BEIJING -- Scientists studying the Antarctic's marine life received some unexpected news this month: China plans to vastly increase fishing for Antarctic krill -- small crustaceans that are a critical food for the continent's penguins and other creatures.

China currently harvests about 32,000 metric tons of krill annually from Antarctica's waters, topped by only Norway and South Korea. Under China's plans, detailed in a March 4 story in the state-run China Daily, the world's most populous country would increase those catches 30 to 60 times, harvesting up to 2 million metric tons yearly.

Rodolfo Werner, a marine scientist and adviser to Antarctic conservation groups, said he doubts China can ramp up its catches to that level. But the fact that China has announced such ambitious plans worries him, partly because other countries might follow suit.

"I'm concerned -- very concerned," said Werner in a telephone interview from his home in San Carlos de Bariloche, Argentina. "If they invest big money in their fishing fleets, it will push the system to relax the current (Antarctic) catch limits."

Beijing's fishing plans are part of its larger strategic interests in the frozen continent. Over the last three decades, China has built four research stations in Antarctica and is preparing to build a fifth. While an international treaty protects Antarctica from militarization and mining, the Chinese research stations have fueled speculation that China has long-term plans to exploit the continent's vast energy and mineral resources.

With a population of nearly 1.4 billion, China is highly concerned about food security, and, like other countries, it harvests krill for a variety of products. These include livestock and aquaculture feed, fish bait and omega-3 dietary supplements. Norway is the world's largest harvester of Antarctic krill, largely to supply the supplements industry with omega-3 fatty acids.

Worldwide, huge swarms of krill help feed whales, penguins and other marine animals. Antarctic krill are small creatures -- about 2 inches long -- but incredibly abundant. Scientists believe that the total weight of Antarctic krill is greater than the cumulative weight of any other animal species.

Despite that abundance, many conservationists are concerned that the Antarctic's food chain is already being harmed by industrial krill fishing. Populations of Adelie and chinstrap penguins have declined more than 50 percent in the West Antarctic Peninsula in the last 30 years, and at least one study has linked the decline to a reduction in krill.

Complicating the debate is global climate change. According to the Pew Charitable Trusts, which operates a program to protect penguins, temperatures around the Antarctic Peninsula -- the area closest to South America's southern tip -- are rising faster than anywhere on Earth. The decline of ice sheets may be reducing krill abundance, since krill get much of their winter food from the under the ice.

"The area is changing. Something is happening," said Werner, who serves as senior adviser to the Antarctic and Southern Ocean Coalition, a group of conservation organizations. "That's why, whatever we do with krill fishing, we need to be very careful."

China's fishing plans were announced in Beijing by Liu Shenli, chairman of a state-owned Chinese industry, the National Agricultural Development Group. The group has been described as China's largest agricultural development enterprise. So far it has processed 20,000 metric tons of krill products, according to official figures.
he said the National Agricultural Development Group was investing heavily in krill fishing and processing, with his largest fishing boat costing more than $100 million.

"Krill provides very good quality protein that can be processed into food and medicine," China Daily quoted Liu as saying. "The Antarctic is a treasure house for all human beings, and China should go there and share."

For China to ramp up its krill harvests, it would have to get approval from the Commission for the Conservation of Antarctic Marine Living Resources. The commission was formed in 1982 following two decades of unregulated krill fishing in the Antarctic, mainly by the former Soviet Union. The commission remains controversial, partly because its voting membership is made up of countries with a financial interest in commercializing krill.

Conservationists have been pushing the commission to require more observers on krill fishing vessels and to restrict fishing near penguin foraging areas, such as the Antarctic Peninsula. But China and some other countries with krill fleets have balked at such proposals, Werner said.

Andrea Kavanagh, director of the global penguin conservation campaign for the Pew Charitable Trusts, said the commission too often acts as a fisheries management agency, instead of one under a mandate to conserve marine life. The commission, she said, has yet to confront and address the causes of declining penguin populations in the Antarctic Peninsula.

"Scientists are the first to say they have no idea what is causing the decline of these penguin species," she said in an email exchange. "So a question that needs to be asked is ... why does CCAMLR still allow the fishery to operate so close to the peninsula?"

Krant fishing fleets range from traditional trawlers to more modern vessels that literally vacuum krill from the ocean and process the catch on board. China currently has eight boats in use; it would have to greatly increase its fleet to increase its catches to 2 million metric tons yearly.

That's about seven times the Antarctic krill currently harvested by all nations annually.

China krill hunts do not come without risks. In 2013, a Chinese krill fishing vessel -- the "Kai Xin" - caught fire and sank off the coast of Antarctica. A Norwegian vessel in the area rescued its crew of 97.

Source URL: http://www.adn.com/article/20150323/china-fishing-plan-antarctica-alarms-scientists