UC SANTA BARBARA

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SCIENTISTS PRESENT HISTORICAL VIEW OF OVERFISHING

Human-induced mass extinctions of ocean life may have begun to appear thousands of years ago and continued throughout our history according to the cover story of the July 27 issue of the journal Science, the result of a study convened by 19 scientists from many institutions at the National Center for Ecological Analysis and Synthesis (NCEAS) at the University of California, Santa Barbara.

"Ecological extinction caused by overfishing precedes all other pervasive human disturbance to coastal ecosystems, including pollution, degradation of water quality and anthropogenic climate change," begins the article. It describes many species, for example large sea turtles in the Caribbean "whose adult populations now number in the tens of thousands rather than the tens of millions of a few centuries ago." As one species is overfished the delicate balance between species and among food chains were changed.

"What became very apparent in all these historical sequences is that quite quickly, the big animals were effectively removed. We can only speculate on what these ecosystems looked like with an abundance of large animals present, but they must have been spectacular," said Robert Warner, professor of biology at the University of California, Santa Barbara.

He compared the overfishing to the recent study that implicates humans in the extinction of large animals on land in North America and Australia.

Regarding the current study he continued, "One of the important lessons of this study is that we can't restore ecosystems by simply reducing nutrient input or stopping pollution, or slowing global warming. We have removed whole groups of players from the stage, and any design for restoration must include plans to help these creatures play their proper roles."

The scientific article is laced with stunning images of oceans past. It states, "Place names or oysters, pearls and conches conjure up other ecological ghosts of marine invertebrates that were once so abundant as to pose hazards to navigation, but are witnessed now only by massive garbage heaps of empty shells."

Professor Warner can be reached via e-mail at: warner@lifesci.ucsb.edu. For a copy of the study call 202-326-6440 or contact scipak@aaas.org

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