Top scientists asses big hake fisheries

SEVEN of the world's leaders in fisheries science spent five days in Cape Town last month critically reviewing the science behind the management of the South African and Namibian hake fisheries.

Up to 400,000 tons of hake are landed in South Africa and Namibia every year to provide thousands of jobs and important foreign exchange earnings. However, both countries are currently experiencing poor hake catches.

The week-long scientific workshop was sponsored by the regional scientific programme BENEFIT, the Benguela Current Large Marine Ecosystem Programme and South Africa's National Research Foundation.

It was attended by scientists, managers, students, representatives of the South African and Namibian hake fishing industries, also a member of the South African parliament.

Invited scientists were Drs James Ianelli, Joseph Powers and Andre Punt from the USA; Drs Robin Cook and John Pope from the UK; Dr Tore Strømme from Norway; and Dr Tony Smith from Australia. Tony Smith chaired the meeting organised by South African stock assessment expert Professor Doug Butterworth.

The workshop reviewed every step of the stock assessment process – from data inputs through to models and management procedures – to make recommendations for future research.

Many fishing industry representatives attending the workshop were concerned about the region's downturn in hake stocks.

Namibia's hake fishing industry has been hard hit by poor catch rates and a high proportion of juvenile fish in landings. In South Africa, stock assessments have suggested that the total allowable catch (TAC) is too high.

Although two quota cuts of 3000 tons each have been implemented in South Africa, scientists say that a further 3000 ton cut will have to be made in 2005. Even then, catches may be too high in the short term, but will probably stabilise in the medium- to long-term.

Weaker than normal cohorts entering the fishery in the late 1990s are being blamed for the problem.

South Africa's situation is complicated as scientists believe that there is too much fishing pressure on the shallow water hake *Merluccius capensis*. This species is targeted by small boat handline fishermen, longliners, 30 metre inshore trawlers and 45 to 70 metre deepsea trawlers. In contrast, the deepsea hake *Merluccius paradoxus* is landed primarily by deepsea trawlers.

The relationship between the line and trawl fisheries was one of the most important themes to emerge from

Concern over Namibia's small f

SCIENTISTS at Cape Town's hake workshop expressed concern about Nambia's hake stocks, but the situation in Namibia appears to be more serious than the scientists are saying.

Late in January, Hangana Seafoods, one of the biggest hake fishing companies in Namibia, announced plans to retrench 199 workers, approximately one third of its workforce.

Workers at other factories have also demonstrated against, what they say, are plans by other hake fishing companies to retrench up to 1500 workers.

Now, a manager of a large fishing company has expressed his concerns about the hake fishery to *FNI*.

"I am very worried about the hake stock," says the manager, who asks to remain anonymous.

One of his main concerns centres on the number of small fish that have been landed by the Namibian fishing industry in the past two seasons:

"There are huge catches of juvenile fish, and it looks like nobody is reacting. Most of the big freezer vessels are fishing in an area outside Lüderitz, where up to 80% of the fish are juveniles, which means fish under 36cm total length...it is very difficult for me to understand how these people are thinking, but they are completely undercutting their own and our future," he says.

A box of hake. Namibia is now struggling to catch larger sizes.

ntists assess fisheries

trawling has not been properly investigated and he is increasingly concerned about growing conflict between longliners and trawlers off the south coast.

"When longlining was introduced, it was assumed that it would extend the trawling grounds because the longliners would fish on rough ground. But this hasn't happened," he says.

Instead, longliners have moved off the rough grounds and onto the trawling grounds, causing conflict between fishermen and potentially threatening the stability of south coast hake stocks.

"There are too many boats in a small area. For longlining and trawling to be conducted in the same area is illogical," he maintains.

Longliners catch predominantly sexually mature female hake, while trawlers generally catch every size and sex.

"From a management perspective, the workshop raised a lot of questions around the inter-relationship between the longline and trawl industries but, now, we need to see some action," says Tim Reddell.

Another major theme to emerge from the workshop is the question of how many hake stocks are fished off South Africa and Namibia.

Scientists have always believed that there are separate stocks of shallow water hake on the west and south coasts, and that the Namibian and South African stocks of deep-water hake are separated by the Orange River.

However, workshop participants agreed that it is more likely that there is a single stock of shallow-water hake and a single deep-water hake stock off South Africa. Also, there are indications that there may be greater overlaps in the deep-water hake stocks off Namibia and South Africa than originally thought.

If this is true, then there would be important implications for future TAC sharing arrangements. This issue that is already being tackled by the regional Benguela Current Large Marine Ecosystem (BCLME) Programme.

One of its most important objectives is to set up a regional authority to advise on the transboundary management of shared stocks.

The workshop recommended that scientists continue to work with population geneticists to determine the exact relationship between hake caught on either side of the Orange River.

Namibia's small fish

Namibia is now struggling to zes.

extremely low. As a result, the hake taken from Namibian waters is traded at almost no value.

According to the source, one important factor that the scientists may not have taken into account is the growth of catch effort in the Namibian hake fishery.

"According to our skippers, (catch effort) has more than doubled over the past four years. The number of big freezer vessels has increased and the towing power of each vessel is much more than that of the older (vessels in the fleet)," he says.

Furthermore, many fishing companies have started fishing with high lift nets that allow them to catch fish up to 25 metres above the sea bed.

The source says that one of the main reasons why effort has increased is because fishing companies are penalised by the ministry if they don't land their full quotas.

"If this happens for more than three years, then the company's quota will be reduced in the fourth year," he explains.