



ATLANTIC
LOBSTER
SUSTAINABILITY
FOUNDATION

FONDATION POUR
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DU HOMARD
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LOBSTER INSTITUTE

www.lobsterinstitute.org

Re-cap of Workshop

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THIRD ANNUAL LOBSTER SCIENCE WORKSHOP
CROWNE PLAZA, MONCTON NB
BALLROOM

Workshop objectives

- Three goals:
 - Inform stakeholders of latest research information
 - Discover opportunities in research to better serve the industry
 - Map the way forward for sustainability of the lobster industry
- ALSF: spent \$350K with leverage of close to \$1M. How do go forward?

Policy makers roundtable: what is meant by sustainability?

- Patrick Keliher, Hon. Michael Olscamp, Hon. Ron MacKinley
- Commonalities: sustainability means not only science but also socio-economic issues. Going from harvesters to processors to markets.
- Remains a concern of how long landings will remain high? Seasonality?
- Need to ensure a market and programs need to be in place for this.

Life cycle analysis and a sustainable lobster fishery with industry

- Peter Tyedmers
 - Often we look at socioeconomic sustainability
 - Increasing landings, decreasing prices, but also rising costs.
 - Issue of fuel
 - Other issue is the resource, the state of the resource
 - Ocean acidification: lobster may be a concern for the lobster industry

Life cycle assessment as one tool

- A biophysical accounting framework to evaluate the environmental performance of the cycle
- Main point: up to the dock: fuel; bait is important; transport mode matters much more than miles.
- Compared to other meat products: high and similar to beef but less consumption of seafood than beef

Progress on marketing lobster and industry discussion

- Geoff Irvine and Marianne Lacroix
 - Common issues of promotion and marketing with chef education, media relations, trade missions to get more markets
 - Both countries are trying to increase markets to have more possibilities for fishery.
 - Branding is important and both countries working on this.

Lobster sustainability

- Bill Barry
 - Sustainability means communities
 - Lobster resource management: since the 1870's
 - Long term vision in terms of sustainability but challenge remains supply and demand.

Update on accreditation of lobster

- Jay Lugar and Togue Brawn
- Marine Stewardship Council and ecocertification: moving forward with two industries in the region now certified with conditions (Maine Lobster and Maggies Lobster)
- System is voluntary with 31 indicators included in three principles (must have at least 80 in each principles)
- Maine experience: principle 2 difficult to obtain; preparing a BACI experiment to better understand the impacts of traps on habitat; working now on chain of custody and sharing system coming soon.

Roundtable: investing in research and development for a sustainable lobster industry

- Big question: how to sustain science based research?
- Jim Jones, Joel Levesque, Hubert Saulnier, François Beaudin, and Bill Barry
- Key messages: need research, need credibility, need sound management, need to be industry driven.
- So, need for ALSF to be the science voice to support a sustainable industry

Update on Canada-US lobster science

- Richard Wahle
- Lobster in the changing ecosystem
 - Anthropogenic and environmental stressors: thermal stress, disease, acidification, hypoxic “dead” zones, toxic pollutants. Warmest year 2012... issues of larval survival and mortality, shell disease. Need to incorporate indicators of health.
 - Food web system: top-down process with removal of predators which are smaller. “Low diversity ecosystem in a low diversity ocean...Fishers is perilously depending on this single fishery”

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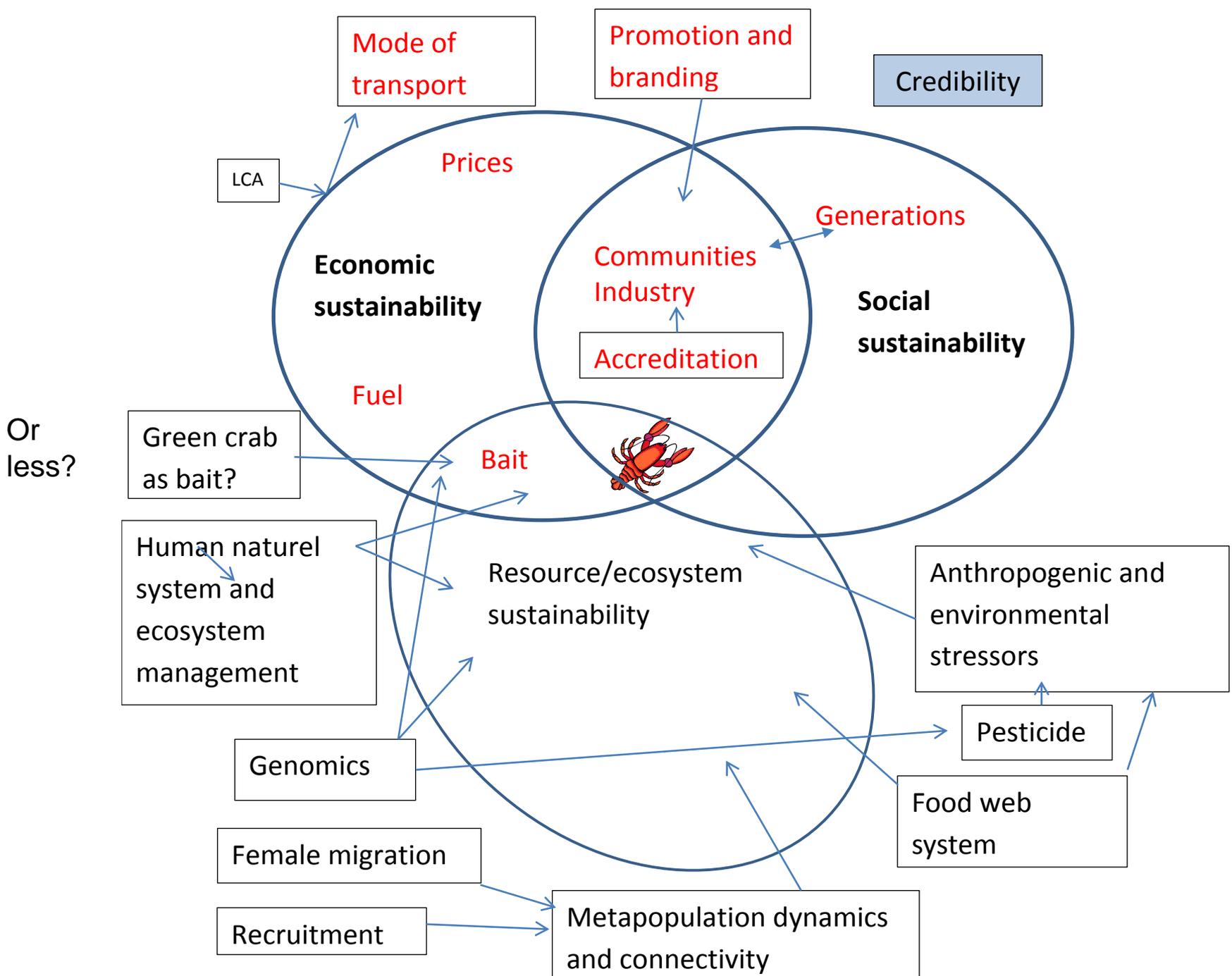
- Metapopulation dynamics and connectivity: Need to reconcile genetic structure vs larval transport models, rates of larval mortality which is key to connectivity.
- Couple human natural system and ecosystem management: The price of lobster is at a 50 year low when adjusted for inflation.
- Lessons learned: “Lobster is a poster child for marine ecosystem change and coupling of human-natural systems”.
- “We’re less in the driver seat that we think”.

Lobster Genomics Research: why is it important to a sustainable lobster industry?

- Spencer Greenwood
 - Importance of gene expression and definition of biomarkers for decision and management
 - Useful for health issues and markers for infection to disease
 - Chain of custody: metabolism, stress and immunity
 - Larval development and immunity
 - Future research on pesticides, environmental influence

Projects of ALSF

- Bryan Morse: seasonal /thermal migration using pop-up satellite archival tag on females
- Russell Wyeth: green crab as lobster bait
- Dounia Daoud: effects of pyrethroids on lobster post-larvae
- Benoit Bruno: postlarval behaviour and sedimentation
- Richard Wahle: Lobster settlement index in fishery forecasting
- Bob Bayer: reducing the amount of bait

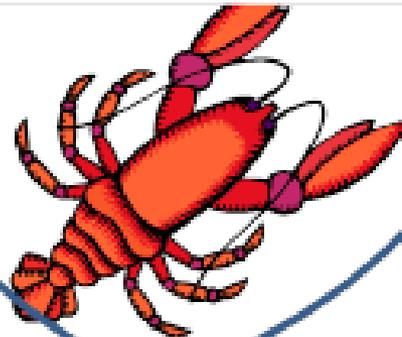


Economic

Social

Communities
Industry

Resource/ecosystem



Future?

- Need better integration but also to examine the implications of the results from one sphere to the others.
- Note: working together as governments will not be helping
- ALSF: support for trying to bring credibility and sustainability to the industry, communities and ecosystem that the lobster supports