HSD 515 - ASU

Spring 18’

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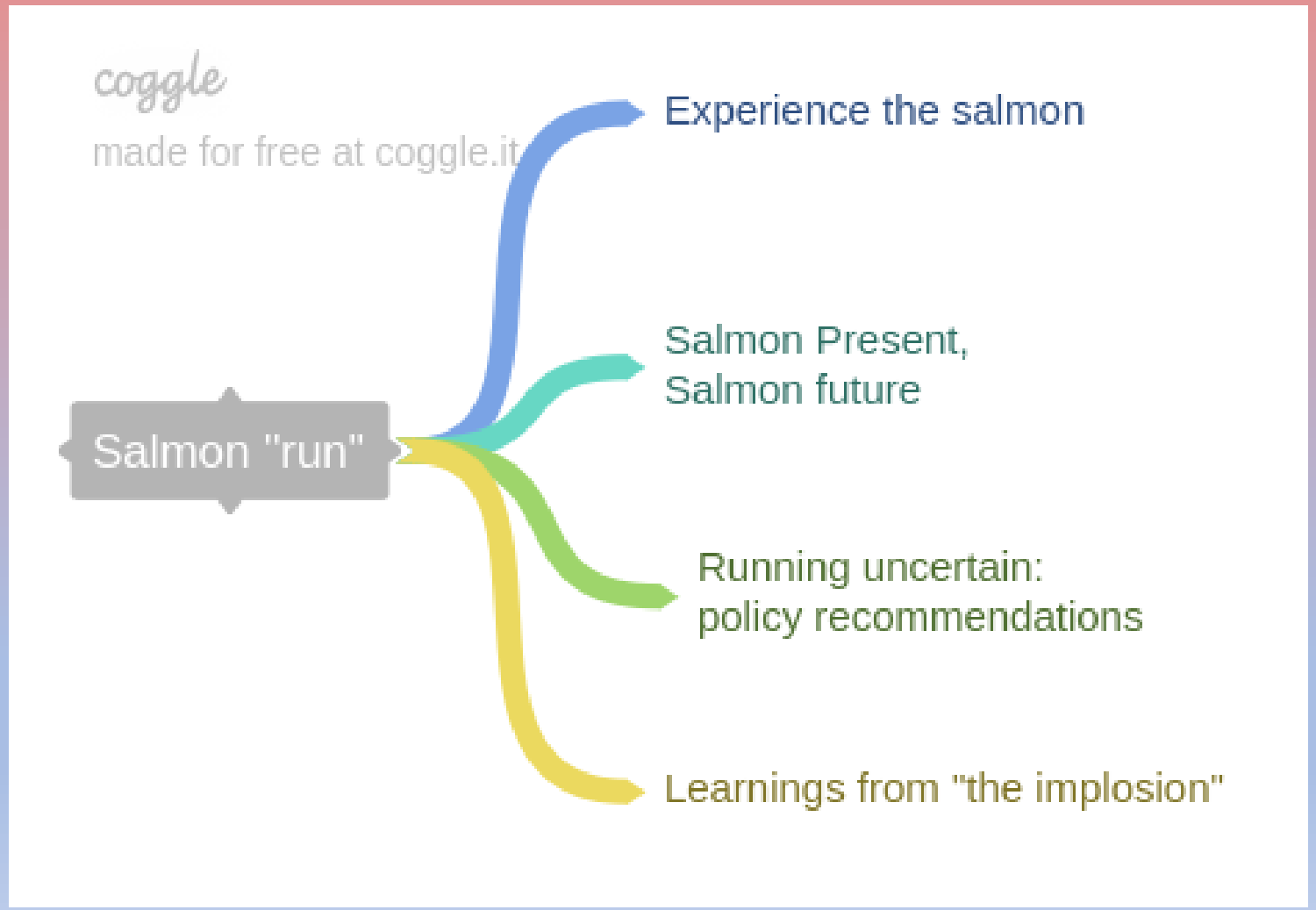
Martin Perez Comisso

Salmon | Finale

Salmon is salmon

Spawning points



Salmon Present, Salmon Future

The Sources of Control are Institutional

Industrial	Social	Scientific	Regulatory	Economic
AquaAdvantage*	Oceana	National Marine Fisheries Services	FDA (USA)	OCDE
Pacific States Marine Fisheries Commission	Greenpeace	North European and Baltic Network on Invasive Species (NOBANIS)	Local Fish and Wildlife (Games) Boards (USA)	National Fisheries Institute
Marine Harvest	PETA	Universities (a lot)	NOAA	Consumer Organizations
Salmones Humboldt	European Aquaculture (EP) Think Tank	International Union of Conservation of Nature (IUCN)	Sernapesca (Chile)	World Trade Organization
SalMar	Scottish Salmon Think Tank	National research boards (NIH, NSF, CONICYT, others)	National Governments	UNCTAD
Cooke Aquaculture	Global Aquaculture Alliance		Health Canada	Food Intermediaries and Distributors (Supermarkets, etc)
			Environmental Assessment Office	

The Sources of Uncertainty are Political

Industrial

"The (institutional complexity makes) aquaculture hard to manage and govern. Being keenly aware of the limitations of governability, fish farmers and regulators pursue different coping strategies."

Osmundsen et al (2017)

Social

"Material semiotics offers an analytical tool to deal with the challenge of home-blindness often associated with what is referred to as 'anthropology at home.'

Lien & Law (2011)

Scientific

"The wild and aquaculture niches differ greatly… an appreciation of these differences is necessary to understand the future directions of the Atlantic salmon as a species."

Gross (1998)

Regulatory

"Empirical findings confirm that Norwegian MNCs in Chile do not perceive the possible benefits of establish local research units within their own company as quite high enough yet"

Gross (1998)

Economic

"[T]he salmon (now deemed safe) shifted in FDA's processes from radically novel technology to normal foodstuff, naturalizing a host of ethical, environmental and biological particularities in a manner that is familiar from prior regulation of GM plants"

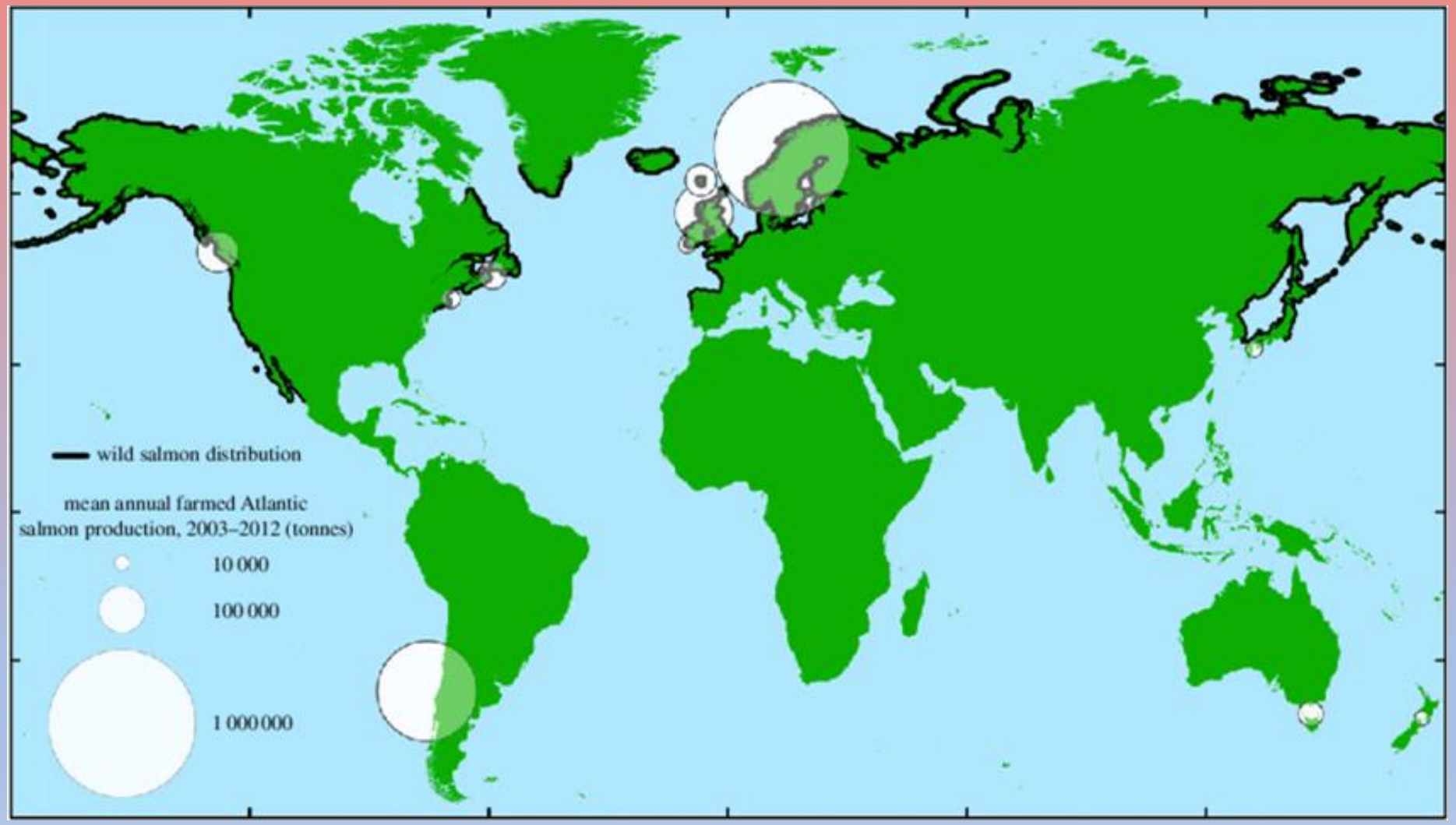
Doezema & Hurlbut (2017)

"To say that they are under 'complete [human] mastery' would be to ignore the uncertainty and unpredictability associated with marine husbandry. Inside the cages, salmon are elusive, hardly ever seen and only partially known… Once outside the cages, the become even more unknown."

- Lien & Law (2011)

Running uncertainty:
Policy recommendations

Where is your salmon from?



Groner, M. L., Rogers, L. A., Bateman, A. W., Connors, B. M., Frazer, L. N., Godwin, S. C., ... & Revie, C. W. (2016). Lessons from sea louse and salmon epidemiology. Phil. Trans. R. Soc. B, 371(1689), 20150203.

Policy Recommendations

1. Osmundsen (2017) proposes to produce conditions in the present necessary to “encourage innovation in salmon industry and to reshape markets” through: (1) Competence, (2) Collaboration, (3) Adaptability, (4) Flexibility, and (5) Cost Efficiency
2. Gross (1998) proposes:
    - Encourage fisheries to aim at achieving interdependence
        - Invest in aquaculture technology to minimize their impact on the environment
    - Launch significant research programs investigating the impact of escaped domesticated salmon
3. Lien and Law (2011) suggests evaluating salmon unique to each culture’s use of the salmon (material semiotics) as a tool to instruct policy and cultural understanding

4. Oceana (2015) calls for support for more easily traceable Seafood so consumers can understand what they are eating
5. Aslesen (2009) advocates that:
   - Firms receive welcome government initiatives, especially general improvements in university-industry relations
   - Create new or improve current intermediary organizations to coordinate exchange in national and transnational scale
   - Clear and consistent political regulations are seen as an advantage
6. Doezema and Hurlbut (2017) strongly advocate not leaving the regulation of the emergent ‘bio-economy’ to the innovators within the industry but to elected officials cognizant of the power and possible future of such a market

7. Contursi and Perez Comisso (2018*) also propose:

- An international enterprise to systematize research on salmon, especially at industrial scale, as the Tomate Council, to establish international standards in the area. Could be seed from FAO current initiatives.
- Assemble a transnational board to analyze ecosystemic, ethical and cultural dimensions of salmon in different places
- Empowerment from national government of know-how networks of learning about aquaculture
- Create an National Institute for the evaluation of emergent fishery technologies that take into account multidisciplinary dimensiones
- Launch regional “honesty” campaigns to combat disinformation and cultural dissatisfaction over aquaculture of Salmon, especially Aquadvantage.
- Educate local communities about cultures of salmon in productive local areas in US, UK, Norway, Chile and Japan (biological, ecological, economical, productive, social, regulatory…) to sustain reflexively the future of the industry in these zones.

What have we learned from the salmon “implosion”?

“The implosion process is designed
to daunt and to lure.
If you already know your story,
the you will do no more than
repeat common sense”
Dumit (2014)

The source of uncertainty of salmon is not intrinsic, but it lies within the scientific, industrial, economic and social human institutions that try to govern it. The nature of salmon is resistance. It is required as humans to understand that the salmon will go against the current. Institutional interactions are not currently aligned at local, regional or even global levels, and we must observe how uncertainty spreads through these different spheres, to acknowledge it and face it politically. The technical problems of salmon have a political root.

Selected References

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