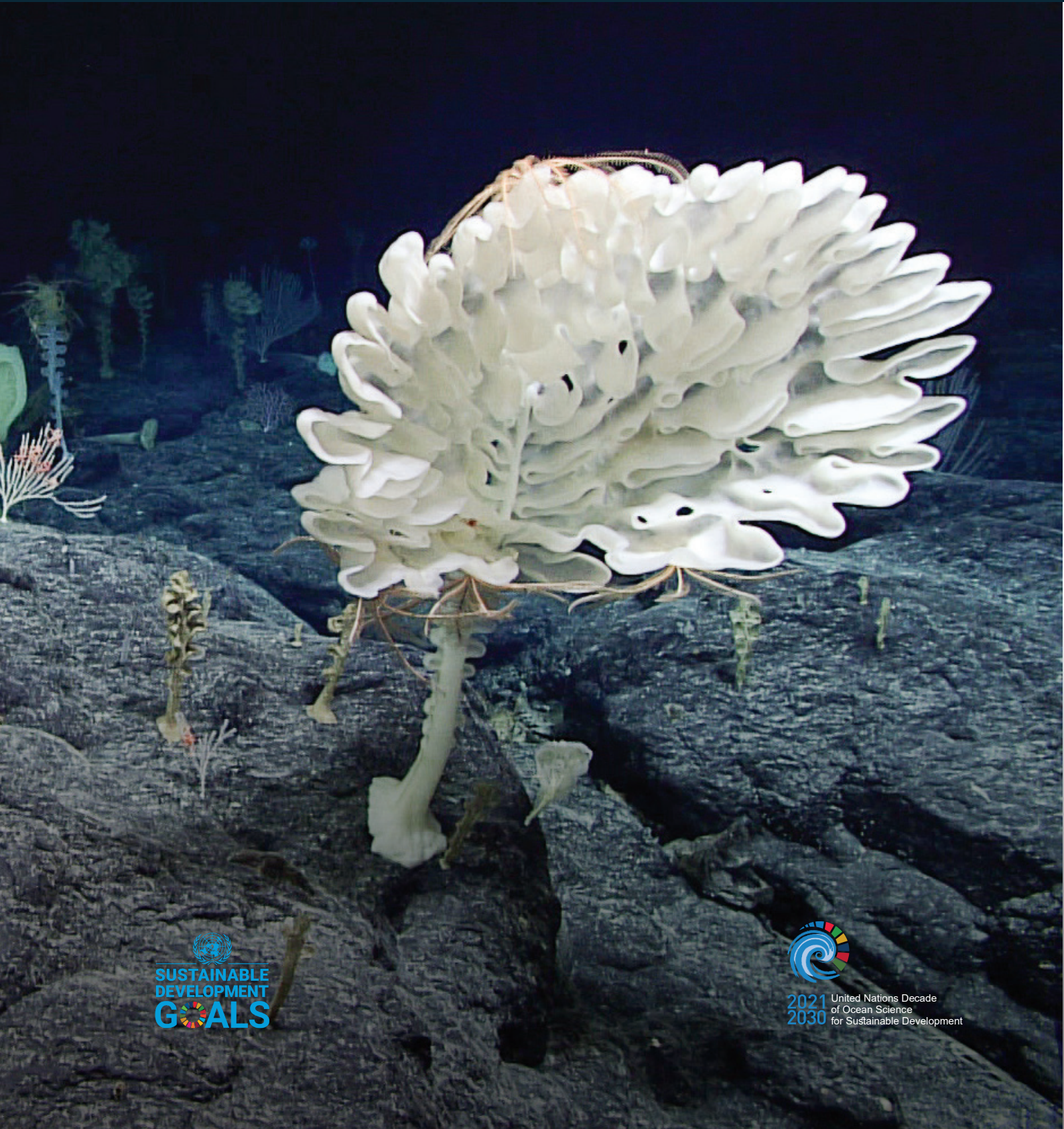




Sustainable
Seabed
Knowledge
Initiative





Sustainable Seabed Knowledge Initiative

The Sustainable Seabed Knowledge Initiative (SSKI) of the International Seabed Authority (ISA) aims to transform our understanding of the planet's largest ecosystem, the deep sea. Through generation of new knowledge, and innovation in the availability and flow of data and expertise, SSKI will strengthen the scientific foundation for effective protection and management of the deep sea in the international seabed area (the Area).

Launched in 2022, SSKI will describe over one thousand new species from the regions of the Area that are currently being explored for mineral resources and may be targeted for future exploitation. The initiative and the new knowledge it will generate will enable scientists to create maps of life on the seafloor and help us understand and manage the possible effects of anthropogenic activities on deep-sea ecosystems.

New genomic and image libraries, combined with artificial intelligence and app-based field tools will be developed for assessing deep-sea biodiversity. Along with building capacity, SSKI will create a lasting legacy of knowledge of the deep sea and the deep seabed, benefiting humankind as a whole.

DID YOU KNOW?



The Area covers more than **50%** of the world's seabed



ISA contractors are currently exploring regions of the seabed corresponding to about **1%** of the total Area



As of 2022, **653** animal species have been identified in the Clarion-Clipperton Zone (Pacific Ocean) in the Area

653
species

30%
new species

Nearly 30% of species are new, formally described in the last 20 years. 66 of these new species were described in 2019 alone

- ISA compiles and shares all environmental data collected by its contractors in the Area in its DeepData database

- In 2021, ISA became a node of the Ocean Biodiversity Information System of IOC-UNESCO

SSKI and the UN Decade of Ocean Science

SSKI is ISA's new flagship initiative to support the implementation of the ISA Action Plan for Marine Scientific Research in support of the UN Decade of Ocean Science for Sustainable Development and its six strategic research priorities, adopted by all **168 Members in 2020**.

STRATEGIC RESEARCH PRIORITIES



01

Advancing scientific knowledge and understanding of deep-sea ecosystems, including biodiversity and ecosystems functions, in the Area



02

Standardizing and innovating methodologies for deep-sea biodiversity assessment, including taxonomic identification and description, in the Area



03

Facilitating technology development for activities in the Area, including ocean observation and monitoring



04

Enhancing scientific knowledge & understanding of potential impacts of activities in the Area



05

Promoting dissemination, exchange and sharing of scientific data and deep-sea research outputs and increasing deep-sea literacy



06

Strengthening the deep-sea scientific capacity of ISA Members, particularly developing States

Project scope and expected outputs



New Knowledge

- At least 1,000 new species described by 2030
- Biogeographic and phylogeographic maps of the Area
- Increased understanding of connectivity and resilience of deep-sea ecosystems



Integrative and innovative tools

- New apps and toolkits to facilitate species identification
- DNA-based and underwater image reference libraries
- Best practices for baseline data collection and long-term observations



Effective data sharing and use

- Improved interoperability among existing databases
- Strengthened data quality control systems and methods
- Enhanced usability of the ISA DeepData database



Taxonomic capacity

- A new platform connecting deep-sea taxonomic experts around the world
- Centres of excellence on deep-sea taxonomy
- Transfer of technology for taxonomic knowledge generation



Networking and outreach

- Links to relevant ocean observation systems
- Scientific and non-scientific publications
- Workshops, conferences and events

SSKI Partners

SSKI brings together leading experts and institutions in deep-sea biodiversity research, monitoring and management to develop new methods and knowledge, creating an unprecedented framework for sustainable development of activities in the Area.



Co-funded by
the European Union



OCEAN BIODIVERSITY
INFORMATION SYSTEM



The International Seabed Authority

Made up of 167 Member States and the European Union, ISA is mandated under the United Nations Convention on the Law of the Sea (UNCLOS) to organize, regulate and control all mineral related activities in “the Area” for the benefit of humankind as a whole. In so doing, ISA has the duty to ensure the effective protection of the marine environment from harmful effects that may arise from deep seabed related activities. ISA also has the exclusive responsibility to promote and encourage marine scientific research in the Area and to coordinate dissemination of the results.

The Area

Under UNCLOS, States have exclusive economic zones extending 200 nautical miles from their coasts in which they have exclusive exploitation rights to all natural resources. The “Area” refers to the seabed and subsoil thereof beyond the limits of national jurisdiction. It covers more than half of the global ocean. Under UNCLOS, the Area and its mineral resources are designated as the common heritage of humankind.

International Seabed Authority
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isa.org.jm

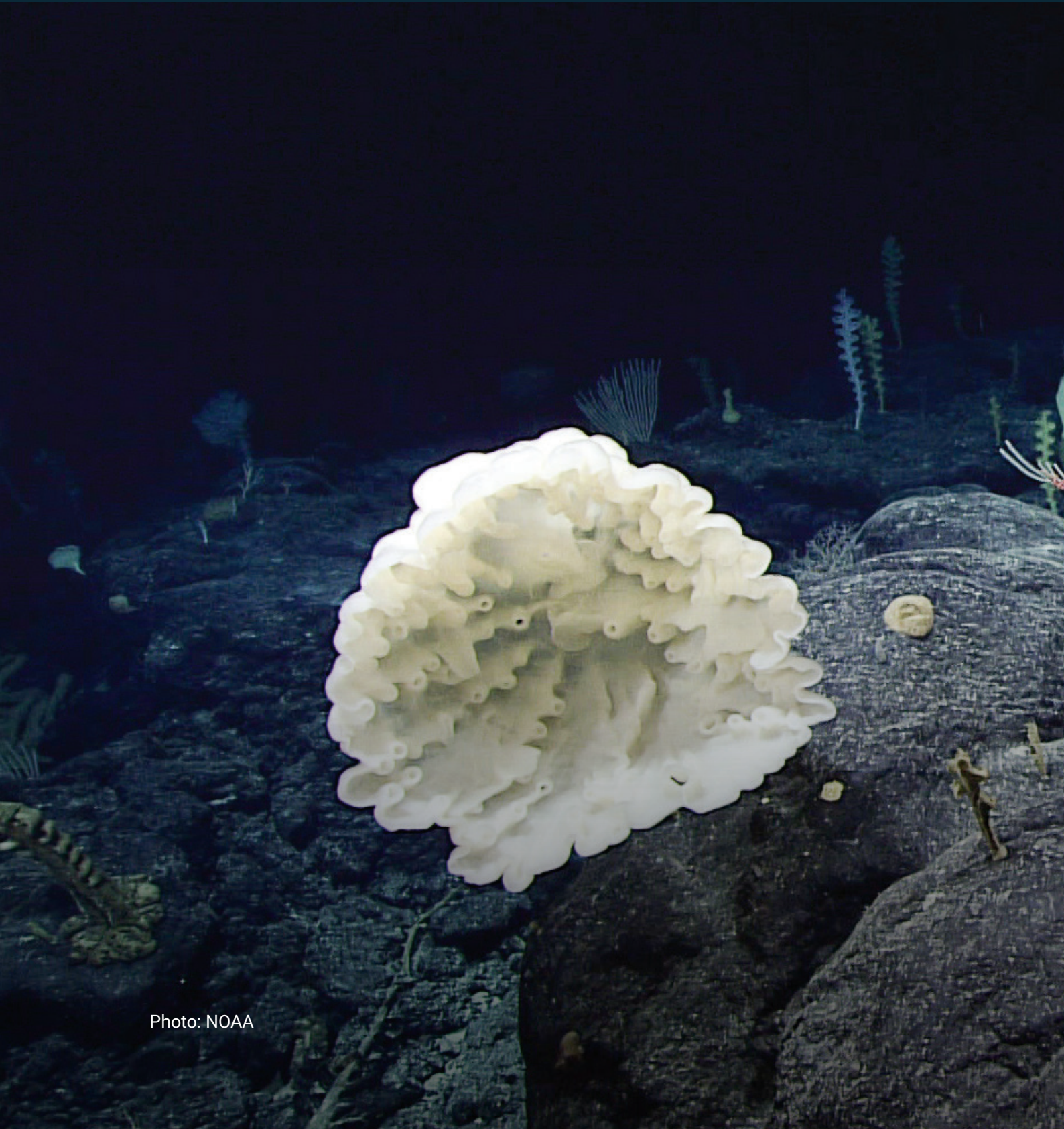


Photo: NOAA