

Small scale FADs fisheries, fishing behavior and incentives to allocate effort towards offshore resources

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Objectives of FADs development – from late 80's

- Reduce fishing pressure on a narrow insular shelf
- Improve fishers incomes through :
 - ↗ catches of large pelagic species all over the year only a seasonal dolphin fish fishery (december-june)
 - ↗ fuel cost
- Reduce islands dependency to fish imports

Brief recap on FAD situation in Guadeloupe, Dominica, Martinique



Started between 1988-1990;

Today

- >400 only private



Started between 1988-1990

Today

- 5 public FAD
- 24 private FAD



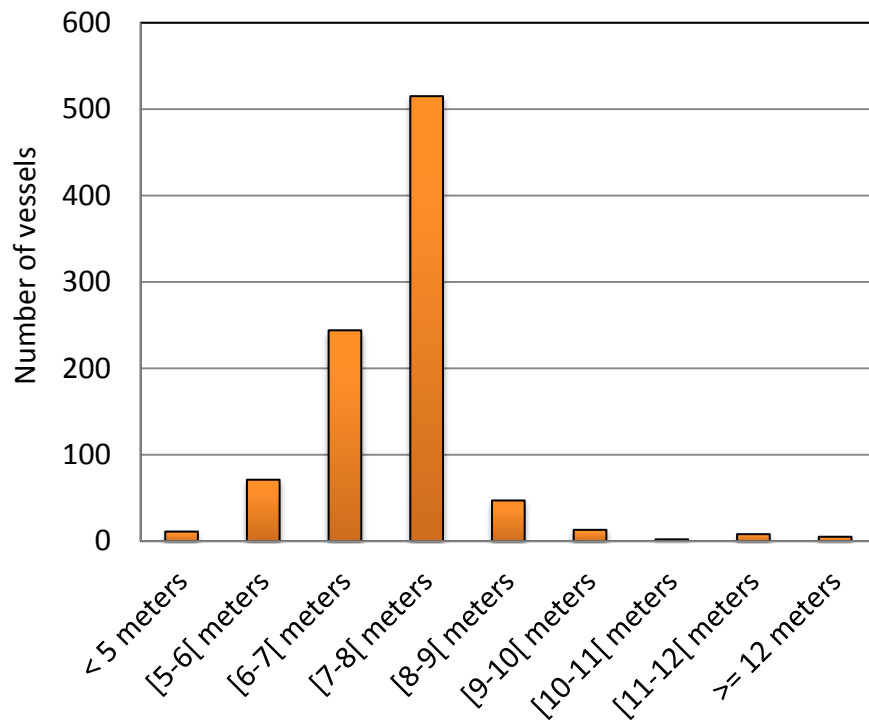
Started in 1982

Today

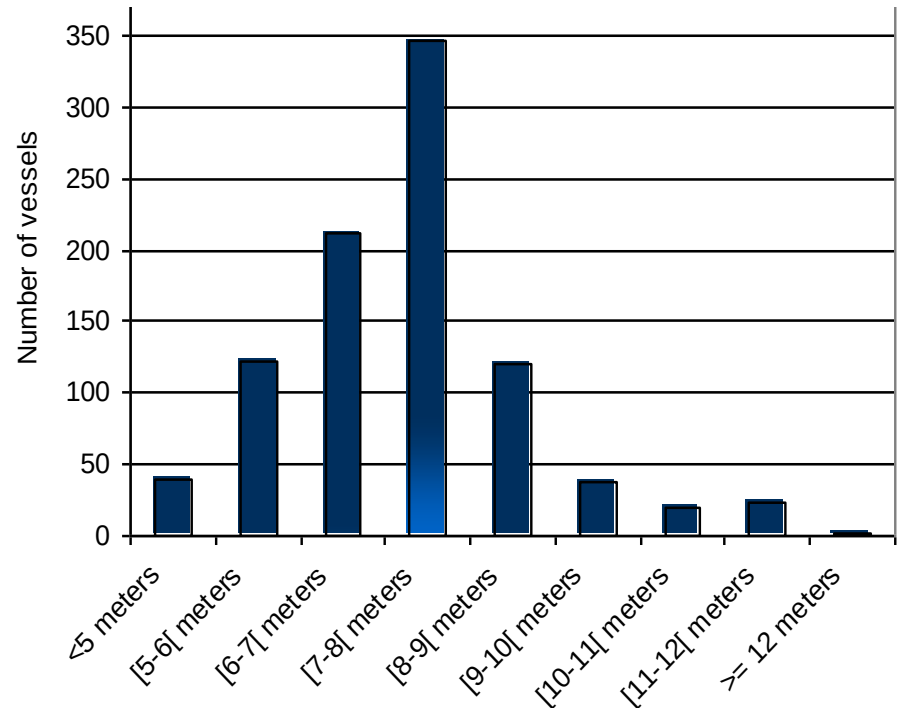
- 6 public FAD
- ~10 private FAD

Fleet structure in length categories in 2008

MARTINIQUE



GUADELOUPE



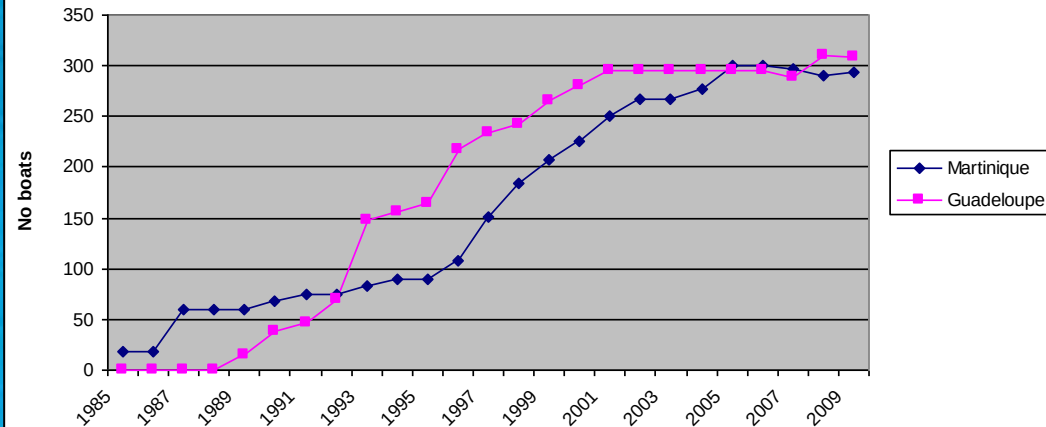
Small scale fleet

Still a relative low capital intensive fleet

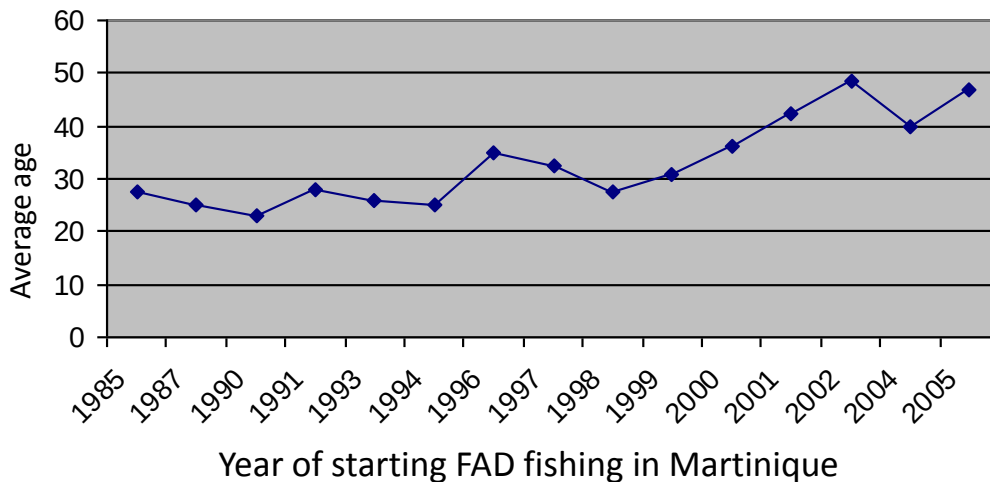
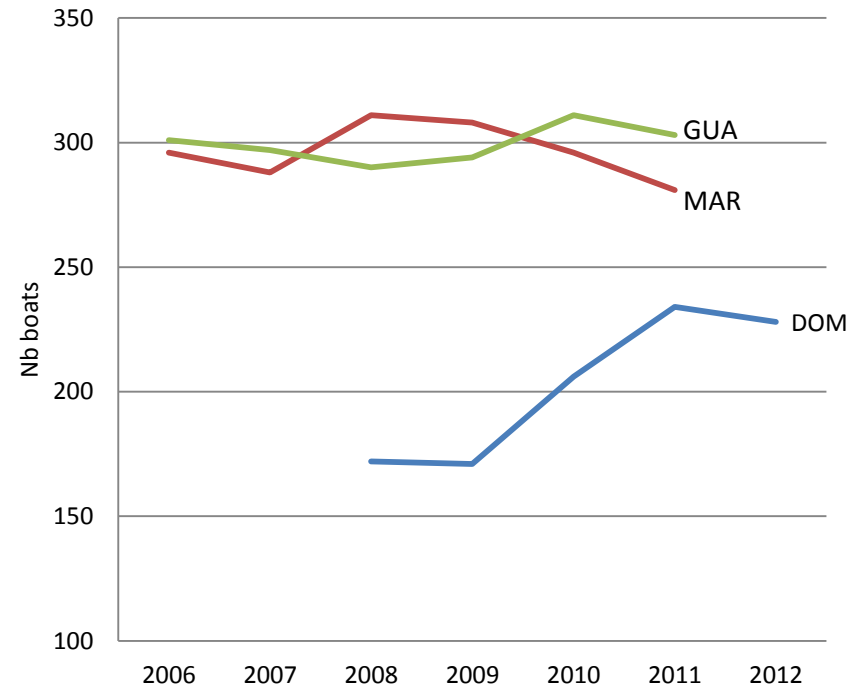
Multipurpose fleet capacity to switch between fishing activities

Development of FAD activity

Number of FADs fishing boats

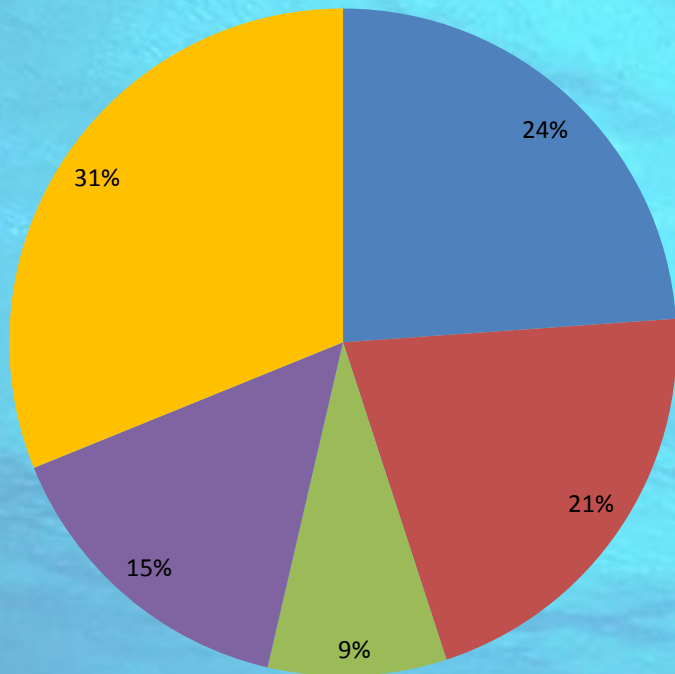


Number of FAD vessels, comparison between 3 islands for the last years

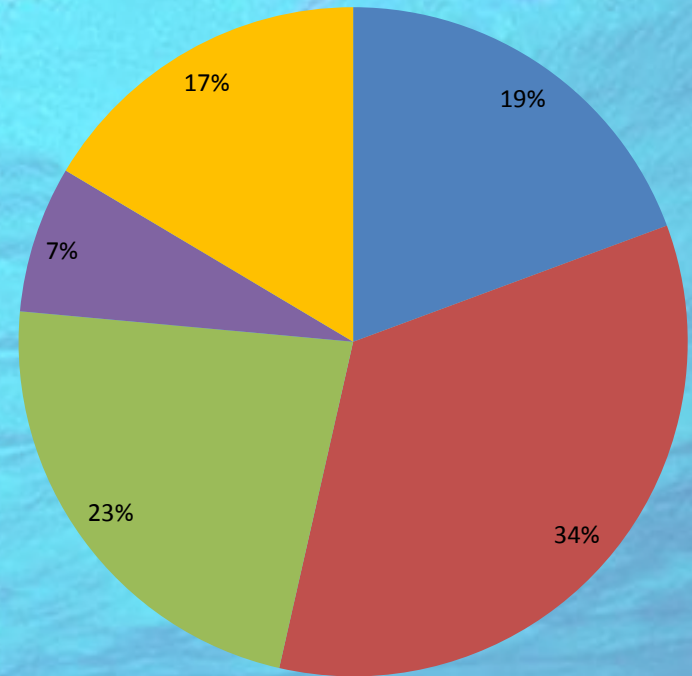


Percentage of vessel per gear among FAD fleet

Guadeloupe in 2010

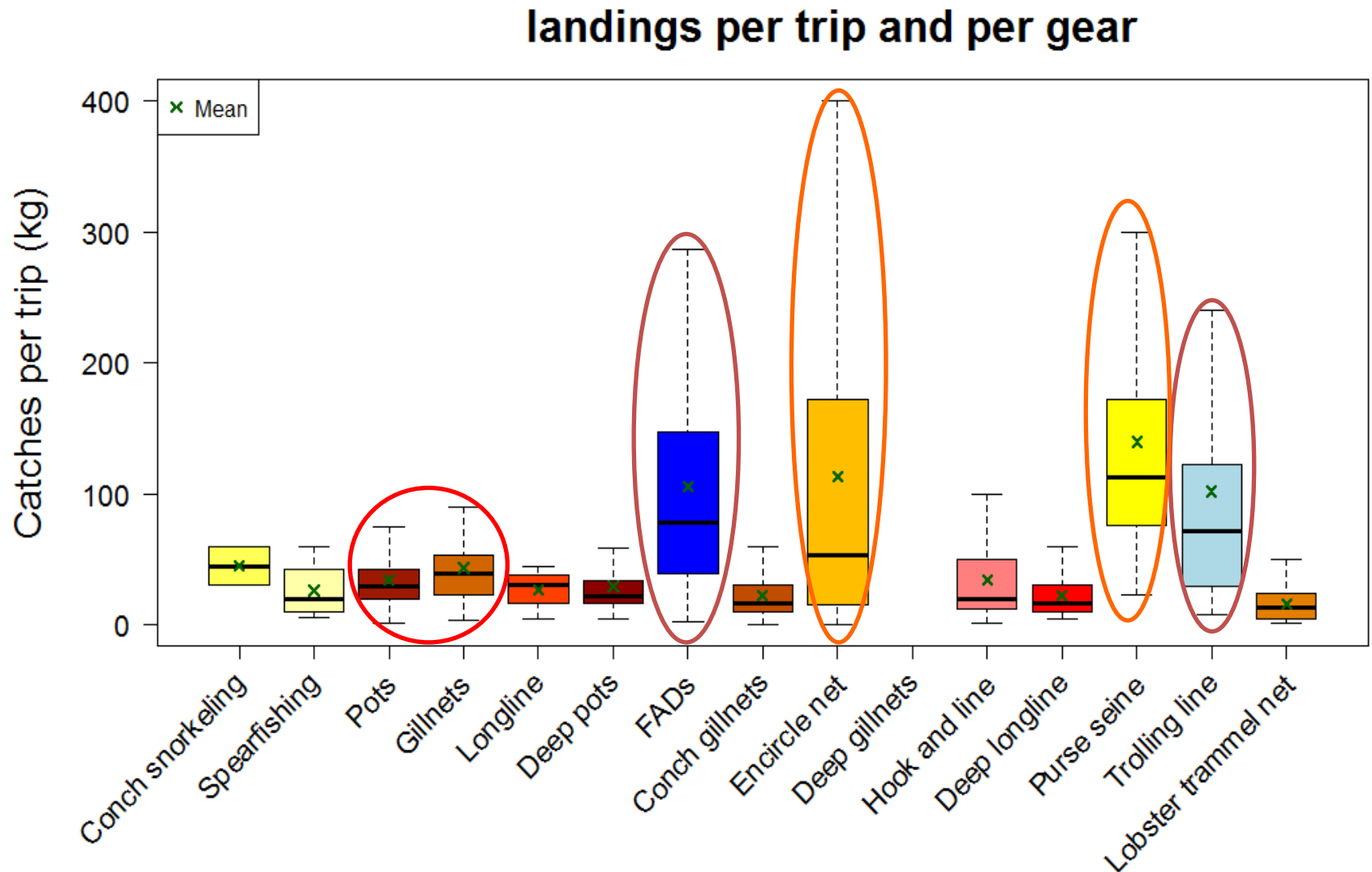


Martinique in 2010



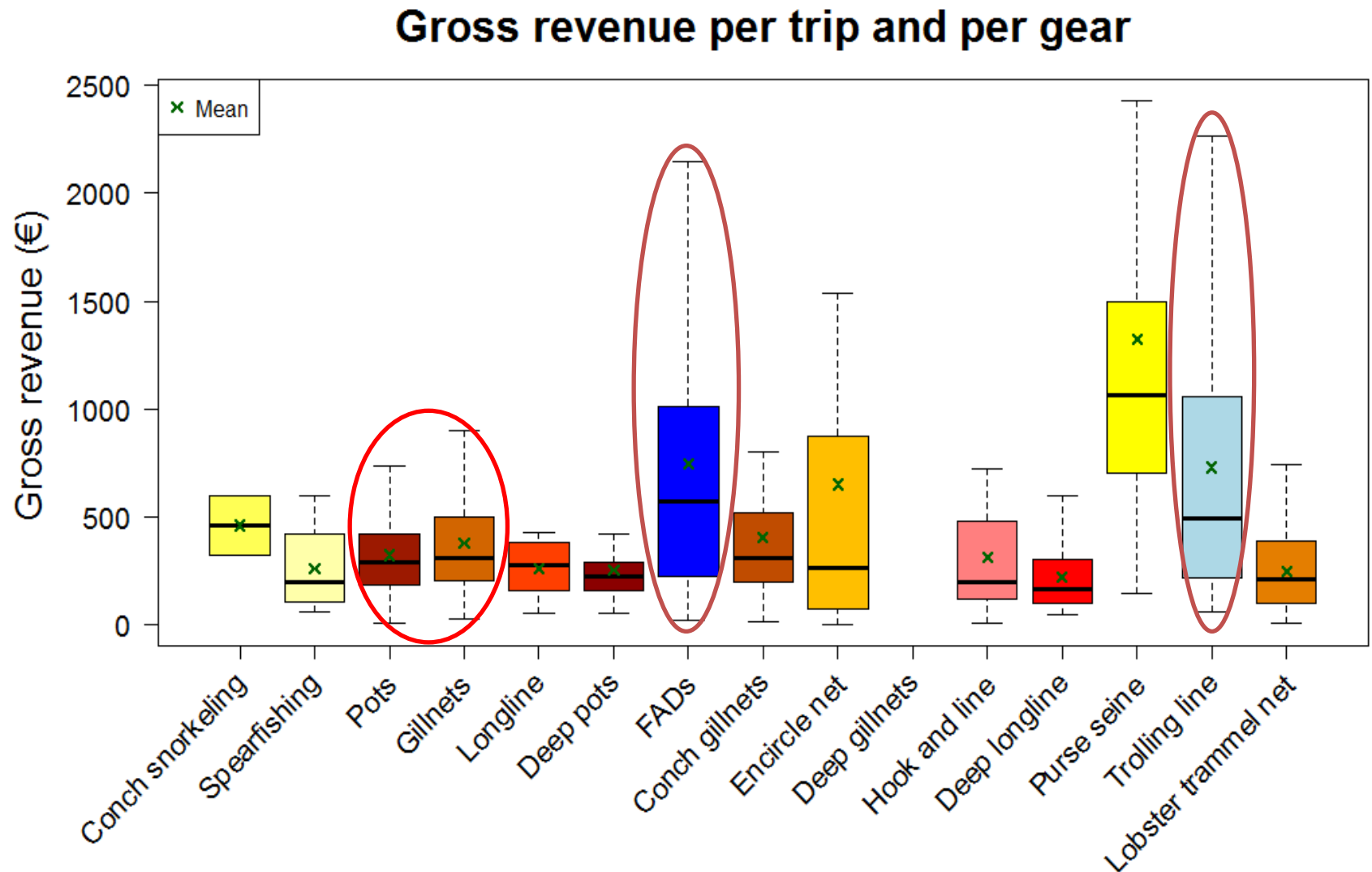
■ FADs ■ FADs & POTS ■ FADs & NETS ■ FADs & Bottom lines ■ FADs & Multipurpose fixed gears

Attractivness of FADs compared to other fishing activities



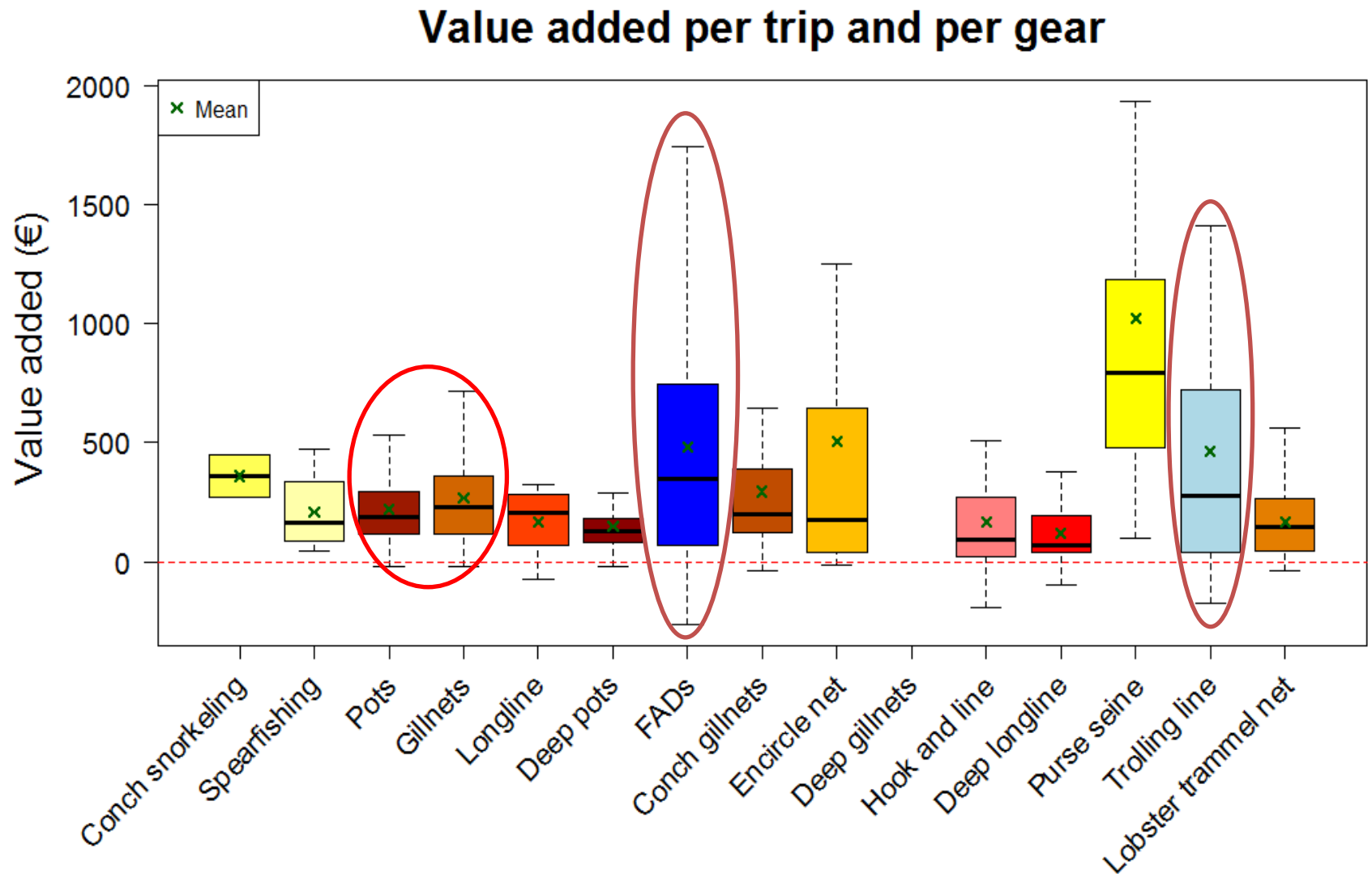
N = 3000 trips, 105 economic surveys (year 2008),

Attractivness of FADs compared to other fishing activities



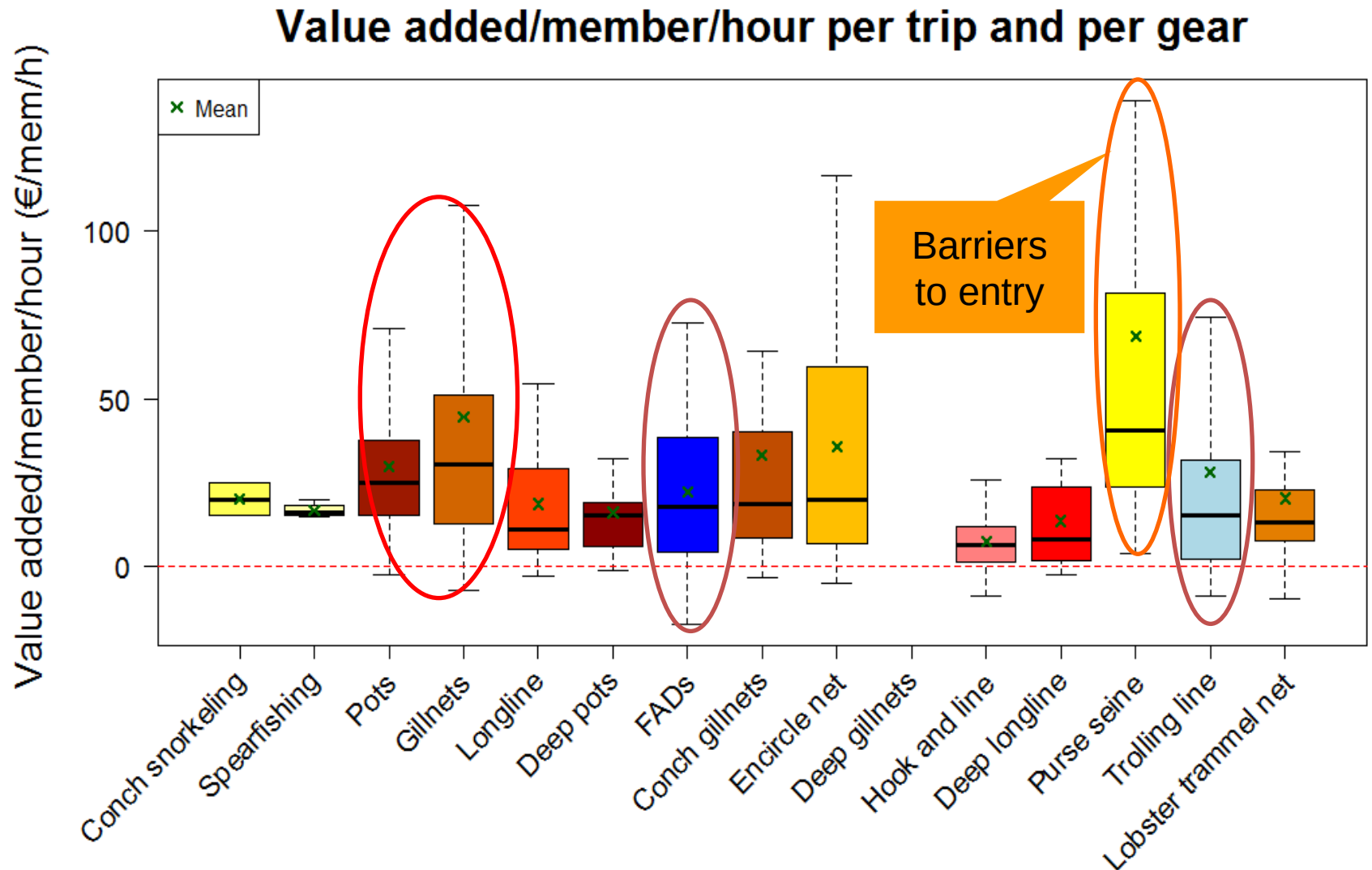
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Attractivness of FADs compared to other fishing activities

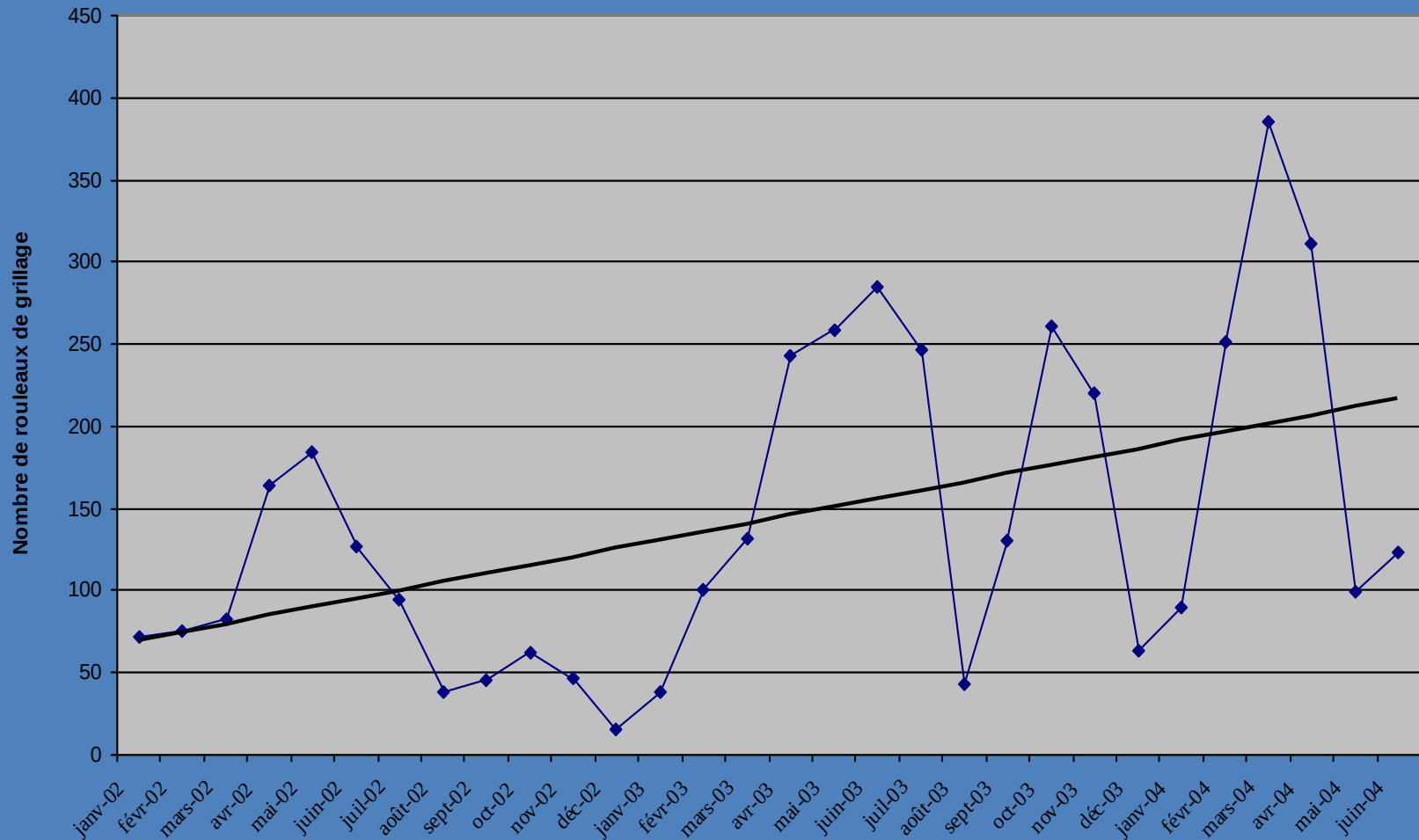


N = 3000 trips, 105 economic surveys (year 2008),

Source O. Guyader et al., 2011

Sale of wire for pots in Martinique (Jan 2002 – Jun 2004)

Figure 4 - Evolution des ventes de rouleaux de grillage à la coopérative de pêche de Martinique (COOPEMAR)

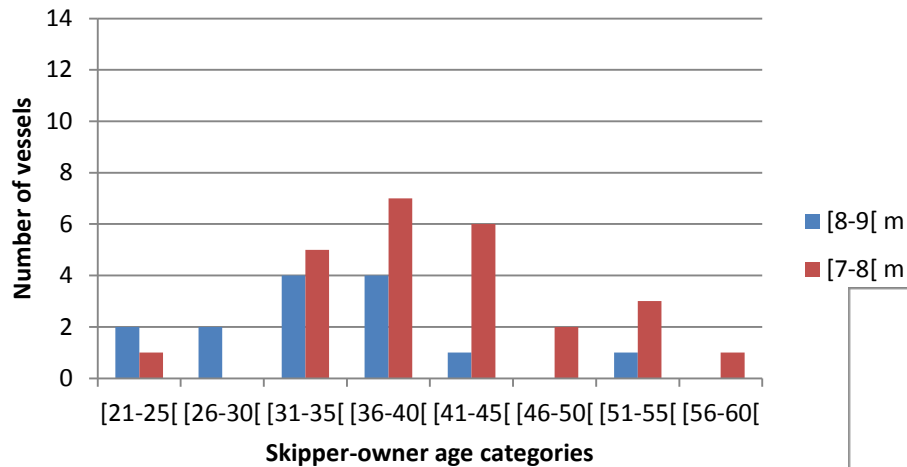


The overexploited insular shelf resources are probably an additional income
No economical regulation of the activity on these resources

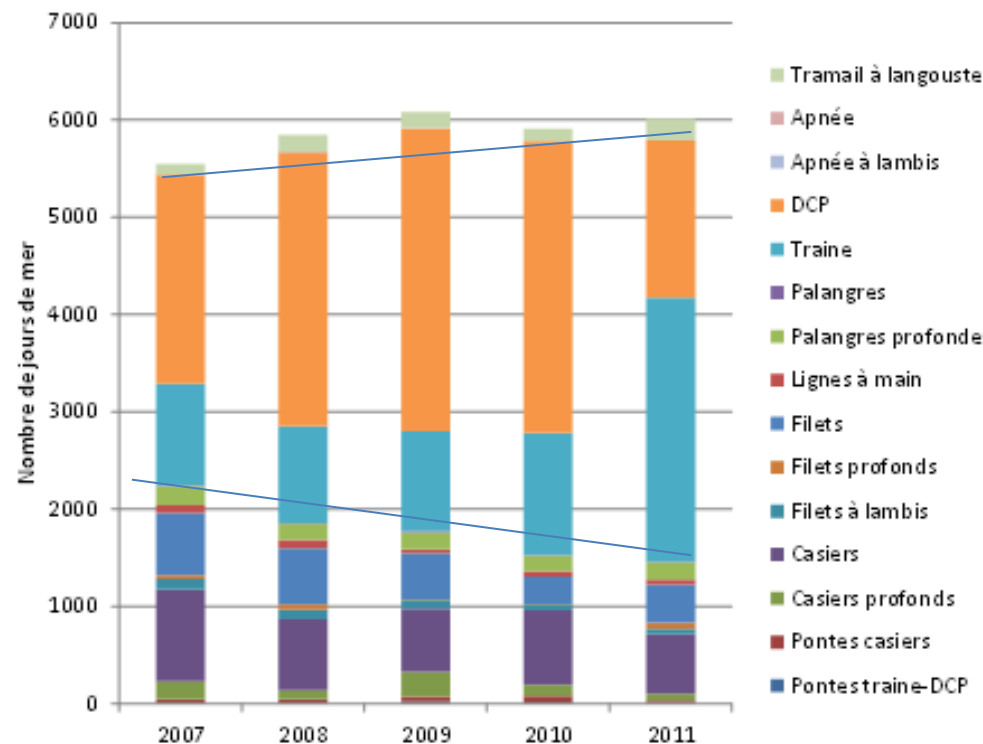
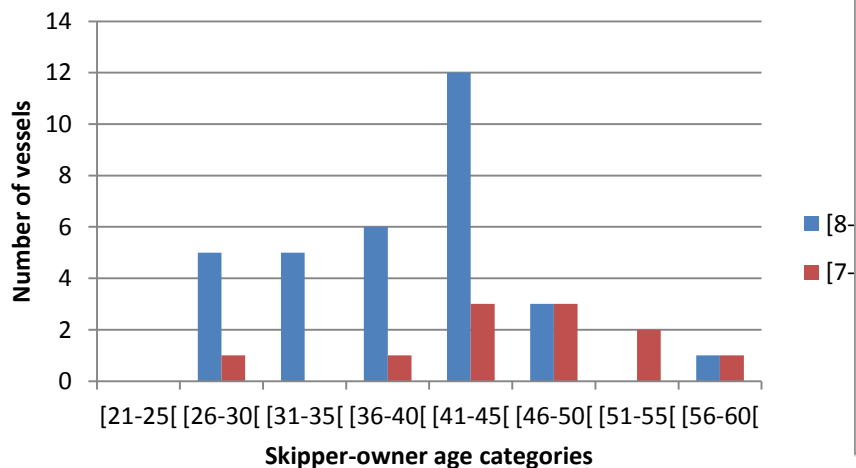
Effort deployed towards offshore resources

An example in Guadeloupe, Désirade Island

2006

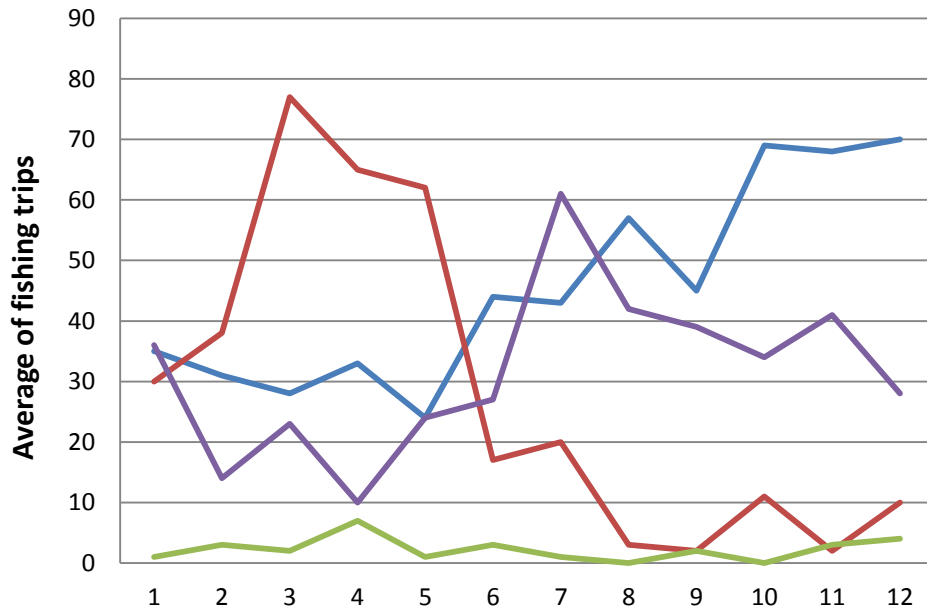


2011

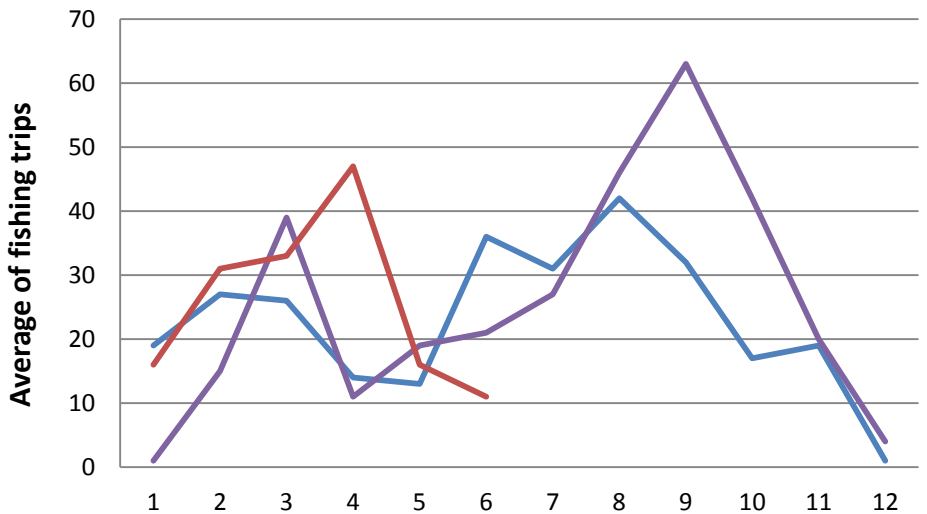


Seasonality of number of fishing trips per fishery type

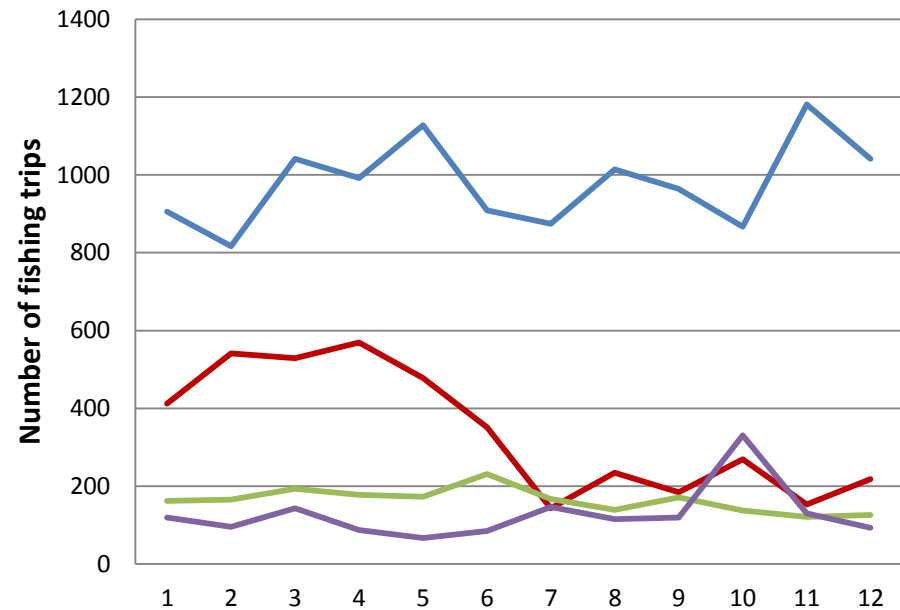
In Martinique, 2009-2010



In Guadeloupe, 2008 & 2010



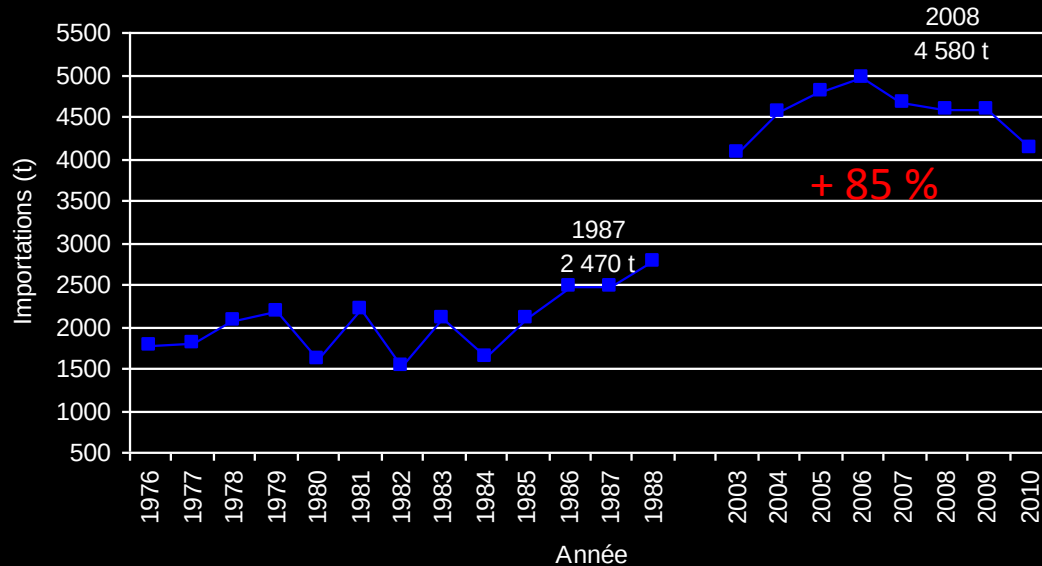
In Dominica, 2008-2010



FAD LARGE PELAGIC COASTAL PELAGIC BOTTOM

Imports of fish products

Importations de produits frais réfrigérés congelés
(1976 à 2010)



Average local price of fresh pelagic fish:

French islands → 10€/kg

Dominica → 4,5€/kg

Average price for fish imports:

French islands → 2-6 €/kg

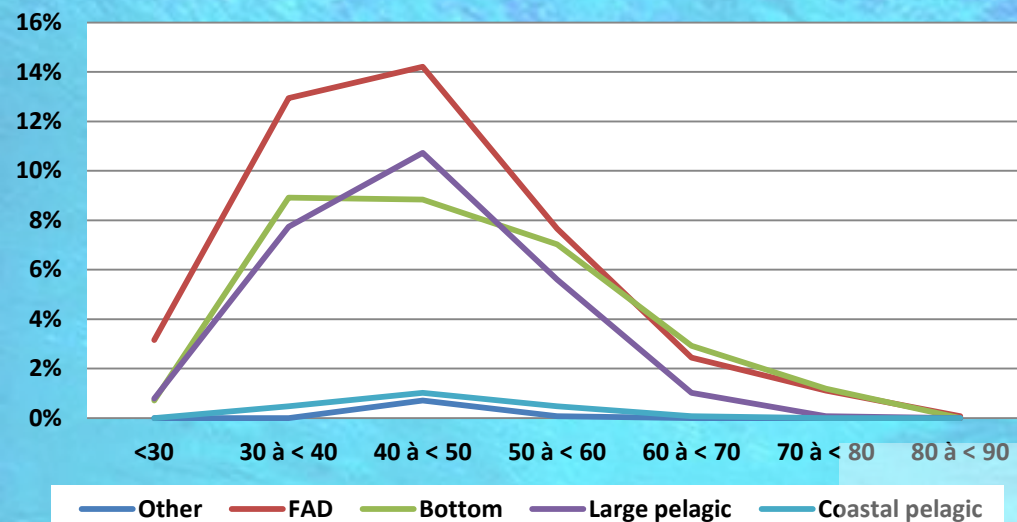
Dominica → 2,7€/kg

Evolution of all fish products imported in Dominica between 1993 and 2012

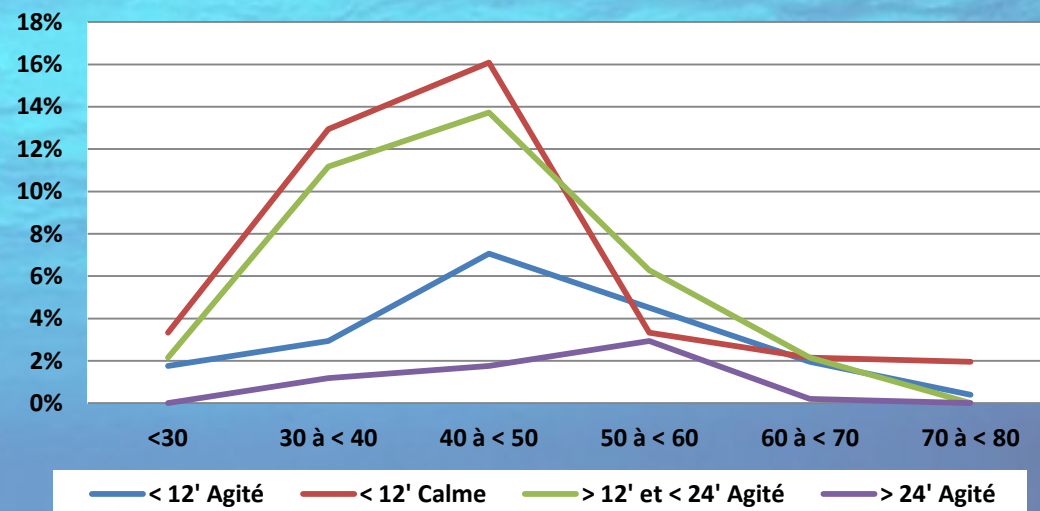


Fishing activity according to the captain age, Martinique, 2009-2010

Number of fishing trip in % per captains age group by type of fishery among FAD fleet



Number of fishing trip in % per captains age group by type of sea among FAD fleet



Degree of dependence to FADs ?

- Explain % of FADs Gross Revenue in vessel total Gross Revenue
→ test role of non monetary variables



Sign	Variable	Assumption
+	Harbours with narrow insular shelf	FADs opportunity cost is low (best alternative)
-	Owner age	Working conditions, habits
+	Vessel size	Investment to operate on FADs
0	Crew size	Labour force to operate on FADs
0	Quarters	Seasonality of the FADs activity

Conclusions and perspectives

FADs economic returns seems sensitive at local level to :

Fuel cost	
Gear (FADs) cost	
Catches	
Prices	

➤ How to regulate moored FADs fisheries (incentives, compliance, role of co-management...) to improve the net benefits for the fishing communities?

Resolutions

- To improve FAD monitoring in all countries
- To improve monitoring of fishing activity of all fleet considering the multipurpose nature of small scale fishing vessels
- Development of FAD fishery without simultaneous implementation of regulations to reduce/control the effort on inshore fishing is an important consideration to effect a reduction on inshore fishing pressure (licence establishment?)



Thank you