Are cetacean bycatches lost in translation?

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A SOCIAL SCIENTIST WORKING ON CETACEAN BYCATCH?

Understanding the link between human activities and marine ecosystems

- Network
- Stakeholders
- Points of view
- Strategies
A SOCIAL SCIENTIST WORKING ON CETACEAN BYCATCH?

Understanding the link between human activities and marine ecosystems

Network Stakeholders Points of view Strategies

Revealing stakeholders' points of view to gain a better understanding of the socio-ecological context & stakeholders' strategies in order to improve the co-management and the conservation of cetaceans.
MATERIALS AND METHODS
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MATERIALS

- 25 interviews with stakeholders
- 22 observations of collective highlights
- Press articles from 19 different sources
- State of the art

METHODS

- Network analysis
- Postures’ analysis
- Characterization of scientific instruments
RESULTS

+ APPLICATION TO SMALL CETACEAN BYCATCHES IN THE BAY OF BISCAY FROM SCIENTISTS’ POINT OF VIEW
A SYSTEMIC APPROACH TO FISHERY / CETACEAN INTERACTIONS

(Lapijover et al., in prep)
A SYSTEMIC APPROACH TO FISHERY / CETACEAN INTERACTIONS

(Lapijover et al., in prep)
Based on the interactions between small cetaceans and fishing gears, we were able to construct a broad network. In this presentation, we will focus on one specific stakeholder: marine scientists.
SCIENTISTS USE INSTRUMENTS TO MONITOR BYCATCH LEVELS

Monitoring the level of small cetacean bycatches
Scientists observe cetacean bycatches using a panel of instruments. Depending on their characteristics, instruments reveal different aspects of the phenomenon.
INSTRUMENTS ARE TRANSLATION MECHANISMS USED BY SCIENTISTS

Translation process

(Quotation: Latour, 1987)
INSTRUMENTS ARE TRANSLATION MECHANISMS USED BY SCIENTISTS

Translation process

(Latour, 1987)
Scientists are in charge of setting up experiments using instruments to get images of the studied phenomenon. Thanks to the translation process, they may prevail the right to represent the studied phenomenon.
CONFLICTING BYCATCH TRANSLATIONS QUESTION INSTRUMENTS

EXAMPLE of divergent estimations of common dolphin bycatches in the Bay of Biscay depending on the instruments used (Peltier et al., 2016)
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CONFlicting BYCATCH TRANSLATIONS QUESTION INSTRUMENTS

EXAMPLE of divergent estimations of common dolphin bycatches in the Bay of Biscay depending on the instruments used

4700 common dolphins

PELAGIS - cetaceans

Estimation of bycatches

550 common dolphins

INSTRUMENT

Onboard Observers

Stranding Network

Bycaught cetaceans

(Peltier et al., 2016)
CONFLICTING BYCATCH TRANSLATIONS QUESTION INSTRUMENTS

EXAMPLE of divergent estimations of common dolphin bycatches in the Bay of Biscay depending on the instruments used.

Instruments shape how stakeholders look at an issue. Their characteristics determine the available information. Therefore, instruments are not neutral and play a central role in defining stakeholders’ points of view.

(Peltier et al., 2016)
TRANSLATION IS AN EXPRESSION OF POWER RELATIONSHIPS

- Are part of a socio-ecological network
- Use different instruments to translate bycatches into depictions
- Through the process, they gain the legitimacy to represent the phenomenon
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What types of strategies do scientists use?

(Latour, 1987)

- Peer review
- A strong Rhetoric
- The organization in laboratory
- Association with other stakeholders
- Network extension
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Scientists aim at becoming obligatory passage points. Divergent estimations are an opportunity for social scientists to bring the translation process to light and so to open the scientific estimation black box.
QUESTIONING SCIENTISTS’ POINTS OF VIEW

- How sharp is the image scientists are able to provide?
- If the number of cetacean bycatches is uncertain, who is legitimate to represent them?
- How is it possible to assert the impact of bycatch on cetacean populations?

Estimation of bycatches

4700 common dolphins

550 common dolphins

Controversy?
QUESTIONING SCIENTISTS’ POINTS OF VIEW

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- If the number of cetacean bycatches is uncertain, who is legitimate to represent them?
- How is it possible to assert the impact of bycatch on cetacean populations?
Faced with conflicting translations, stakeholders may question the role of science and adjust their strategies accordingly.
Establishing shared instruments could participate to the emergence of a common vision of cetacean bycatch
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Two applications could be:

→ Surveys to integrate fishermen local knowledge
  • Is it possible to develop new translation centers using innovative instruments based on social sciences to get a sharper picture of cetacean bycatches?

→ Organization of participatory workshops
  • Can connections between stakeholders be extended to foster social learning and to enhance the emergence of a common language by sustaining new cooperation arenas?
WHAT COULD IT IMPLY FOR THE CO-MANAGEMENT OF CETACEANS?

Establishing shared instruments could participate to the emergence of a common vision of cetacean bycatch

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Instruments transcribe scientists’ perspective and so influence the shape of the socio-ecological system. Choosing a specific instrument has political implications. Debating instruments to include other stakeholders’ representations of the system becomes key to get an integrated picture of cetacean bycatches.
CETACEAN BYCATCHES: LOST AND FOUND

Questioning the translation
Elucidating scientific knowledge in a socio-ecological context

Looking for new translations
Collecting other forms of knowledge on interactions between fisheries and cetaceans

Sharing Translations
Engaging stakeholders using serious games that model their points of view

Translating together?
Thank you for your attention!

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Lapijover et al., submitted in Marine Policy

For managers’ point of view, take a look at Benjamin Guichard’s poster (C018)

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