Squaretail Coralgrouper

Fish Spawning Aggregations

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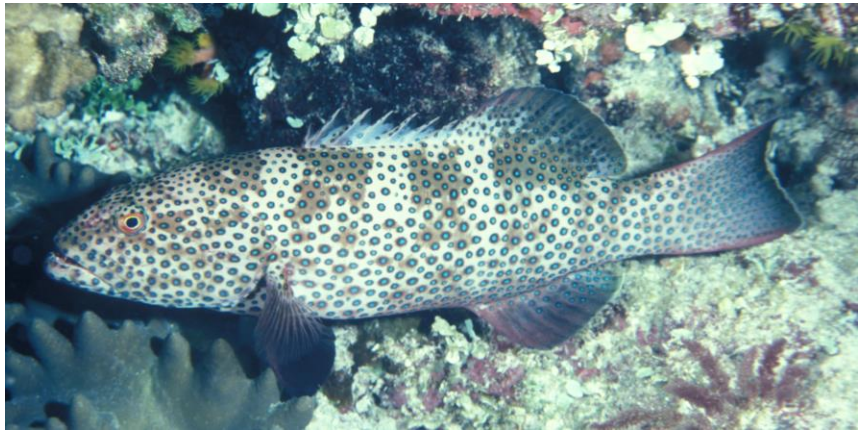
Best na ba…

Squaretail Coralgrouper

- Red list - Vulnerable
- Most commonly sold grouper in Honiara
- Western Province biggest exporter to Honiara




Vella Lavella Island
Gizo
Ringgi
New Georgia
Munda
Rendova
Seghe
Halisi
Peava


Kolombangara Island
Gizo Island
Gizo
Ghizo
Parara
Kohinggo Island
Vonavona Island


Tetepare

Fish Spawning Aggregation (FSAs)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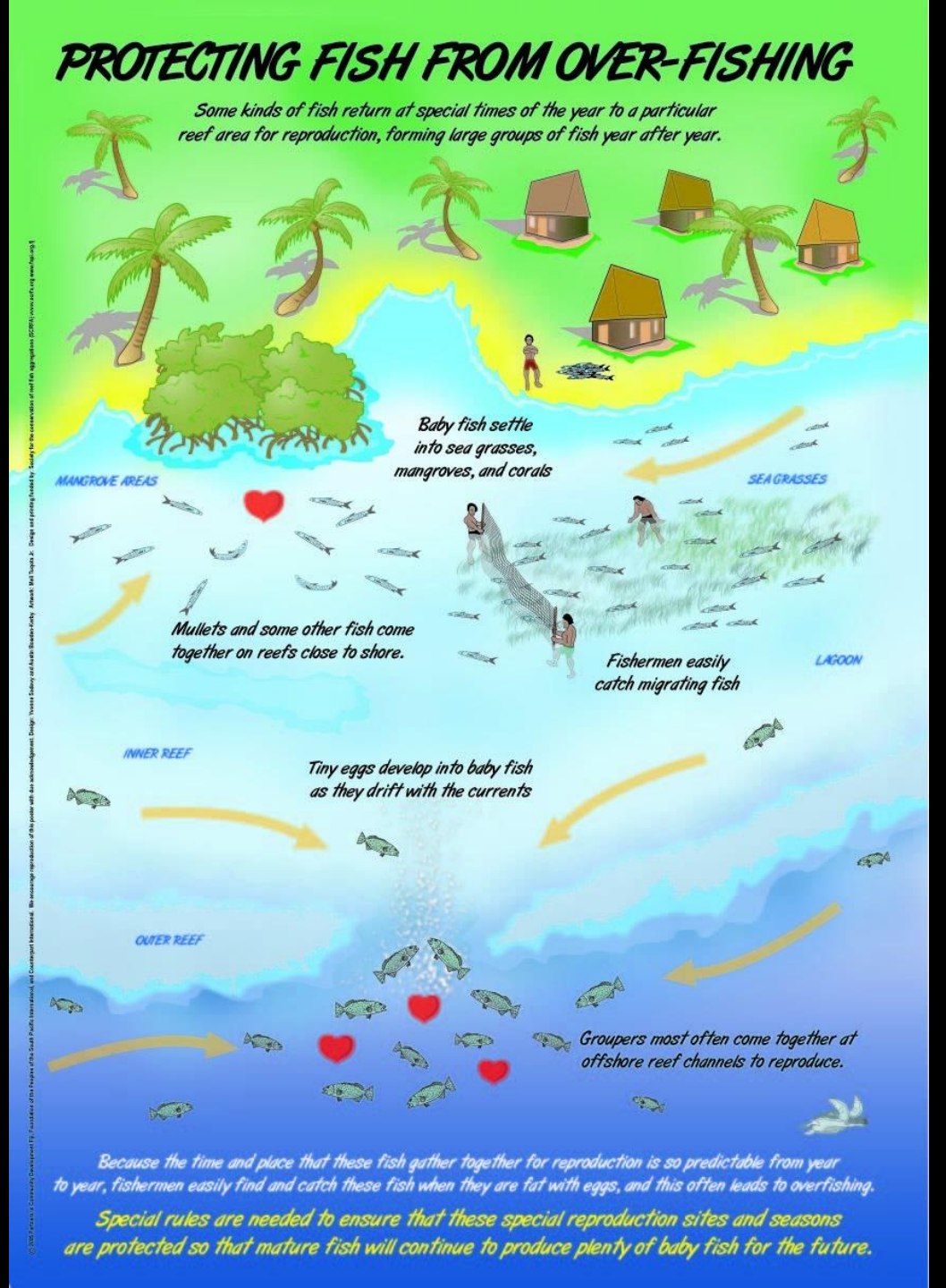
- Predictable in space and time
- Important in terms of Fisheries and Biodiversity



Fishing on FSAs - *lo taem bifo*

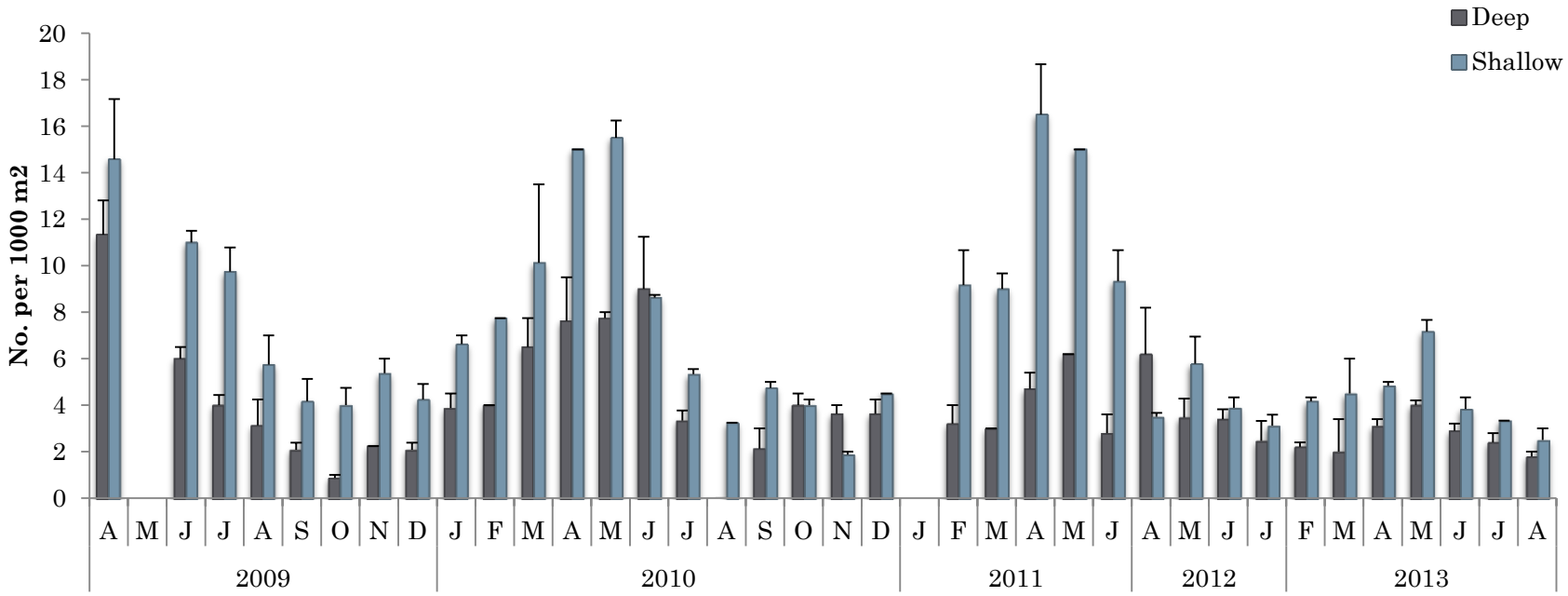
- Local Knowledge: where and when
- Traditionally fishing had limited impact
- Few fishermen allowed to fish there
- Small numbers of fish taken
- Fishing done locally
- Known and used for generations

Fishing on FSAs - *lo taem distaem*

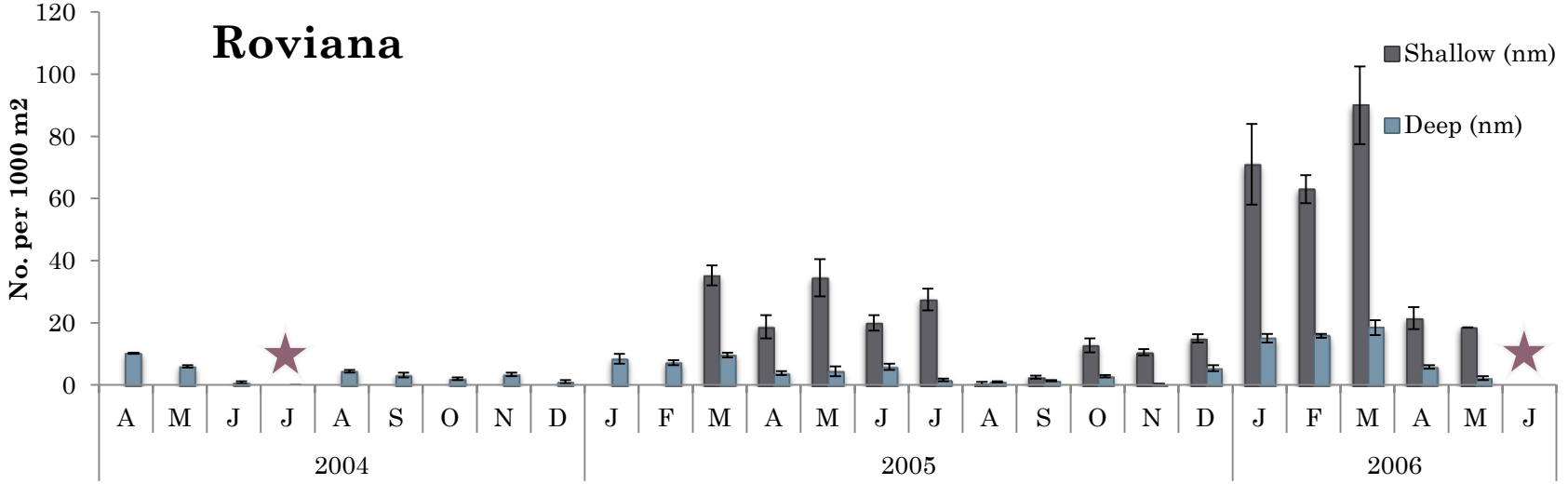
- Better fishing gear
- Better boats
- Freezers (storage of catch)
- Open access
- 100s or 1000s of fish taken
- Growing market demand (e.g.Honiara)

FSAs vulnerable to overfishing…

Ghizo



Roviana



What should we do?

- Better awareness
- Collection of information from more areas
- Area protection
- Seasonal fishing and sale ban
- **Community-based Resource Management has an important role..!**

Take home message…

- Fish Spawning Aggregations are very vulnerable to overfishing
- Important for both **Biodiversity** & **Fisheries** (i.e. Food Security)
- They need protection..!

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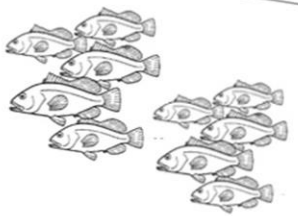
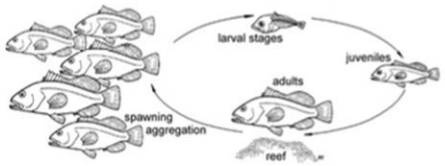
Spawning aggregations



What is a spawning aggregation?

A fish spawning aggregation is a large number of fish gathered together in one place and at a particular time to spawn and produce fertilised eggs. These eggs hatch into larval stages that grow into juveniles and then into adults. As spawning aggregations often occur at the same time each year at the same sites, they are usually very predictable.



Which species form spawning aggregations?

Many species gather together to form spawning aggregations or migrate in large groups to spawning sites. In Pacific island countries, these include groupers, snappers, mullets, parrotfishes, trevallies, surgeonfishes, rabbitfishes, emperors, goatfishes and mackerels.

Most fishes that form spawning aggregations live in other areas at various stages of their life-cycle. The eggs and larval stages of many reef fish, for example, drift beyond the reefs before they move to shallower water and settle on reefs to grow into adults. The spawning aggregations often last for only short periods, from 2 to 7 days, around the full or new moon.

Why do spawning aggregations occur?

The most likely reason that so many different fishes gather together to spawn is that aggregations increase the chances of reproduction being successful. Many marine animals, including 96% of all fish, reproduce externally by releasing sperm and eggs into the water.

As males and females may be spread out over large areas, spawning aggregations allow them to gather together in one place. A large concentration of male and female fish in the one area increases the chances of sperm reaching and fertilising the drifting eggs.

Another reason could be that spawning sites are situated where currents carry the larval stages to the open sea and away from inshore predators. Or perhaps spawning sites are positioned so that currents carry the larval stages back to the parent populations on home reefs.

What are the risks for aggregating species?

When fish aggregate or mass together in large numbers at predictable times and places they become much easier to catch than when they are scattered over large areas. Aggregating fish are easily caught by fishers using nets, hand- lines with hooks, spears or traps.

Catching fish as they gather in spawning aggregations is destructive as these breeding fish are responsible for producing small fish, many of which will grow and be available to be caught in future years. In many parts of the world, fishing on spawning aggregations has resulted in the total disappearance of some species from local areas.

Acknowledgement

WWF®

SGP The GEF Small Grants Programme

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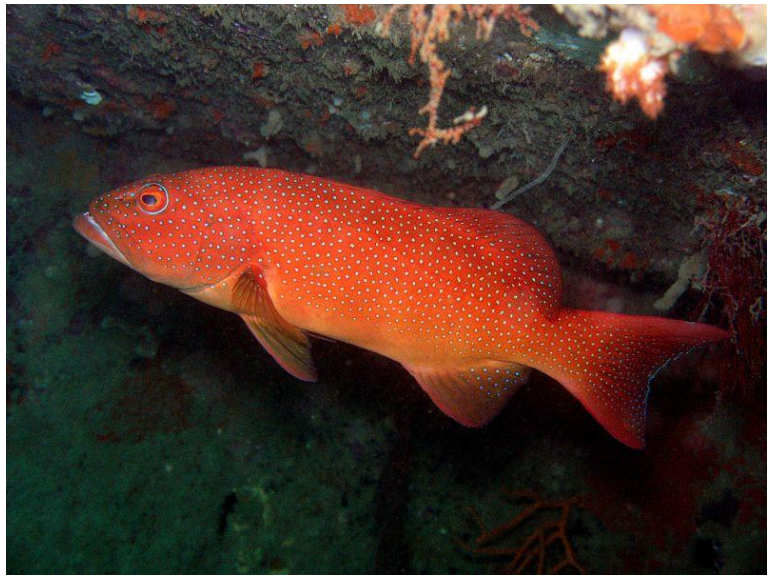
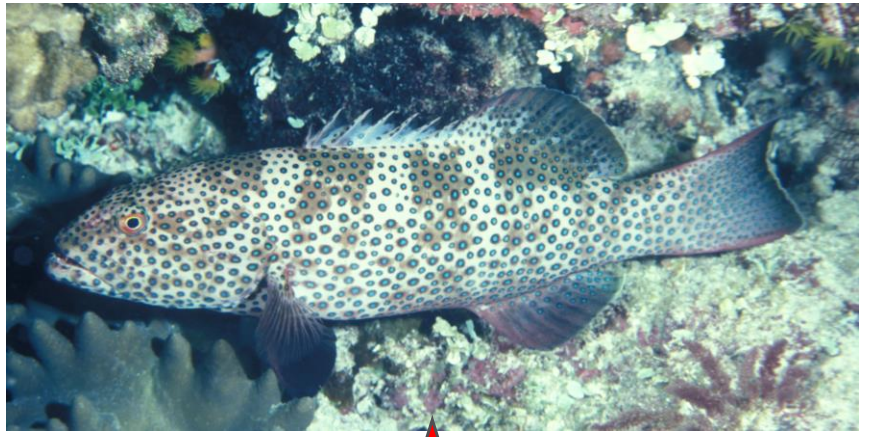
CRITICAL ECOSYSTEM PARTNERSHIP FUND

Seven coralgrouper species





Seven coralgrouper species