

UMS team aiming for Red Tide success

By **DANNY BOON**

KOTA KINABALU, Sun. - A Universiti Malaysia Sabah research team is trying to determine the contributing factors of Red Tide or "Harmful Algal Blooms" which have become an increasing problem in Sabah waters with human and economic losses.

Led by Assoc. Prof. Dr Ann Anton from the School of Science and Technology, the team hopes to come up with methods to control its bloom and possibly predict its occurrence.

The research team is presently culturing live cells of the harmful algae in the laboratory and testing them with nutrients and vitamins, among others, to study their growth and generation.

On when the researchers expect to reach a certain result, Dr Ann said a breakthrough is unpredictable but hoped it would materialise "the sooner the better."

The UMS studies, which would complement efforts by the Sabah Fisheries and Health departments which also monitor fish and shellfish for toxin levels, is aimed at identifying the factors which trigger an algal bloom before the accumulation of toxins in shellfish and certain types of fish.

According to Dr Ann, it is still too early to say what are the contributing factors which support the sudden and rapid bloom of the harmful algae known as *Pyrodinium bahamense* var

compressum which produces neurotoxin that affects the nervous systems of all vertebrates.

"We are testing several factors consecutively. At this stage, the results are not conclusive," she said adding the factors which cause the harmful algal bloom could also be a whole multitude of parameters.

The team which started the studies since early this year had been going to sea at Gaya and Sepangar islands and Kuala Penyu once a month to collect water samples to monitor its quality.

It had also been going out every week since reports on a Red Tide outbreak earlier this month.

The research also focusses on a number of theories which are reported to cause the harmful algal blooms in other parts of the world, among them being Eutrophication, or the increase in plant nutrients which favours algal growth in which is often related to an increase in pollution.

Other factors include the patterns of current movements of landmasses (hydrodynamics), where these algae while in cyst forms can be transported to the surface to bloom, the transport of harmful species in ships' ballast water or with the transfer of shellfish between regions and continents.

Dr Ann said understanding how the mechanisms contribute to the rise in the harmful algae population at sea would serve as an early warning signal to the onset of a Red Tide event.

Please See Page 2 Col. 3