

Creating Connected and Resilient MPAs and MPA Networks in a Changing Ocean

Update for MPA Federal Advisory Committee

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Chair

MPAFAC Connectivity Subcommittee

(via teleconference)

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*Connectivity Subcommittee's
Interpretation of the Charge :*

How can we incorporate knowledge about ecological spatial connectivity and climate change into the design, use and management of effective marine protected areas (MPAs) and MPA networks?

Connectivity Subcommittee Products

Cover letter from MPAFAC to DOC and DOI

- I. Primer on Ecological Spatial Connectivity
- II. Accounting for Connectivity in the Use, Design and Management of MPAs
- III. Climate Change: Another Compelling Reason for Connectivity-Informed MPAs and Networks
- IV. Recommendations & Guidelines for Agency Action

Paper I, Paper II were sent to full FAC for review on 9/12/2016

*Cover letter, Paper III, Paper IV to full FAC for review on 10/18/2016
(Subcommittee approved Paper III on 9/29/2016)*

Cover Letter to DOC and DOI

Transmits Subcommittee products and urges agency action on recommendations and guidelines, including:

1. Brief background on MPAFAC, Connectivity Subcommittee, and specific charge.
2. Summary of recommendations and guidance for agency action.

Status: in preparation; to be sent to Full FAC with all Subcommittee products by Oct. 18.

Paper 1: What Is Ecological Spatial Connectivity and Why Does It Matter for Effective Marine Protected Areas?

Summarizes current scientific understanding of:

1. Different types and scales of connectivity and their ecological implications.
2. How connectivity processes create ecological linkages among marine areas, populations, communities and ecosystems.
3. How connectivity impacts conservation outcomes in MPAs.

Status: sent to Full FAC for review (Sep. 12)

Paper 2: Accounting for Connectivity in the Use, Design and Management of MPAs

Summarizes the implications of the four types of spatial ecological connectivity for the:

1. Use (conservation and management roles) of MPAs and MPA networks.
2. Design (e.g., location, size, shape, spacing) and ecosystems included within MPAs and MPA networks.
3. Management both within and outside MPAs, with emphasis on adaptive management.

Status: sent to Full FAC for review (Sep. 12).

Paper 3: Climate Change: Another Compelling Reason for Connectivity-Informed MPAs and Networks

Summarizes current scientific understanding of:

1. Climate-driven changes in the marine environment and the demonstrated and predicted ecological consequences.
2. How MPAs and networks can be designed to provide resilience to climate impacts.
3. The growing need for adaptive management in MPAs.

Status: approved by Subcommittee (Sep. 29).

Paper 4: Recommendations and Action Agenda for DOC and DOI

Provides overarching recommendations and specific guidelines on four ways to enhance ecosystem resilience through the design, creation and adaptive management of connected MPAs and MPA networks:

1. Synthesize and Apply Current Scientific and Traditional Knowledge about Connectivity
2. Enhance Connectivity and Resilience in Existing MPAs
3. Create New and Resilient MPA Networks
4. Take Action

Status: undergoing final revisions; to be sent to Full FAC by Oct. 18.

Next Steps and Timeline

1. Status overview for full FAC on telecon (Oct. 3).
2. All Subcommittee products (letter + four papers) sent to Full FAC for review prior to Nov. telecon (by Oct. 18).
3. Full FAC comments returned by early Nov (date TBD based on final telecon date).
4. Final versions sent back to Full FAC prior to final telecon and vote (date TBD).
5. Connectivity Subcommittee products submitted by Full FAC to DOC and DOI (date TBD, but during CY 2016)