Study of the cestode *Grillotia sp* in the small-spotted catshark (*Scylhorhinus canicula*)

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INTRODUCTION

Scylhorhinus canicula: is one of the most abundant elasmobranchs in the northeast Atlantic and Mediterranean Sea, and currently of low comercial value. Santoro et al., (2021) reported for the first time the presence of the cestode *Grillotia sp in the musculature of Scyliorhinus canicula* .

AIMS OF THE STUDY

- Study the degree of infection ⟶ analyzing prevalence and abundance of *Grillotia sp*
- Study if there is a relationship between the abundance of *Grillotia sp* and some seasonal, physiological and morphological parameters ⟶ using statistical analysis

MATERIAL AND METHODS

Colection and shark evaluation

73 sharks were collected from 5 diffrent areas between Barcelona and Vilanova in 4 different months.

All parasites were removed from the musculature and identified under microscope of each stample.

Statistical analysis

Some parameters were calculated to afterwards compare them with the abundance of *Grillotia*

- Parasitological index: Prevalence, Abundance and Main Abundance
- Condition factors : Condition factor (K), hepatosomatic index (HSI), gonadosomatic index (GSI)

Other parameters such as sex, season and body regions also were compared with the abundance of *Grillotia*

Rstudio program was used to calculate the correlations, using non parametric test

RESULTS

Prevalence: 100% **Main Abundance**: 45,75

Correlations:

Statistical differences between:

- Abundance with the eviscerated weight (Ew) (Fig1)
- Body regions (Fig 2)
- Size of the shark (Fig 3)
- Despite differences recorded between seasons, they were statistically significant if we consider the size as a covariable, being the warmer seasons in witch more number of parasites were.

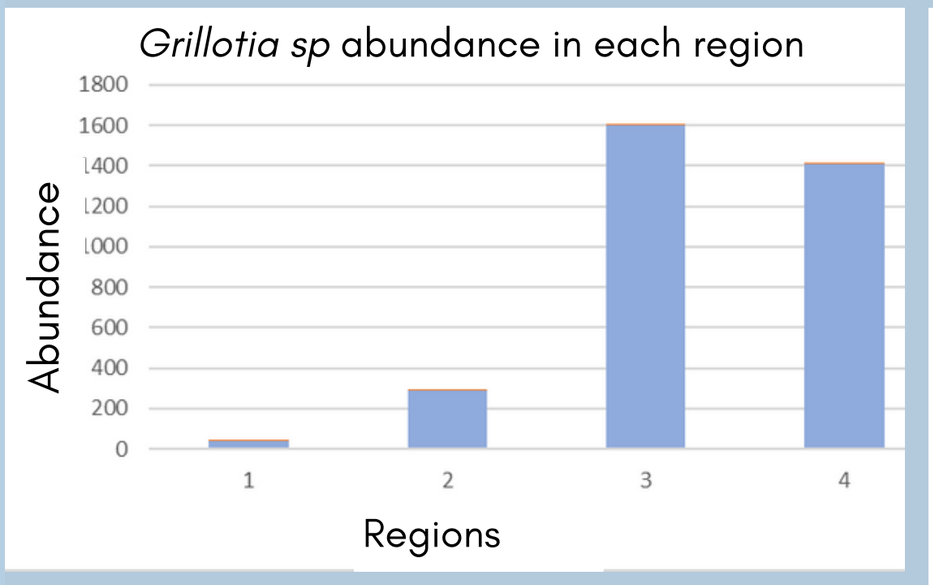

Figure 2: Abundance of *Grillotia sp* in the diferent shark regions

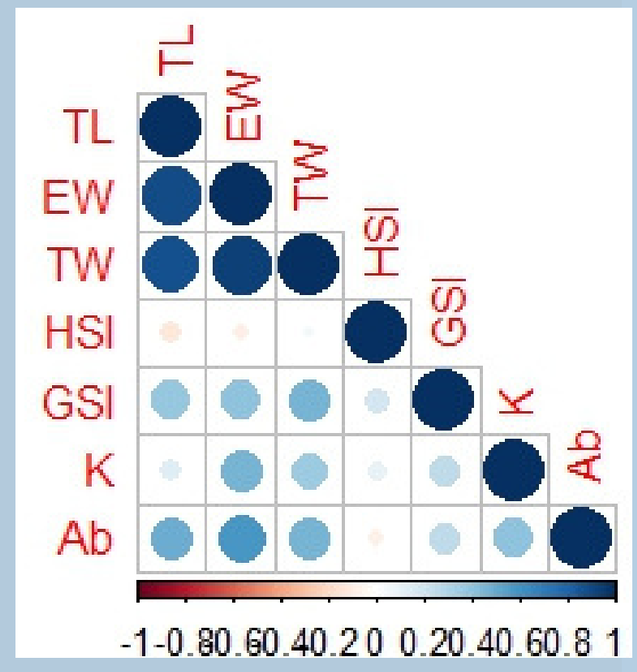

Figure 1: Grade of correlation between Abundance with the morpholgical parameters and condition factors.

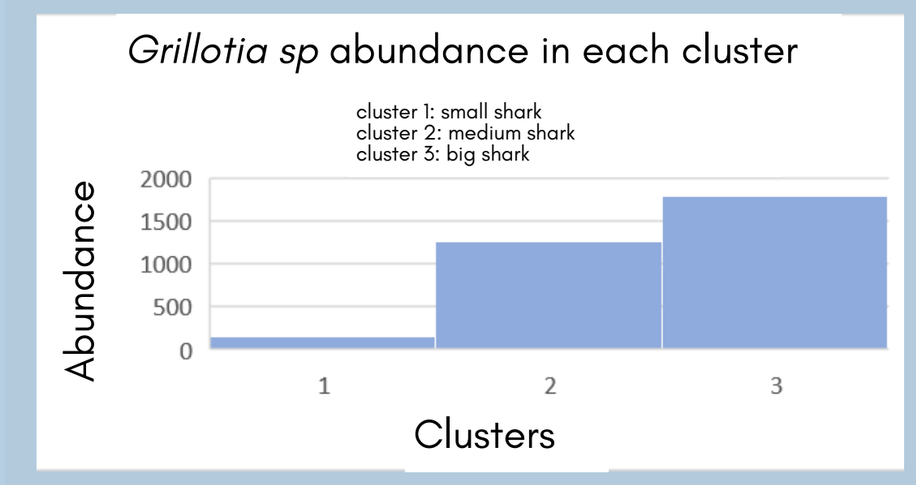

Figure 3: Abundance of *Grillotia sp* in the diferent size clusters

CONCLUSIONS

- Larger sharks have more number of parasites.
- Higer distribution of the parasite in the final parts of the body.
- High abundacne of Grillotia encysted on the musculararure is not a human health problem but complains a decrease of the quality product.

REFERENCES

Santoro, M., Bellisario, B., Crocetta, F., Degli Uberti, B., & Palomba, M. (2021). A molecular and ecological study of Grillotia (Cestoda: Trypanorhyncha) larval infection in small to mid-sized benthonic sharks in the Gulf of Naples, Mediterranean Sea. Ecology and evolution, 11(20), 13744-13755.