Reef fish community structure throughout the eastern Arabian Peninsula

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Objective

To examine the structure of reef fish communities throughout the southern Persian Gulf, Gulf of Oman and Arabian Sea regions

Main results

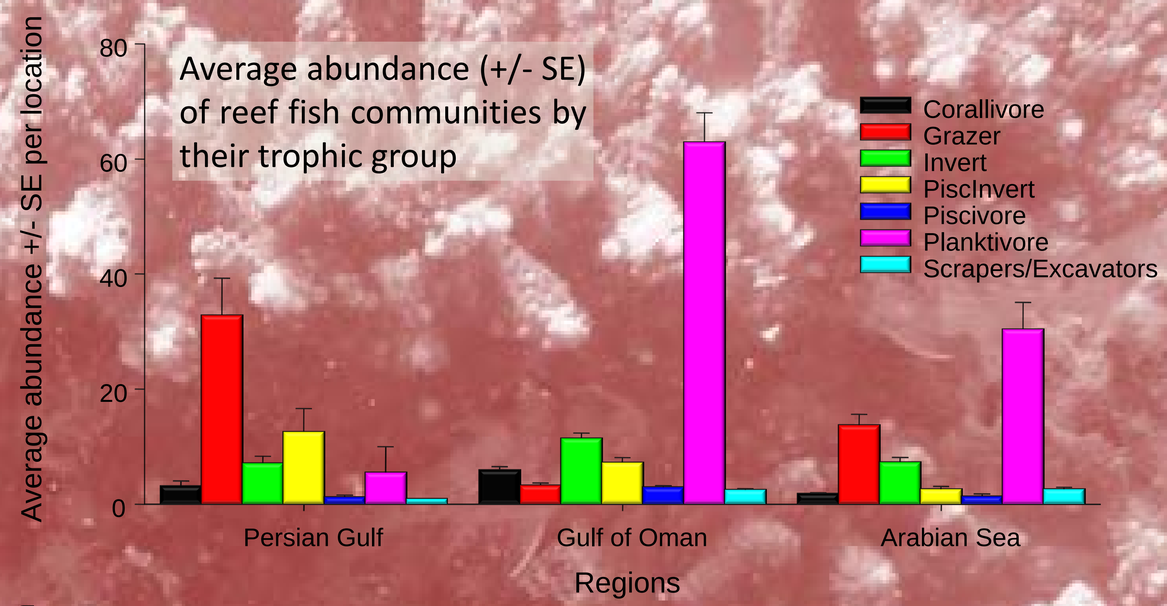
Persian Gulf: Lowest estimates of community abundance, diversity and biomass than other regions, dominated by species with low live coral association

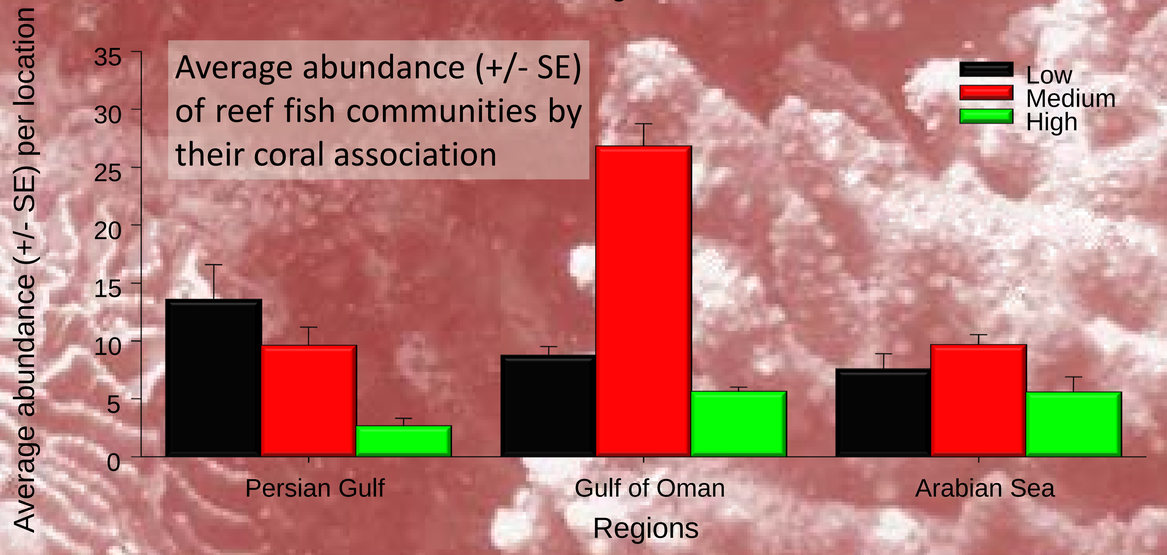
Gulf of Oman: High abundance of species closely associated with coral reef structure

Arabian Sea: Low abundance of corallivores, piscivore/invertivores, piscivores and a significant increase in the abundance of herbivorous grazers

Biomass estimates: Persian Gulf communities had similar biomass to fished areas in east Africa, while both Gulf of Oman and Arabian Sea communities had biomass estimates similar to those in non-fished areas.

Eastern Arabian Peninsula sites surveyed:
Persian Gulf: Abu Dhabi, Dubai
Gulf of Oman: Musandam, Fujairah, Ras Al Sawadi, Muscat, Ras Al Hadd
Arabian Sea: Hallaniyyat Islands, Dhofar



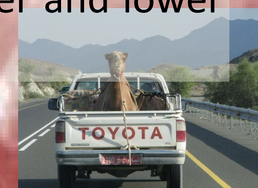


Conclusions

Most substantial differences in community structure apparent between Persian Gulf and both Gulf of Oman and Arabian Sea

Oceanographic factors will be important in structuring reef fish communities

Seasonally high SSTs, high salinities and excessive weather events may lead to communities with little association to live coral cover and lower richness, abundance and biomass



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