



Krill Industry Report Number 5

Antarctic and Southern Ocean Coalition

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The Krill Industry Report provides reports, information and commentaries on the Antarctic krill industry.

CCAMLR Takes Action on Krill

The management of Antarctic krill fisheries occupied a major part of the recent meeting of the Antarctic marine management organisation (Commission for the Conservation of Antarctic Marine Living Resources or CCAMLR) in Hobart.

Delegates at the meeting agreed to a range of new measures to control fishing for krill in various areas of the Antarctic. These measures include:

- Strengthening the reporting measures in all krill fisheries to ensure that catch limits are not exceeded – this involves a requirement for 10-day reporting once 80 percent of any catch limit is reached.
- Reducing the combined catch limit for area 48 to 3.47 million tonnes and limiting it to areas 48.1 to 48.4.
- Making it clear that the trigger level of 620,000 tonnes for areas 48.1 to 48.4 cannot be exceeded until the combined catch limit is sub-divided among small-scale management units, thus making the trigger level an effective catch limit.
- Requiring greater research and management prior to any developed krill fishery in the Ross Sea (area 88) and a large area South of South Africa (area 48.6).
- Requiring 100% observer coverage in any krill fishery south of Australia and establishing trigger levels for the fishery in this area.
- Revising the notification procedure to require vessels to be flagged to the country at the time of notification – four months prior to the Commission Meeting.

The delegates at the meeting also agreed to a process which should lead to the subdivision of krill catches for some key fishing areas into small-scale management units next year, to protect krill predators, especially penguins and seals.

Who Is Behind the Cook Islands Proposal?

The proposal for seven vessels to go krill fishing from the Cook Islands came as a surprise to CCAMLR watchers. At the CCAMLR meeting Cook's representatives indicated on the last day that they were withdrawing the proposal in view of concerns expressed by CCAMLR Members.

The beneficial owner behind the proposals is Nico Parlevliet in the Netherlands and he is likely to be back for the 2009 fishing year.

The proposal was to use the *Antares*, *Antares II*, *Kiel*, *Marlin II*, *San Liberatore*, *Sunnuberg*, and *Weisbaden*. The *Antares* and *Antares II* are currently 174-meter long tankers that need to be converted to trawlers. The *Sunnuberg* is a purse seine vessel, which would need to be converted, and the other four vessels are stern trawlers.

The proposal was controversial at CCAMLR principally because the operator proposed to catch krill by pair trawling. Pair trawling has not been used in CCAMLR waters and has been associated with high levels of dolphin by-catch in other fisheries.

Many CCAMLR parties took the view that this proposal should be treated as a new or developing fishery, which required more scrutiny by the Scientific Committee and its working groups.

Nico Parlevliet is associated with the major Netherlands fishing operator Parlevliet & Van der Plas, which focuses on pelagic fisheries. Parlevliet & Van der Plas has vessels flagged to a range of countries including the Netherlands, Germany and Norway. The company is part of the major Pelagic Freezer Trawler Association (PFA), which has members and subsidiaries in the Netherlands, UK, France and Germany.

Parlevliet & Van der Plas employs over 800 people and has 100% fishing rights for pelagic species harvested in German waters in the Baltic Sea. The products from the Baltic include semi-finished herring, sprats, codfish, and flounder. Sales from this company also include redfish, pollock and Greenland halibut.

In March 2007 Parlevliet & Van der Plas purchased its largest trawler, the 144-metre *Atlantic Dawn*. This vessel is primarily being used to catch jack mackerel off the Chilean Coast.

Vanuatu Withdraws from Krill Fishing for this Year

At the CCAMLR meeting Vanuatu representatives announced they were withdrawing their notifications to fish for krill with four vessels (80,000 tonnes expected catch), but they indicated that they are likely to notify of their intent to fish for krill next year.

Another Norwegian Company Gears Up for Krill Fishing

A second Norwegian company is gearing up to fish for krill. Krill Seaproducts is converting a 132-meter container vessel (the 8-year-old *Vlieborg*) to a krill trawler. The refurbishment is starting soon in Lithuania. The vessel is to be renamed the *Thorshøvdi*.

Krill Seaproducts expects the vessel to catch around 100,000 tonnes of krill annually beginning in April 2008. With its new

configuration, this vessel is expected to catch about 1000 tonnes per day of krill product, leading to production of approximately 300 tonnes of product in a modern on-board processing plant.

Krill Seaproducts is owned by five companies – T Remoy holds 28.57%, E T Remoy 28.57%, Spencer Energy AS, 23.81%, G A Jensen 14.29% and Remoy Management AS 4.76%.

Aker BioMarine Converting Second Krill Trawler

A Norwegian company, Aker BioMarine, is converting the trawler *Atlantic Navigator* into a factory for harvesting and processing claimed health-promoting ingredients from krill. Aker proposes to use the vessel as a research tool to develop high-value krill meal, branded product Qrill, and production of krill oil.

The *Atlantic Navigator* is to be lengthened to 121 meters and renamed the *Antarctic Navigator* as part of the refit. It is being designed to produce 12,000 tonnes of krill annually. Aker estimates that in 2009 it will be producing about 20,000 tonnes of krill meal.

This vessel has been used previously by Aker to fish for krill when flagged to Vanuatu. Aker currently is fishing for krill using the factory trawler the *Saga Sea*.

Aker aims to increase efficiencies in krill conversion, by producing greater tonnages of krill meal and krill oil using its patented continuous trawl harvesting system. It is proposing to introduce new boiling technology to extract a larger proportion of the krill's bioactive components, and thus significantly increase the value of the krill meal.

The final production of krill oil is to take place in onshore facilities. Aker has already developed a dietary supplement from krill oil that contains high concentrations of phospholipids, Omega 3, and the antioxidant

astaxanthin. Aker proposes to introduce in March 2008 its own branded krill-derived dietary supplement for nutraceutical, functional foods, and other health-related markets.

Consumer Watchdog Reviews Omega 3 Claims

The UK Consumer Watchdog *Which?* has raised concern that some food companies are failing to distinguish between different types of Omega 3 which have different potential health benefits: ALA (alpha-linolenic acid), DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid).

Many benefits have been associated with the consumption of fish oils, including enhanced immunity, improved bone, joint and eye health, and better brain function. Benefits also have been suggested to mental health.

Two of the types (EPA and DHA) are obtained from marine species. In addition DHA can also be derived from microalgae. ALA is obtained from land plants such as flaxseed.

The November edition of *Which?* argues that more information is needed on labels to inform the consumer.

Food Companies Promote Omega 3 Oils

A number of food companies have been looking to add the benefits of Omega 3 to their products. For example, in the UK Premier Foods has brought out a line of enhanced baked beans and Dairy Crest is due to launch a modified spread.

Currently the European Omega 3 market is estimated to be worth around US\$234 million and is projected to grow at 8 per cent a year until 2010.

Krill Oil Tie-Up

Dedicated US krill oil distributor Azantis has entered into a distribution agreement with Israeli-based krill oil producer Enzymotec. Under the agreement Enzymotec's krill oil will be promoted in the United States.

The cooperation is aimed at expanding the US krill oil market by presenting a better alternative to Omega 3 fish oil users.

Krill oil by Enzymotec is a proprietary complex of marine-derived DHA and EPA. It also contains a significant amount of astaxanthin, a marine-derived anti-oxidant.

Aker Buys Into New Zealand and French Companies

Aker BioMarine has signed krill oil extraction agreements with Nutrizeal Ltd in New Zealand and Naturex SA in France.

The agreement with Nutrizeal covers the extraction of krill oil from krill meal using a process which extracts high concentrations of marine phospholipids, Omega 3 and the antioxidant astaxanthin.

As part of the agreement Aker receives an option to acquire 35% of the shares of Nutrizeal for about US\$3.5 million. Nutrizeal is based near New Zealand's largest fishing port in Nelson.

The agreement with Naturex covers the extraction of krill oil from krill meal using a different production process than that of Nutrizeal.

Disclaimer: The material in this newsletter is intended to assist people in understanding the nature of the krill industry. While we try to ensure that information is accurate and up to date, the Antarctic and Southern Ocean Coalition gives no warranty as to its accuracy.

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