

## U.S. CHAIRMANSHIP-SPONSORED WORKSHOPS WORKSHOP FUNDING PROPOSAL - TEMPLATE

As part of the DOS Arctic Council chairmanship budget, there is a limited amount of funding available to promote chairmanship initiatives through international workshops. US PAME HOD intends to apply for funds to hold the workshop described below.

### REQUIRED INFORMATION

PROJECT TITLE	Mapping Arctic marine habitat connectivity
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CHAIRMANSHIP PILLAR	Arctic Ocean safety, security and stewardship
AC WORKING GROUP, if any	PAME
JUSTIFICATION [How will this workshop further a chairmanship initiative in a manner that cannot be achieved through the regularly scheduled WG meeting or intersessional work?]:	
<p>At the May 2015 Arctic Council Ministerial, the Foreign Ministers of the eight Arctic Council States approved the Framework for a pan-Arctic network of <i>ecologically connected</i>, representative marine protected areas (MPAs). The U.S. has also prioritized advancing such an ecologically connected MPA network in its Chairmanship agenda.</p> <p>The proposed workshop would be part of the Chairmanship agenda and 2015-2017 PAME Workplan project that calls for “A Best Practices Study: Linking area-based conservation measures to categories of Arctic marine biodiversity to support marine protected area networks and the long-term conservation of the Arctic marine environment and associated services and cultural values.” The aim is to generate a toolbox that demonstrates how different types of MPAs and other area-based conservation measures can be used to conserve categories of Arctic marine biodiversity and habitat, thereby providing a menu of possible conservation tools for consideration by Arctic states in developing MPA networks.</p> <p>This workshop aims to convene scientific experts to initiate a project to map key pathways that connect Arctic marine habitats for a select group of species. This first step in mapping Arctic marine habitat connectivity will involve the review of updated habitat maps, the selection of physical oceanographic models, and the identification of key species to inform connectivity analysis. The exercise will serve as a proof of concept for the approach, as well as providing key information to inform decisions by Arctic States regarding MPA network design, establishment and management, as well as appropriate siting and regulation of commercial activity in the Arctic Ocean.</p> <p>The workshop would focus on identifying species and their habitats in three broad categories:</p> <ol style="list-style-type: none"> <li>a. “Keystone species,” that are fundamental to the functioning of the Arctic marine</li> </ol>	

- ecosystem as a whole (e.g., polar cod)
- b. “Highly valued species,” that are iconic, important for subsistence, or economically important (e.g., bowhead whales)
  - c. “Representative species,” with life histories and migration patterns that capture those of a broader set of species.

In advance of the workshop, organizers will a) update existing Arctic habitat maps, b) identify best available physical oceanographic models, and c) consult with scientists to produce a proposed list of 2-5 species in each of these three categories, taking into consideration availability and quality of data, the extent to which species are of international management interest, geographic balance, taxonomic balance (birds, mammals, fish, invertebrates), and other factors.

The workshop would then review the recently synthesized information and evaluate the preliminary list of proposed species by focusing on the following:

- a) Review of the species categories – are they appropriate?
- b) Review of the draft species list within each category.
  - Is the species list geographically and taxonomically balanced?
  - Are the species of international management interest?
  - Do we have enough data on the species to model or map ecological connections in a way that would be useful to managers?
- c) Identify and agree on a process for mapping connectivity for each of the selected species.
  - What are the best oceanographic model(s) for mapping pathways for planktonic stages of species identified above?
  - For each of the non-planktonic species, what are the most important elements of connectivity to capture? (e.g., migration pathways, movements between feeding and resting areas, diurnal vertical movements in the water column, etc.)
  - What are the best sources of available data on elements of connectivity? (e.g., observation data, satellite telemetry, etc.)

After the workshop, the PAME MPA Expert Group proposes to engage the Duke Marine Geospatial Lab to:

1. Map ecological connectivity for the planktonic species as it exists currently, using the oceanographic model(s) identified in Task (c);
2. Map ecological connectivity for the non-planktonic species as it exists currently, using the data and information on connectivity identified in Task (c).

The analysis by Duke Marine Geospatial Lab will focus on current conditions (e.g. without anticipated retreat of sea ice.) A future step would be to conduct a second scientific workshop to develop a process to project how connectivity is likely to shift as the climate warms and the ice melts.

<b>WORKSHOP LOGISTICS:</b>	
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FY and calendar dates, if known	TBD
Duration of meeting [# of days]	2
Desired location (city, country)	TBD – will look for cost effective option
Estimated # of attendees:	~25-30 (expect government scientists will self-fund; therefore support requested is for PPs and academic scientists).
Room set up requirements [Number of rooms, room layout, AV equipment needed, etc.]:	
Need one large conference room with screen, projector and laptop.	
<p><b>ADDITIONAL REQUIREMENTS AND PROPOSED LOGISTICS ADMINISTRATION</b>          [Process needed for logistics administration and transfer of funds, request to fund travel, etc.]:</p> <p>Estimated costs:</p> <ul style="list-style-type: none"> <li>• \$45,000            Travel support for approximately 15 participants at \$3,000 each</li> <li>• \$10,000           Venue rental</li> <li>• \$3,000             Lunches/coffee breaks</li> <li>• \$2,000             AV rental</li> <li>• \$60,000            Total</li> </ul>	