Giant Clams fisheries management in French Polynesia: review of recent progress

Antoine Gilbert, Serge Andréfouët, Georges Remoissenet and Arsène Stein
GIANT CLAM STATUS in FRENCH POLYNESIA

*Tridacna maxima*: the main species of FP

Traditional seafood

Overexploited in the most populated society islands

Growing Tahitian flesh meat market: ~ 80 tonnes

Main clam flesh providers are from:

- Autrales archipelago (Tubuai),
- Eastern Tuamotu atolls (Fangatau, Tatakoto...)

Remarkable abundance and dominance of *T. maxima*, in some Eastern Tuamotu islands

- up to 544 ind/m²: eastern part of Tatakoto
STOCK SIZE AND POPULATION DYNAMICS

Providing scientific advices for the management of the fishery

Von Bertalanffy growth function

$\text{Age in years}$

Natural mortality $M$

$TATAKOTO n= 223$
SHORT TERM RESULTS & LONG TERM MANAGEMENT

Initial recommendations from Beverton and Holt’s model

This Model:
- based on strong assumptions
- doesn’t take explicit consideration of the spatial scale

Numerous case study of invertebrate fisheries collapse ➔ call for a precautionary approach
Adaptative Co-management scheme

**Development of indicators**

→ R&D monitoring a range of ecosystem and fishery characteristics

**Development of policies to control harvest sustainability**

→ mid to long term basis driven by stock indicators / population needs

**Development of a decision-making framework system**

→ management information system
→ all stakeholders: scientists, managers, volunteers, producers…
Adaptative Co-management scheme

**EXPORT PRODUCTION**

All Stakeholders

Multi-indicator fishery Monitoring system

Scientists & Volunteers

Network of small reproductive refuges

First TAC based on historical exports

Precautionary approach basis