

Coral species adapt to warmer waters

Some coral populations already have genetic variants necessary to tolerate warm ocean waters, and humans can help to spread these genes, a team of scientists from the University of Texas at Austin, the Australian Institute of Marine Science and Oregon State University have found.

The discovery has implications for many reefs now threatened by global warming and shows for the first time that mixing and matching corals from different latitudes may boost reef survival.

The researchers crossed corals from naturally warmer areas of the Great Barrier Reef in Australia with corals from a cooler latitude nearly 300 miles to the south. The scientists found that coral larvae with parents from the north, where waters were about 2°C warmer, were up to 10 times as likely to survive heat stress compared with those with parents from the south.

Using genomic tools, the researchers identified the biological processes responsible for heat tolerance and demonstrated that this tolerance

could evolve rapidly based on existing genetic variation.

“Our research found that corals do not have to wait for new mutations to appear. Averting coral extinction may start with something as simple as an exchange of coral immigrants to spread already existing genetic variants,” said Mikhail Matz, an associate professor of integrative biology at the University of Texas at Austin. “Coral larvae can move across oceans naturally, but humans could also contribute, relocating adult corals to jump-start the process.”

Worldwide, coral reefs have been badly damaged by rising sea surface temperatures. Bleaching – a process that can cause widespread coral death due to loss of the symbiotic algae that corals depend on for food – has been linked to warming waters. Some corals, however, have higher tolerance for elevated temperatures, although until now no one understood why some adapted differently than others.



Profit crunch for Rolls-Royce

Exposure to the crumbling offshore markets has led Rolls-Royce to downgrade its marine profit expectations for 2015 and 2016 by about £85 million in both years.

“Further deterioration in the offshore market is now expected to impact full year profit for marine,” the company said in a statement that also spoke about its aerospace activities. “We now expect our marine underlying profit to be between break even

and £40 million, compared to previous guidance of between £90 million and £120 million. We are reviewing further cost-reduction and restructuring activities to improve performance, which, including asset impairments, is expected to result in an exceptional charge of £70 million to £100 million that will be recognised outside underlying profit.”

The company believes that initiatives to reduce cost and

increase focus within the marine and power systems businesses should help drive good performance improvements and support a growing profit contribution from its Land & Sea division.

“Our marine business needs to ... rebuild a consistent trend of improving revenues and margins. Our immediate priority is to find the performance improvements needed to deliver these goals,” chief executive Warren East said.



Indian ambitions

The Indian Register of Shipping (IRClass) is seeking to expand its footprint in the industry by ramping up its offshore business, bolstering its competency in LNG and fostering opportunities in renewables.

It was decided at a high-level meeting to expand its services for the offshore segment, *The Marine Professional* can exclusively reveal. “We have formed an offshore cell at our head office that will be charged with streamlining our services in the sector,” said chairman and MD Arun Sharma. IRClass already has rules for single-point mooring buoys (SPMs), mobile offshore drilling units (MODUs) and mobile offshore production units (MOPUs) and is currently developing rules that cover FPSOs. It has some experience of complex conversion project (such as MODU-to-MOPU and PSV-to-well stimulation vessels) under its belt.

Furthermore its ambitions are not limited to offshore. The society has declared renewables and LNG as target segments. It recently established a renewable energy inspection unit, which it is actively expanding in the domestic market. IRClass has three LNG vessels under dual class and wants to develop technical competency and expand its service portfolio.

Elsewhere, it is revamping its online customer applications. Over the past year, it has increased customer interaction through many channels, including seminars, meetings with yards and ship managers and by establishing advisory committees.

Sharma commented: “We are aggressively expanding geographically. We have recently received an honorary membership of Association of Singapore Maritime Industries (ASMI) and are seeking recognition from the EU - we have already undergone the necessary audits.”