

MOL Car Carrier *Firmament Ace* Joins Port of Nagoya Public Aquarium's Loggerhead Turtle Migration Research Project

July 11, 2024

TOKYO-Mitsui O.S.K. Lines, Ltd. (MOL; President & CEO: Takeshi Hashimoto) today announced that one of its car carriers, the *Firmament Ace*, teamed up with the [Port of Nagoya Public Aquarium](#) on a project to study the migration patterns of loggerhead turtles (Note 1), with the vessel transporting turtles and aquarium staff. This is the second time an MOL Group vessel has joined this project including last year (Note 2).



The *Firmament Ace*



On June 27 (local time), 28 loggerhead turtles were loaded onto the vessel at the Port of Nagoya's Kinjo, and on July 7, two research members aboard the vessel released them into the Pacific Ocean.

The Port of Nagoya Public Aquarium is conducting this research in collaboration with domestic and international research institutions, including Stanford University to verify the Thermal Corridor Hypothesis(Note 3) that loggerhead turtles in the eastern end of the central North Pacific Transition Zone reach the waters off California in El Niño years, when the sea surface is warmer. This research can provide valuable knowledge about the ecology of these endangered turtles and link it to conservation activities, by monitoring their migration route using the location information from the transmitters attached to the turtles.

All of the released loggerheads are about two years old and relatively large, with carapace length of 35 cm to 45 cm and weight of approximately 9 kg. Unlike turtles immediately after hatching, they are less likely to be attacked by marine predators.

MOL has positioned environmental strategy as one of the key elements of its "BLUE ACTION 2035" management plan, and has established the "MOL Group Environmental Vision 2.2." Recognizing the impact of its business activities on the marine environment and ecosystems, the group is proactively engaged in a wide variety of corporate citizenship activities to contribute to the conservation of the marine environment and biodiversity, as the ocean is not only the site of MOL Group business activities, but also the common property of all people around the world.

(Note 1) Commonly known "Sea Turtle Research Experiment on the Thermal Corridor Hypothesis (STRETCH)

Loggerhead turtles are found in temperate and tropical regions of the world, and their nesting grounds in the North Pacific are mostly limited to the Japanese coastal areas influenced by the Kuroshio Current. They are known to migrate across the Pacific Ocean to waters off the Baja California Peninsula in El Niño years, but it is unknown how and when they migrate, or what route they take. Detailed analysis of loggerhead migration and marine environment data collected through this study will help elucidate the migration ecology and contribute to effective conservation activities for endangered loggerhead turtles.

The location of all 28 loggerhead turtles released can be checked from this site (URL: <https://www.loggerheadstretch.org/>) in real time.

(Note 2) For details, please refer to the following press release:
July 14, 2023: [MOL Car Carrier Galaxy Ace Cooperates with Port of Nagoya Public Aquarium for Loggerhead Turtle Migration Research](#)

(Note 3) There are "biogeographic barriers" proposed by Darwin to the east of the Pacific Ocean. Typically, the passage of marine organisms ranging from larvae to large swimming species is impeded. But the mechanism by which the intermittent appearance of a warm seawater path, or "thermal corridor," enables loggerhead turtles to migrate from the Central North Pacific to the coast of Baja California in Mexico, is proposed as the Thermal Corridor Hypothesis.

MOL Group 5 Sustainability Issues

MOL Group identifies "Sustainability Issues" (Materiality) as our key issues for sustainable growth with society through realization of the Group Vision. We anticipate this initiative to contribute especially to the realization of "Environment -Conservation for Marine and global environment-" and "Human & Community -Contributing to the growth and development of people and communities-."

