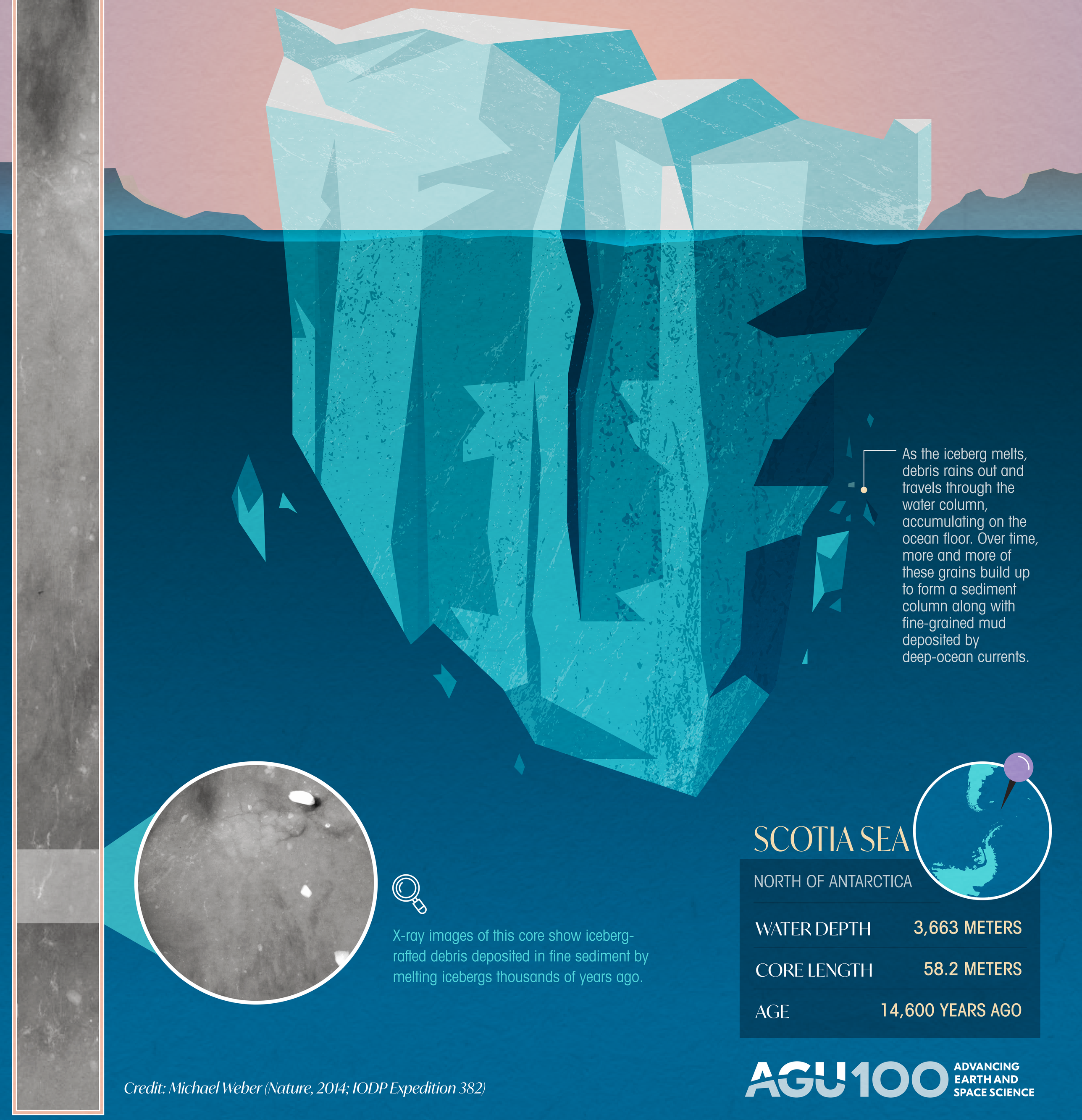
SCOTIA SEA'S

ICEBERG ALLEY

ICEBERG-RAFTED DEBRIS REVEALS THE POTENTIAL FOR RAPID SEA-LEVEL RISE

Researchers are studying the buildup of iceberg-rafted debris in cores taken from the ocean floor that indicates when icebergs moved away from Antarctica and melted. Cores from this area show that many icebergs around Earth melted 14,600 years ago, when the sea level rose at a rate of 4 meters per century for more than 16 meters of total sea-level rise. This past period of natural warming demonstrates the need for attention to the potential impacts from human-caused warming on sea-level rise today and in the near future.



As the iceberg melts, debris rains out and travels through the water column, accumulating on the ocean floor. Over time, more and more of these grains build up to form a sediment column along with fine-grained mud deposited by deep-ocean currents.

X-ray images of this core show iceberg-rafted debris deposited in fine sediment by melting icebergs thousands of years ago.

Credit: Michael Weber (Nature, 2014; IODP Expedition 382)

SCOTIA SEA

NORTH OF ANTARCTICA	
WATER DEPTH	3,663 METERS
CORE LENGTH	58.2 METERS
AGE	14,600 YEARS AGO

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