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P I C E S

November 27, 2003

Dr. Richard J. Marasco  
Director, Resource Ecology & Fisheries Management Division  
Alaska Fisheries Science Center  
7600 Sand Point Way NE  
Seattle, WA  
U.S.A. 98115-6349

Dear Dr. Marasco,

Thank you for your letter requesting advice on the potential effects of climate change on fish stocks in the North Pacific. PICES finds this request as both timely and important, and is pleased to accept. You will receive a written report by the next PICES Annual Meeting, to be held in Honolulu, HI, October 15–23, 2004. A draft report for your advance information will be circulated to you during the summer of 2004.

PICES proposes the following approach in response to your request. PICES will convene an *ad hoc* Working Group under the Science Board, with the following Terms of Reference:

- 1) Gather the necessary information and develop a draft document for discussion, and outline plans for a June workshop;
- 2) Conduct the workshop and provide a written report by summer 2004, for review by PICES with submission to the United States in the fall of 2004.

Dr. Jacquelynne R. King (Canada) has been nominated as the Chairperson of this Working Group, which will consist of approximately 14 members (with final details to be concluded following discussions with member nations): 4 from Canada; 7 from the United States (of which 4–5 are NOAA employees); and potentially one each from China, Korea, Russia and Japan. In addition, at least one member of the PICES Secretariat and the Science Board Chairman will act as *ex-officio* members.

In terms of the questions that you pose and for which you are asking PICES' advice, we agree that PICES is in a position to do the following:

- 1) **Has the North Pacific shifted to a different state or regime since the late 1980s?**
- 2) **What is the nature of the new state?**
- 3) **What are the ecosystem responses?**

PICES has considerable experience in issues 1-3, and can readily respond to these questions.

- 4) **How long can the shift be expected to last, and**
- 5) **Is it possible to predict when the regime will shift back and what indicators should be used to determine when it happens?**

Questions 4 and 5 are areas of current active research within PICES and its member nations. PICES can provide a response on which indicators should be used to determine when a regime shift may be occurring, but can provide only speculative answers to the length of the present regime and when it might be expected to shift again. Note that it may be impossible to forecast if the system will shift back to a previous state, or shift to some new state.

- 6) **What are the implications for the management of marine resources?**

PICES does not have a mandate to provide advice on the management of marine resources; in particular it does not have a mandate to provide formal and specific management advice. However, PICES can provide conceptual and general guidelines, which can be applied to the issue of management.

To respond to these items, the Working Group will need to meet face-to-face in January 2004, to discuss the questions and prepare the work plan. This meeting will probably take

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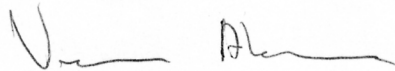
Alexander S. Bychkov

place in Seattle (U.S.A.). Further work will be conducted through correspondence, leading to a draft report to be presented and discussed at a workshop in June 2004 (location to be decided). We foresee total costs for this activity to be US \$50,000. This includes travel support for all participants to the meetings and workshop, other invitees to the workshop, plus editorial and publication support for the final report. If NOAA were to support its members on this Working Group directly, rather than through the funding to PICES, then the costs are estimated to be US\$45,000.

The Working Group will begin its activities in December or January with preparations for their first meeting. This meeting will establish the details of the approach to answering the questions, the general outline of the report, and an outline for the June workshop. The June workshop will be similar to the PICES North Pacific Ecosystem Status Report workshop in August 2003, with background presentations, then presentation and discussion of the draft report, plus presentations of additional information, comments and corrections to the draft report, etc. Some of the responses to Question 6 will also be formulated at this workshop.

We invite your comments on our approach and look forward to discussing further details with you, including the location and size of the June workshop.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Vera Alexander', with a long horizontal flourish extending to the right.

Vera Alexander  
Chairman

cc. George Boehlert, U.S. Academic Delegate  
Ian Perry, PICES Science Board Chairman  
Alexander Bychkov, Executive Secretary, PICES ✓