Marine Conservation Biology Institute

William Chandler, Vice President for Government Affairs February 24, 2011

Marine Conservation Biology Institute's Comments to the US Coral Reef Task Force Meeting

Degrading Shipwrecks Devastating Coral Reefs in the Pacific Remote Islands Marine National Monument

US Coral Reef Task Force chairs, members, and fellow participants,

My name in Bill Chandler and I am the Vice President for Government Affairs at Marine Conservation Biology Institute. MCBI is a global leader in the fight to protect vast areas of the ocean. We use science to identify places in peril and advocate for bountiful, healthy oceans for us and future generations. I am here today to update you on a serious problem affecting some of our nation's most pristine coral reefs.

At the 2009 US Coral Reef Task Force meeting in San Juan, the Task Force was briefed on marine debris impacts on coral. One impact comes from abandoned derelict vessels. As mentioned in the 2009 presentation, two shipwrecks located within the Pacific Remote Islands Marine National Monument, one at Palmyra Atoll and one at Kingman reef, are causing an ecosystem "phase shift" within the monument's reefs resulting in the destruction of hundreds of acres of corals.

I am here today to give you an update on these wrecks. As you will recall, a 121-foot Taiwanese fishing boat sank on Palmyra Atoll in 1991 and an 85-foot fishing vessel was discovered on Kingman Reef in August 2007. In addition to the initial harm to the reef from the groundings of each wreck, other problems have developed. These include the growth of the corallimorph, *Rhodactis howesii*, a sea anemone-like animal, and macroalgae; the proliferation of both is being stimulated by the breakdown of the ships' degrading iron parts.

At least 250 acres of coral habitat at Palmyra Atoll has been killed so far, and scientists report that the invasion continues at a rapid pace. The more recent wreck at Kingman Reef is not only exacerbating the growth of the corallimorph, but also a macroalgae outbreak - both within 200 meters of the ship.

We recognize that in the past there has been some discussion about the cause behind the expansion of these nuisance species. As I previously mentioned, scientists are concerned that the introduced iron is causing an ecosystem "phase shift". First, the iron provides for the establishment of a microbial community around the wreck, which has caused the coralline algae community normally established there to change to a macroalgae dominated community. The

macroalgae then overwhelms the living coral, and kills it. This allows corallimorph organisms to establish themselves and invade corals beyond the areas killed by the macroalgae.

It is believed that the nuisance community at the Kingman reef is at an early stage, whereas the Palmyra community is at a later stage of succession. Fanning Atoll (also known as Tabuaeran), a territory of the Republic of Kiribati, likely experienced a similar problem forty years ago. A tenth of the Fanning reef was destroyed.

In order to stop reef degradation, the shipwrecks must be removed immediately. Both wrecks lie within areas managed by the US Fish and Wildlife Service under Proclamation 8336 and other laws. Because the wrecks pose a clear threat to the biological integrity of Kingman Reef and Palmyra Atoll, it is incumbent upon the US Fish and Wildlife Service to remove them. The problem has festered for years; meanwhile corals continue to die.

It's time for the US Fish and Wildlife Service to get these wrecks out. They did it in Rose Atoll and they can do it again. Resources will have to be provided of course, but if the monument proclamations are to mean anything, clear and present threats like these must be dealt with.

We have explored solutions with the US Fish and Wildlife Service and other agencies, but so far no progress has been made. MCBI requests the help of the Task Force to ensure the removal of these wrecks through the US Fish and Wildlife Service or as a collaborative effort among Task Force member agencies.

Thank you.