



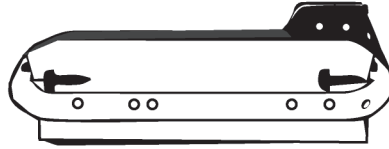
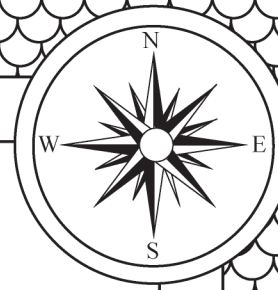
The Post and Courier

## DAYS IN THE GULF STREAM. IN A YELLOW SUBMARINE

Color your way on a journey with six explorers  
as they drift in the Gulf Stream, the mightiest current on Earth

BY CHAD DUNBAR, BRANDON LOCKETT  
AND TONY BARTELME

*The Post and Courier*



THE BEN FRANKLIN

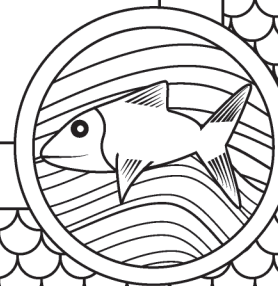
## GULF STREAM DRIFT MISSION

In 1969, six men set off in the Ben Franklin, a 50-foot sub designed to drift in the Gulf Stream. They began in Florida and ended their 30-day journey off Nova Scotia. During their mission, they made more than 900,000 measurements of the Gulf Stream. Never before had this important current been studied on such an intimate and exacting level.

NASA joined the effort because it wanted to see what kinds of issues might come up in a long space mission. And many lessons were learned, including ways to manage food and waste, as well as ways to keep up morale.

The space mission, Skylab, included a dart board because of this, though with Velcro tips! The Navy joined because it wanted to better understand ocean currents and whether they might be useful in submarine reconnaissance.

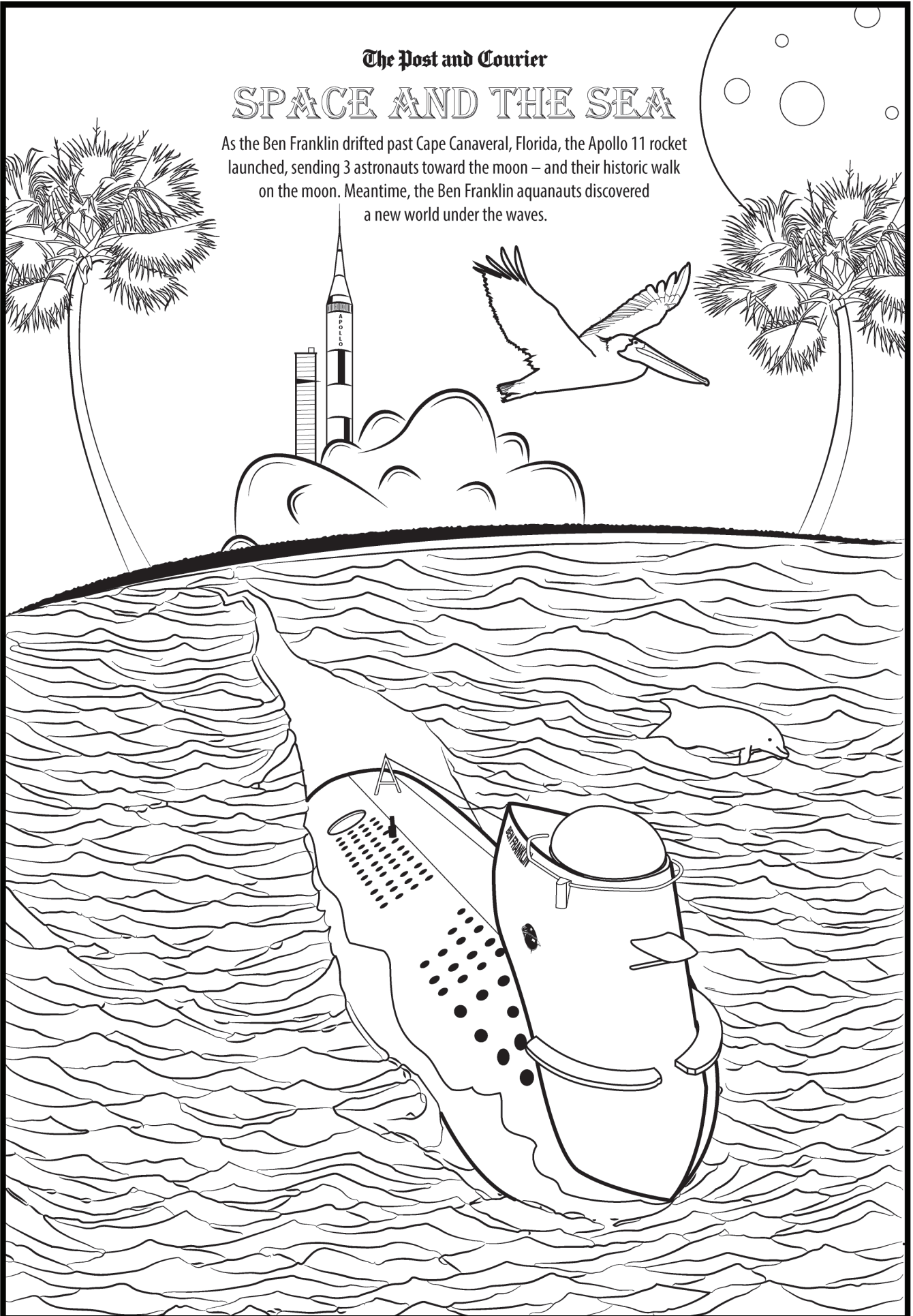
But the mission took place at the same time as the Apollo mission to the moon. The world was looking up, not down, and the Ben Franklin eventually ended up in a Canadian junkyard. A maritime museum in Vancouver eventually rescued it, restored it and put it on display.



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## SPACE AND THE SEA

As the Ben Franklin drifted past Cape Canaveral, Florida, the Apollo 11 rocket launched, sending 3 astronauts toward the moon – and their historic walk on the moon. Meantime, the Ben Franklin aquanauts discovered a new world under the waves.





# INTO THE GULF STREAM

The Gulf Stream is one of the world's mightiest currents, with a flow many times greater than all of the world's freshwater rivers combined.

Its currents and eddies carry massive volumes of heat from the tropics toward Europe.

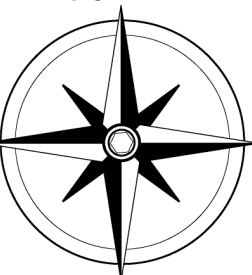
CANADA

UNITED STATES

THE GULF STREAM

GULF OF MEXICO

ATLANTIC OCEAN



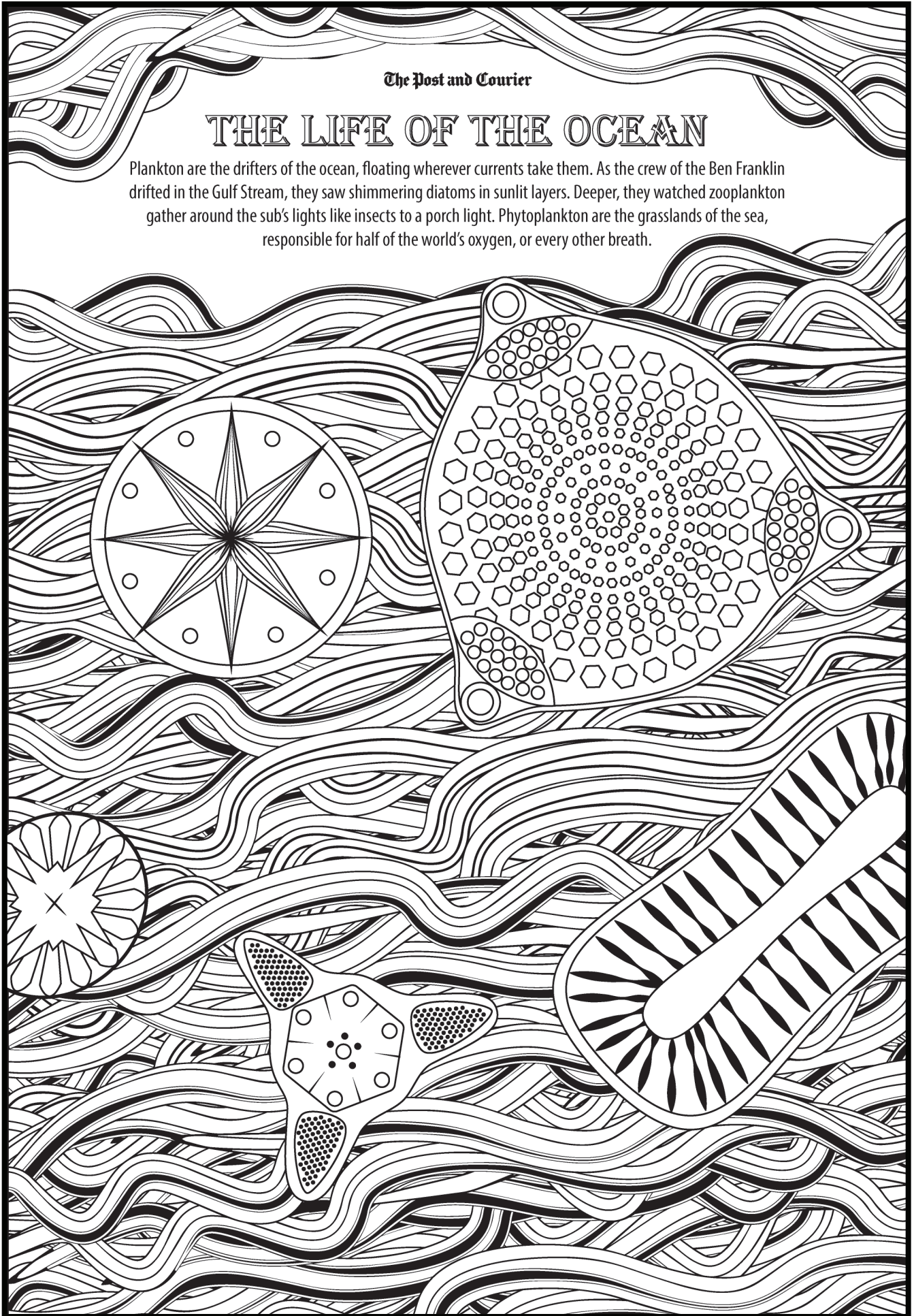
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## THE LIFE OF THE OCEAN

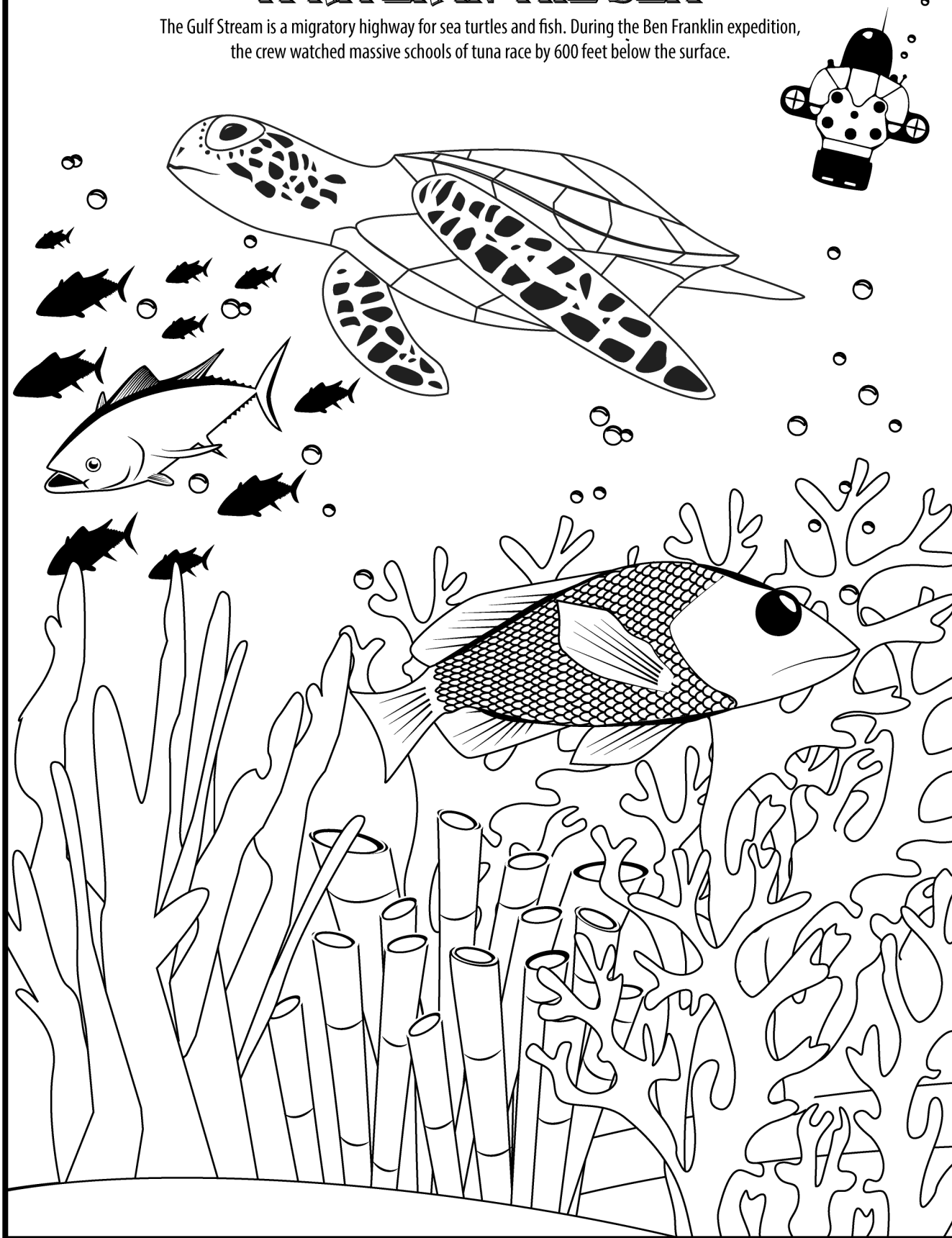
Plankton are the drifters of the ocean, floating wherever currents take them. As the crew of the Ben Franklin drifted in the Gulf Stream, they saw shimmering diatoms in sunlit layers. Deeper, they watched zooplankton gather around the sub's lights like insects to a porch light. Phytoplankton are the grasslands of the sea, responsible for half of the world's oxygen, or every other breath.



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## A RIVER IN THE SEA

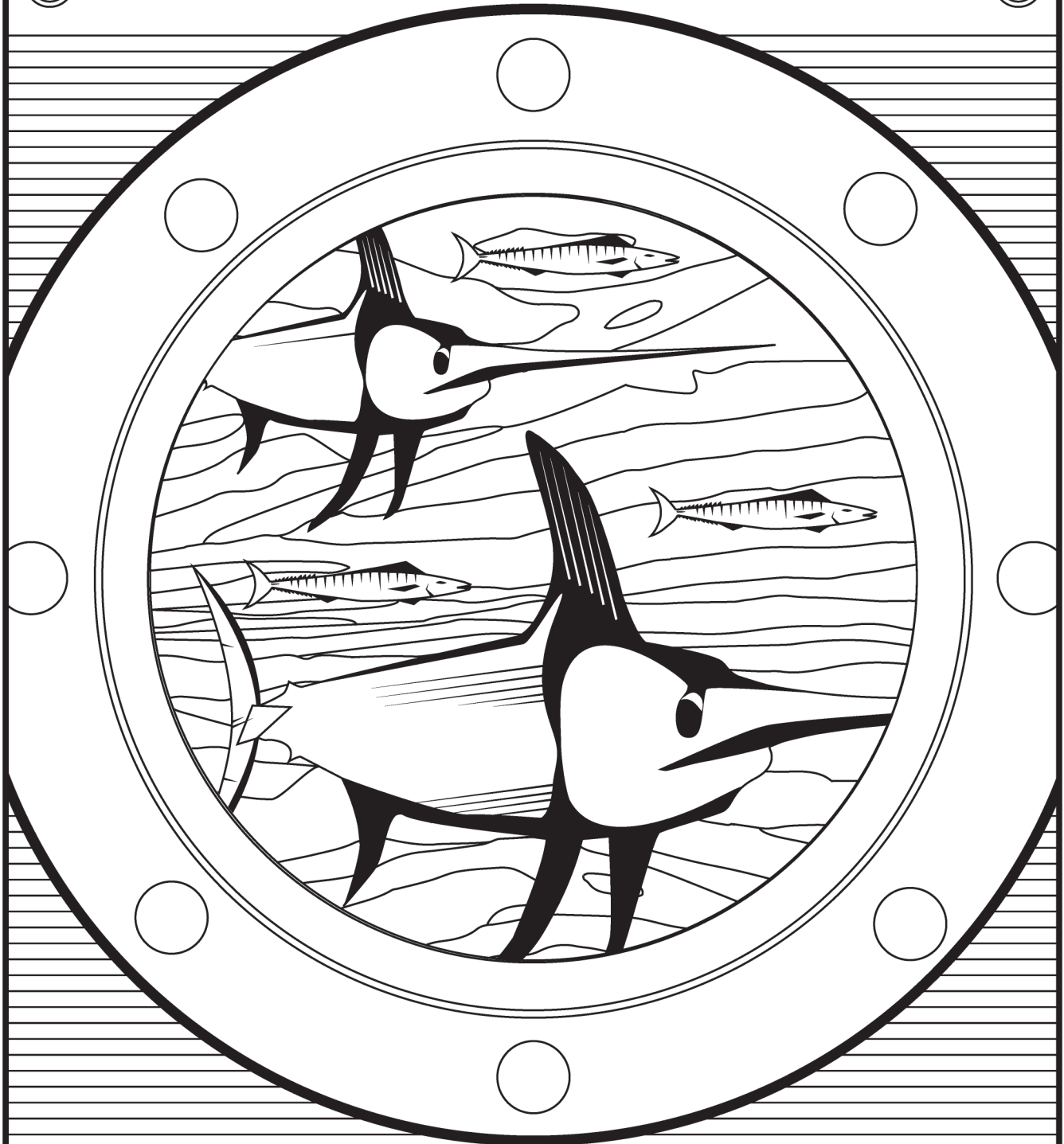
The Gulf Stream is a migratory highway for sea turtles and fish. During the Ben Franklin expedition, the crew watched massive schools of tuna race by 600 feet below the surface.



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## THE SWORDFISH ATTACK

As Frank Busby, a Navy scientist, looked through a viewport, swordfish swam around the sub. Suddenly one swam directly at him and rammed the sub just below the viewport's glass. The swordfish shook it off and swam away.

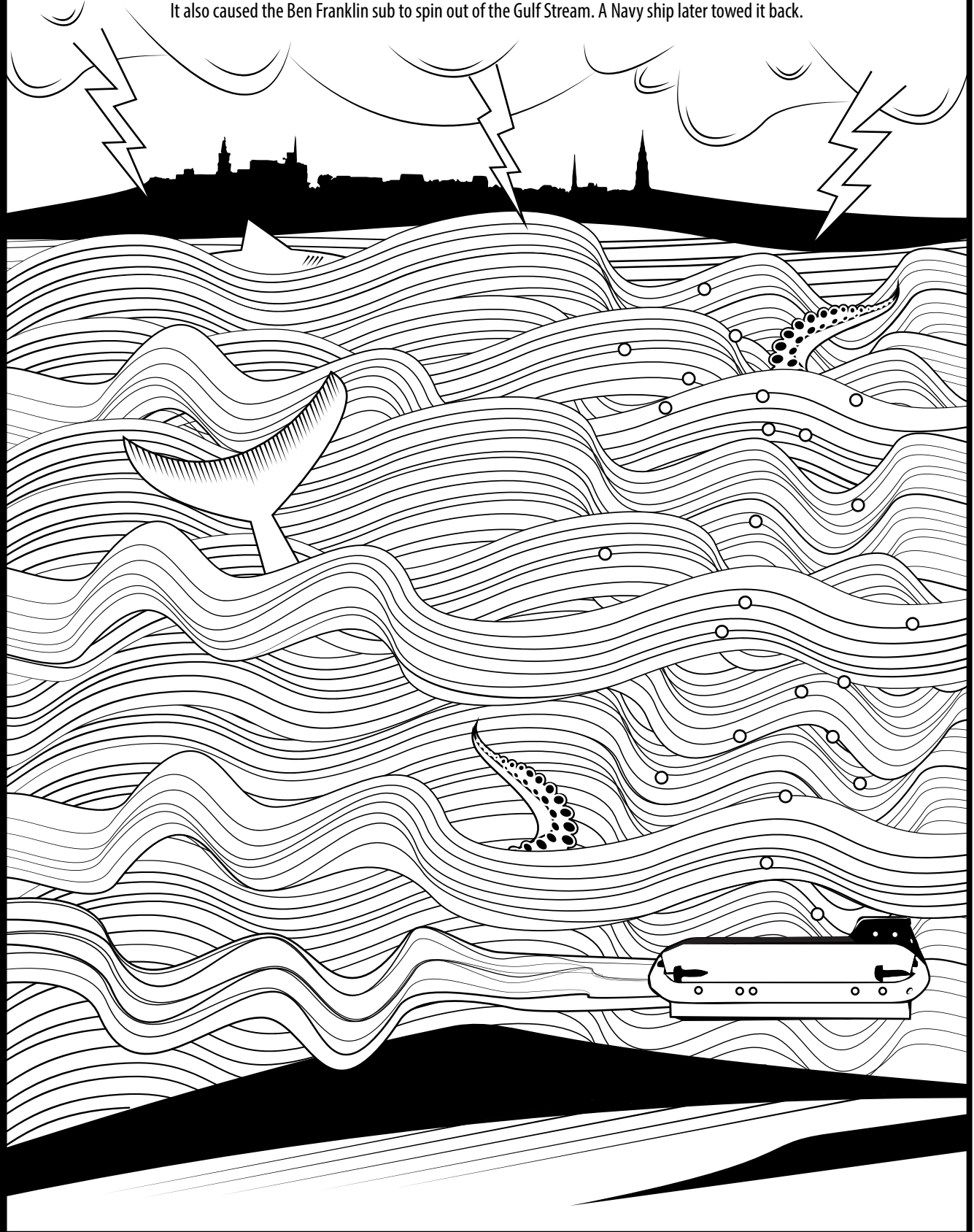




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## THE CHARLESTON BUMP

Off South Carolina, smack in the Gulf Stream, the seabed rises more than 400 feet in places, deflecting the Gulf Stream and creating turbulent eddies. This mixing of warm and cooler water generates nutrients that makes this area rich in marine life. It also caused the Ben Franklin sub to spin out of the Gulf Stream. A Navy ship later towed it back.



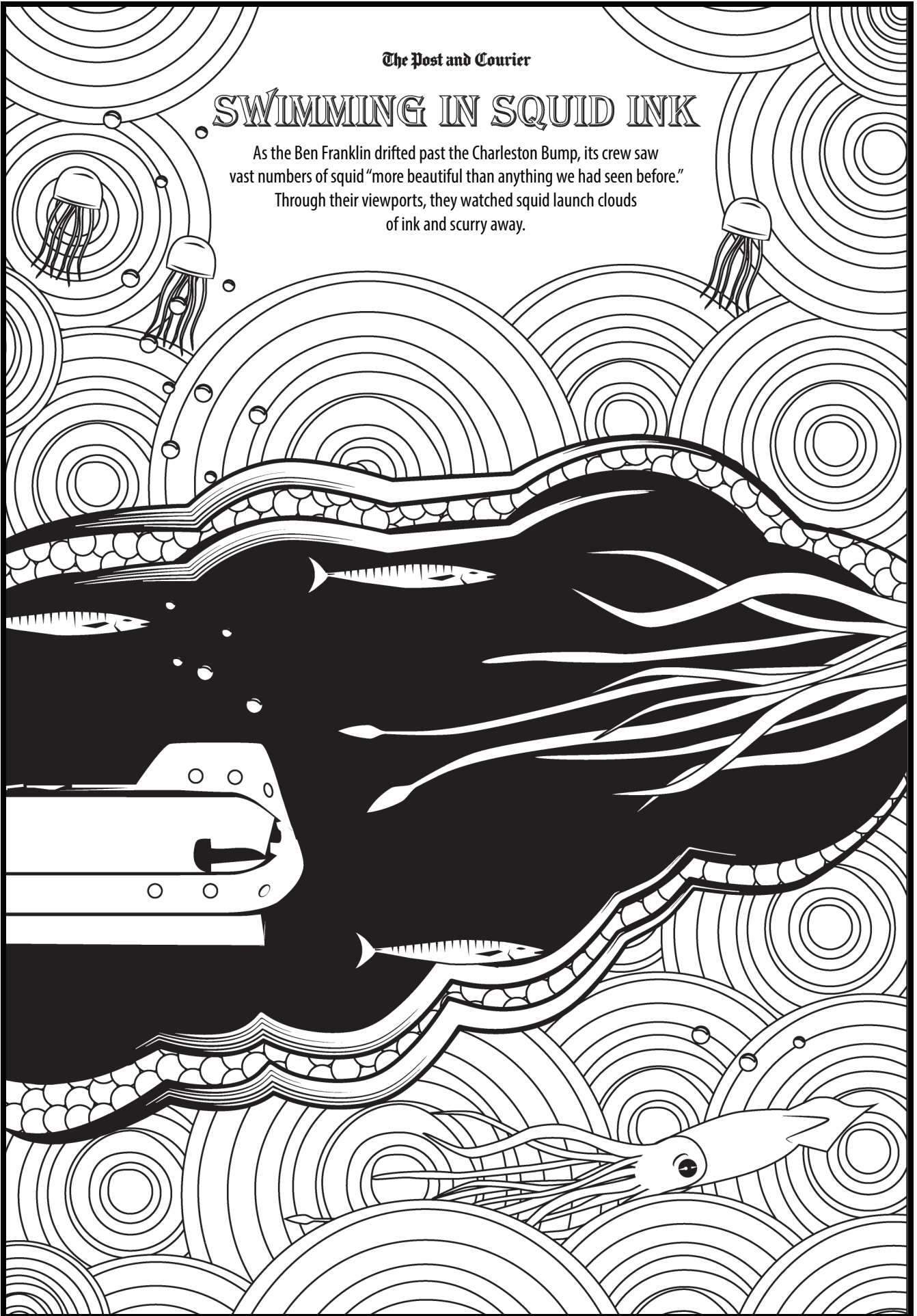


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## SWIMMING IN SQUID INK

As the Ben Franklin drifted past the Charleston Bump, its crew saw vast numbers of squid "more beautiful than anything we had seen before."

Through their viewports, they watched squid launch clouds of ink and scurry away.





## DIVE INTO THE GULF

Scientists have found it may be losing its punch, which could affect the sea level on the East Coast and weather across the world. For a deep dive into this important issue and the fascinating story about the Ben Franklin submarine expedition, read The Post and Courier's account, "Into the Gulf Stream." >> [postandcourier.com/gulfstream](http://postandcourier.com/gulfstream)

