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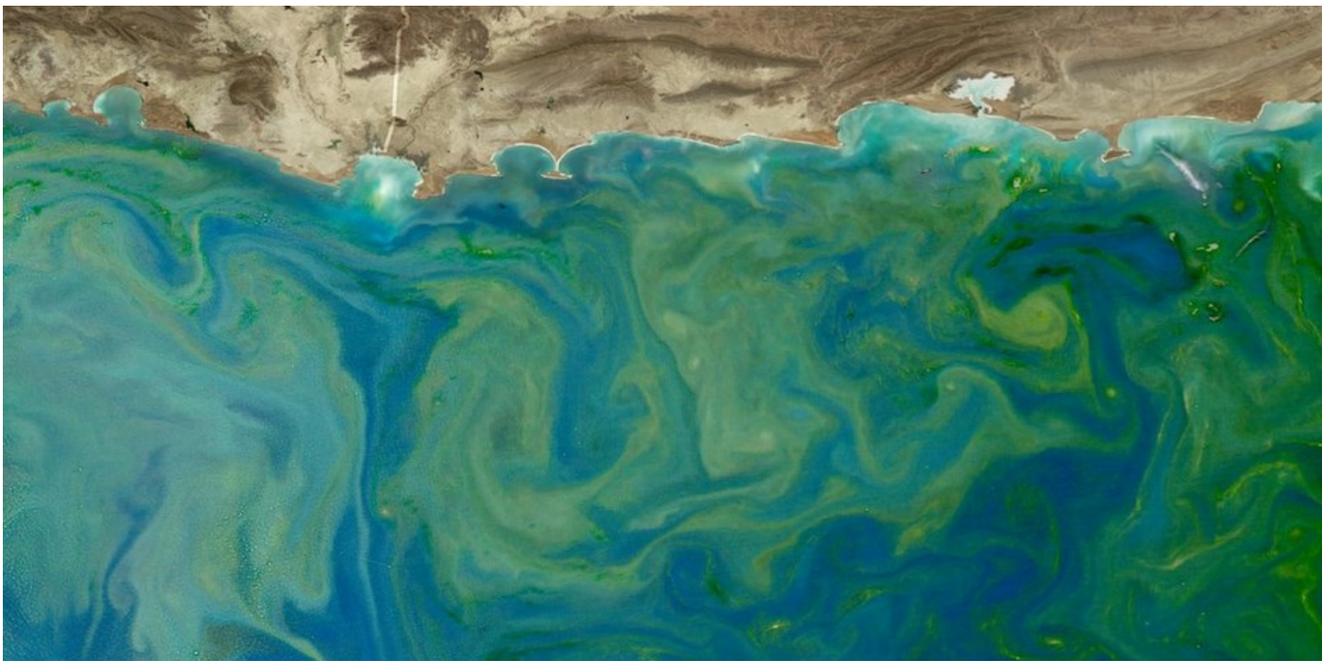
SCIENCE | OBSERVATORY

A Green Blanket on the Arabian Sea



By SINDYA N. BHANOO SEPT. 15, 2014

A winter bloom of phytoplankton is forming a thick carpet over an oxygen-starved dead zone in the northern Arabian Sea, a new study reports. Composed of tiny organisms called Noctiluca scintillans, the bloom thrives in low-oxygen conditions and colors the sea an emerald green each winter.

Because the phytoplankton bloom feeds on other plankton, its proliferation may change the food chain and disrupt the local fishing supply, researchers say.

The only creatures eating the blooms are sea salps and jellyfish, said Joaquim Goes, a biogeochemist at Columbia University and an author of the study. “In 10 to 15 years’ time I wouldn’t be surprised if we see jellyfish along the coast, and people may not be able to swim in the waters,” Dr. Goes said.

The researchers, who reported their findings in the journal Nature Communications, say the low oxygen levels in the sea may have several causes. In 2005 they reported that receding snow cover in the Himalaya-Tibetan plateau was making the Indian subcontinent hotter, strengthening the winds that blow toward India, bringing up more nutrients and ultimately reducing oxygen levels in the sea, he said.

Now, the researchers add, untreated sewage is adding nitrogen to the sea while depleting oxygen. That can be addressed, but the melting of the snowcaps is a more difficult issue.

“There’s very little we can do,” Dr. Goes said. “All the countries will have to reduce their carbon footprint.”

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