Editorial

The Titanic is being eaten

By: George Beetham 02/08/2006

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The ocean liner Titanic struck an iceberg on the night of April 14, 1912, and sank early the next day about 450 miles south-southeast of Cape Race, Newfoundland.

Of the 2,227 people onboard, 1,523 died and 705 were rescued.
The ship sank in 12,500 feet - two and a half miles - of water off the Grand Banks.
The wreckage was discovered during an underwater expedition led by Dr. Robert Ballard in 1985. In the 20 years since his discovery, scientific and salvage expeditions have continued.
Had the Titanic not sunk, it eventually would have been scrapped. Because it sank, the wreckage has been preserved all this time.
However, the wreck will not be preserved forever. It is slowly deteriorating, and deterioration will not only continue, but accelerate.
The deterioration, in fact, has a biologic cause.
The depth to which the ship sank helped preserve the wreckage all these years because it is an oxygen-poor region of the abyssal ocean floor.
There is no light at that depth. Photographs and videos of the wreckage depend on artificial lights carried aboard the deep sea submersibles that dive on the wreck.
But microbes are eating the steel of which the ocean liner was built.
Formations known as rusticles form on the ship's steel as the microbes eat away at the metal. Bronze fixtures of the ship are not affected by the microbes.
The process is normal. In fact, the Italian liner Andrea Doria, which sank off Nantucket in 1956, is being devoured at a faster rate than the Titanic.
The Andrea Doria sank in the shallower waters on the continental shelf, while Titanic sank off the continental shelf on the edge of the abyssal plain.
But the microbial action on the Titanic has accelerated, and therein lies a human concern.
Microbial activity increases when plankton - tiny microscopic creatures that swim in ocean currents and provide food for other species of marine animals - rain down on the wreck site from above.
This process was revealed by David Bright, president of Nautical Research Group,

Inc., of Flemington, N.J., in a lecture at Rutgers University on Jan. 28.
Bright dove on the Titanic wreck in the MIR submersible during an expedition aboard a Russian research vessel in 2003 and 2005.
He cited depletion of fish stocks in the Grand Banks waters as a likely reason for an increase in plankton raining down on the wreck site.
Instead of being eaten, the plankton die off and drift to the ocean floor, exciting the microbes and increasing their activity.
Between the two dives, Bright said deterioration was evident, including the collapse of the ship's main mast.
Structural collapses have also taken place, and Bright predicted that they will continue.
The Titanic was the world's largest ocean liner when it set off on its maiden and last voyage in 1912. The ship was considered unsinkable because it had been fitted with watertight doors that would close in a collision, thus limiting damage to one or several compartments.
Instead, water rose above the level of the watertight doors like water flowing in an ice cube tray, taking the ship down.
The ship not only split in two, but a section of the keel also fell away as the Titanic slipped below the waves.
The wreckage lay undiscovered for decades until Ballard's dive. As dives have continued, scientific research has been conducted, revealing the incredible story about the microbes that are devouring the steel of the ship, and how over-fishing is causing the process to accelerate.
Editor's Note: "The Titanic is being eaten" originally appeared as the editor's "Adventures on Earth" column in The Review and other newspapers of the Intercounty Newspaper Group in the Philadelphia Metropolitan Area.