

Global-local interactions through the seafood trade: Asymmetry, impacts, and signals

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The ongoing globalisation of fish trade

- What are the effects of this increasing globalisation of seafood markets?
 - ... on SSF in source areas?
 - ... on perceptions of consumers?



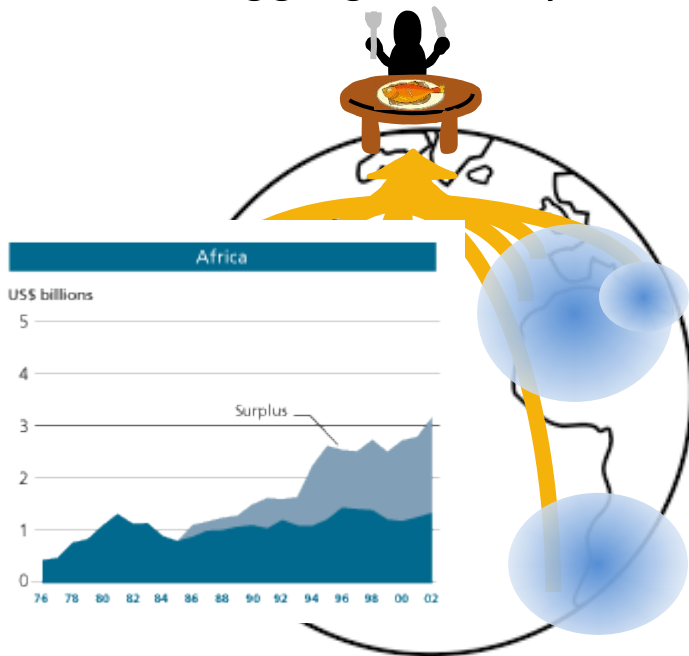
Impact of global trade on small scale-fisheries?

Bene et al 2010 – Lack of evidence for or against

'Pro-trade perspective'

Economic contributions

Aggregate analysis



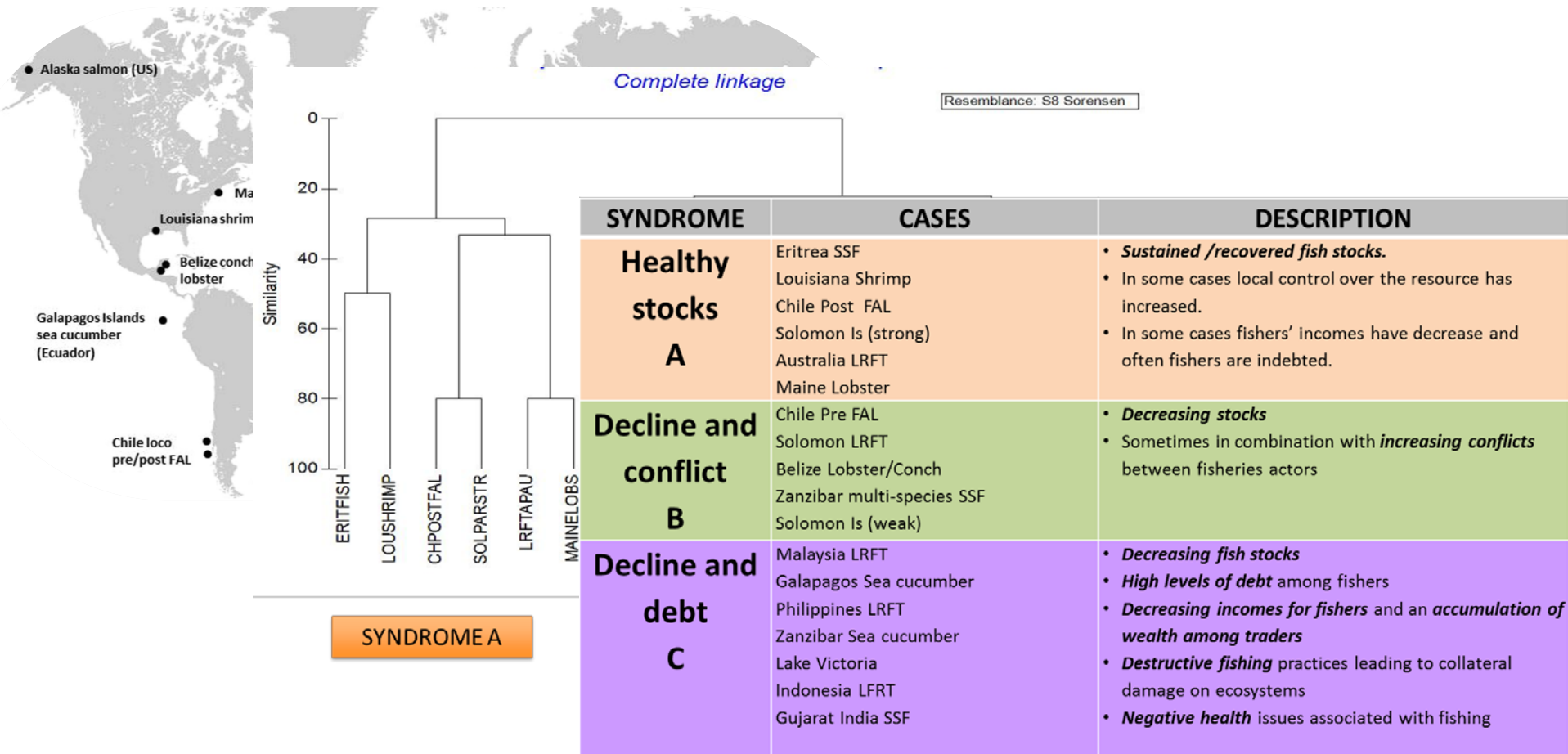
'Anti-trade perspective'

Environmental, justice social problems

Case studies



Meta-synthetic analysis of SSF affected by global trade



Stock collapses and declines common (2/3 cases) in the absence of effective institutions ...

...or with combinations of strong demand from Asia, vulnerable species, increasing effort or easy access to international markets

How does the consumer perceive their impact on marine ecosystems?

- Consumers as stewards – but what can they perceive?
- Is there a feedback?
(Kasperson&Kasperson 1996)
- Can trade, through price provide a signal?



The New York Times

Sturgeon Stocks Are in Decline Around World, Survey Reports

By CORNELIA DEAN

Published: September 22, 2005

THE SUN

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World supply of fish in peril
Study predicts collapse of all fisheries by 2048 if trend is not reversed

November 03, 2006 | By Maria Cone | Maria Cone LOS ANGELES TIMES

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World's fish overexploited, under threat UN warns



ALJAZEERA

Witness din
multi-million
fish industr

Guinea-Bissau's rich fish stocks in peril

Foreign trawlers operate illegally and little of their catch is processed locally, hurting local exporters, UN says.

Last updated: 21 Apr 2014 09:47



Mechanisms that
prevent price
signals in a
globalised seafood
system...



Suggested mechanisms...

DROWNING OUT

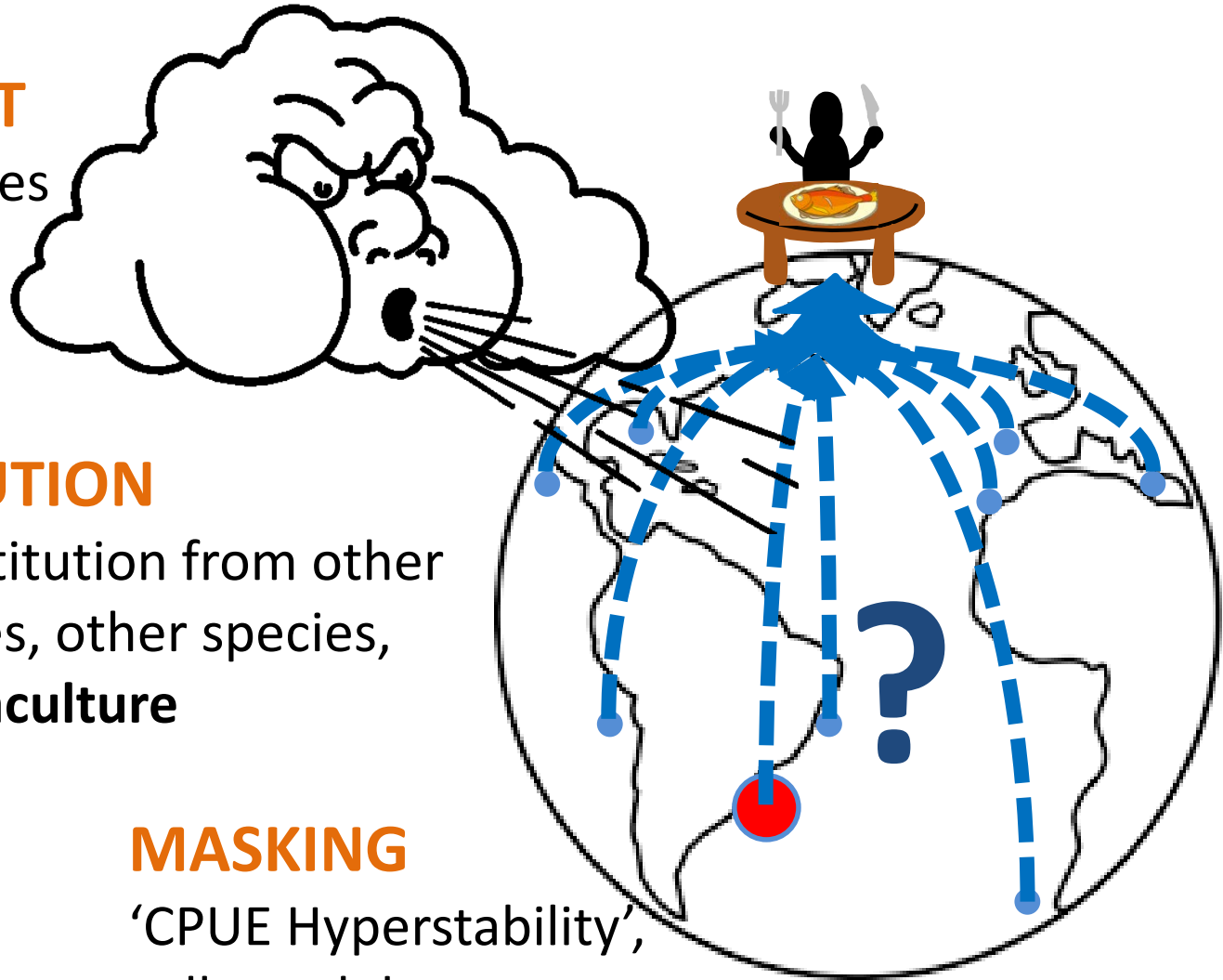
Subsidies, Fuel prices
Economic shocks,
demand elsewhere

DILUTION

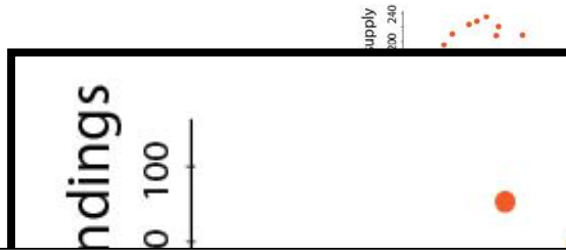
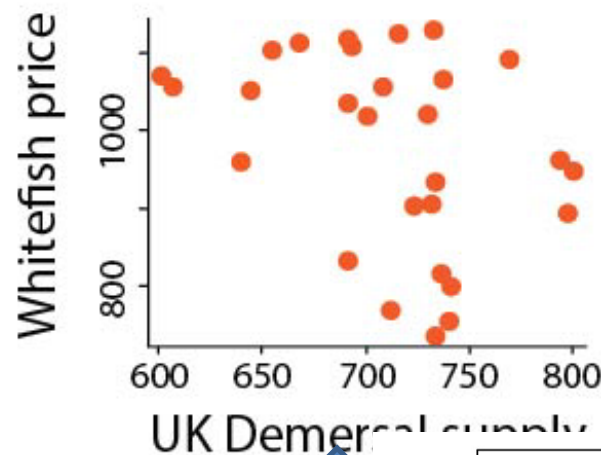
Substitution from other
places, other species,
Aquaculture

MASKING

‘CPUE Hyperstability’,
collateral damage



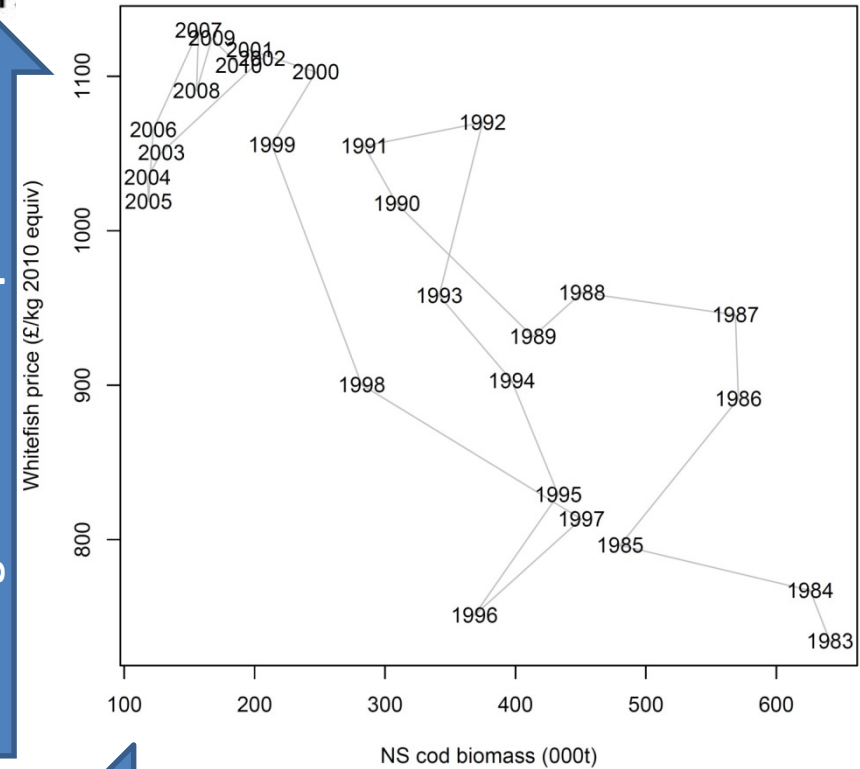
Masking, dilution
and drowning out
in North sea cod...



So there was a (small) signal!

- Perceptible by consumers?
- Cod is a differentiated product?
- Further globalisation of markets since 1990s?
- How would other value chains look...

Higher whitefish prices



Less NS cod biomass

Questions to follow up...

1. Comparative studies of price signals in different commodities
 - Masking related to local fishery dynamics
 - Dilution determined by substitutability and own price elasticity
 - Differentiated or undifferentiated products/species
 - Aquaculture
 - Herring -> whitefish -> Penaeid prawns
 - Geographical specificity (Cromer crab)
 - Proportion of pool for a given product



Whitefish fillets



Chinese Bahaba

Questions to follow up...

1. Comparative studies of price signals in different commodities

2. Effects of price change on consumers

- Perception
- Interpretation
- world view and citizenship

3. Do price signals actually facilitate conservation and sustainability?

- Not substitutable/ responsive price
 - High awareness and incentives
 - – But scarcity drives pressure
- Substitutable / unresponsive price
 - Low awareness and incentives
 - but pressure can switch away
 - Sequential overfishing risk



Whitefish fillets



Chinese Bahaba

Thank you

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Key papers

- Crona et al (2016) Towards a typology of interactions between small-scale fisheries and global seafood trade. *Marine Policy* 65, 1–10.
- Crona et al (2015a) Masked, diluted and drowned out: how global seafood trade weakens signals from marine ecosystems. *Fish and Fisheries*. doi:10.1111/faf.12109
- Crona et al (2015b) Using social-ecological syndromes to understand impacts of international seafood trade on small-scale fisheries. *Global Environmental Change*. 35:162–175

Masking – at the fishery level



Even when targeted species are threatened signals may not be evident in short-term catch and supply

- 'CPUE hyperstability'
- Compensatory changes in fishing practices – e.g. increased effort, fishing deeper or further from shore - technological advances



Substitution of sources

DILUTION



Substitution between species

Sensitivity of prices to multiple factors

Prices of fish commodities are a function of ***demand***, not just supply



Sensitive to factors beyond productivity of fish stocks

'Thursday, Jul to consumer demand,

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Brexit could give your fish and chips a battering as falling sterling sends price of cod and haddock soaring

- Pound has dropped 13 per cent against dollar, increasing price of imports
- Cod and haddock, mainly from Norway and Iceland, will cost buyers more
- Supermarkets protected by long-term deals but small businesses hit now

UT

Dilution – depends on substitutability and price elasticity of supply

