



Since 1992

# North Pacific Marine Science Organization

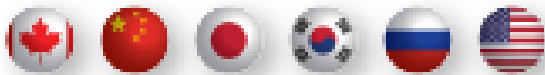
International collaboration for improved ocean health.



PICES is an intergovernmental science organization, to promote and coordinate marine scientific research in the North Pacific Ocean and its adjacent seas to advance scientific knowledge of the area.

6 member countries:  
International  
Collaboration

Intergovernmental  
Cooperation



Canada  
China  
Japan  
Korea  
Russia  
USA

PICES facilitates scientific  
knowledge creation,  
collaboration & sharing



Scientific Focus Area:  
North Pacific Ocean



# North Pacific Marine Science Organization

International collaboration for improved ocean health.



## Governing Council

Finance & Admin.  
Committee

Science  
Board

## Governance

for PICES activities & Science Focus



HD

Human Dimensions

FIS

Fishery Science

BIO

Biological  
Oceanography

MEQ

Marine Environmental  
Quality

POC

Physical Oceanography  
and Climate

MONITOR

Technical Cmte  
on Monitoring

TCODE

Technical Cmte  
on Data Exchange

Science  
Committees  
Discipline-based

**Bottom-up process**

**Expert Groups:** May be cross-disciplinary or focused, to address specific and/or timely issues

**Study Group**

1 yr term, may become WG

**Working Group**

3 yr term

**Section**

Long-term, 3 year reviews

**Advisory Panel**

Long-term, provides advice

Special Projects



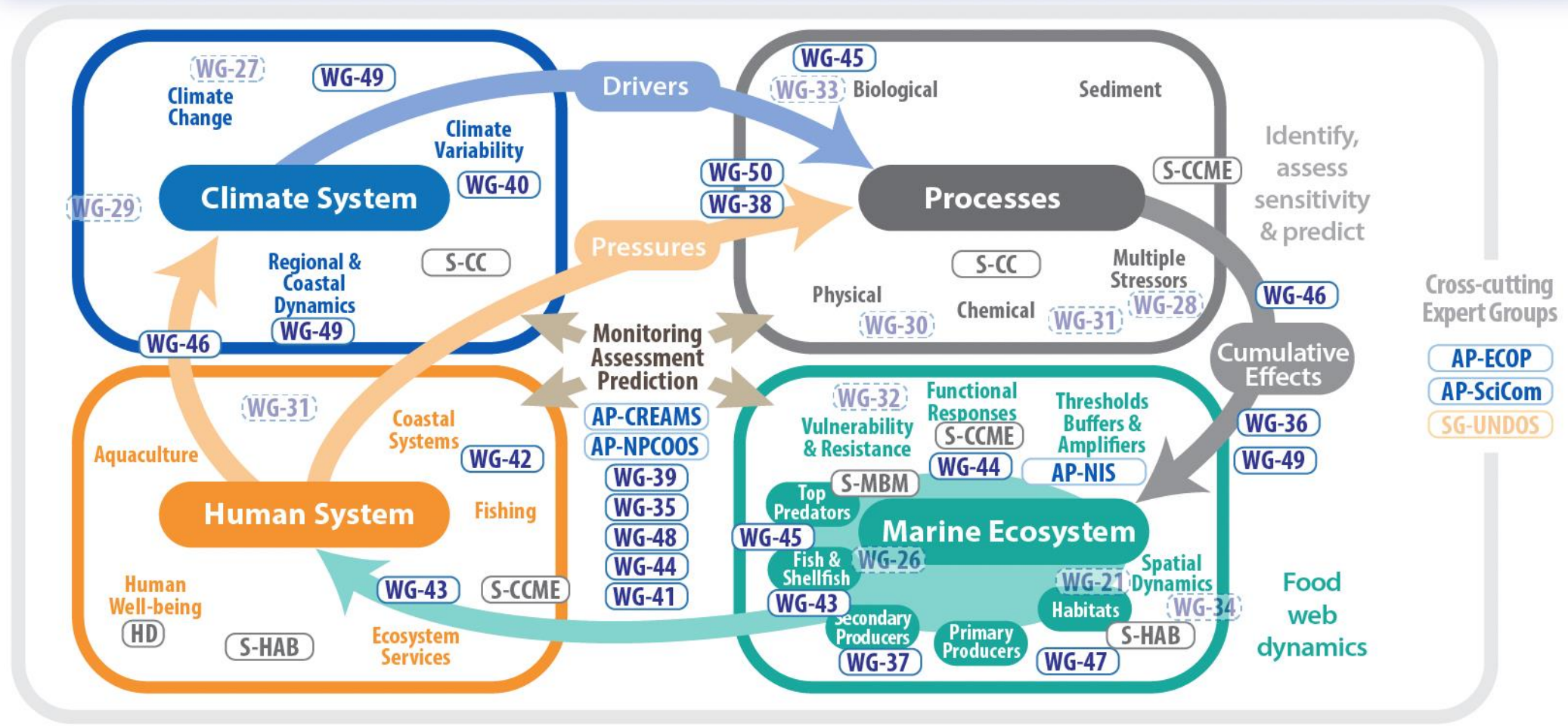
**FUTURE**  
Science Program





## Social-Ecological-Environmental System Framework

To understand the Climate System, Processes, Marine Ecosystem, and Human System in an integrated way.



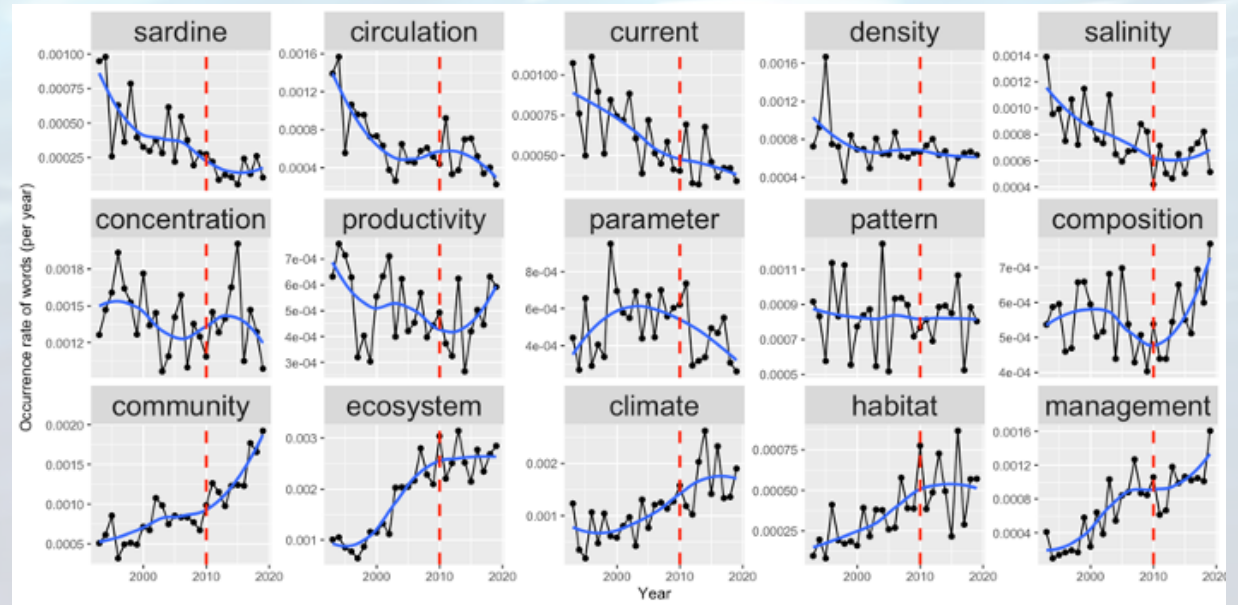
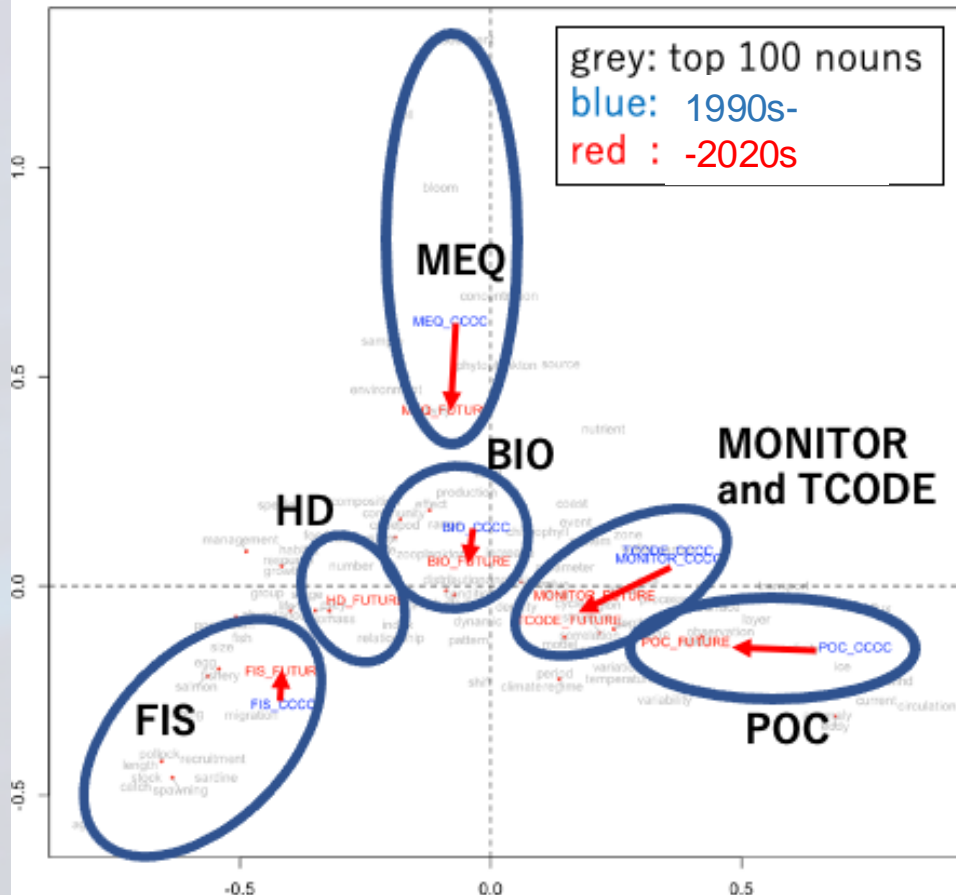


# Transition of PICES: Scientific Approach

From 1990s to 2020s

From discipline-based studies to Inter- and multiple-disciplinary studies.

Basic science to applied science.



(Takemura et al, in preparation)





# Transition of PICES: Demography

## Toward better gender balance

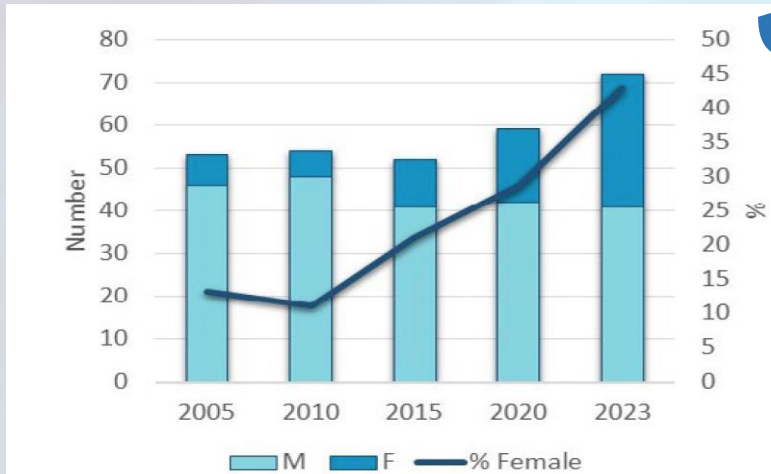
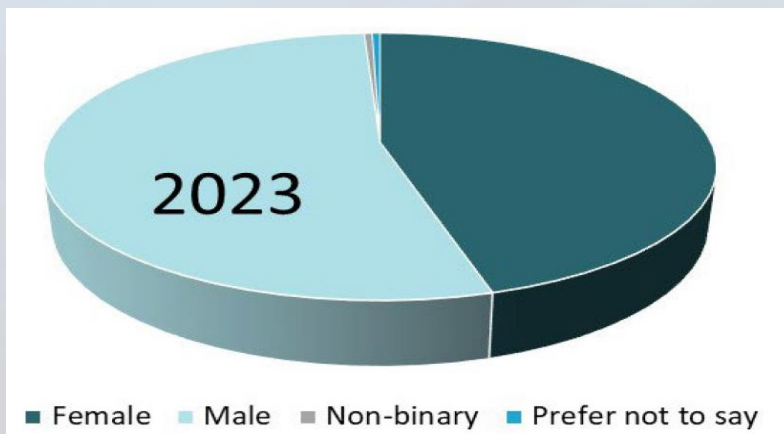


Figure 1. Number of Chairs/Co-Chairs and Vice-Chairs by gender over time (bars), together with the proportion that are female.

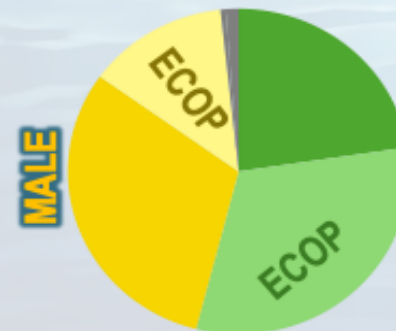


## More ECOP engagement

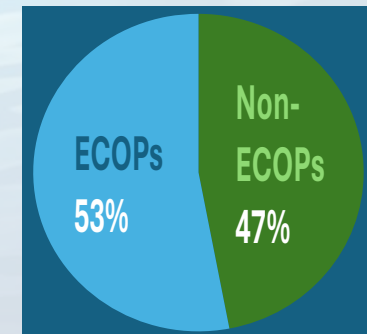


### Advisory Panel

### Early Career Ocean Professionals



ZPS7  
March 2024



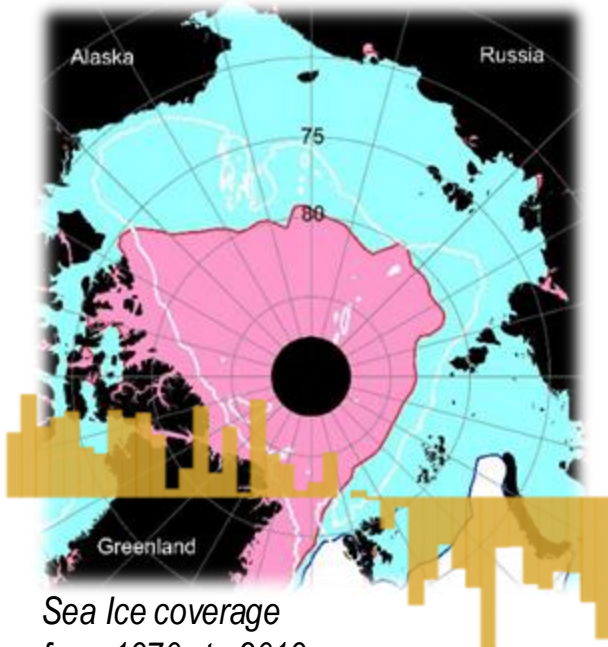
MSEAS  
June 2024



# Activity Update from October 2023 to October 2024

## New Expert Groups

**Advisory Panel on the Arctic Ocean and the Pacific Gateways (AP-ARC)**



Sea Ice coverage  
from 1970s to 2019s

**Working Group on Data Management (WG52)**

**F A I R**

[www.pices.int](http://www.pices.int)

**PICES/ICES Working Group on Sustainable Pelagic Forage Communities (WG53)**







# Activity Update from October 2023 to October 2024

## Expand partnership



## Beyond the North Pacific

Steven Bobrad noaa/pics

At smartnet we want an ocean that's:

- Productive
- predictable
- Resilient
- inspiring

And what is our strategy?

- 1 - production and sharing of knowledge
- 2 - engaged diverse stakeholders
- 3 - networking!

Cartoon by artist Bas Köhler.

**Intergovernmental organizations**

- ICES CIEM
- APN ASIA-PACIFIC NETWORK FOR GLOBAL CHANGE RESEARCH
- FAO FIAT BAHIS
- NPAFO
- UNEP NOWPAP CEARAC
- NPFC
- Intergovernmental Oceanographic Commission
- PACIFIC SALMON COMMISSION
- INTERNATIONAL PACIFIC HALIBUT COMMISSION
- INTERNATIONAL WHALING COMMISSION
- NAFO

**National marine science agencies**

- KIOST KOREAN INSTITUTE OF OCEAN SCIENCE & TECHNOLOGY
- CONACYT Consejo Nacional de Ciencia y Tecnología
- Ministry of Oceans and Fisheries
- NOAA
- CSIRO
- FRA Fisheries Research Agency
- Fisheries and Oceans Canada
- Pêches et Océans Canada
- NOAA FISHERIES
- CB CENTRO DE INVESTIGACIONES BIOLÓGICAS DEL NOROESTE

**Academic organizations and Foundations**

- CMS
- SFS
- Hakai Science on the Coastal Margin
- IFFO
- AORI
- WWF
- OCEAN TECHNOLOGIES CANADA
- SCOR Scientific Committee on Oceanic Research

**International programs**

- IMBeR
- futurearth
- 2021-2030 United Nations Decade of Ocean Science for Sustainable Development
- solas 2019 surface.ocean lower.atmosphere.study





# Activity Update from October 2023 to October 2024

## SmartNet Representation at UNDOS Conference in Barcelona

project information



2024 UN OCEAN DECADE CONFERENCE  
SATELLITE EVENT 182 <1500-1630 OF 9TH APRIL, 2024>

# WHAT IS THE OCEAN WE WANT?



Cartoon by artist Bas Köhler.









# Activity Update from October 2023 to October 2024

## SmartNet Representation at UNDOS Conference in Barcelona

project information



### Ocean Priority – country comparison (results of Pilot Study)

Issues to prioritize	Ocean outcome(s)	ALL	Australia 	Japan 	USA 	France 
Reducing marine pollution	A clean ocean	73,2%	77,1%	69,0%	70,9%	75,7%
Protecting marine life from extinction	A healthy & resilient ocean	72,9%	78,1%	64,9%	73,3%	75,1%
Ensuring commercial harvesting of marine life (like fish and seagrass) in the ocean is sustainable	A productive ocean	62,8%	72,7%	45,5%	65,7%	67,3%
Improving ways of communicating information about ocean conditions and hazards to the public	A safe ocean	59,6%	63,3%	55,3%	60,1%	59,6%
Increasing public education about how human activities affect the ocean	An inspiring & engaging ocean	60,7%	68,0%	44,1%	61,7%	69,1%
Increasing clean energy (wind, solar, wave, and geothermal) in the oceans	A productive ocean	58,5%	66,1%	53,3%	61,3%	53,4%
Ensuring people have access to the ocean and its resources	An accessible ocean	44,9%	55,2%	30,8%	52,0%	41,5%
Protecting ocean-related tourism and recreation opportunities	A productive ocean	43,6%	56,1%	23,9%	48,2%	46,0%
Developing ocean-based business opportunities	A productive ocean	36,6%	45,1%	24,8%	39,7%	36,8%

by artist Bas Köhler.



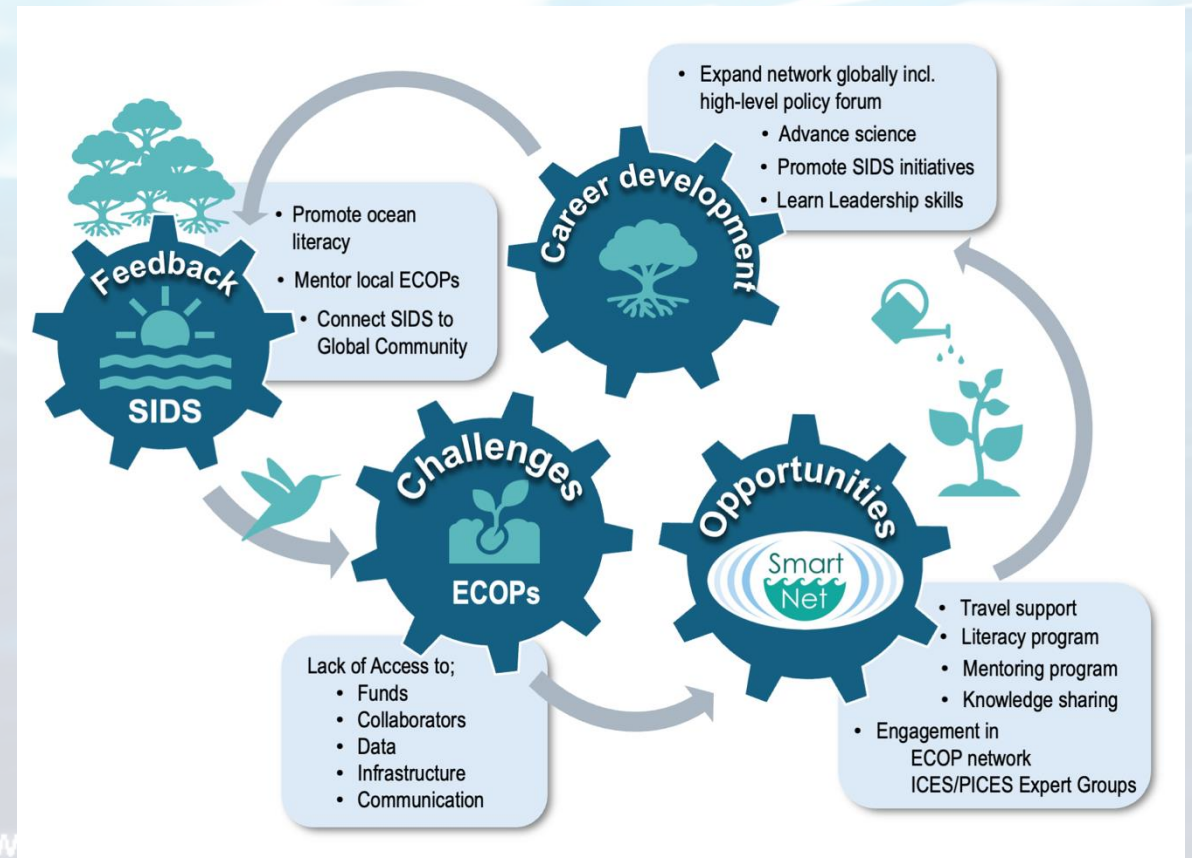
# Activity Update from October 2023 to October 2024

## SmartNet Representation at UNDOS Conference in Barcelona

Co-sponsored side events to promote engagements of ECOPs from Small Island Developing States.



Challenges faced by SIDS ECOPs and how SmartNet supports their career development by leveraging ICES and PICES frameworks. The diagram illustrates a positive feedback loop reinforcing the capacity development of SIDS ECOPs (Chiba et al, 2024, in press)



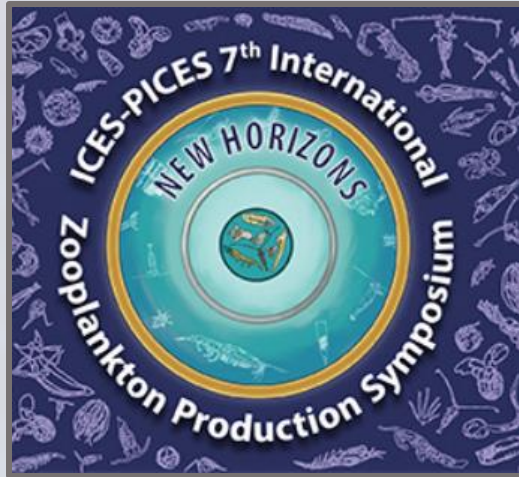




# Activity Update from October 2023 to October 2024

## International Symposia

### SCOR Support for PICE Sponsored International Conferences



#### ICES/PICES ZPS7

7th International  
Zooplankton Production  
Symposium

Hobart, March 2024

SCOR funded for travel support ECSs  
from developing countries

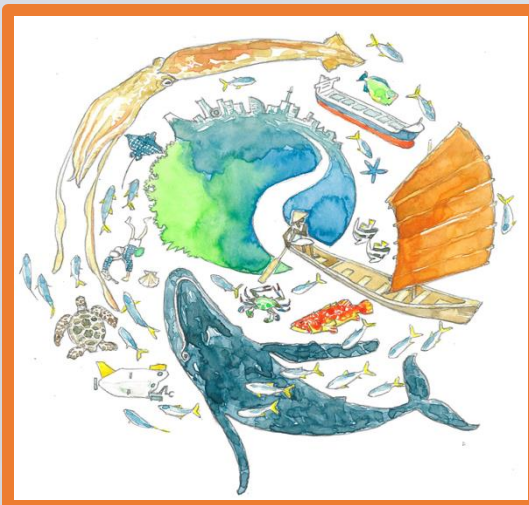
Recipients:

Mdluli (South Africa, M)

Ramesh (India, M)

Gunaalan (Sri Lanka, M)

Govender (South Africa, F)



#### ICES/PICES MSEAS-2024

Marine Socio-Ecological  
Systems Symposium

Yokohama, June 2024 [pices.int](https://www.pices.int)

Recipients:

Nazia (Bangladesh, F)

Karisa (Kenya, F)

Salazar (Colombia, F)

Saldivar-Lucio (Mexico, M)





# Activity Update from October 2023 to October 2024

## International Symposia

### ZPS7



**315 Attendees**  
**161 ECOP (>50%)**  
**38 Countries**



**16 Sessions, 5 Workshops**  
**357 Presentations**  
**282 Oral, 75 Posters**



### Science & Art collaboration event



### MSEAS 2024



### MESAS in NUMBERS

**201 Attendees from 31 Countries**

**10 Sessions**  
**192 Presentations**  
**162 Oral 30 Posters**





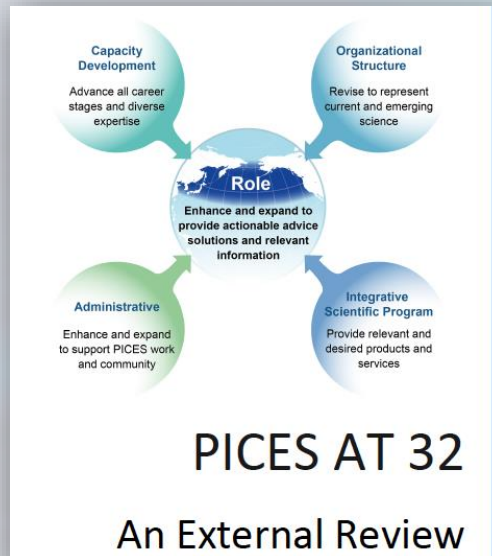
# PICES-2024 Annual Meeting Oct 26-Nov 1, 2024

## Highlight of PICES-2024

### **SPECIAL PANEL**

## PICES Science in the Next Decade

November 1



For the PICES community and Stakeholders to share ideas on PICES science directions in the next decade.

**Looking Forward in a  
TIME of CHANGE**

PICES External Review  
Panel Report

[www.pices.int](http://www.pices.int)



# PICES-2024

Oct 26 - Nov 1, 2024 Honolulu, USA

## The FUTURE of PICES: Science for Sustainability in 2030







# North Pacific Marine Science Organization

International collaboration for improved ocean health.



**Thank you!**

[www.pices.int](http://www.pices.int)