**ENVIRONMENT**

Antidepressants present in Great Lakes’ fishes

*The drugs enter rivers and lakes from treatment plants and sewage overflows, threatening aquatic life.*

Wastewater from treatment plants are leaking into the Great Lakes and polluting fish.

This is mostly occurring in the Buffalo, New York area, in which fish are found to be carrying traces of chemicals that could alter their behavior. Diana Aga at University at Buffalo states that antidepressants can affect the feeding behavior of fish or their survival instincts.

Aga’s research team has found that every fish in the area had some trace of antidepressant within its system; most of the fishes had a “cocktail mixture” of more than 10 different types of antidepressants. However, Aga and her team has yet to test the effects that these chemicals will have on the fish’s behavior.

Many showed concerns about whether the infected fish would transfer harmful disease, but researchers at Buffalo have proven that biodiversity will be the main consequence if wastewater is not regulated.

Aga, Diana. “Antidepressants Found in Fish Brains in Great Lakes Region.” *University at Buffalo, The State University of New York*, 31 Aug. 2017, www.buffalo.edu/news/releases/2017/08/042.html.

**ASTRONOMY AND ASTROPHYSICS**

New theories about black holes in the early universe

*Ancient black holes could unlock the mysteries of how heavy elements, such as gold and uranium, were formed.*

UCLA physicists have suggested new theories about the role of black holes in the universe and how it may have played a role in developing life.

It has been long debated about whether black holes formed several seconds after the Big Bang occurred or if they formed only after the collapse of various stars. The UCLA research team consisting of Professor Alexander Kusenko and graduate student Eric Cotner suggests the former, after measuring the brightness of a distant star as black holes absorb light.

The pair proposed, from the above assumption, that these old black holes occasionally consume neutron stars (suns that have burned out) and “spit” out the materials that these planetary objects were composed of, such as gold and platinum, resulting in complex molecules.

The low probability of this event occurring explains the absence of heavier elements in surrounding galaxies, but this process may be how Earth and its minerals came to be.

Kusenko, Alexander. “Primordial Black Holes and How They May Have Formed Complex Minerals.” *UCLA*, UCLA, 1 Sept. 2017, newsroom.ucla.edu/releases/ucla-physicists-propose-new-theories-of-black-holes-from-the-very-early-universe.