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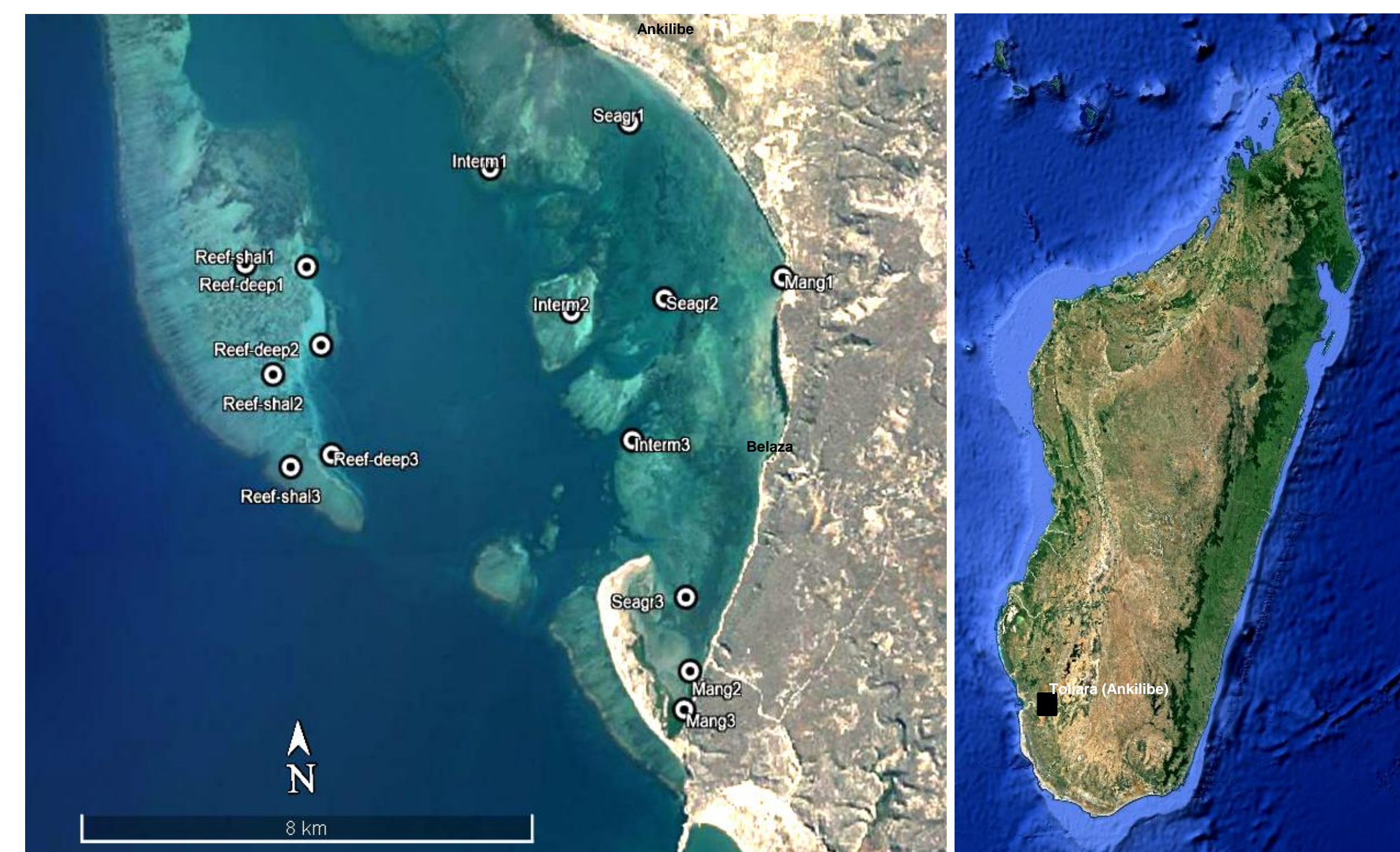
Main issues to solve

Seagrass beds support the productivity of coastal fisheries by ensuring juvenile fishes survival. This habitat is, however, targeted by small-scale fishermen, using mosquito seine nets. The prohibited mosquito seine nets caught large proportions of juveniles, especially dominated by *S. sutor* up to 42% of catches. Recruitment monitoring of this species is needed to provide key information related to their spatial and temporal distribution along the coastal habitats.

Main goal

This research aims at understanding recruitment patterns of *S. sutor* in critical habitats. The specific objectives are:

- (a) to detect the recruitment seasons of *S. sutor*;
- (b) to identify their potential nursery areas;
- (c) to understand why *S. sutor* select specific zones as a nursery area.



Materials & Methods

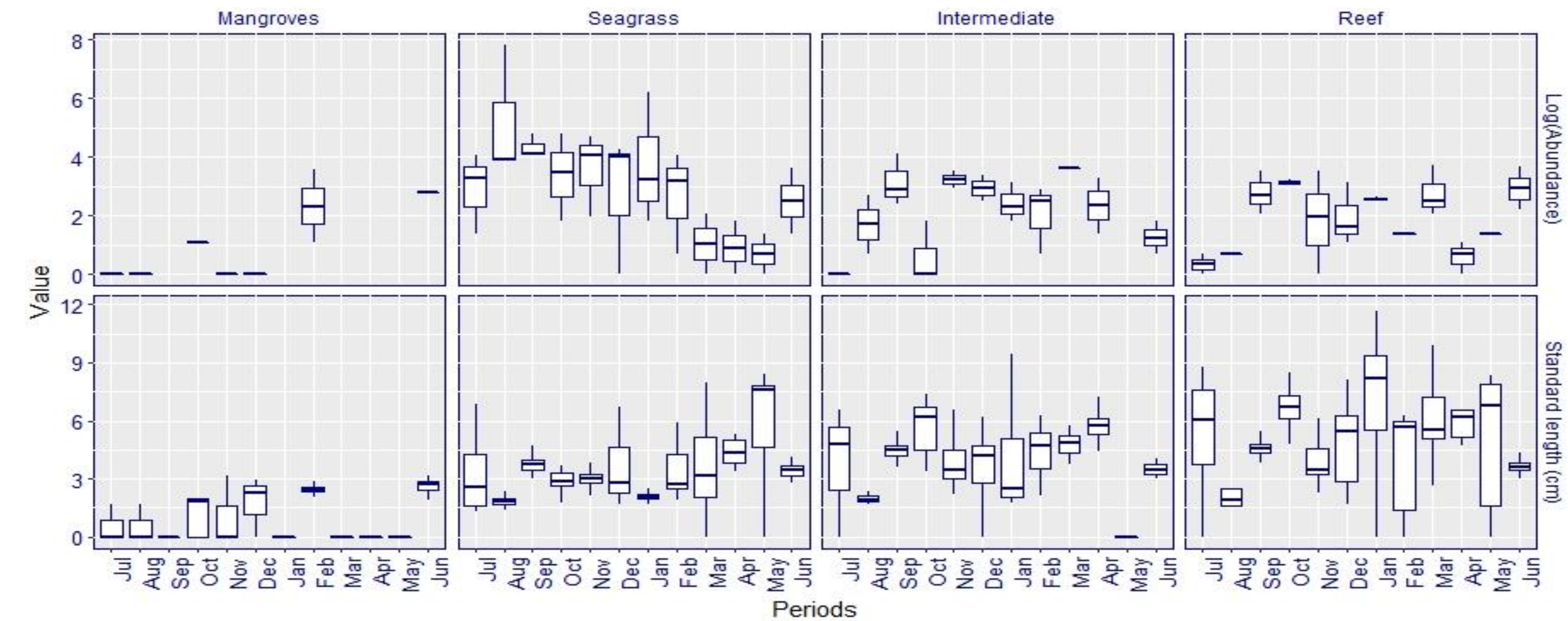
Catches of fishers from mangroves, seagrass meadows, intermediate areas (i.e. between seagrass patches and coral reefs) and seagrass associated to coral reefs were sampled with three stations per habitat and three days per month for twelve months.



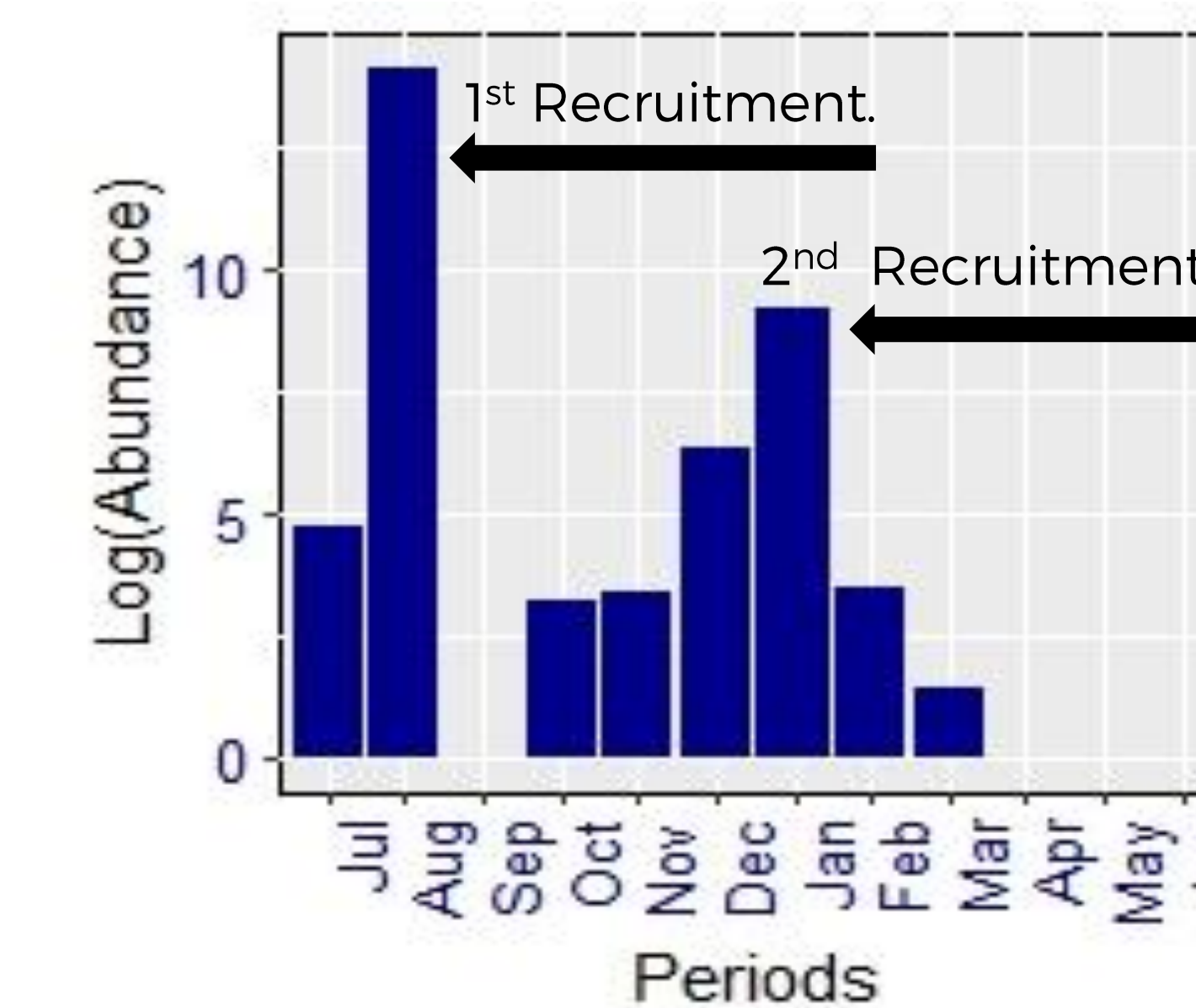
In the laboratory, all individuals were identified, photographed in order to automatically measure their size with ImageJ software. Another survey was carried out to address biological data and habitat characteristics in order to understand their influence on nursery areas selection for *S. sutor*.

Standard length inferior to 2.5cm were retained as size at settlement for defining the recruitment periods.

Results & Discussion



Rabbitfish abundance and size exhibited a spatial and seasonal variability pattern. Rabbitfish size increased from nearshore habitats (2.2 ± 1.46 cm) to reef system (5.1 ± 1.47 cm). This is in line with the finding of Huijbers et al. (2015) saying that fish moving toward the reef getting larger in size. This movement could be linked to the biology of the species,



In addition, juveniles of *S. sutor* are significantly more abundant in seagrass meadows (with 59.4%). The small sized *S. sutor* were most abundant in seagrass meadow. Such habitat could be interpreted as the main nursery area (Beck et al, 2001; Kimirai et al, 2011). The analysis for explaining the selection of such specific area as a nursery is still in progress,

Madagascar exhibited two recruitment seasons of *S. sutor*: in august (cool season) and in January (warm season).

Conclusion

Nearshore seagrass meadows constitutes the main nursery areas for *S. sutor*. With two main recruitment periods. Such information will be useful to develop the appropriate management measures for the sustainable use resources and coastal habitats.