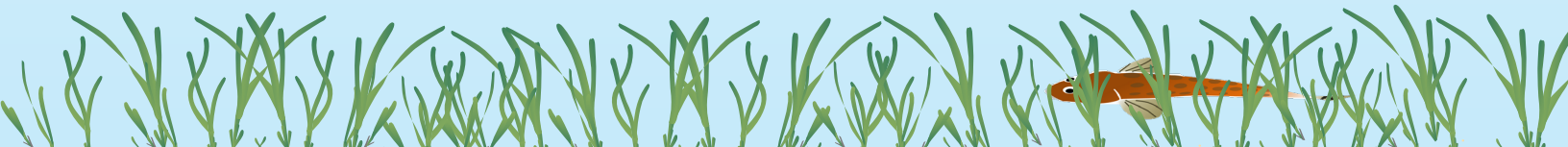
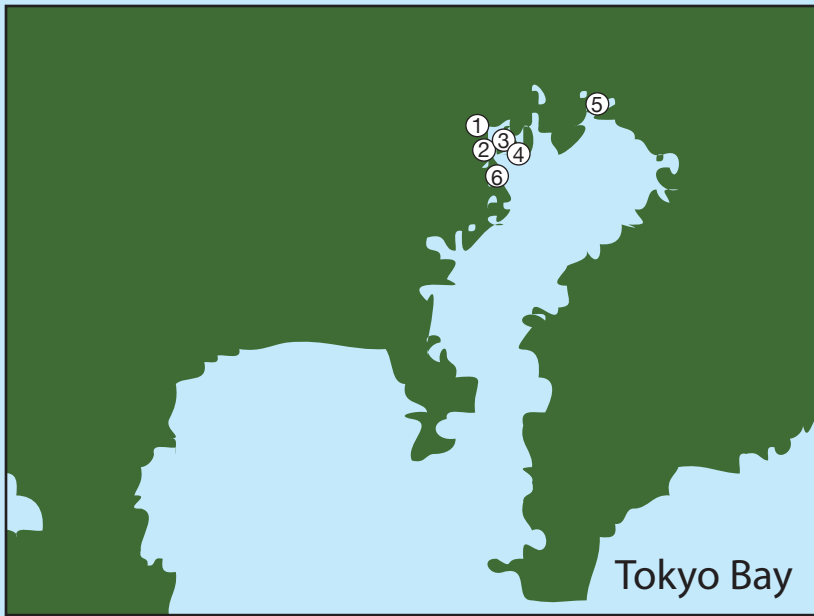


Amamo2023 and J-COAST



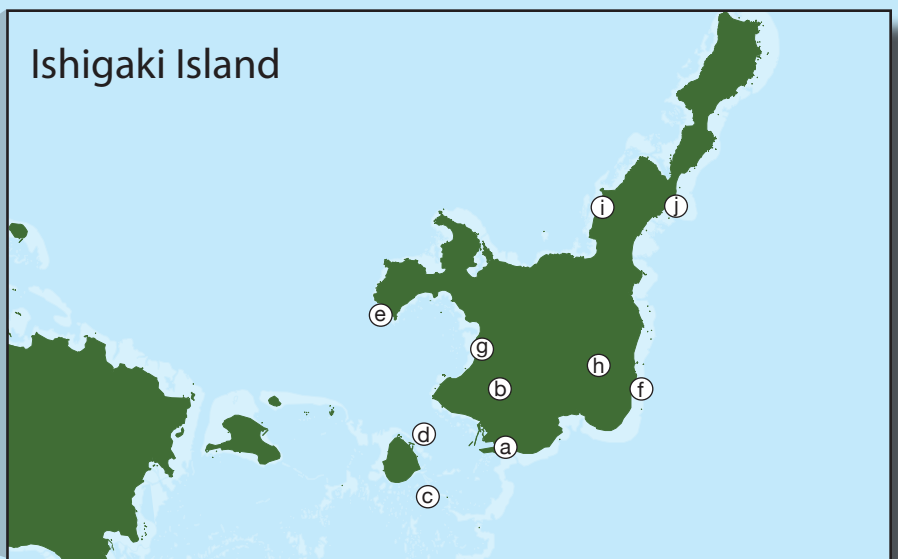


Tokyo Bay

1. Sasakawa Peace Foundation
2. Takeshiba Tidal Flats
3. Hama-rikyu Gardens
4. Odaiba Seaside Park
5. Sanbanze Environmental Learning Center
6. Omori Nori Museum



- a. International Coral Reef Research and Monitoring Center
- b. Mt. Banna Observatory Deck
- c-e. Coral reef and snorkeling points
- f. Shirao reef
- g. Nagura Amparu Mangrove Area
- h. Agriculture and livestock
- i. Fukido River Mangrove Area
- j. Tamatorikazi Observation Platform



Ishigaki Island



Blue Carbon research takes root

We would like to express our sincere appreciation for the successful conclusion of the International Eelgrass and Blue Carbon Workshop 2023 (Amamo2023) held on November 17–19, 2023, and the International COAST Card Workshop (J-COAST) held on November 19–21 at the Sasakawa Peace Foundation International Conference Hall (SPF Hall, 1) in Minato-ku and related venues in Tokyo, Japan.



Keynote speakers participate in a panel(left); Posters and COAST Card informational materials on display (center); Lunch break at SPF Hall (right).

The first three days were dedicated to workshops at the SPF Hall, with keynote speeches, oral sessions, and a participatory workshop. We had nine keynote speeches, including Prof. Carlos Duarte from KAUST on “International and Academic Trends Conserving Blue Carbon Ecosystems” and Prof. William Dennison from UMCES on “COAST Card overview: Social transformation for building sustainable coastal areas.”



Amamo 2023 logo designed by third grade student Ayane Senoue.

Four sessions gave deep insight for the forefront of practices for blue carbon ecosystem restoration and conservation namely: Session 1: Involvement of Fishermen, Companies, and Citizens; Session 2: Citizens and Youth Engagement; Session 3: Science Communication; and Session 4: Practice in each country. The three-day workshop event was held in a hybrid format. Approximately 500 people attended on-site and a total of 2,600 participants viewed online. The archived videos and the Amamo2023 Declaration are now available for viewing (<https://amamo2023.com>).

In addition to the Amamo2023 sessions, attendees were able to join a participatory workshop and play the “Get the Grade Game.” The game has been translated to Japanese, and, with prizes for the winning table at stake, both domestic and international participants worked hard to make their ecosystem healthy and earn the highest grade.



Participants play the Get the Grade game.



Exploring Tokyo Bay inspires COAST Card Team

The COAST Card team explored Tokyo Bay by first visiting the Takeshiba Tidal flats (2), home to a variety of public outreach events. While there, J-COAST members gave a history of the area and exhibited the water quality experiment conducted with community members that attend the outreach events.



Watching a water quality test demonstration (left); COAST Card team planning 2024 goals (center); 300-year-old pine at Hama-rikyu Gardens (right).

Afterward, the team spent several hours planning the documents that would come out of the meeting and discussing the final year of the COAST Card Project. They continued their discussion at the Hama-rikyu Gardens (3), where they sat in a traditional Japanese house and talked about what they had learned and the impact they wanted the project to have. The team then visited the traditional teahouse located within the garden for green tea and sweets before exploring the garden grounds.

On the last day of the Tokyo Bay study site tour, the COAST Card partners visited Odaiba Seaside Park (4) and learned about the park's history and maintenance. The team also visited the Sanbanze Environmental Learning Center (5), where they experienced a diverse and well-rounded learning excursion. The center modeled environmental science education, accessibility, and fun through its interactive digital games and simulation. Moreover, the team learned about Nori, a widely-enjoyed delicacy that originated in Tokyo Bay, at the Omori Nori Museum (6). The museum displayed a variety of life-size transportation boats, historic baskets, and tools that represented the founding developments of Nori farming. The team concluded their Tokyo Bay tour enlightened and hungry!



Top: Visiting the Sanbanze Environmental Center (left); Learning about Odaiba Seaside Park (right); Bottom: View from Odaiba Seaside Park (left); Visiting the Omori Nori Museum (right).



Coral reefs and mangroves focus of Ishigaki conservation

On November 22nd, the COAST Card team left Tokyo for a two-and-a-half-day field trip to Ishigaki Island. On arrival at the International Coral Reef Research and Monitoring Center, Ministry of the Environment (a), the team was briefed by Dr. Yamamoto and Prof. Nadaoka of the J-COAST team. Dr. Yamamoto discussed Japan's largest coral reef, Sekisei Lagoon, which stretches between Ishigaki and Iriomote Islands, and the efforts by the Center and the Sekisei Lagoon Nature Restoration Committee to conserve and restore it. Later in the day, the team went to the Mt. Banna Observatory Deck (b) to admire the stunning views of Ishigaki and the larger Yaeyama Islands.

The following day, the COAST Card team visited three coral reef sites: two areas near Taketomi Island, one with many rubbles of dead corals showing slow recovery (c) and one relatively good coral cover area (d), and an area near Osaki Beach (e) a heavily used snorkeling and diving site. Then, the team visited the Shiraho reef (f) area and observed the impact on the corals of human activities in the Todoroki watershed.



The COAST Card team visited Ishigaki Island and snorkeled in various places throughout the lagoon to see the state of the coral reefs.



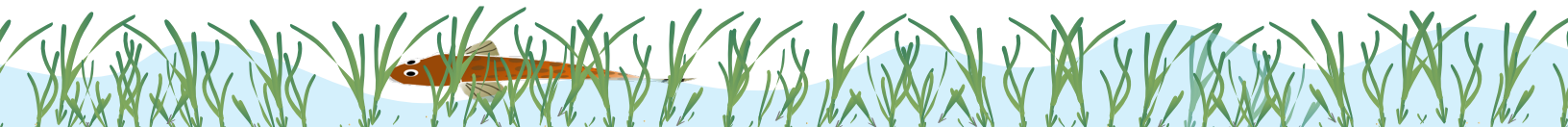
The mudskipper is a charismatic, air-breathing fish that lives among the roots of the mangrove trees.

On the last day of the trip, after a short visit to Nagura Amparu mangrove area (g), the team moved inland and met with a local farmer to learn about current agricultural and livestock practices (h). Red soil runoff poses a significant threat to the coral reefs and poor water quality hinders recovery and degrades reef health. Efforts have been made to promote various runoff prevention methods, including greenbelts that prevent runoff of eroded soil from farmlands and settling ponds that catch eroded soils before they can flow into the ocean.

The team met a local livestock farmer who raises cows for consumption. He uses the cows' excrement to fertilize croplands to reduce nutrient discharge into the surrounding environment that may negatively impact corals. Then they explored the Fukido River Mangrove area (i) during low tide, where they found mudskippers—small fish that can breathe air—hopping around among the roots of the mangroves. Finally, the team went to the Tamatorizaki Observation Platform (j) to get a wider view of the morphological features of the fringing reef along the coast of Ishigaki Island.

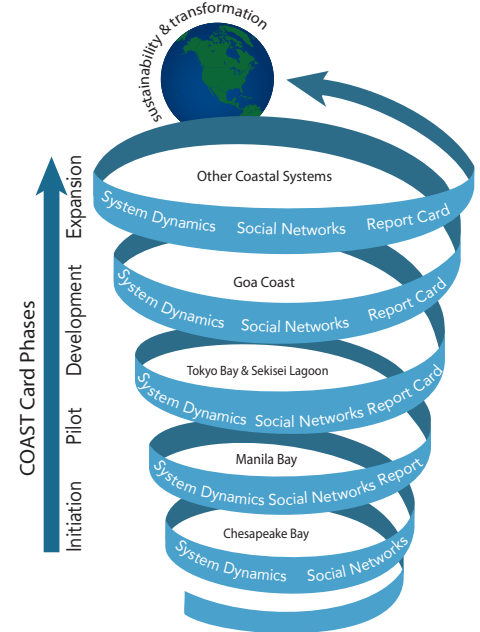
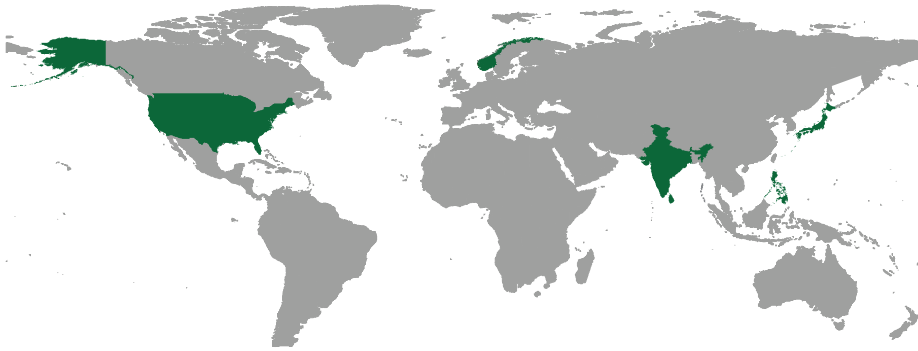


The COAST Card team with a local agriculture manager and livestock farmer.



A New Generation of Report Cards

The **Coastal Ocean Assessment for Sustainability and Transformation** Project (COAST Card) is a Belmont Forum-funded international and transdisciplinary program that aims to foster solutions to global sustainability challenges. It is a new generation of report cards that merges three tools: socio-ecological network analyses, socio-environmental report cards, and system dynamics models. It builds on the report card framework that is popular in the Chesapeake Bay Watershed and is emulated in Tokyo Bay and Sekisei Lagoon in Japan, Manila Bay in the Philippines, and the Goa Coast of India. The combination of the right people (social networks), publicly available synthesized information (report cards), and robust models (system dynamics) can guide what is needed to catalyze positive socio-environmental change.



Acknowledgments

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Cover Images: Taketomi Tidal Flats (top left); Hama-rikyu Gardens (top center); Omori Nori Museum (top right); Tokyo Bay dinner cruise (middle left); Boat trip on Ishigaki Island (middle center); Odaiba Seaside Park (middle left); Sanbanze Tidal Flat (bottom left); Ishigaki Island from viewing platform (bottom center); Snorkeling in Sekisei Lagoon (bottom right).