SYDNEY, Australia — International talks in Australia on establishing two marine reserve areas, each larger than Texas, in the waters around Antarctica ended in failure on Friday, with some delegates to the negotiations saying that China and Russia had resisted the proposals.

The United States and New Zealand had jointly proposed the creation of a 500,000-square-mile reserve in the Ross Sea, in the hopes of alleviating pressure on Antarctic species facing the effects of climate change and fishing. A second major proposal, from Australia, France and the European Union, would have set up a series of four reserves in the east Antarctic waters, covering about 386,000 square miles.

But neither was approved at the annual meeting of the Commission for the Conservation of Antarctic Marine Living Resources, which ended Friday in the Australian city of Hobart after two weeks of talks among government officials, scientists and environmentalists from 24 countries and the European Union.

Any one of the commission’s member states can block a major proposal like the creation of a marine reserve. The commission does not make its deliberations public, but several nonvoting delegates from nongovernmental organizations said China and Russia were the only countries to speak against the two proposals, both of which have been presented before in various iterations.

“The overall political situation, where Russia is in a political confrontation with other countries, mainly Western or NATO countries, overshadows negotiations” at international forums like the marine commission, said Grigory Tsidulko, a Russian member of the nongovernmental organization Antarctic Ocean Alliance, who attended the talks.

Jiliang Chen of the Chinese nongovernmental organization Greenovation Hub said that China’s official delegation was reluctant to make long-term decisions about large-scale marine reserves, particularly given ambitions to expand the country’s fishing fleet.
“But change is happening in China,” Mr. Chen said. “National policies are moving towards environmental protection. Good things are happening domestically so I hope we can, in future, contribute more to the conservation of the Antarctic.”

Evan Bloom of the United States State Department, who led the American delegation, said the ecosystem in the proposed Ross Sea reserve “deserves protection because it hosts large populations of penguins, seals, whales, fishes and other animals that are vulnerable to climate change, in a unique location.” The New Zealand delegation said the Ross Sea, one of the most pristine natural regions in the world, is home to almost a third of the world’s Adélie penguins and Antarctic petrels.

Scientists have warned that sections of the Antarctic are warming more rapidly than other parts of the globe, resulting in ocean acidification and the degradation of sea ice. “Cold waters absorb more carbon dioxide,” said Bob Zuur, a delegate to the talks from WWF. “A lot of animals and plants, especially animals like krill, suffer as acidity levels rise.”

“Krill is the lifeblood of the ocean,” Mr. Zuur added. “It supports the biodiversity in the Southern Ocean, from huge whales to tiny petrels to seals and penguins.”

Mark Epstein, a delegate from the Antarctic and Southern Ocean Coalition, said it was clear from the meetings that the vast majority of delegates supported marine reserves. “That’s very positive,” he said. “There have been substantive conversations around how marine protected areas should function. But we need a game-change moment to get us through this impasse.”