

CORAL REEFS ENDANGERED

Sea urchin pandemic spreads beyond Red Sea

TEL AVIV: A sea-borne pandemic that wiped out sea urchin populations in the Red Sea has spread and is taking out the species in parts of the Indian Ocean and could go global, scientists in Israel say.

The particular species of sea urchin impacted is a well-known protector of coral reefs and the deaths put the already fragile reef ecosystem in even more peril.

The pandemic was first noticed in the Gulf of Aqaba a year ago and researchers said they had since identified the pathogen behind it through molecular analysis. They are linking it to mass deaths across the Red Sea, the Arabian peninsula, and as far as Reunion Island off Madagascar.

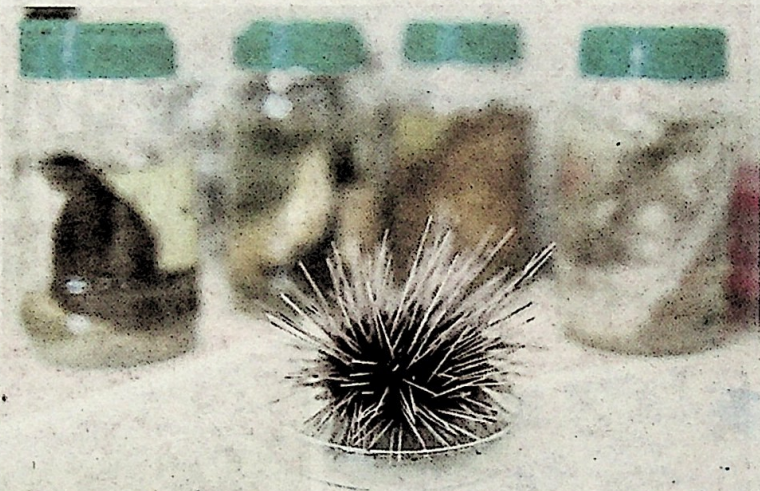
The pathogen kills fast and violently — in just two days colonies can be lost — making it hard to assess how many are dying, said Omri Bronstein, a zoologist from Tel Aviv University and the Steinhardt Museum of Natural History.

It seems to be heading east towards the tropical waters of the Coral Triangle that extends off southeast Asia and Australia's Great Barrier Reef.

"I fear that at the current situation this is the trajectory, so this is where it's going," he said.

Their findings were published in the journal *Current Biology*.

Bronstein described the affected sea urchin species as the "lawn mowers" of coral reefs, since they



A dead black sea urchin displayed at a laboratory in Tel Aviv University's Steinhardt Museum of Natural History in Tel Aviv, Israel, on May 23 last year. REUTERS PIC

remove algae that otherwise blocks sunlight, allowing the coral to thrive.

In the Gulf of Aqaba, no other creature has taken over that role and Bronstein's team is already seeing extensive growth in algae cover.

"When mortalities started in the Red Sea, they were so strong and so abrupt and so violent that the first thoughts were this must be some kind of pollution, or something very severe but very local," he said.

Then the phenomenon was seen at a wharf farther south in Sinai where a ferry from Aqaba docks. Two weeks later it spread

another 70km. They described thousands of skeletons of the once dominant species rolling on the sea bottom.

There was no known way to stop the disease, Bronstein said. But there was still a chance to create an isolated population, or broodstock, of the sea urchins remaining elsewhere that could hopefully be reintroduced later on.

The team is now cooperating with scientists across the region to map the pandemic and gather more details. "This coordination and this collaboration is one of the keys of being able to be on top of this rapidly evolving situation," Bronstein said. **Reuters**