S’pore waters see slight coral bleaching amid global event

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Amid the fourth global coral bleaching event, some corals in the shallow waters and intertidal zones of Singapore are turning pale and white.

About 20 per cent of corals off Kusu Island were showing signs of stress or partial bleaching as at May 17, said Dr Jani Tanjil, facility director of the St John’s Island National Marine Laboratory (SJINML).

This slight bleaching is also seen at the St John’s Island National Marine Laboratory (SJINML).

The major advantage of Singapore’s corals is that they are found closer to the shore, and this covers the intertidal zones and shallow waters.

The corals in deeper waters – where reef cover and diversity are lower – are faring okay for now, said Dr Karmen Tiong, director of the National Parks Board (NParks) National Biodiversity Centre.

The agency, alongside marine ecologists and divers, has been keeping a closer watch on the health of the reefs amid higher-sea-surface temperatures. Efforts include taking note of the level of bleaching while diving, and in recent weeks, sea-surface temperatures have been measured at 31 deg C, with a peak of 37.5 deg C on May 16, according to SJINML’s Marine Environment Sensing Network.

The average highest monthly temperature is 29 deg C in Singapore.

Global coral bleaching also took place in 1998, 2005 and 2016, and Singapore experienced mass coral bleaching around those years.

In 2000 and 2016, the El Nino climate phenomenon – which causes sea-surface temperatures in the eastern Pacific to heat up and elevate global temperatures – was reaching its tail end.

The current El Nino cycle is expected to taper off in the middle of 2024. But El Nino is likely to still make its presence felt in the form of higher-than-usual temperatures in the months ahead, as heat takes time to transfer from the sea surface to the atmosphere, weather experts had told The Straits Times previously.

Dr Tanjil said: “We are now entering our seventh week of higher-than-usual temperatures. The next two to three weeks are crucial. If sea-surface temperatures don’t go up further, or better yet, cool, then we have some hope our corals will be out of danger.”

Corals get their vibrant colours from microscopic algae that live in their tissues. When they get stressed or when the sea temperature rises, the corals will expel the algae and turn ashen white. Most of Singapore’s inshore corals are found in the southern islands. Their role in the underwater rainforest, sustaining life, is as important as that of the trees.

In mid-April, the United States National Oceanic and Atmospheric Administration (NOAA) confirmed that the world’s fourth global bleaching event was underway.

On May 16, the NOAA warned that the massive coral-bleaching episode is expanding and deeper in the Indian Ocean. The NOAAs record ocean temperatures, coral bleaching has been recorded in 60 countries and territories since February.

NParks’ Dr Tiong added that from May onwards, “bleached” corals are expected to be seen in many areas in the Indo-West Pacific and Indian Ocean.

NParks and the National University of Singapore (NUS) have monitored various reef sites in early May, and will continue to do so until the NOAA declares that the mass bleaching event is over.

The research findings of such projects could guide measures such as future coral reef restoration, to ensure their success.

Over the next 10 years, starting in 2024, 600,000 corals will be progressively planted and grown in Singapore’s waters to beef up its reef cover.