

**An exploration of ways
to improve news
coverage of complex
marine ecosystem
science through
journalist-scientist
working relations**

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THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tamaki Makaurau
NEW ZEALAND

Public perceptions about marine threats

Overfishing

Pollution



Photo by Lina Lisitsyna (Pexels)

The oceans face multiple threats that are cumulative and interconnected

Terrestrial nutrient runoff

Overfishing

Sewage

Altered sea water temperature

Deep sea mining

Sedimentation

Noise pollution

Sea level rise

Oil explorations

Microplastics

Sand & gravel dredging

Oil spills

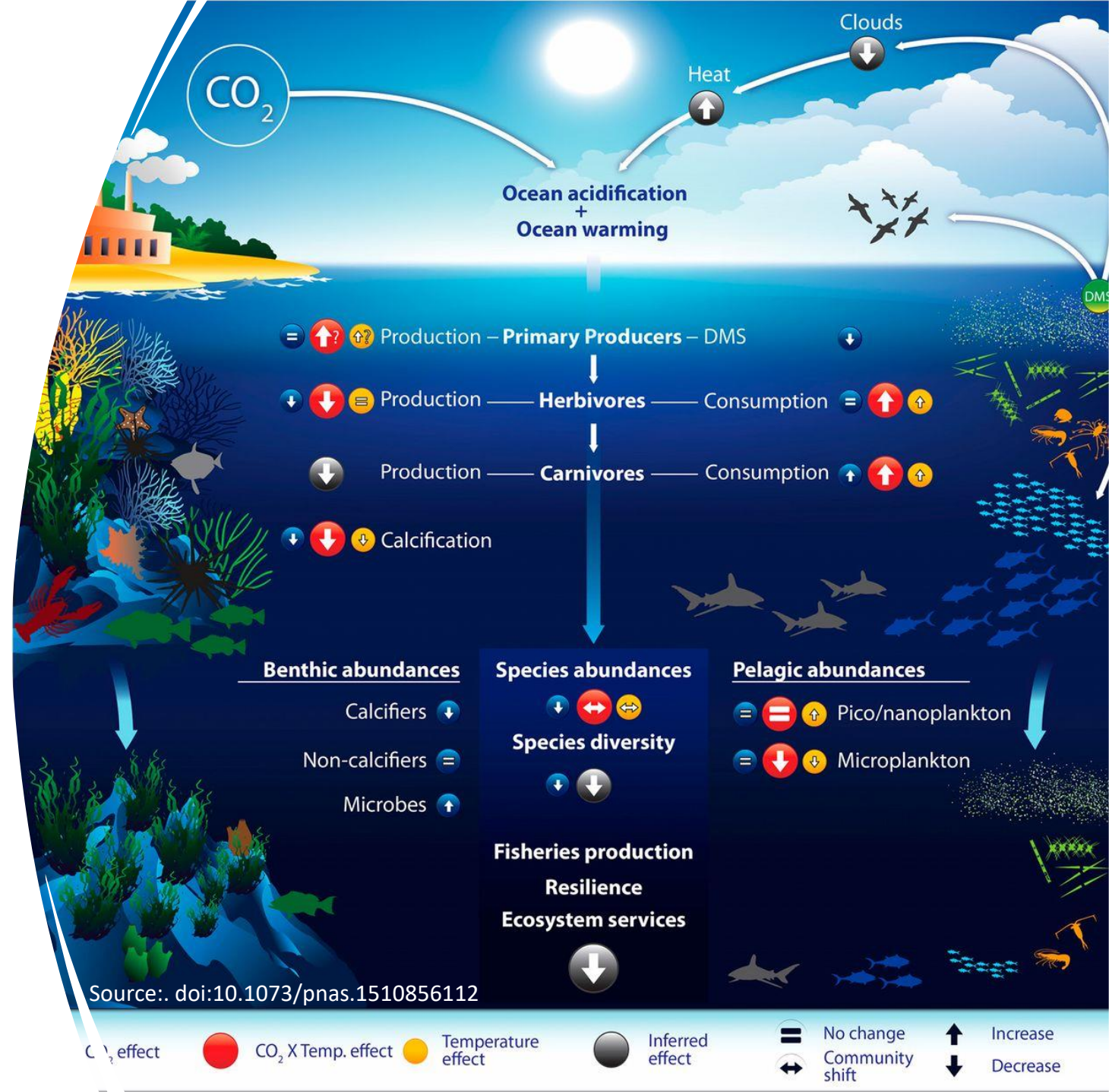
Invasive species

Sea water acidification

Aquaculture nutrients,
pharmaceuticals & pathogens

Trawling

Marine debris



The oceans have long faced two well-known stress factors – overfishing and pollution. Our research shows evidence of multiple stressors (microplastics, chemicals, nutrients/fertilisers, sewage, sediments, invasive species, ocean acidification, altered temperatures, and human-made noise) that affect ocean life and destabilise ocean ecosystems. While kelp forest decline and mussel reef loss are some examples of impacts on the marine environment, cumulative effects from multiple stressors can lead to ecosystem tipping points, dead zones, biodiversity loss, and extinction.

We think cumulative effects and abrupt changes are important for the public to understand. Even brief mention of these multiple interrelated problems in news reports on marine-related issues could be helpful. For instance, journalists reporting the decline of an iconic species could incorporate the cumulative effects of multiple stressors, including climate change. Similarly, journalists reporting overfishing could include how the decline of the fish stock then weakens ecosystem resilience. We think that providing the public with this type of information better conveys the depth and interconnectedness of these problems and helps people make well-informed personal and collective decisions. This is critical, given the enormous scope and unprecedented rate of human-caused stress on ocean ecosystems. It is also in line with the aims of the United Nations Decade of Ocean Science for Sustainable Development (2021–2030) to encourage all sectors within society to move from a “business as usual” mind-set towards real changes for ocean sustainability.

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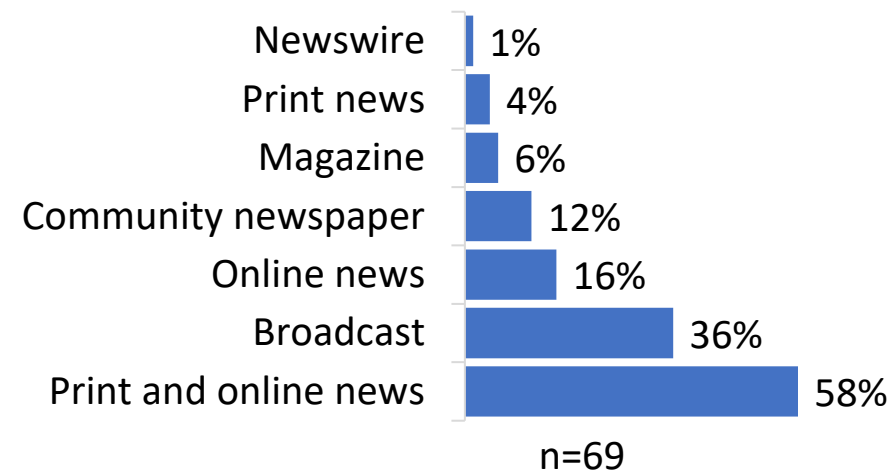
Methods

- Statement by 7 UoA scientists – importance of reporting marine ecosystem complexities
- Online questionnaires – responses to the statement, various aspects of news reporting and journalist-scientist working relations
- Expert sampling – scientists whose research work concern the marine environment and journalists who have covered at least one environmental story

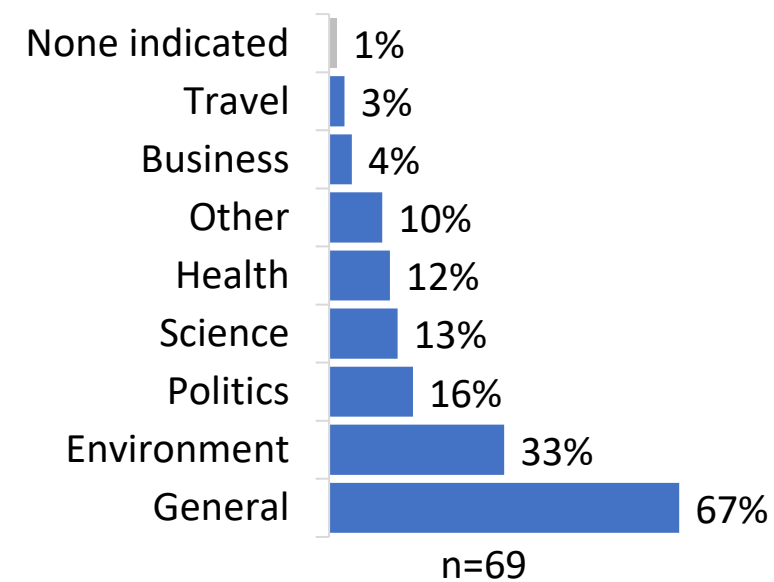
Journalists

24 partial
69 full

Affiliations



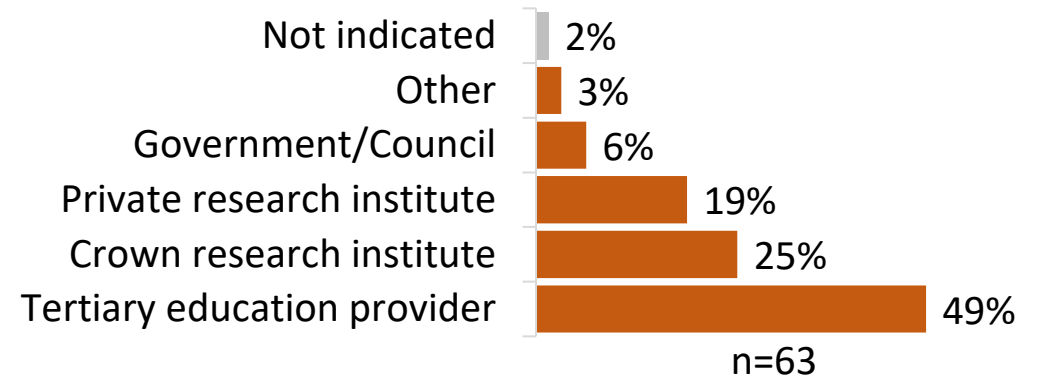
Specialisation



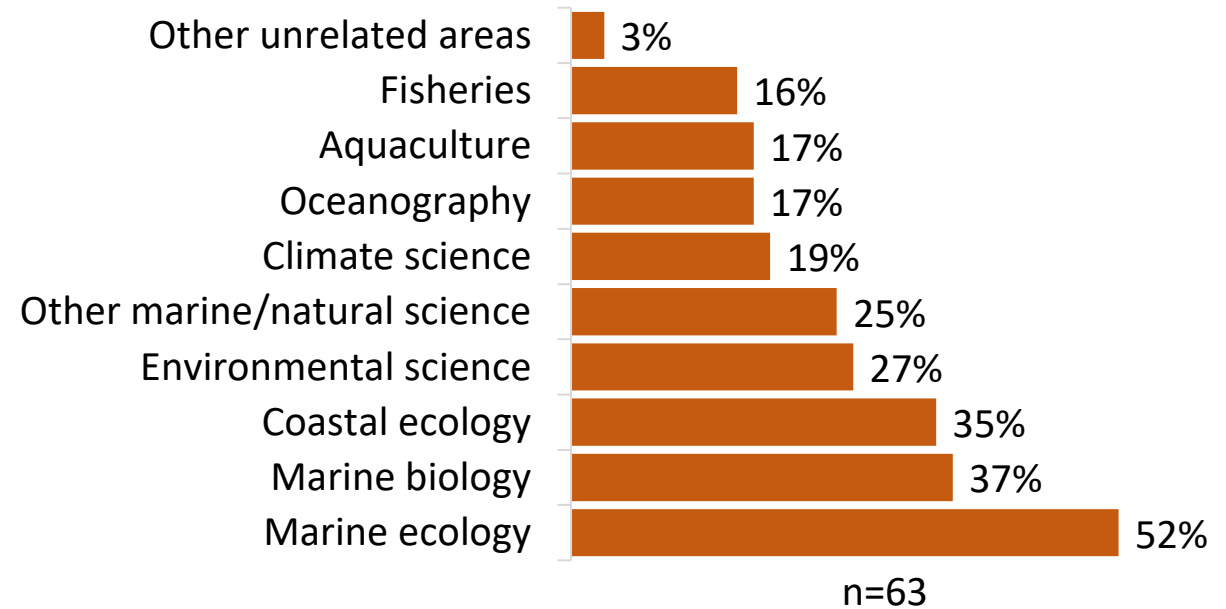
Scientists

9 partial
63 full

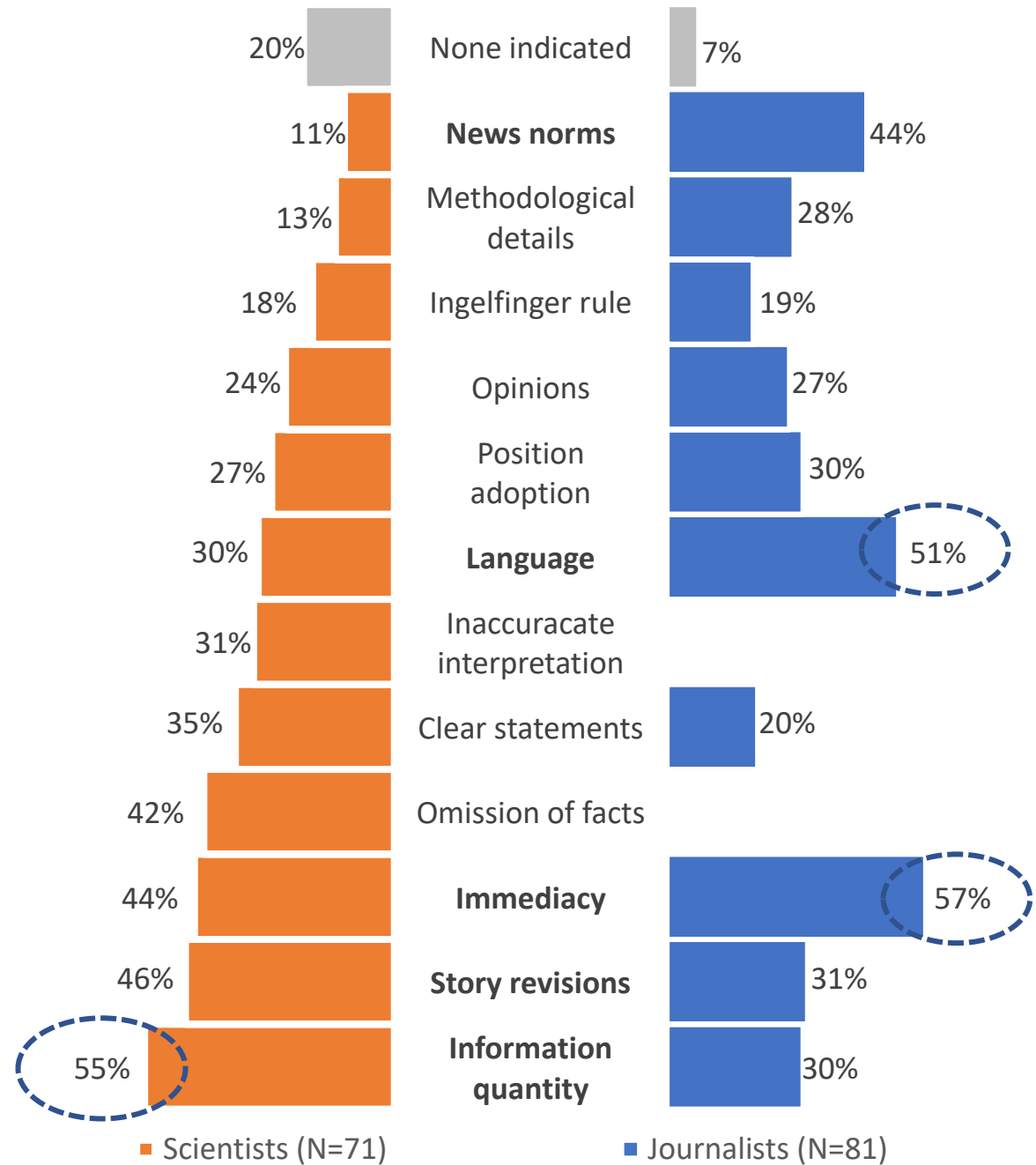
Affiliations



Specialisation



Sources of frustration

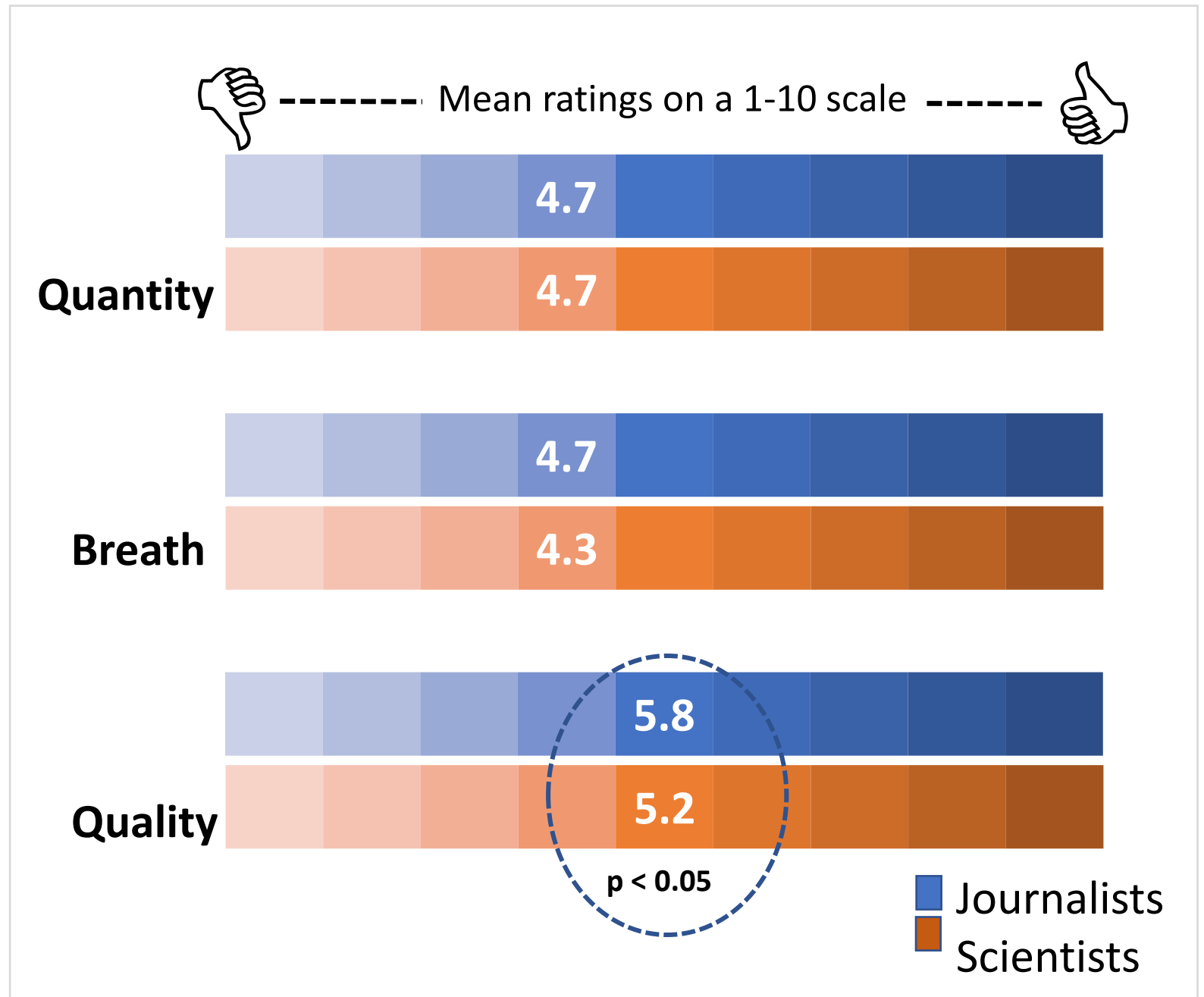




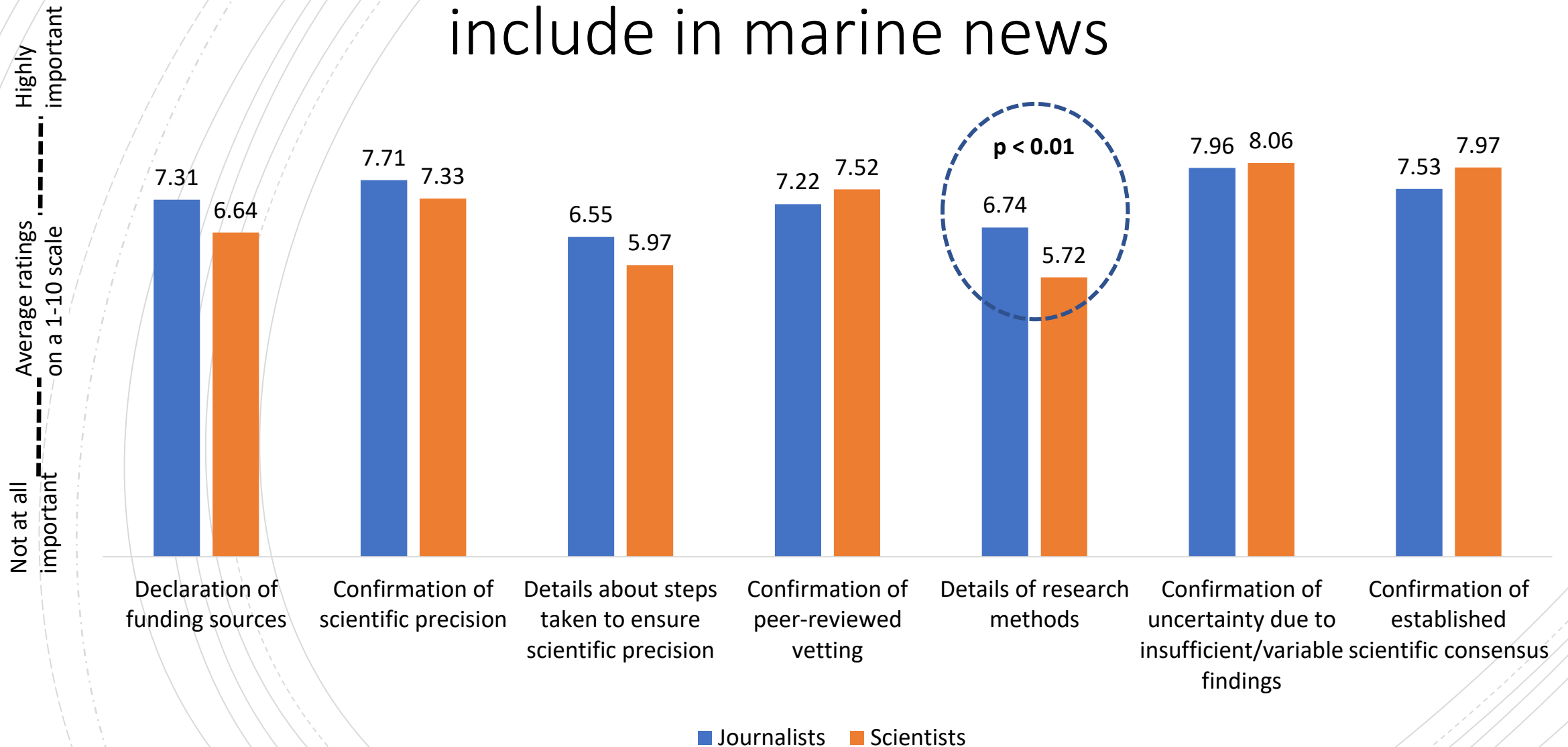
Recommendation #1

Journalists and scientists take time to understand the contextual factors that contribute to their relationship challenges – i.e., a result of differing training, work practices and expectations concerning news outputs.

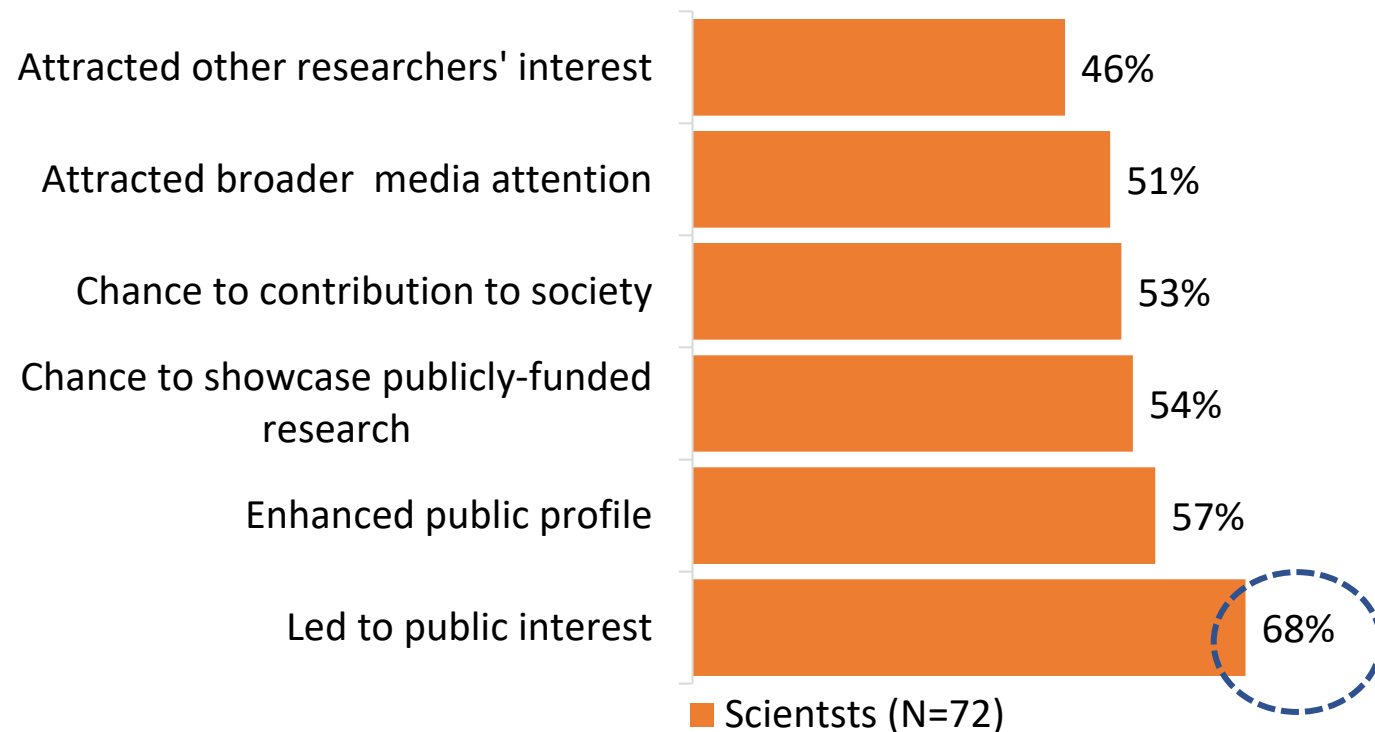
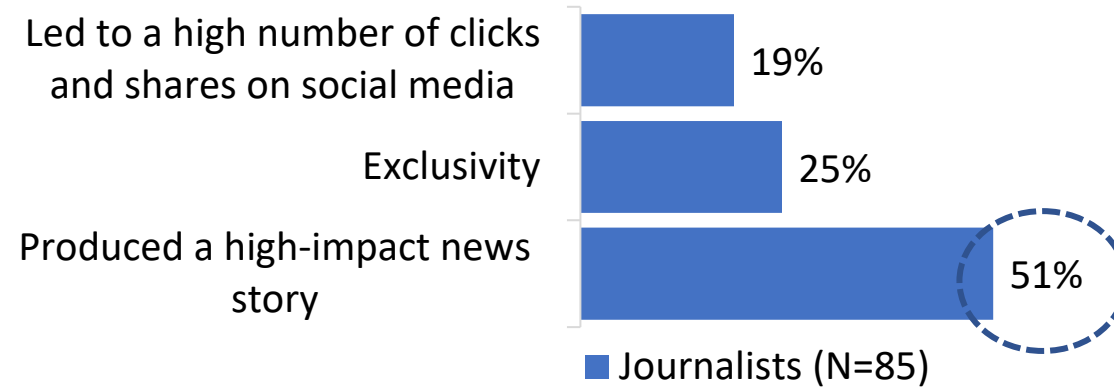
Views on marine news coverage



Perceived importance of aspects to include in marine news



Successes from working together



A circular inset on the left side of the slide shows an underwater scene with several dolphins swimming in clear, deep blue water. The dolphins are sleek and grey, moving gracefully. The background of the slide is white.

Recommendation #2

Focus on what unites journalists and scientists:

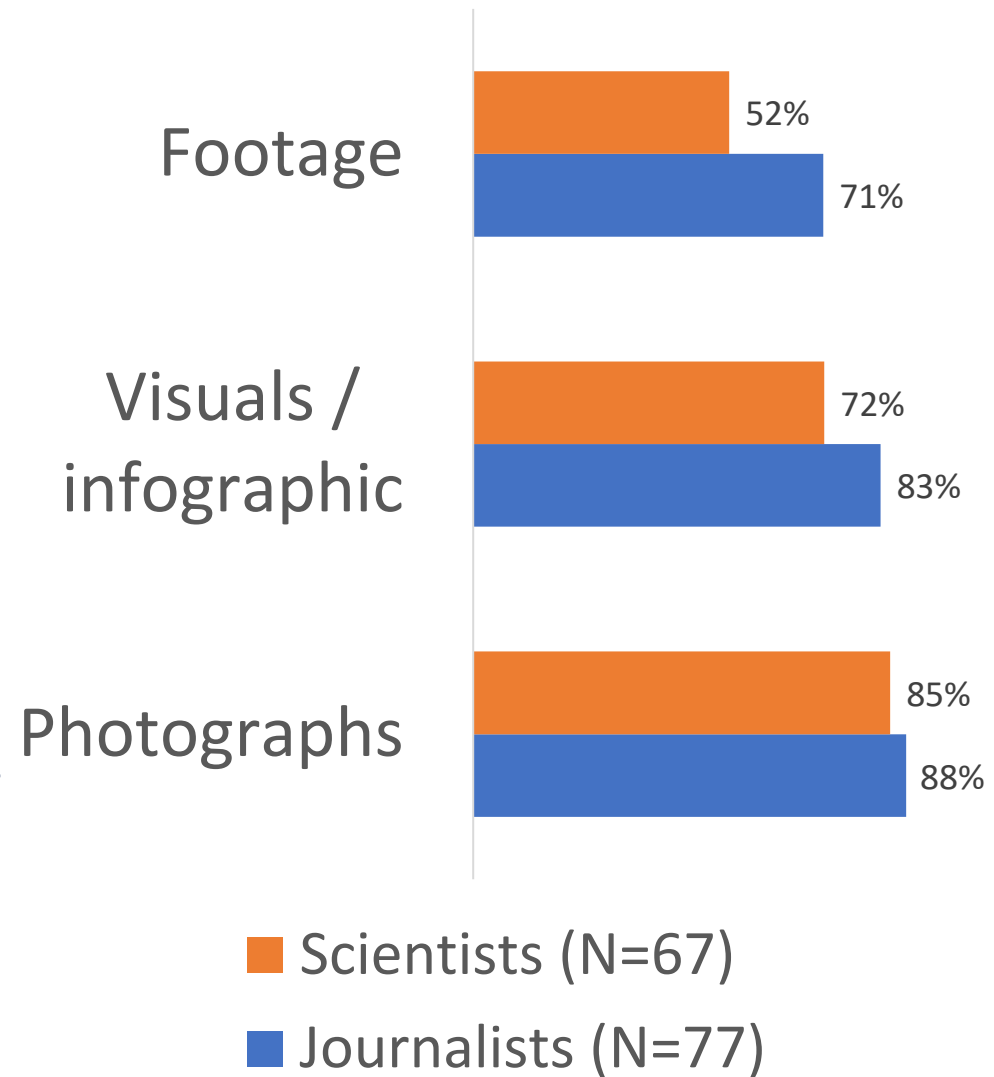
- A commonly held view that there is room for improvement in marine news reporting
- Agreements on news content
- Commonly shared interest in public impact

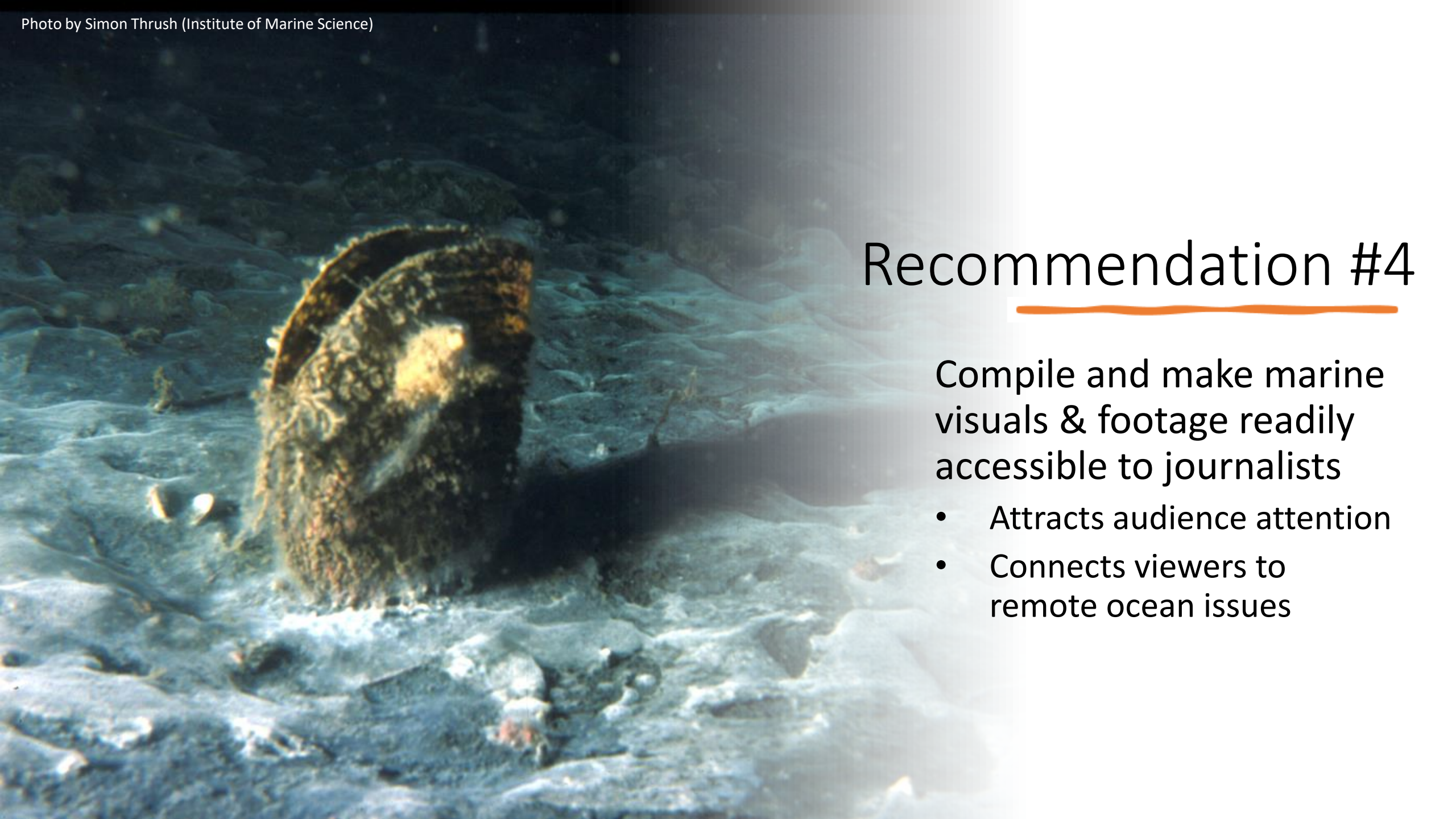
Recommendation #3

Given that both groups aspire societal impact, training programs could direct attention to how news framings can affect public views, understanding, and response.



Journalists' visual information needs & scientists' capacity to provide these





Recommendation #4

Compile and make marine visuals & footage readily accessible to journalists

- Attracts audience attention
- Connects viewers to remote ocean issues

Scientists' challenges when communicating via the media

Lack of institutional support

14%

No prior media training

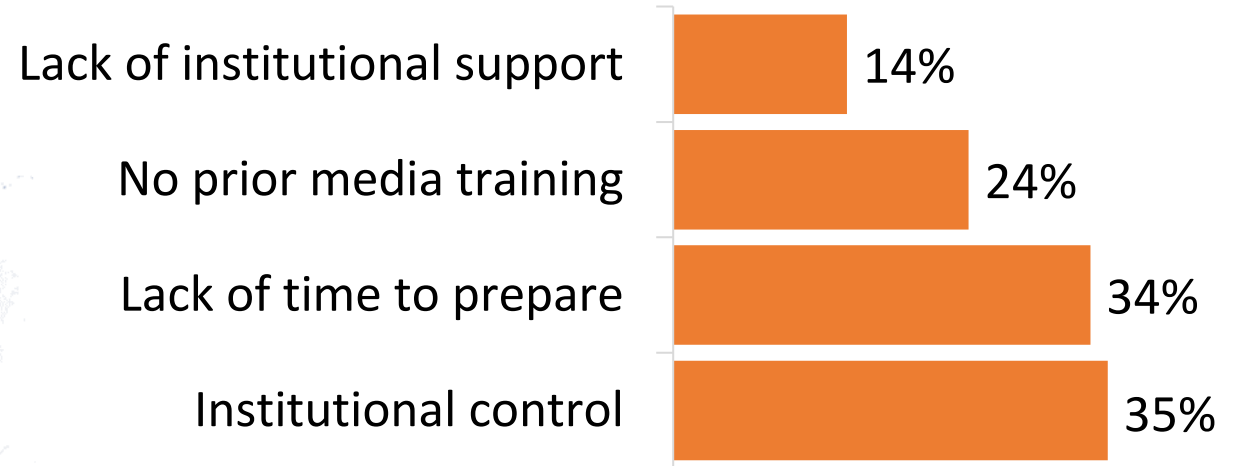
24%

Lack of time to prepare

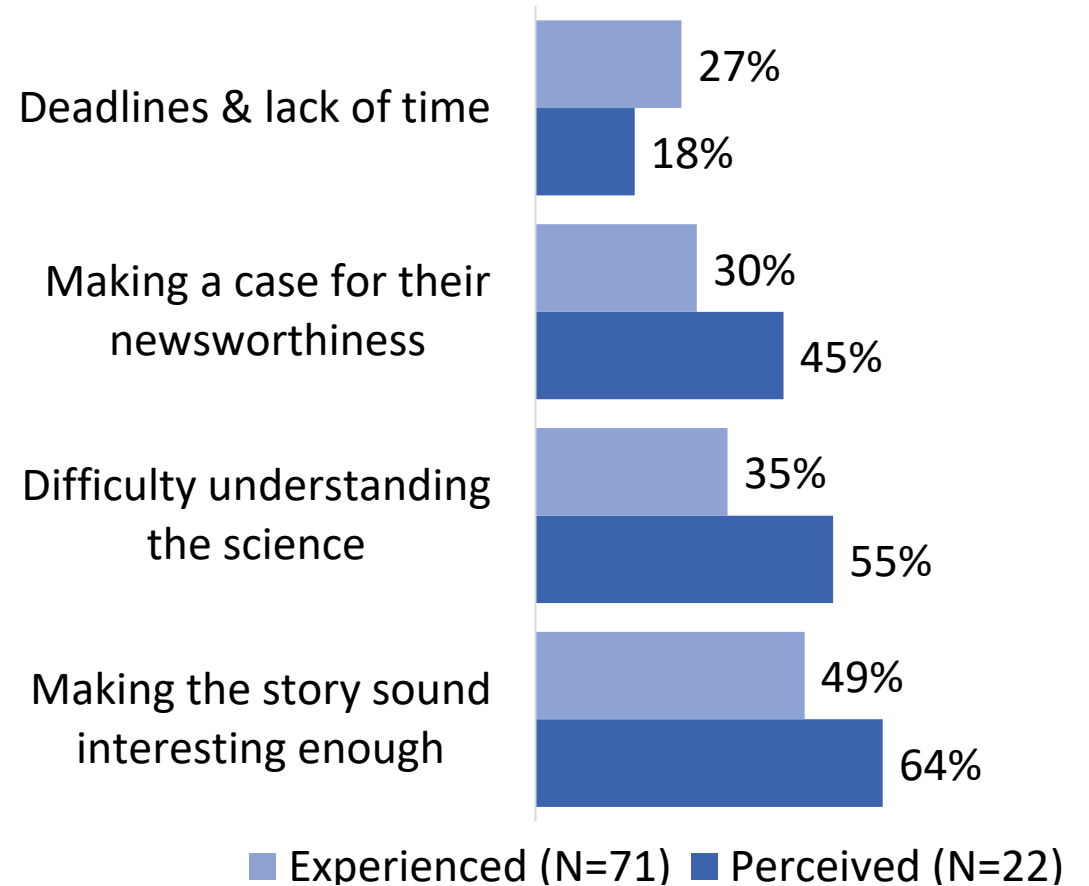
34%

Institutional control

35%



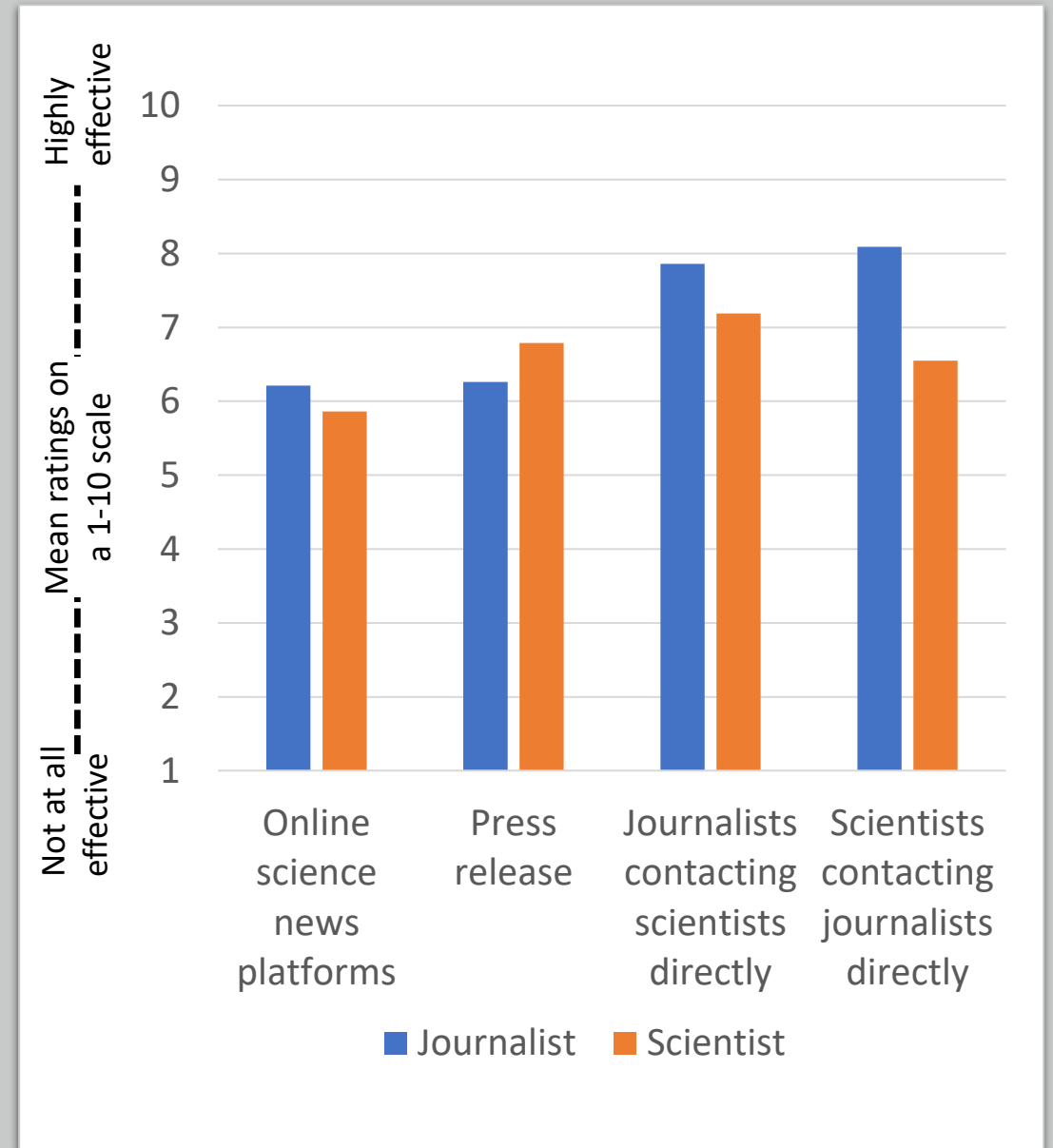
Journalists' challenges when covering marine stories



Journalist: *“Access barriers erected by their institutions, attempts by institutions to stop scientists speaking directly to media”*

Ways to connect journalists and scientists:

- Both journalists and scientists rated direct contact as an effective way for connecting
- Journalist: *“Access to interview an actual person, not just PR or comms statements”*.



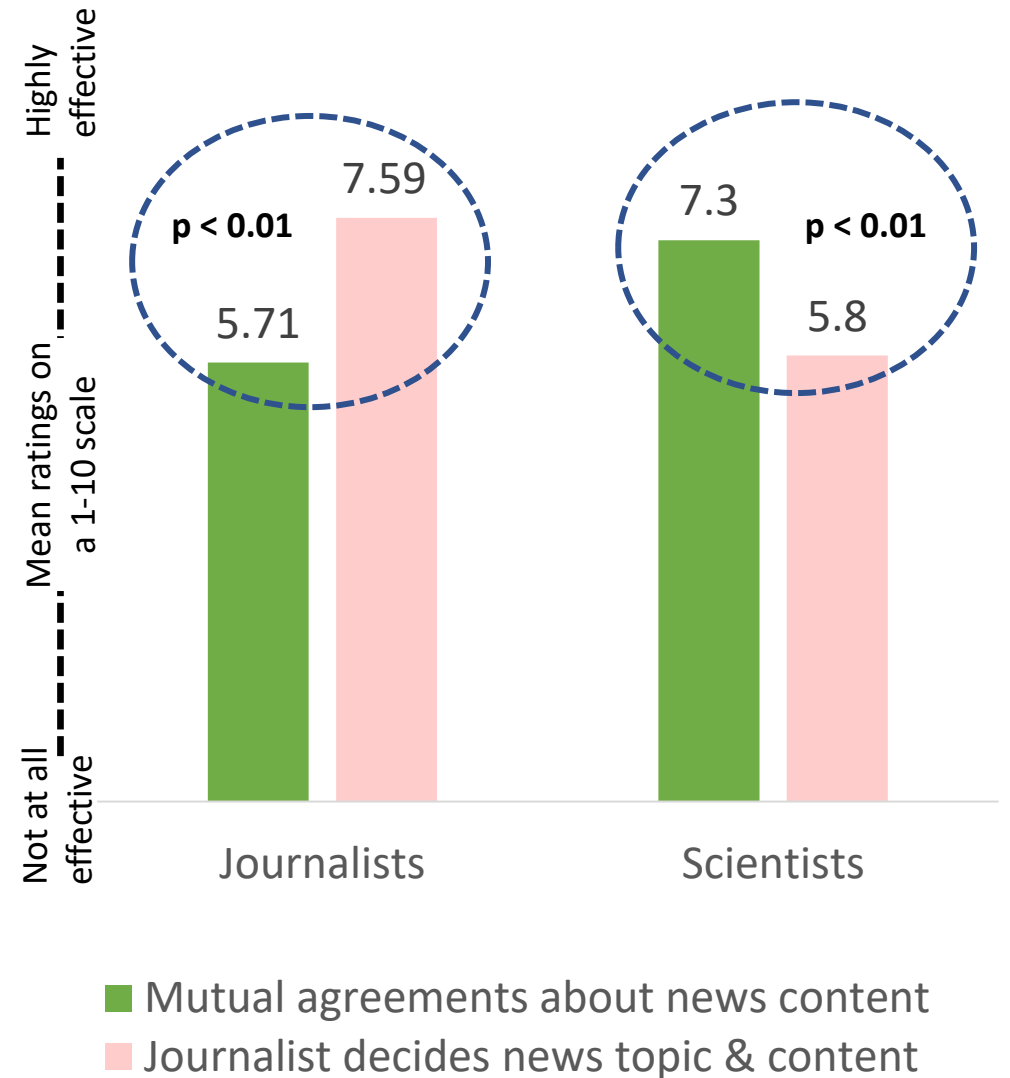
Ways to connect:

Mutual agreement approach

Journalists and scientists discuss the public implications of the topic and come to mutual agreements about news content.

Conventional approach

The journalist decides on the news topic and content; the scientist remains a source of information.





Recommendation #5

Institutional policies that support direct journalist-scientist communication

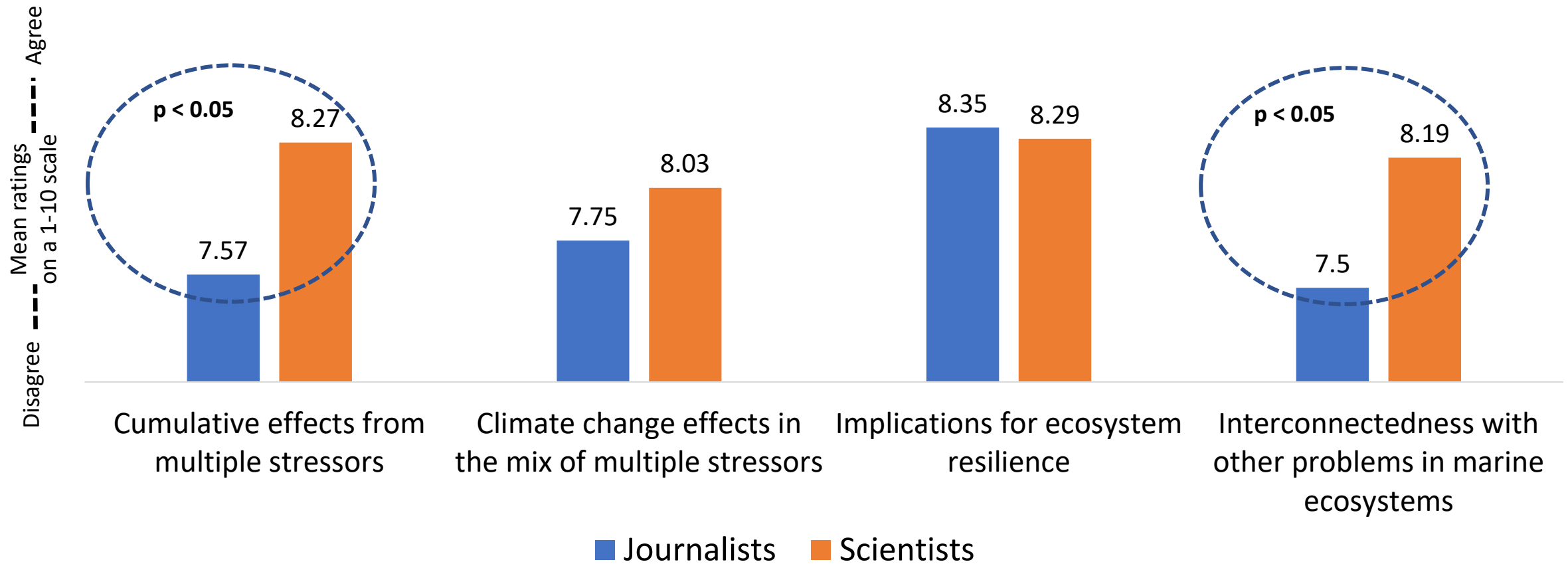
- Preferred method of interaction
- A way to overcome relationship challenges
- Facilitates accurate reporting
- Fosters trustful relationship – hence higher quality interviews and reporting



Recommendation #6

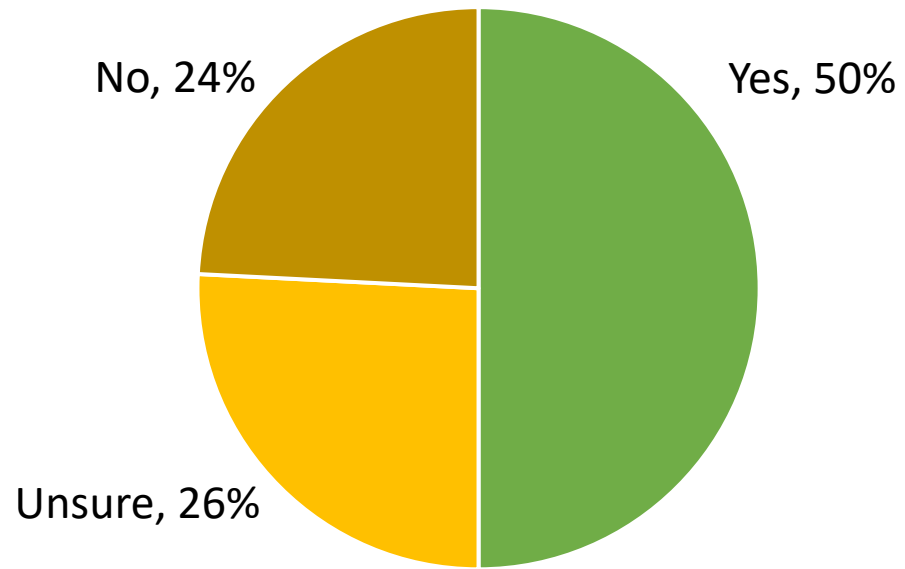
Trustful and mutually beneficial journalist-scientist relationships – a basis for a more collaborative marine news generation process (i.e., balanced power over news content).

Agreement to UoA scientists' suggestions for additional information in news stories to enhance public understanding of the complexity of marine ecosystem problems



Scientists' capacity to provide journalists with additional information about ecosystem complexities

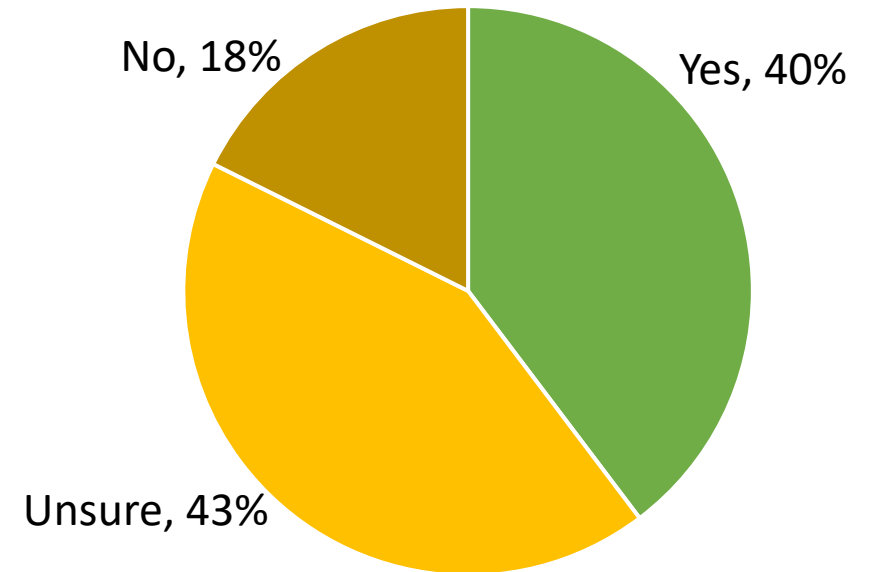
Scientists (N=62)



23 endorsed the statement

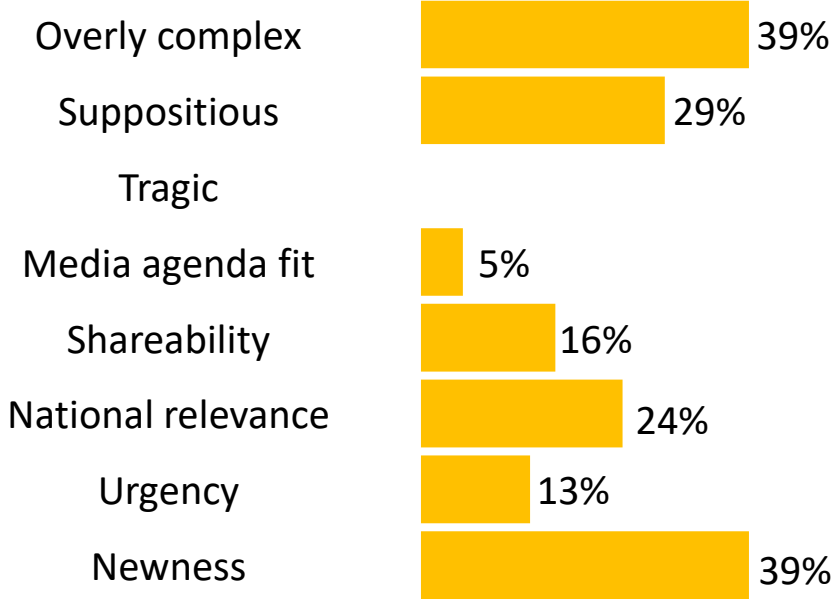
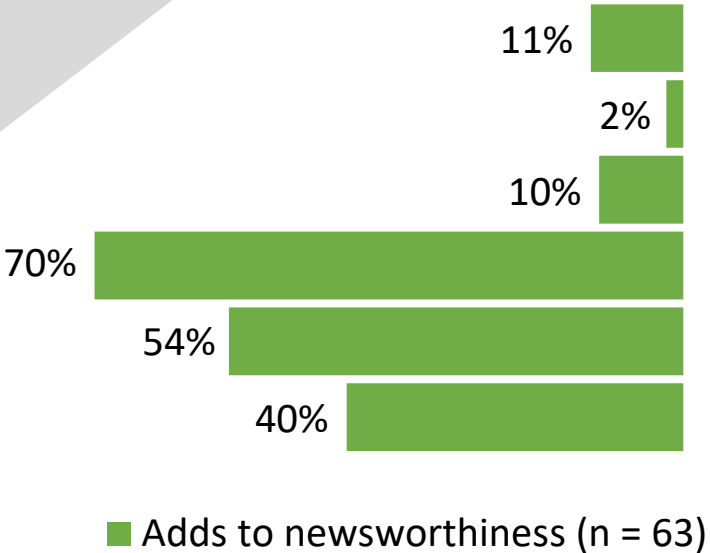
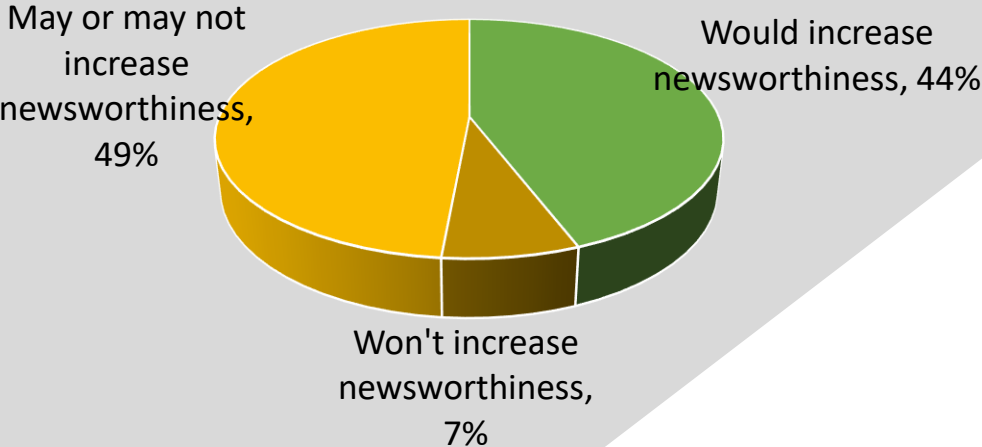
Journalists' capacity to include such information in news reports

Journalists (N=68)



Effects on newsworthiness

Journalists (N=68)



■ Adds to newsworthiness (n = 63) ■ Doesn't add to newsworthiness (n = 38)



Recommendation #7

Highlight the newsworthiness of marine ecosystem complexities (journalist-scientist conversations, journalists' training)

- E.g., timeliness, impact, proximity, magnitude
- Bring marine news on a par with other science news in the media's judgement of newsworthiness

Recommendation #8

Encourage media social responsibility in reporting marine conservation issues

- Educative effects of environmental news, albeit unintentional



Questions or comments?





Recruitment

SCIENTISTS

- Website searches (10 NZ institutions) – Email addresses of 288 scientists and researchers whose work related to the marine environment
- NZ Coastal Society and NZ Marine Science Society

JOURNALISTS

- Factiva database and Google searches – email addresses of 330 potential journalists
- 94 editors/general enquiry email addresses for mainstream and community media
- Kiwi Journalists Association Facebook page