

Baltic cataclysm

(August 2024)

Premise:

1. In September 2022, three out of four pipelines were punctured 90 meters deep in the Baltic Sea, and about 92.5% of their natural gas content was released to the atmosphere;
2. Since then, the release has been characterized by all parties as a **major** environmental disaster, probably the **worst** in history;
3. However, it can be calculated that a little less than **300,000** metric tons of methane was released from the pipelines to the atmosphere on that particular day;
4. If the recommended multiplier of **21** is used to calculate the carbon dioxide equivalent, the sudden release would therefore be equivalent to **6.3** million tons of carbon dioxide;
5. On the other hand, the daily release of carbon dioxide, including equivalents, is about **150** million tons ¹ (although the natural release of methane to the atmosphere through natural seepage is quite difficult to ascertain and is therefore unknown in reality);
6. The Baltic Sea methane release represented therefore less than **4.2%** of the daily release on the particular day of the incident, and less than **0.006%** since, or **one part in 17,000**.

Assignment:

- A. In which arithmetical way can the incident be characterized as a **major** environmental catastrophe?
- B. Please state the actual consequences of the catastrophe on the survival of the species since.

¹ For reference, the mass of the atmosphere is 5,100 trillion tons, a trillion being one million millions.