

Pioneer fish could save coral reefs

The genetics of colourful coral fish may help researchers identify species that could help re-colonise reefs damaged by global warming.

Gorgeously-hued fish, which throng Australia's coral reefs, help it earn Australian \$5 billion a year from tourism.

Of particular importance may be to protect pioneer fish populations which are able to re-colonise regions of reef devastated by global warming, said Line Bay of Australian Institute of Marine Science (AIMS) Centre of Excellence in Coral Reef Studies, James Cook University (JCU).

Bay and her colleagues Julian Caley of AIMS and Ross Crozier of JCU have been studying the relationships among fishes across the Great Barrier Reef (GBR) using genetic means to establish which populations are long-established and which seem to come and go in a pattern of local extinction and re-colonisation.

By studying the mitochondrial DNA of spiny damselfish collected from 15 reefs along three lines across the north, middle and south of the GBR, the researchers have been able to build up a 'history' of the damselfish's population, according to a release of Australian Research Council.

Bay said these fish populations that come and go at the edge of the GBR may represent the sort of natural pioneering that goes on at reef margins normally: however in times of extreme change such as global warming and acidifying oceans they take on fresh significance.

'If we can understand how reefs are connected, in terms of their fish populations, we can make sure we take steps to protect the ones which supply the pioneers who resettle devastated or maybe new coral areas if corals move in response to warmer water and changed conditions,' said Bay.

(© IANS / India eNews)