

# A global initiative is needed

Human activities in the deep ocean are accelerating rapidly, mostly out of sight. As climate change reaches into deep waters, pH is dropping and oxygen is declining and the resilience of deep-sea ecosystems and the key services they provide are compromised.

Gaps abound in deep-ocean governance: most legal frameworks, both national and international, lack essential mechanisms to manage and protect ocean resources. Many countries with deep-water resources lack the expertise to support sustainable management and protection while in international waters, and there is no consistent application of environmental assessment approaches. There is a real risk that the deep ocean will become industrialized without sufficient environmental planning.

Deep-ocean biodiversity supports key ecosystem functions and services including nutrient regeneration, carbon sequestration and a storehouse – *a living library* – of genetic resources that may hold benefits to humans and the key to future adaptation. Therefore, it is imperative to manage the deep ocean from a global, multi-sectorial and cross-disciplinary perspective, to safeguard the marine environment while enabling its sustainable use.

The *Deep Ocean Stewardship Initiative* (DOSI) is a union of experts from across disciplines and sectors formed to develop new ideas for sustainable use and management of deep-ocean resources. A main objective will be capacity-building for developing countries in whose waters many deep-water seabed resources are located.

DOSI works by assembling experts to address priority areas, to develop tools, strategies and resources to maintain ecosystem integrity, and to develop programs that promote sustainability and responsible use of the deep ocean. DOSI engages with industry and regulators, scientists and civil society to increase awareness and build capacity for support of initiatives that will lead to sustainable use and management of deep-ocean resources now and for future generations.



## DOSI Leadership

**Lisa Levin** (Center for Marine Biodiversity and Conservation, Scripps Institution of Oceanography, USA)

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**Kathryn Mengerink** (Environmental Law Institute, USA)

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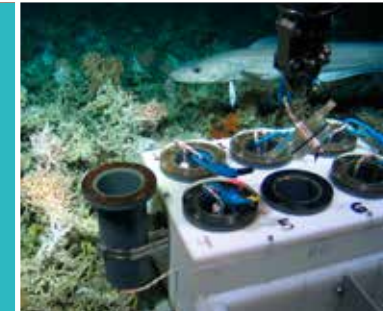
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**Cindy Van Dover** (Duke University, USA)

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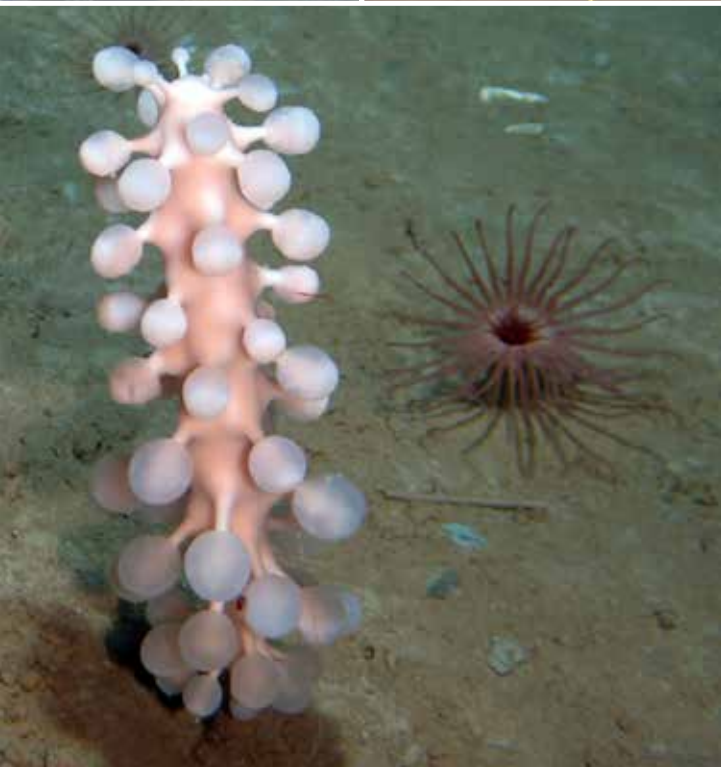
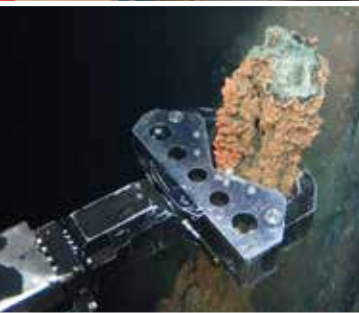


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## What priority issues is DOSI addressing?

DOSI acts through multi-stakeholder workshops, briefings, publications, surveys, assessment contributions, online resources and engagement. DOSI works with national, regional and global policy makers, educators and civil society to:

### 1.

**Identify priority management needs for resource use in our deep ocean, including**

- Working with the International Seabed Authority and other stakeholders on seabed mining issues to develop an environmental management strategy for the international seabed Area, incorporating cumulative impact and economic assessments, starting with the Mid-Atlantic Ridge;
- Fostering new collaborations and deliberations for the issue of deep-sea tailings placement;
- Addressing issues of transparency and compliance in deep-ocean management.

### 2.

**Develop best practices for human activities in the deep sea, including**

- Promoting development of impact assessments for all future fisheries in the deep sea to include a field guide for conducting these assessments;
- Conducting author briefings and instigating communication on the uses, sustainable use and sharing of benefits of deep-sea genetic resources;
- Comparing regulations for offshore oil and gas development across nations to aid development of best practices for deep-water oil and gas stewardship.

### 3.

**Raise awareness, develop expertise, including**

- Building capacity in developing and emerging nations for sustainable management and protection of their deep-ocean resources;
- Increasing education for all stakeholders (e.g. development of open access web-based course on the fundamentals of deep-sea ecology and stewardship issues).

### 4.

**Centralize and promote observation and knowledge of the deep sea, including**

- Ensuring deep-sea environments are prominent in major ocean assessments;
- Identifying scientific knowledge gaps that will aid in deep-ocean management;
- Developing a centralized location for information about ongoing deep-sea stewardship activities across multiple sectors, jurisdictions and disciplines;
- Working with industry to help increase ocean observations and data sharing and addressing cross-cutting issues.