

Research vessel hones in on Namibia's secrets

• MAGGI BARNARD

THE first four months of research on the region's marine environment, conducted from the German vessel, the Alexander von Humboldt, has proved successful and resulted in some new discoveries.

The vessel, connected to the Baltic Sea Research Institute-Warnemünde at the University of Rostock in Germany, has carried out extensive research on the Benguela current and the tropical waters off Angola since January.

More than 100 scientists from Germany, Namibia, South Africa and Angola will take part in the nine legs of the six-month research cruise.

Professor Bodo von Bodungen, Director of the Baltic Sea Research Institute (IOW), told *The Namibian* the research cruise had been excellent so far. "It could not have been better. We got all the data we wanted and found new things," he said on leg seven, which was a short cruise from Cape Town to Walvis Bay at the end of April. Two journalists were invited to join the 700-nautical mile trip.

Von Bodungen said before any research results and new discoveries could be made known, the data

had to be analysed and evaluated. The aim is to present the results at a symposium.

The professor said the final data would also determine whether a follow-up cruise would be organised.

The focus is on environmental-ecological issues identified by two national programmes, the Benguela Environment Fisheries Interaction & Training Programme (Benefit) and the Benguela Current Large Marine Ecosystem (BCLME), as well as from results of previous cruises in support of fisheries research.

The first three months were mostly spent studying the central topic of the whole voyage - the mud belt off the Namibian coast which causes sulphur eruptions.

"This is a unique occurrence and has never before been studied so intensively," said Von Bodungen. Studies conducted from January to April looked at the biology, chemistry and geophysics of the phenomenon.

He said detailed studies had been conducted but that the story was not yet complete. "We must still find the trigger of the eruptions," he said.

"We know the distribu-

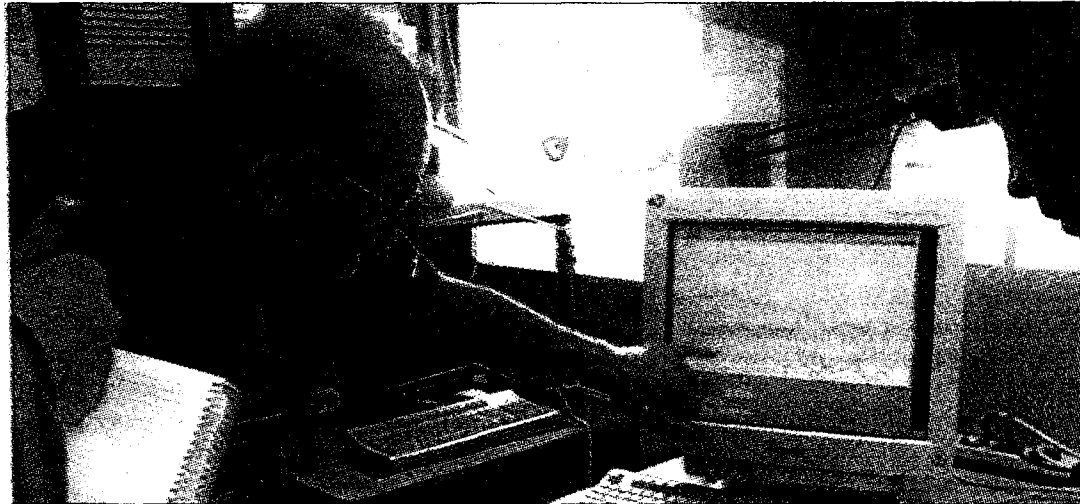


Photo: Maggi Barnard

STATE-OF-THE-ART ... Despite its age, the Alexander von Humboldt (built in 1967) has all the latest technology and modern equipment needed for marine research. Above Professor Bodo von Bodungen explains the workings of

tion, size, processes and organisms involved."

Once they had established the trigger, scientists would be able to predict when eruptions would take place, he said.

According to Von Bodungen, these predictions would be like weather forecasts - nothing better. The ability to predict the sulphur eruptions will be beneficial to the fishing industry.

"It would be possible to forewarn... of a bad year," said Von Bodungen. Ear-

lier studies concluded that the eruptions have a major impact on fish resources.

Another study conducted on the short cruise from Cape Town looked at the distribution of foraminifera, a special group of animals.

Jan Bertholdy of the University of Bonn said these animals were found in different shapes of shells, which are mostly found in rocks and are resistant to weathering.

"Foraminifera are very important in geology as

the thermosalinograph, which is a constant flow-through system to measure surface properties of sea water, such as temperature, salinity, humidity and chlorofil. The data is available on a constant basis.

they help to date rocks and provide other information," he noted. He said the oil industry was particularly interested in these studies.

There are two types of foraminifera - floating ones called planktonic and those found in the sediment, or attached to plants, called benthonic, which Bertholdy is studying. He said he found the southern African coast very interesting because of its different types of environment. It is the first time a study of this nature

has been carried out.

He is taking samples of sediment along the coast to eventually create a map of distribution of foraminifera.

One of the other main objects of the voyage is to provide on-the-job training and technical training. Von Bodungen said the region has very good young scientists but they lack the skill of organising and managing science.

"They did not get any training in running the infrastructure." He said training on board the Von

Humboldt focused on this aspect to enable scientists to run ongoing projects.

It took three years to get the Alexander von Humboldt to the region for an extended period. Funding was obtained from the Ministry of Education of the state Mecklenburg-Vorpommern, the federal Ministry of Science and Technology of Germany, the Max Planck Institute for Marine Microbiology Bremen, the University of Hamburg, the Baltic Sea Research Institute-Warnemünde, and from Benefit and BCLME.

From Namibia's side, 17 students, researchers and scientists have taken part in different legs of the voyage. They came from the University of Namibia, the research institutes of the Ministry of Fisheries and Marine Resources at Swakopmund and Lüderitz and one from De Beers Marine.

With 12 female scientists taking part, Namibia boasted the most women of any country. In total 38 women (35%) out of 108 scientists will take part in the research cruise.

Von Bodungen said the world of marine science was becoming more equal, especially since women had been allowed to join research cruises.