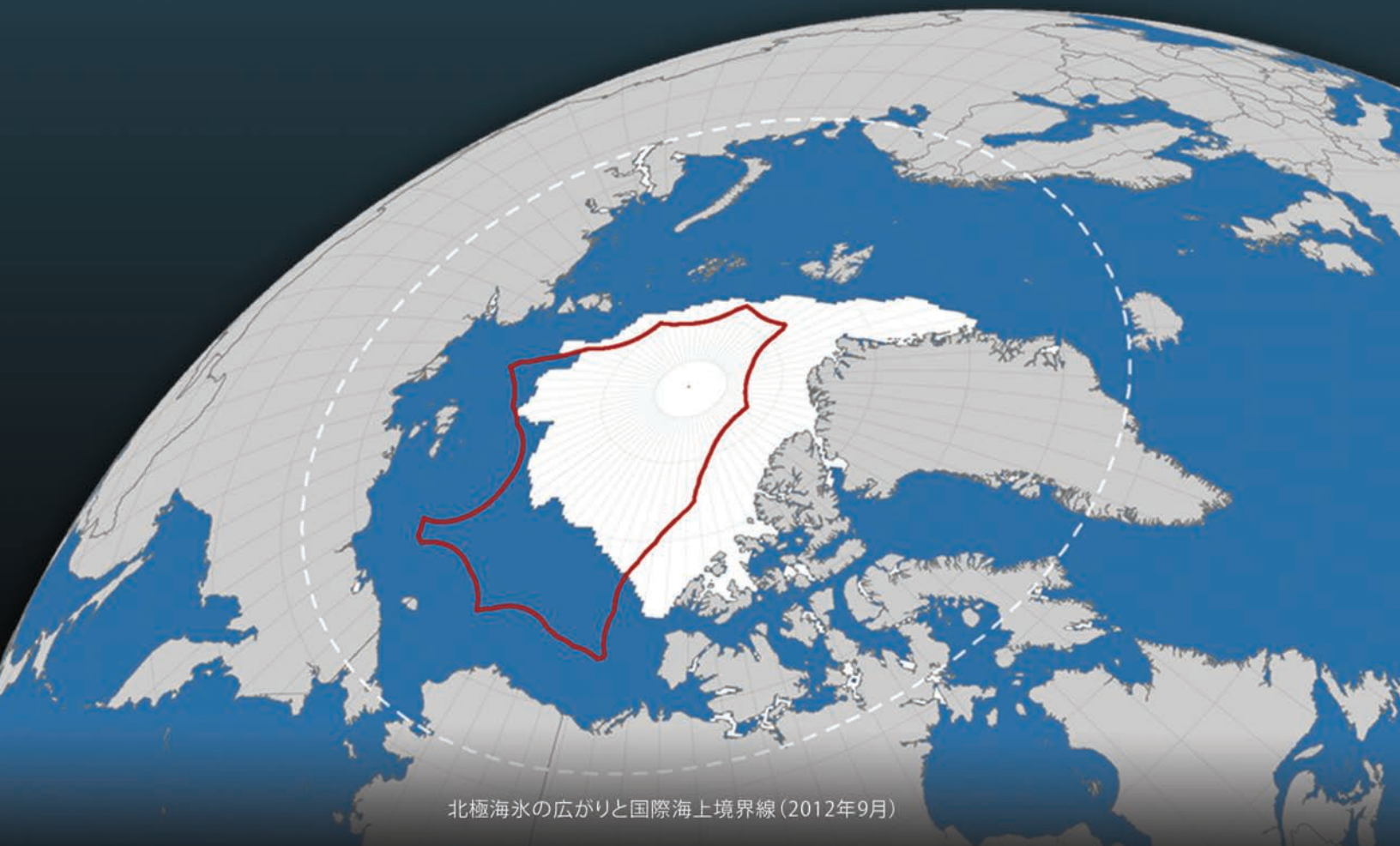
# 北極海中央部の公海

## 今後の漁業保護

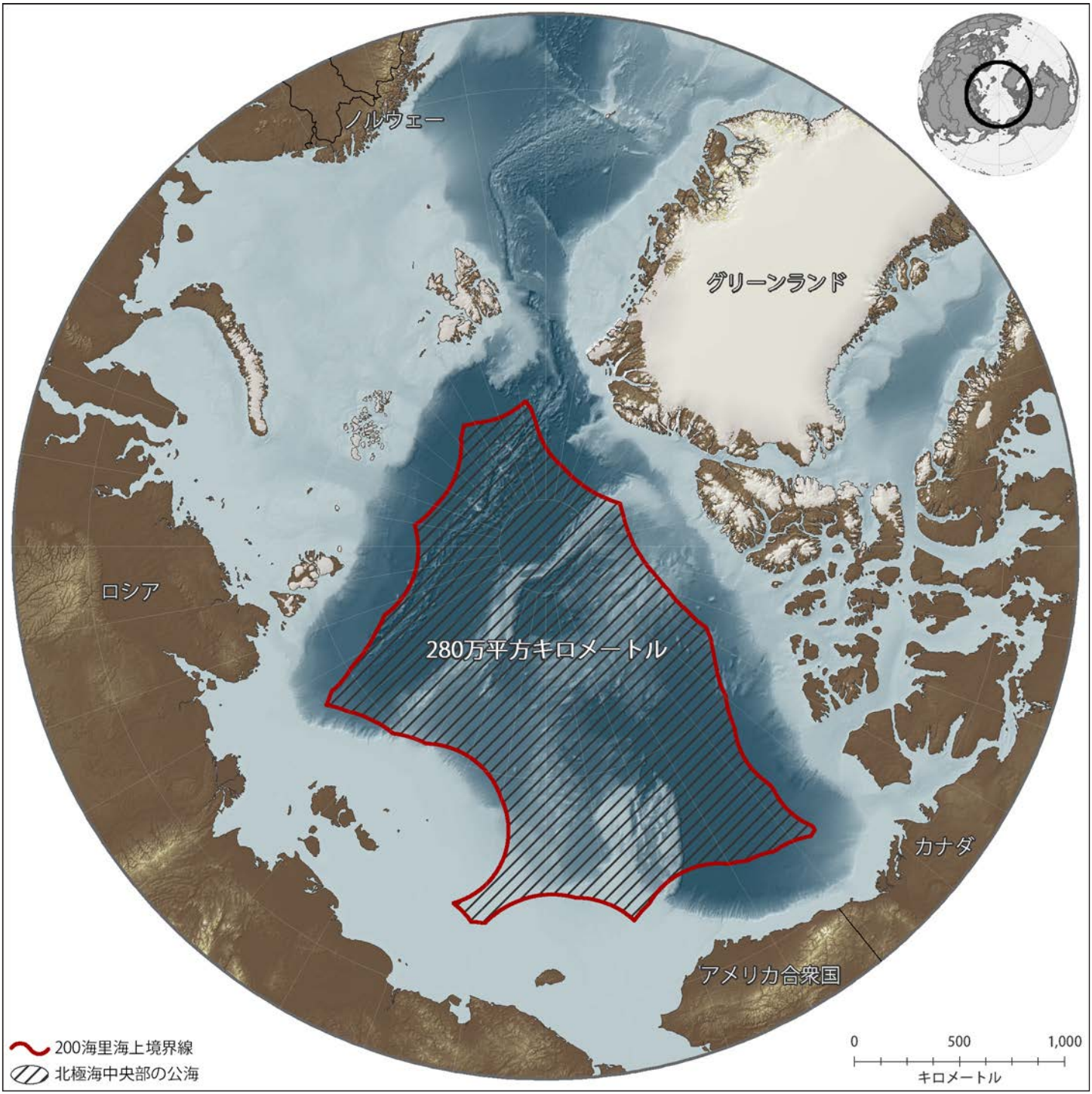


北極海氷の広がりと国際海上境界線（2012年9月）

## 北極海中央部の公海

北極海は地球上で汚れなき海域の一つです。しかし気候変動のため多年氷が減少し、人類史上初めて、北極海中央部の公海で商業漁業が行われる可能性が出てきました。

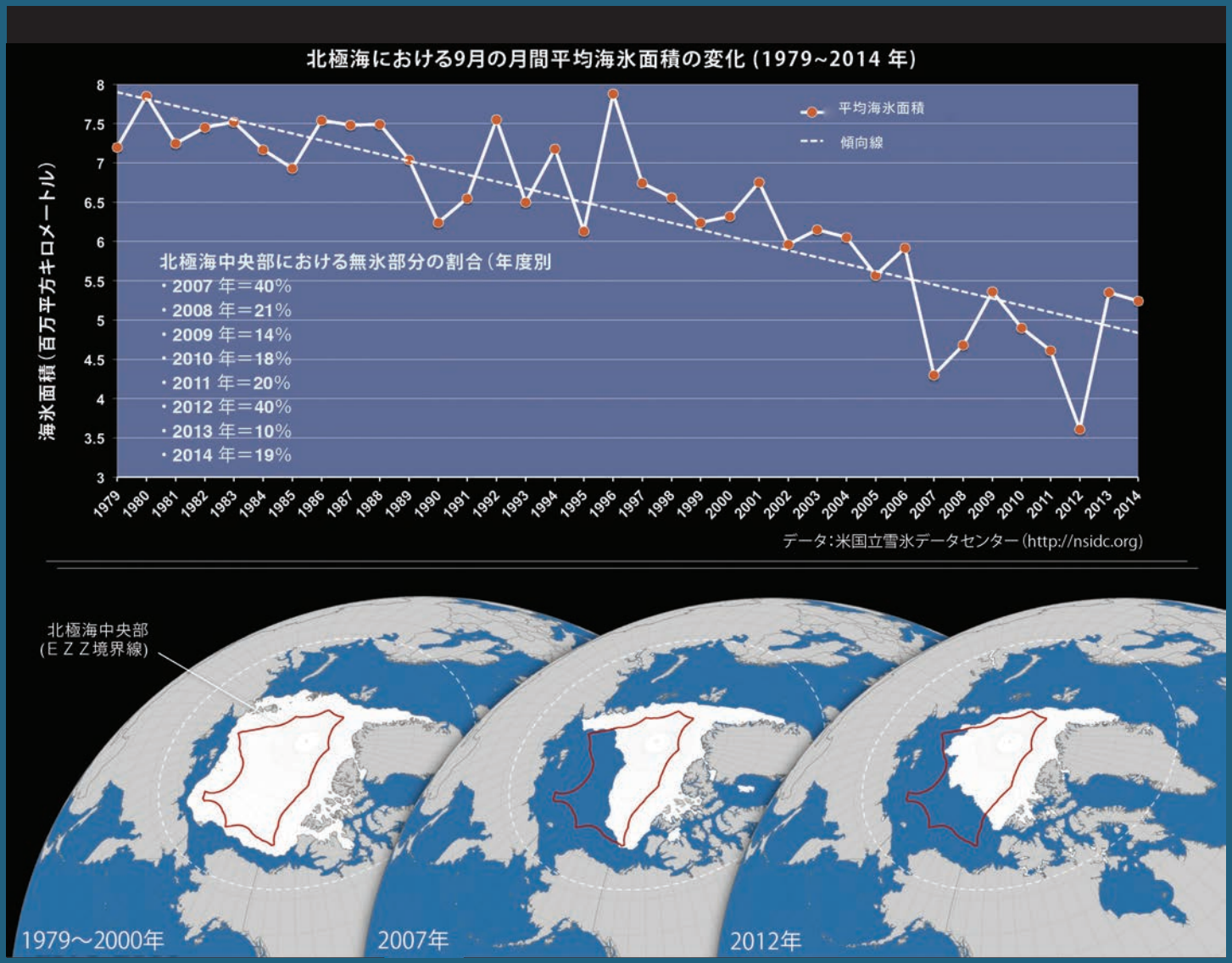
公海は地中海に匹敵する広さを持つにも関わらず、現在漁業協定がありません。科学的知見の集積と管理体系の確立によって漁業持続の将来性が明らかになるまで、この海域における商業漁業を禁止する協定が必要です。




Data Sources: Bathymetry, BCAO v3 (www.ngdc.noaa.gov/mgg/bathymetry/arctic/); Maritime Boundary, International Boundaries Research Unit, Durham University (www.dur.ac.uk/ibru/resources/arctic/). These sources are the same for all successive maps.

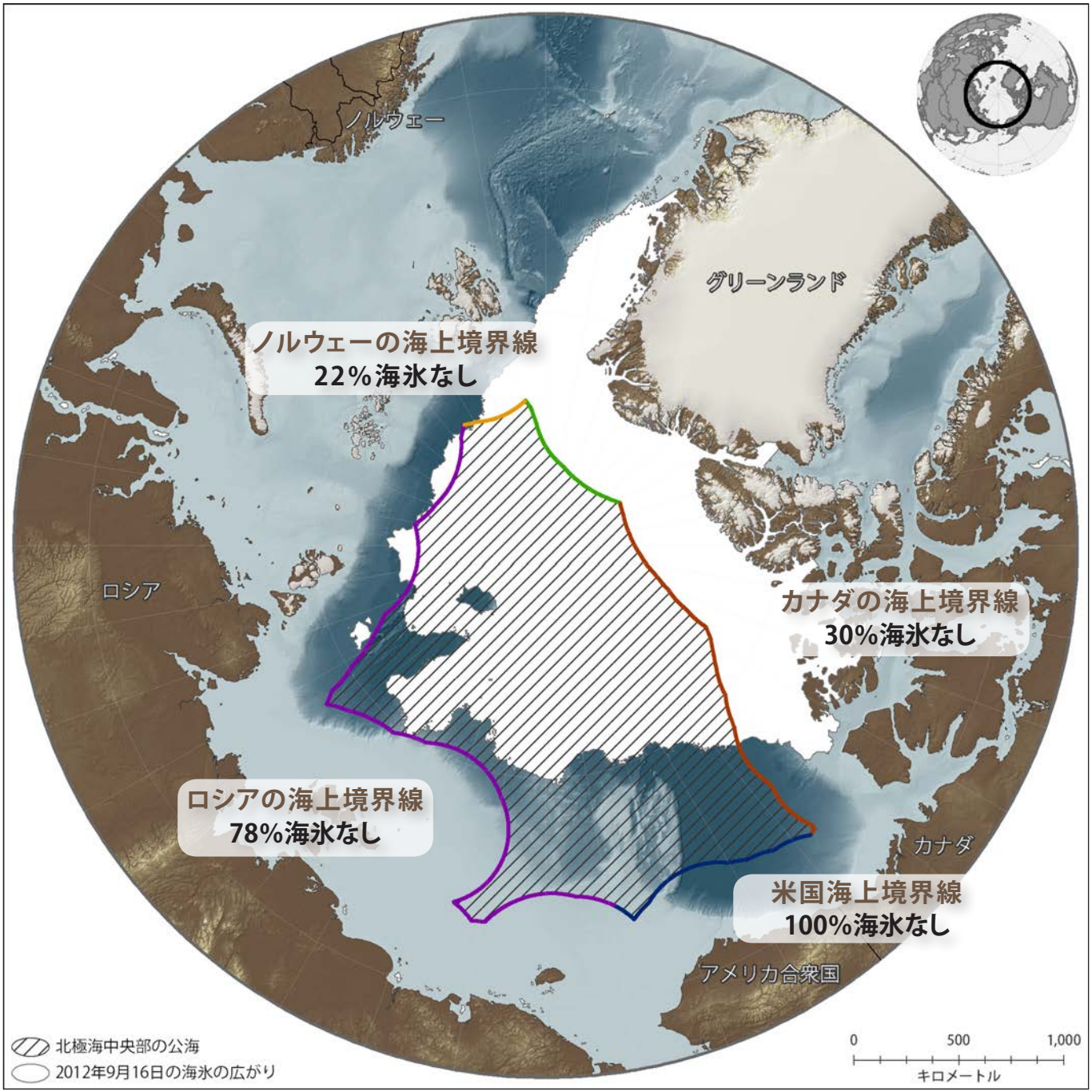
## 海氷の消失

10万年以上にわたり融けずに北極海を覆ってきた海氷が、現在消失しつつあります。2012年の夏、北極海中央部の40パーセント（各国の200海里の排他的経済水域[EEZ]外の領域）で、氷がありませんでした。



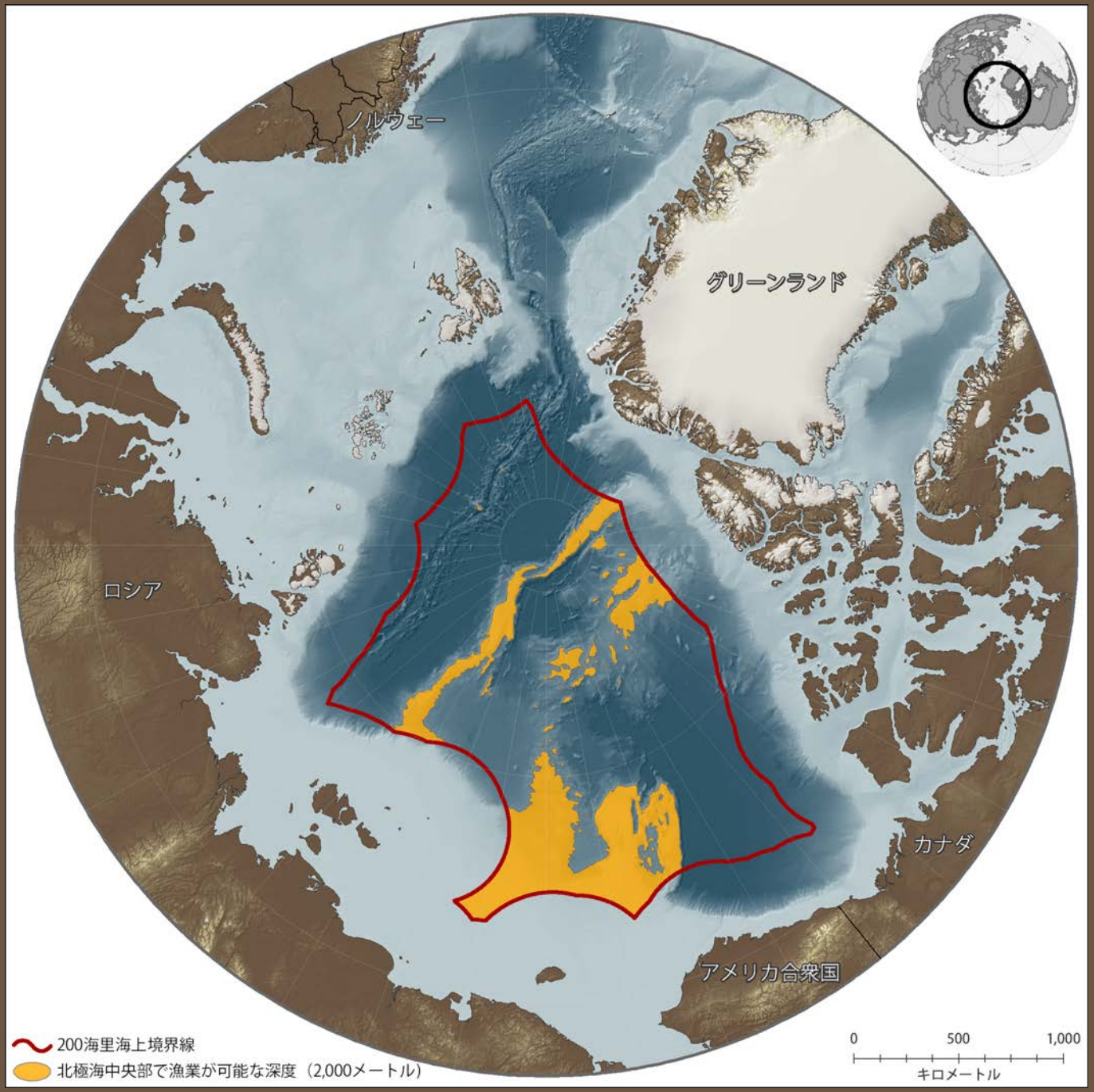

北極海中央部の国際境界線は赤で表示

海氷データ：米国立雪氷データセンター（http://nsidc.org）




Sea ice data source: University of Bremen SSMIS Sea Ice Data (www.iup.uni-bremen.de:8084/ssmis/).

2012年の夏、北極海中央部の海上境界線内で海氷の消失が見られたのは、北極海沿岸国５ヵ国のうち４ヵ国にのぼりました。




北極海中央部の22パーセント（614,000平方キロメートル）は、水深2,000メートル以内の漁業可能な海嶺と大陸棚で構成されています。

# 世界中の科学者たちが行動を求めている

## INTERNATIONAL SCIENTISTS URGE ARCTIC LEADERS:
## Protect Fisheries in the Central Arctic Ocean

**MORE THAN 2,000 SCIENTISTS** from 67 countries have signed a letter urging Arctic governments to develop an international agreement to protect fisheries in the Central Arctic Ocean, based on sound scientific and precautionary principles. The five Arctic coastal countries lead the charge with more than 1,300 signatures.*

CANADA

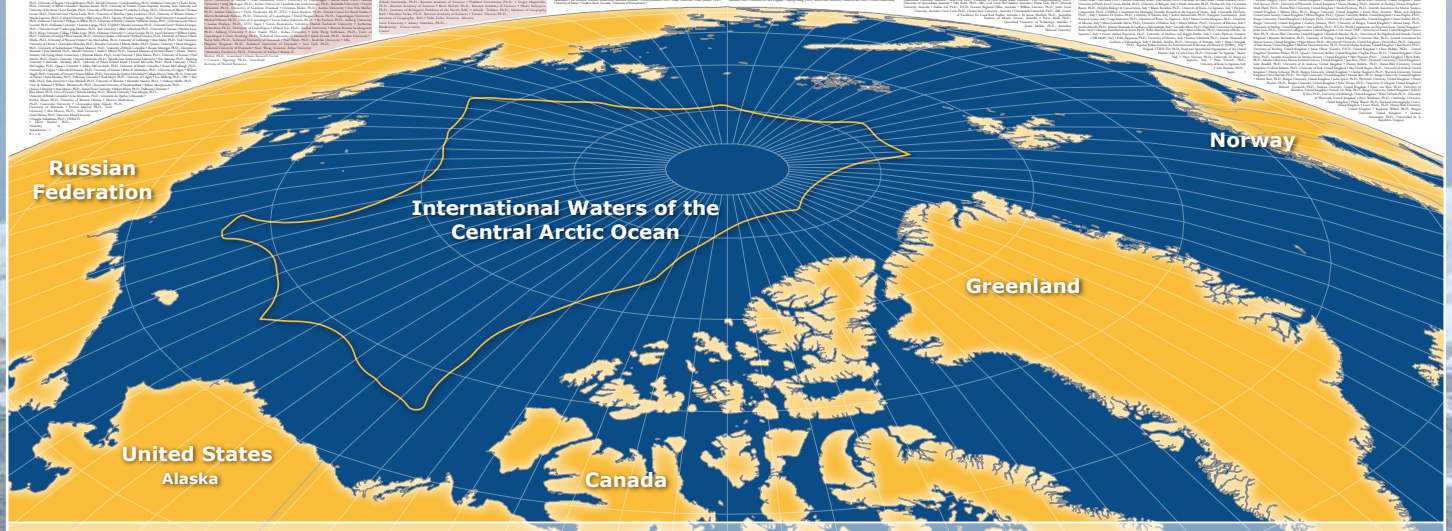
NORWAY

UNITED STATES

OTHER COUNTRIES

GREENLAND / DENMARK

RUSSIAN FEDERATION




THE PEW ENVIRONMENT GROUP

**For more information: www.OceansNorth.org/International**
- Science: Dr. Henry Huntington, hhuntington@pewtrusts.org, 907-696-3564
- Policy: Scott Highleyman, highleyman@pewtrusts.org, 360-715-0063
- Spatial Data: Jeremy Davies, jdavies@pewtrusts.org, 360-543-5868

*Signers displayed here include Ph.D. level or equivalent.

67ヶ国から2,000名以上の科学者が、最善の科学的知識、予防対策に基づいて北極海中央部での乱獲を防止する国際協定の締結を北極周辺諸国の政府に求める書状に署名しています。北極海沿岸諸国5カ国の科学者たちはその先頭に立ち、1,300以上の署名を集めています。www.ARCTIC-FISHERIES-LETTER.COM

THE PEW CHARITABLE TRUSTS

The Arctic Ocean is encircled by five coastal states, but there is a significant portion of the central Arctic Ocean that lies outside the Exclusive Economic Zones (EEZs) of the Arctic rim nations. These international waters are not at present governed by any specific international fisheries agreements or regulations. Until recently, the region has been covered with sea ice throughout the year, creating a physical barrier to fisheries.

In recent summers, however, the loss of permanent sea ice has left open water in as much as 40% of these international waters. This region is no more remote from major fishing ports and fishing fleets than many areas of the world to which pelagic fleets travel already. A commercial fishery in the central Arctic Ocean is now possible and feasible.

The ability to fish is not the same as having the scientific information and management regimes needed for a well-managed fishery. The science community currently does not have sufficient biological information to understand the presence, abundance, structure, movements, and health of fish stocks and the role they play in the broader ecosystem of the central Arctic Ocean. Absent this scientific data and a robust management system, depletion of fishery resources and damage to other components of the ecosystem are likely to result if fisheries commence.

Although scientific research, observations, and modeling provide persuasive evidence of continued decrease of summer sea ice, far less is known about the present and future fisheries biology of these waters. Research is needed to develop a basic model of the central Arctic ecosystem, including estimates of abundance and distribution of potential target fish stocks and other key species in the food web.

Data and analysis also will be required to understand the effects of fishing removals on other components of the Arctic Ocean such as seals, whales and polar bears and the effect this may have on the peoples of the Arctic who rely on those resources for their subsistence and way of life. Time and effort will be required before scientific knowledge improves to the level required to support sound fisheries management in this remote region.

The central Arctic Ocean provides both a challenge and an opportunity. The challenge is that exploratory fisheries, and subsequent claims of access to these international waters, could commence in the next few years. The opportunity is that the international community can take action now to protect these waters until we have the science and governance in place to ensure sustainable development of fisheries.

Now is the time for the international community to create a precautionary management system for central Arctic Ocean fisheries. Such a system should postpone fishing activity until such time as the biology and ecology of the region are understood sufficiently well to allow for setting scientifically sound catch levels. Such a system should also require that a robust management, monitoring, and enforcement regime be established before fishing is allowed. This system should be put in place before sea ice retreats farther, before fishing begins and political pressure increases, and before precautionary management is no longer an option.

*We, the undersigned scientists, call on Arctic governments to take a lead in developing an international agreement to address fisheries in the central Arctic Ocean, based on sound scientific and precautionary principles, and starting with a catch level of zero as a reflection of the state of understanding of the fisheries ecology of the region.*

*(The scientists who have signed this letter have done so in their personal capacities. Institutional affiliations are provided only for identification purposes, and do not imply any institutional position on Arctic Ocean fisheries.)*


David Barber, Ph.D., Centre for Earth Observation Science, University of Manitoba, Canada

Stanislav Ye. Belikov, Ph.D., All-Russian Research Institute for Nature Protection, Moscow, Russia

M.V. Flint, Ph.D., Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russia

Jackie Grebmeier, Ph.D., Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, USA

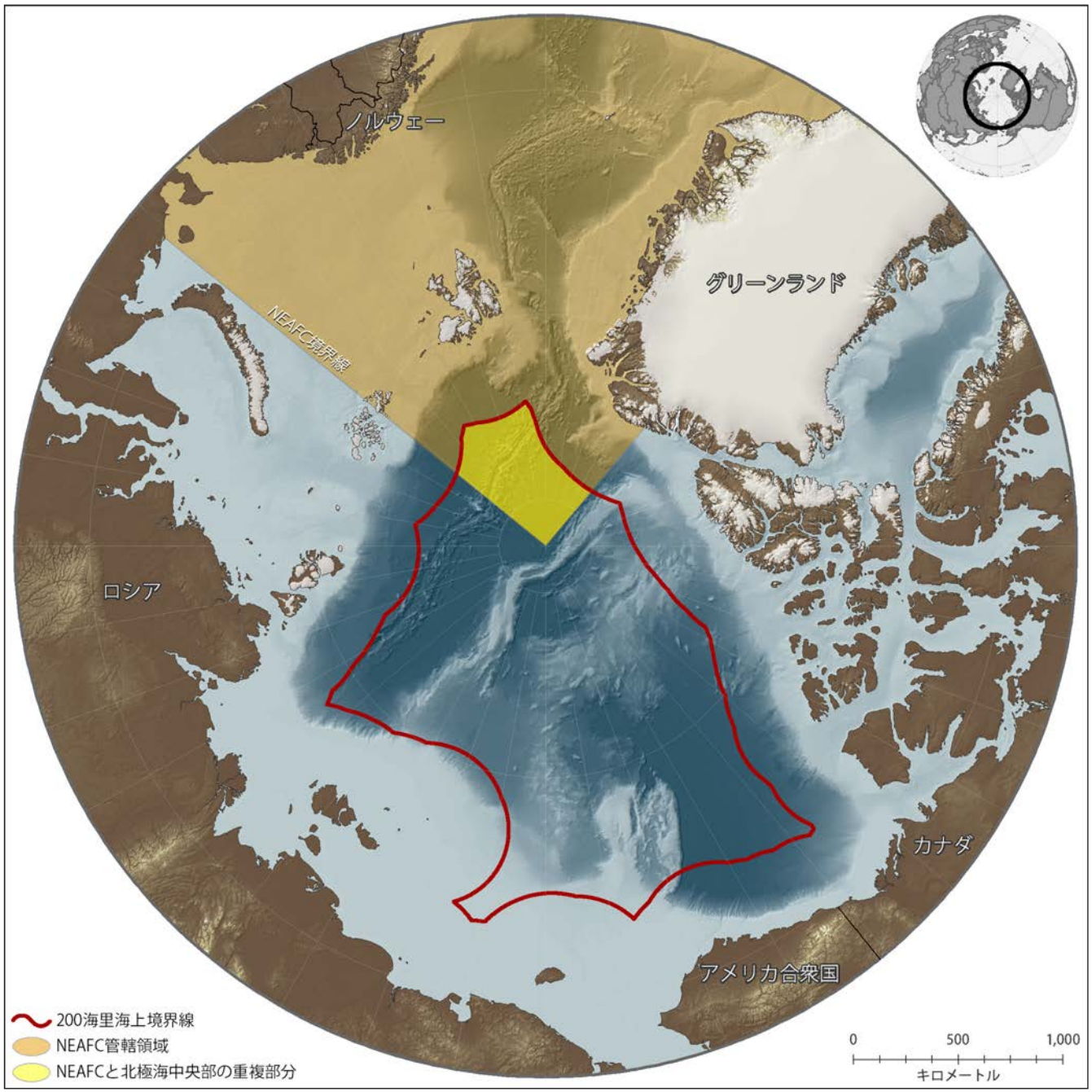
Henry P. Huntington, Ph.D., Pew Environment Group, Eagle River, Alaska, USA

Peter Rask Møller, Ph.D., Natural History Museum of Denmark, University of Copenhagen, Denmark

Daniel Pauly, Ph.D., Fisheries Centre & Zoology Department, University of British Columbia, Canada

Alan Springer, Ph.D., School of Fisheries and Ocean Sciences, University of Fairbanks Alaska, USA

Paul Wassmann, Ph.D., Faculty of Biosciences, Fisheries and Economics, University of Tromsø, Norway




NEAFC Area of Competence boundary was derived using information from FAO's Regional Fishery Bodies website (www.fao.org/fishery/rfb/neafc/en).

北極海中央部の8パーセントは、北東大西洋漁業委員会（North East Atlantic Fisheries Commission, NEAFC）の管轄内にあります。しかし、北極海中央部の残りの92パーセントに対する国際的な規制は存在しません。そのため無規制の商業漁業が可能です。

## 協定締結に向けて

2008年～2013年　北極海沿岸諸国の政府と北極圏専門家達は、国際協力を通じて、北極海中央部での商業漁業開始の前に漁業規制と科学調査の深化を求める各国の方策と勧告案を作成。

2010年～2014年　北極海中央部での商業漁業の許可がおりないうちに十分な科学的根拠に基づく適切な管理体制の確立と管理実施機能の整備を行う必要性があると、欧州連合が提唱。北極海での漁業における国際協力の必要性を議論するため、北太平洋北極国際協力会議が、韓国、日本、中国、カナダ、米国の専門家を召集。

2014年　カナダ、ノルウェー、ロシア、デンマーク、米国が、十分な科学調査と適切な管理体制確立によって水産資源の長期確保が可能になるまで北極海中央部における商業漁業を禁止する新たな国際対策が不可欠と、意見一致。政府声明を出すことを誓約し、国際対策の交渉に向けて北極圏内外の関連諸国の会合を開く。

ピュー慈善財団
国際北極圏プログラム
理事　スコット・ハイリーマン
+1 360-715-0063

THE PEW CHARITABLE TRUSTS

## ピュー慈善財団の国際北極圏キャンペーン

ピュー慈善財団は、無秩序な、また長期的に持続不可能な漁業から北極海中央部の公海とその水産資源を保護することを目指し、協定締結への支援拡大のため、北極圏諸国、科学者、水産業界及び現地の人々と協力し、活動を行っています。