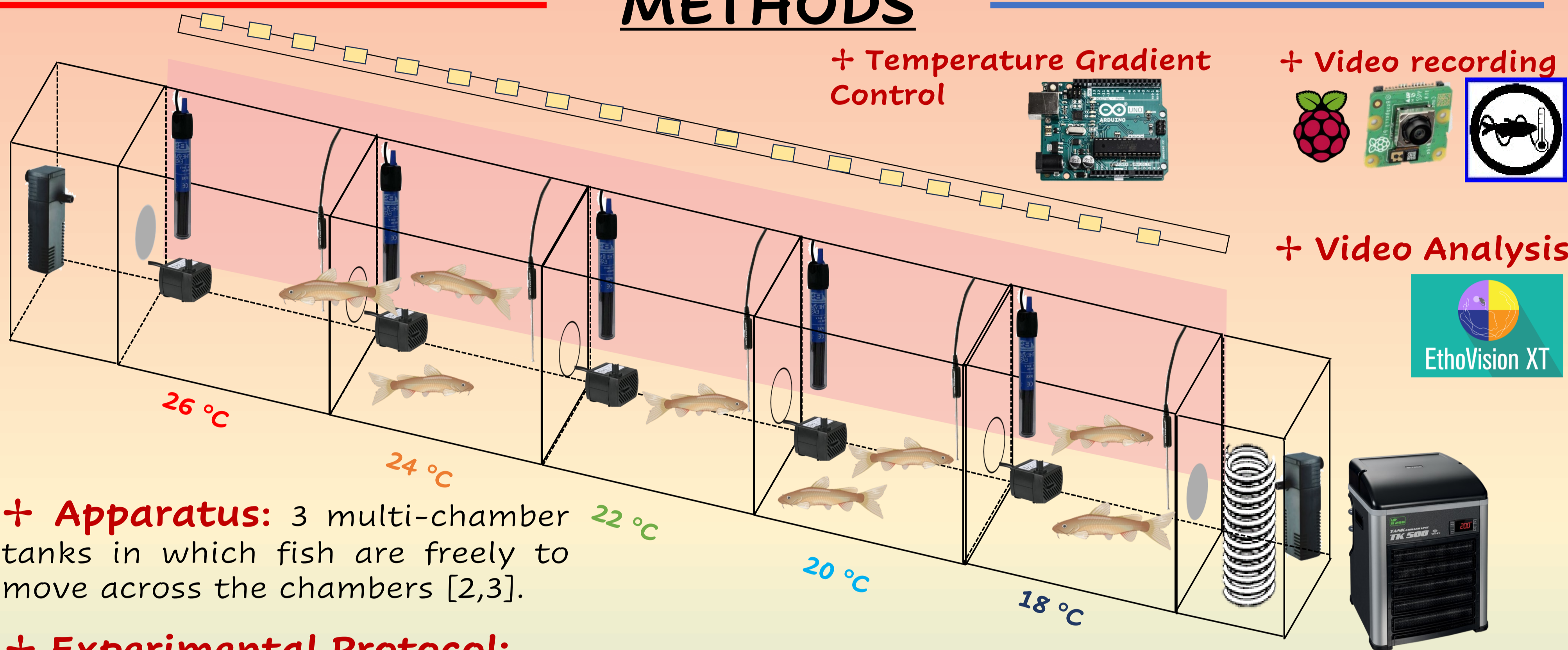


+ In the wild, light-dark cycles and the daily variations in temperature are **directly linked**: thermophase and cryophase.

+ daily cycles of light and temperature in a **rhythmic planet** are powerful environmental cues that entrain **circadian clocks**

The **aim** of the study was to investigate the presence of **daily rhythms of thermal preference** in a **nocturnal species** with potential commercial interest such as the black bullhead catfish *Ameiurus melas*

METHODS



LD 14:10
(random feeding during the night)
Duration: 10 days

DL 10:14
(random feeding during the night)
Duration: 10 days

DD
(fasting)
Duration: 10 days

RESULTS

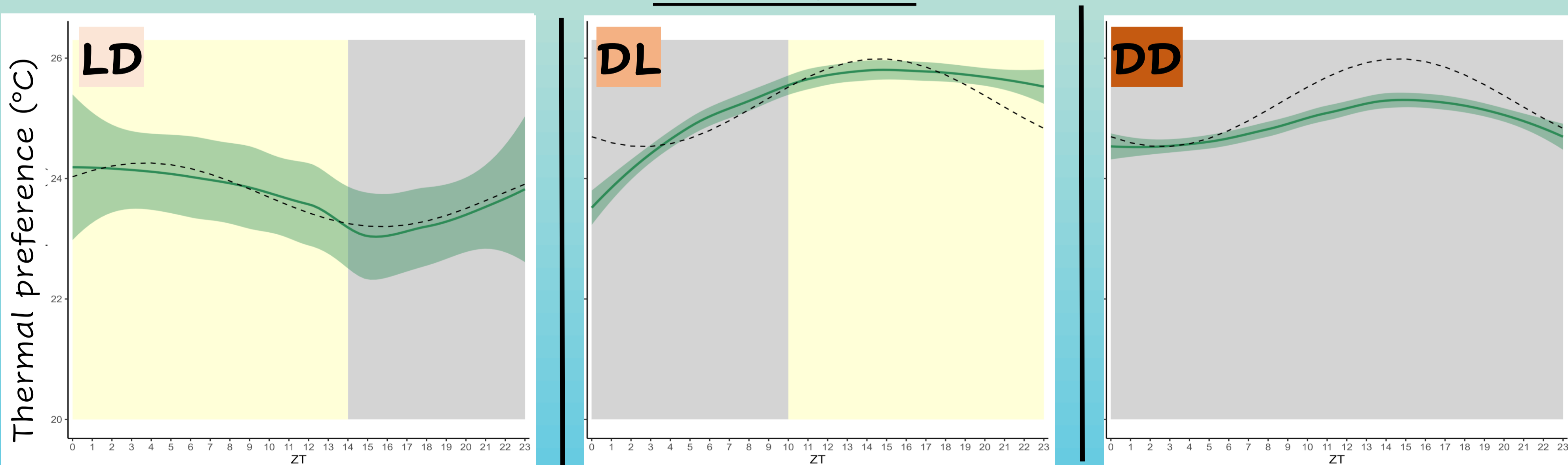


Figure 1. Daily rhythm of thermal preference of *A. melas* (n=3 group replicas) under different the three light-regimes. The yellow and gray areas indicate the periods of light and dark, respectively. The dotted line represents the setting of the Cosinor function (Cosinor, $p < 0.05$).

+ First evidence of **daily rhythm of thermal preference** in a **nocturnal species**: warmer temperatures during the light and cooler temperatures during the dark

+ Presence of **endogenous rhythmicity**: daily rhythm persists in constant DD. These information might be necessarily taken account for designing husbandry protocols in captivity for increasing fish welfare and quality of product

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