

AN ANALYSIS OF WATER DESTRUCTIVE TO FISH IN THE GULF OF MEXICO.

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SIR: Having completed the examination of sea-waters from the Gulf of Mexico, so far as the scant supply would permit, I have the honor to offer the following report thereupon, the water in which the fish die being designated as A, the good water as B:

	A.	B.
Specific gravity	1.024	1.022
Solid constituents (total), per cent.....	4.0780	4.1095
Ferrie compounds, per cent.....	0.1106	0.0724
Injurious organic matter	ratio=3	ratio=2

I find that the water A contains a large quantity of *Algae* and *infusoria*. It is eminently probable that the former may have had an injurious effect upon the fish. Specimens of the *algae* have been submitted to Professor Goode, who will send them to some expert, in order that their specific character may be determined.

The "dead fish" in possession of the United States National Museum are such that any examination of the organs of respiration will be of no avail.

I cannot find, even by spectroscopic analysis, any mineral constituents in the water A which could noxiously affect the fish.

In my estimation the death of fish was caused by the more or less parasitic *algae*, which are found in large quantities in water A, but do not occur at all in water B.

In case the same phenomenon should recur, the presence of an expert in the questions involved, more particularly chemistry and botany, would most likely lead to definite results.

Respectfully,

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