

## Marine Mammals and Navy Sonar

What are the sources of anthropogenic ocean noise? How are they different from each other, and which sources do you think it might be easiest to start regulating?

**NEPA**, Environmental Assessments (EAs and EA-FONSI) and Environmental Impact Statements (EIS)

- What are the different ‘levels’ of marine mammal harassment cited in the Navy’s EA-FONSI?
  - e.g, what are the various ‘harms’ short of death? (10 of LCS)
  - General Greg Garre insists that most disturbances are “temporary and non-injurious”

**Who are the different stakeholders** in this case? Do you agree with Chief Justice Roberts that the “balance of equities” is “not a close question” in this case (so much so that they never **reached the merits** of the case? How much deference should the public give to military knowledge? To scientific knowledge? (And how much deference should judges give?)

- One easy way to figure out some of the more obvious stakeholders is to look at the list of **amicus briefs** in favor of both the petitioners and the defendants (8-9 of LCS)

Why is it particularly difficult to determine **causality** in this case?

- Especially in light of Justice Breyer’s comment: “I don’t know anything about this. I’m not a Naval officer.”
- To what extent should branches of the military (or government, business, etc.) be free to conduct internal studies without public scrutiny (as the Navy tried to do in the LFA case, and as most technology testing by DARPA and others often is)

Should this case have fallen under the executive branch’s war powers **emergency** provisions? (e.g., do you agree that this was an emergency? The district court didn’t, and the Supreme Court never reached the question.)

Neither ‘side’ was pleased by the outcome of this case: “the USSC could have ruled that the Navy had the right to violate environmental laws, but they didn’t. And they could have ruled that the environment deserves consideration even when national security is in question, but they didn’t.”

**Parsons et al:** what does it mean to say that **correlation does not equal causation** (similarly, what does it mean to say that ‘absence of evidence is not evidence of absence’)? How strong does the correlation have to be before it is ‘good enough’ to effectively be causation (i.e., **statistically significant**)

- What is the nature of the argument here that disturbed ecosystems actually put national security at risk?

**Stocker (2007):** proposes establishing oceanic noise criteria based on ambient noise levels much like the national ambient air quality (NAAQ) requirements by point sources under the Clean Air Act. What are the pros and cons of this idea, and how on earth would it be implemented and enforced?

- What does Stocker mean when he talks about ‘scalable’ ocean noise criteria (NC)
- How does he respond to the argument that there are exceedingly loud *natural* sounds in the ocean?