“Spatial trophic plasticity of two dominant seagrass-associated fishes in Toliara lagoon (SW Madagascar)”

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Context

Nowadays, several tropical seagrass ecosystems are heavily impacted by local human activities and are globally threatened. It has an impact on seagrass-associated animal and vegetal communities and therefore on seagrass-associated food webs.

Objective

This study aims at detecting the spatial variation of trophic diversity of two dominant juvenile fish species in the local fishermen catches from seagrass beds.

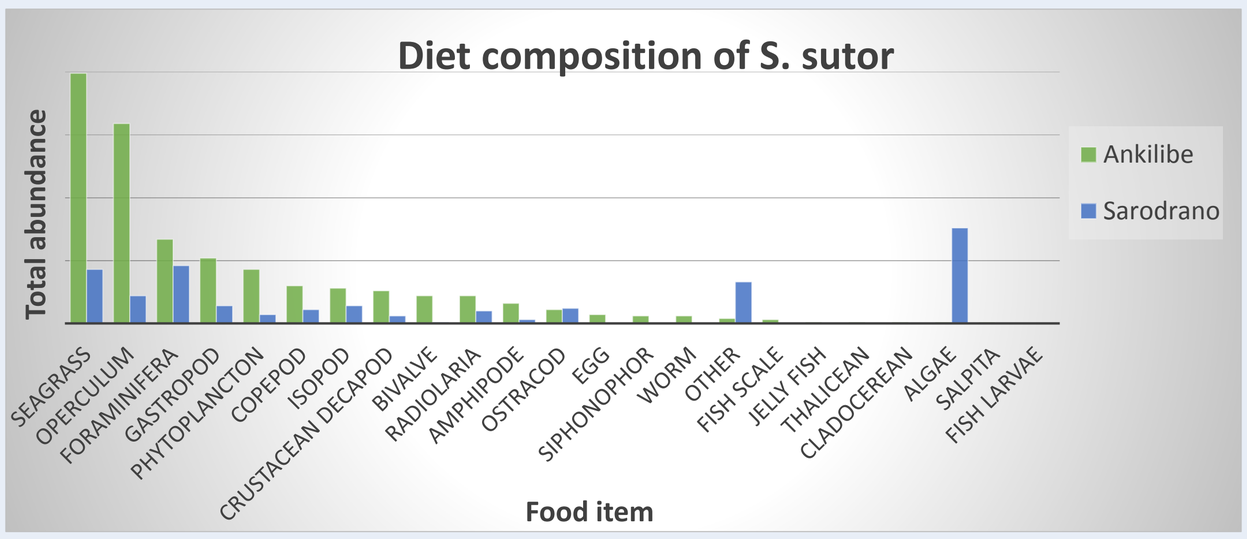
Siganus sutor

Oplopomus oplopomus

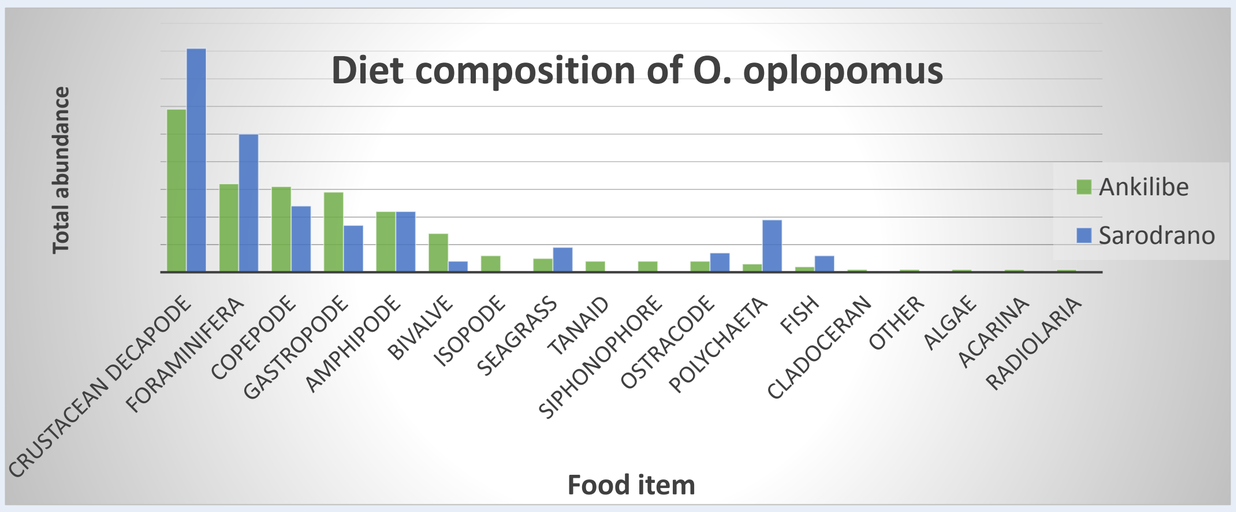
Study zone

Sampling of *Siganus sutor* and *Oplopomus oplopomus* were performed in two remote villages called Ankilibe and Sarodrano in December 2018, sampled at 10 different small scale fishing area.

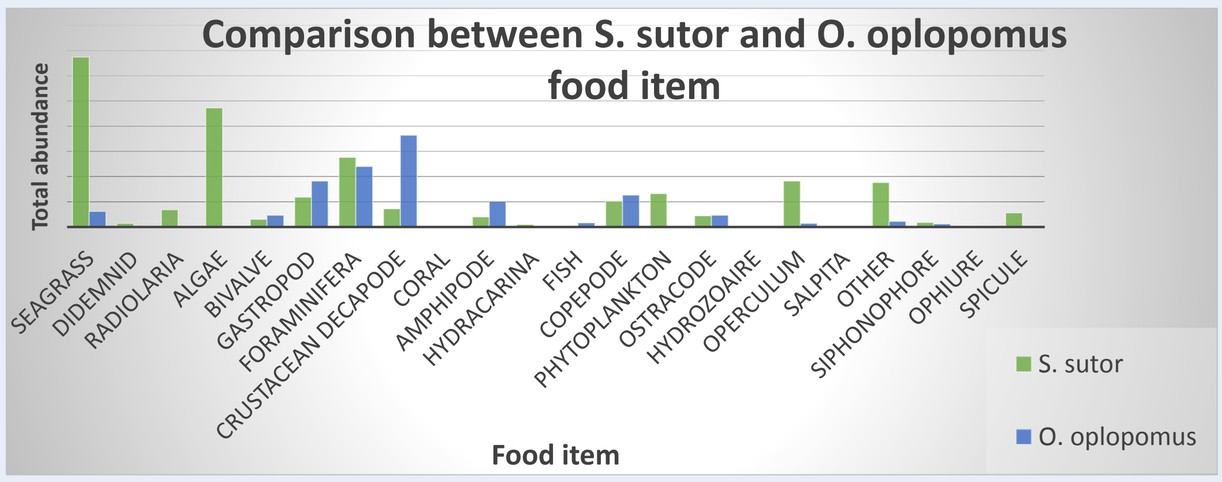
Results & Discussion



S. sutor caught at Ankilibe feeds essentialy on seagrass and mollusc opperculum. But those from Sarodrano have gut filled by algae and foraminifera.



The food preferences of *O. oplopomus* appeared to be similar among sites.



Juvenile S.sutor is mainly herbivorous, but also it can feed on animal prey. In contrast, the O.oplopomus is essentialy carnivorous.

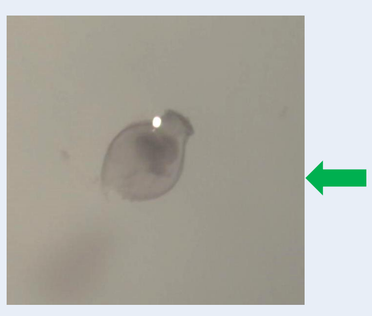
Methods

Sampling using bottom seine net

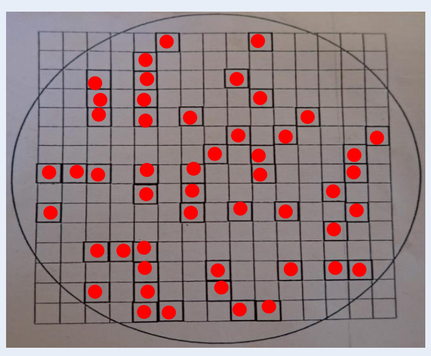
Sorting and photograph process

Gut extraction

Opening gut under a binocular loupe



Food item identification



Counting with a sampling grid (50 points by petri dish)

Conclusion

S. sutor tend to be more herbivorous while the *O. oplopomus* was merely carnivorous.

The Diets of *S. sutor* appear differed among sites, while those for *O. oplopomus* remained unchanged.

The trophic plasticity of these both species could be more understood through stable isotope which is still in progress.

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