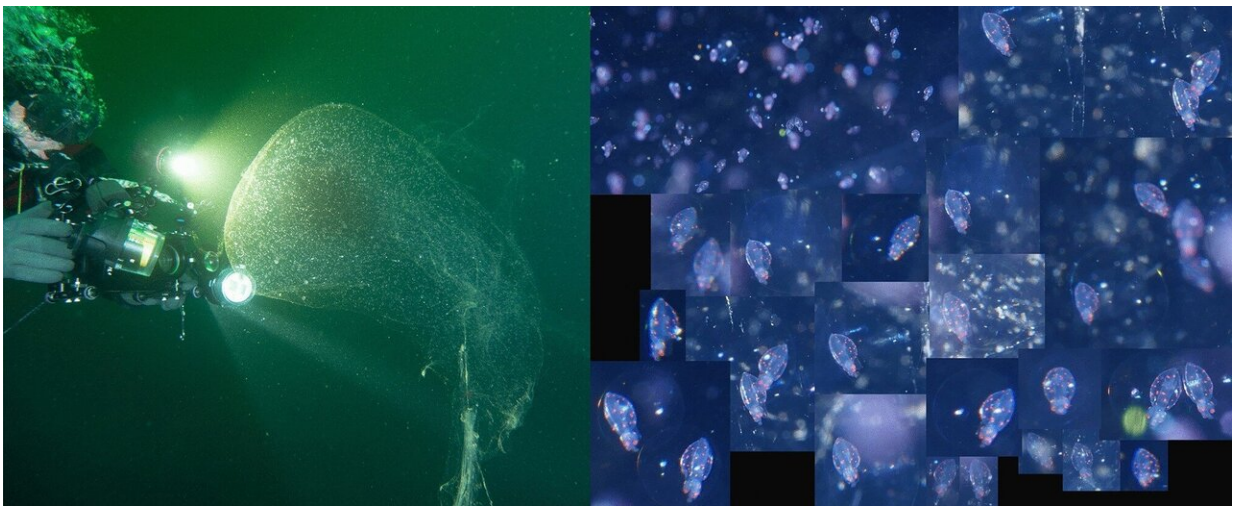
Mysterious blobs found off the coast of Norway identified as squid egg sacs

April 7 2021, by Bob Yirka



Whole sphere (deformed) with live embryos, photographed in situ from Kristiansand area (sphere observation 24.08.2019). Note the different orientation patterns of the embryos within the jelly envelope, with more or less all heads facing downwards. This sphere has not been genetically tested, but is high likely made by Illex coindetii. (Photo credits: Anita Eliassen (sphere) and Geir Eliassen (embryos)/Arendal undervannsklubb. Collage Halldis Ringvold/Sea Snack Norway). Credit: *Scientific Reports* (2021). DOI: 10.1038/s41598-021-86164-8

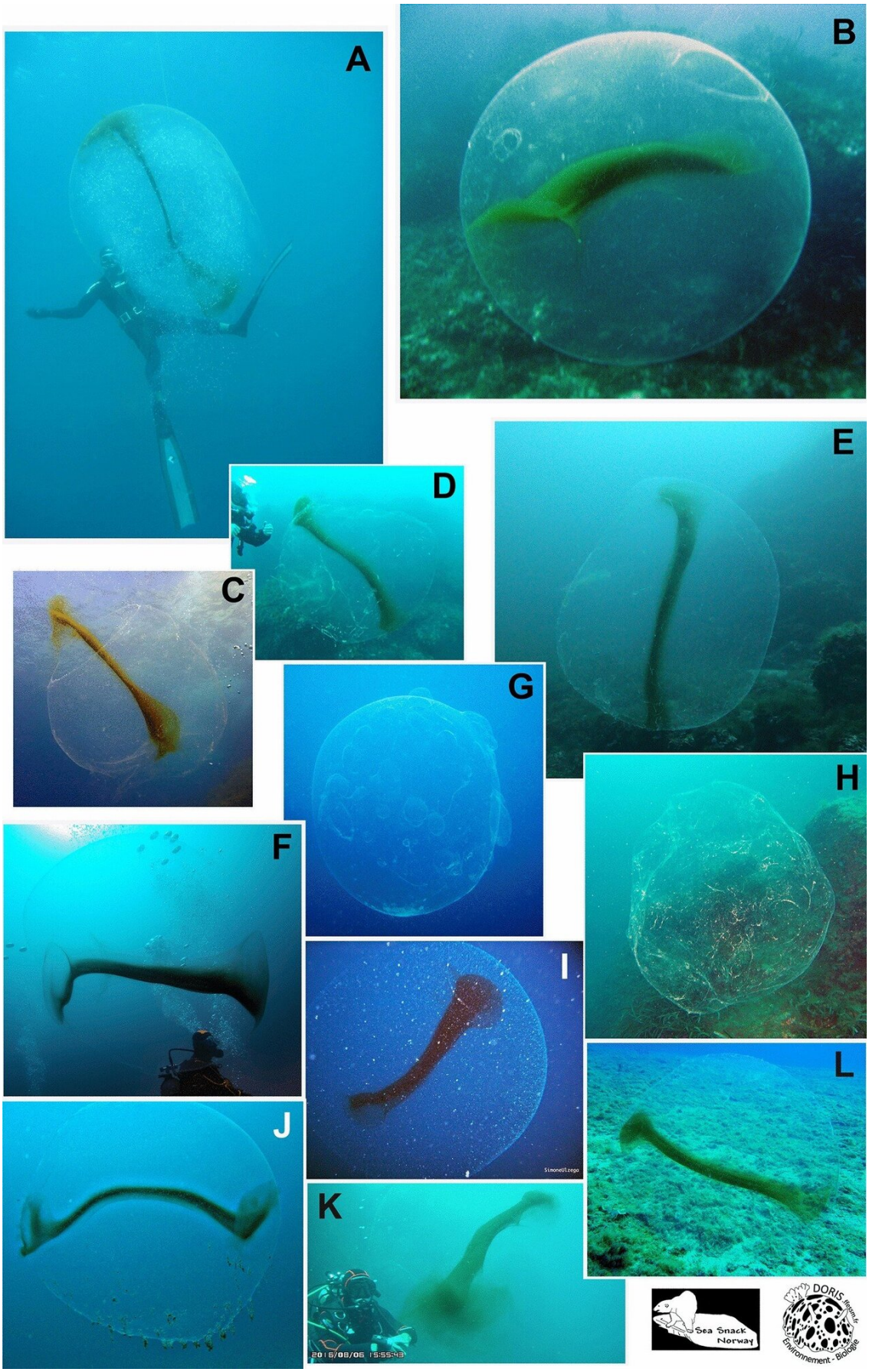
An international team of researchers with assistance from citizen scientists has confirmed that the large, mysterious blobs occasionally seen in the Norwegian Sea are squid egg sacs. In their paper published in *Scientific Reports*, the group describes their effort to learn more about

the gelatinous spheres and what they have learned so far.

In the 1980s, divers exploring the waters off the coast of Norway came across something odd—a large gelatinous sphere hovering in the water at depths of 60 to 70 meters. They noted that it was approximately one meter wide, was partially transparent and that it appeared dark in its center. At the time, no one could explain what it might be. Since that time, there have been many sightings of the blobs, as they have come to be known—most off the coast of Norway, though some have also been seen in the Mediterranean Sea. In this new effort, the researchers sought to solve the mystery.

Because they are rare, the researchers asked for help from diving enthusiasts and citizen scientists, publicizing the need for samples. The plea worked; the researchers received tissue samples from four of the blobs, which the citizen scientists had collected in bottles and stored in their refrigerators. The samples contained tissue from both the exterior and interior of the blobs, giving the researchers enough material to study.

The researchers discovered that the samples contained squid embryos and also gooey material to sustain them. DNA analysis of the embryos showed them to be Illex coindetii, a type of squid common to the area. Interestingly, the researchers found that the embryos were at different stages of development. The citizen scientists also provided descriptions of the blobs, and based on such information, the researchers estimated that there were likely hundreds of thousands of embryos in a given blob. They also observed that the consistency of the blob changed over time, leading to bursting as its final stage, allowing the last batch of squid inside to swim freely. The citizen scientists all claimed that removing tissue from a blob did not appear to result in any harm.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Huge gelatinous spheres from the Mediterranean Sea and the Spanish Atlantic coast, attributed to squid egg mass. (Photo credits: (A) Franc Jourdan, (B) Thomas Brelet, (C) Edouard Bard, (D) Eduardo Losada Lage, (E) José Coronel, (F), Philippe Le Roy, (G) Christine Chesnay, (H) Pietro Crovetto, (I) Simone Ulzega, (J) Alain Beauté, (K) Patrick Carreno, (L) Emmanuel Roguet. Collage by Halldis Ringvold/Sea Snack Norway). Credit: *Scientific Reports* (2021). DOI: 10.1038/s41598-021-86164-8

More information: Halldis Ringvold et al. In situ recordings of large gelatinous spheres from NE Atlantic, and the first genetic confirmation of egg mass of Illex coindetii (Vérany, 1839) (Cephalopoda, Mollusca), *Scientific Reports* (2021). DOI: 10.1038/s41598-021-86164-8