

8 January 2020

Dear colleague,

The **ICES Journal of Marine Science** (ICES JMS) strives to advance marine science by making judicious use of themed article sets (TSs). TS's are series of coordinated contributions – introduced by a synthetic overview - on a selected topic. Both individually and collectively, TSs are instrumental in focusing attention, triggering opinions and stimulating ideas, discussion and activity in specific research fields.

*We invite you to participate in a TS on “**Exploring adaptation capacity of the world’s oceans and marine resources to climate change.**”*

Rapid changes in marine ecosystems due to climate change are inevitable and are accelerating. Until recently, the focus has been on slowing climate change and mitigating its effects. However, as it has become clear that major climate-induced changes in marine ecosystems are advancing inexorably, the focus has shifted to preparing for these changes. This includes identifying possibilities for adaptation in marine organisms and ecosystems, and the human socioeconomic systems that they support. The potential of natural systems to adapt – naturally or assisted by human intervention - remains unclear but has become a major item on the global agenda of cross-cutting research topics.

So-called ‘adaptation science’ has emerged as a scientific discipline focused on identifying and assessing the threats, risks/vulnerabilities, uncertainties and opportunities associated with climate change. The aim is to generate the knowledge required to guide change in socio-ecological systems and drive an increase in adaptive capacity and performance. While research on adaptive capacity has tended to focus on either ecological (i.e. experiments, data-driven or modeling) or social systems, increasing research effort to support decision-making needs to embrace insights on adaptation science that goes beyond the boundaries of single disciplines.

In this context, we invite contributions to this TS on, for example:

- *Species adaptation across life history strategies, functions and physiological sensitivities, as well as its implications for species distributions, population dynamics, food web structure and ecosystem stability.*
- *Identification of possible tipping points in the adaptive capacity of ecosystems and users (e.g. fishing and coastal communities).*
- *Emerging approaches that bridge social and ecological information: tools, methods and new technologies.*
- *Qualitative and quantitative vulnerability assessment tools across multiscale natural and anthropogenic drivers.*
- *Scenario development and projections of the future of socio-ecological systems.*
- *Vulnerability and adaptation to climate change at transboundary and transoceanic scales.*
- *Implementation and assessment of adaptation action plans.*

In addition to original research articles, contributions can take the form of a review, a "Food for Thought" essay in which you present a thought-provoking or controversial issue, or a "Quo Vadimus" essay in which you describe what you see as the future of the field, question or issue. You are welcome to invite colleagues to co-author your contribution and to circulate this invitation to anyone who you think would be interested in contributing.

Manuscripts should be prepared following the technical guidelines that can be found on the ICES JMS web site and should be submitted following the standard procedure. Please state in your cover letter that the article is intended for inclusion in this TS.

Manuscripts will typically be subjected to the standard ICES JMS review process, overseen and coordinated by ourselves and possibly other members of the Journal's senior editorial staff.

Publication of TSs is fast-tracked; articles will normally appear online within 3-4 weeks of their acceptance in final form. That means that publication of the first article accepted will not be delayed by the last article accepted. Some articles may be made available as open access documents at no cost to the authors – this will be at the discretion of the Editor-in-Chief, ICES and the publisher, Oxford University Press.

The deadline for submissions is 5 October 2020, but we would appreciate receiving an indication of your interest in contributing at your earliest convenience.

We hope that you will accept this invitation and look forward to hearing from you.

Yours sincerely,

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Theme Set Editors