

Name _____ Date _____

Blue Holes: The Importance of the Team – Answer Key

Explorer and Field	What does he/she explore or conduct research?	How did he/she need the others on the team?
Kenny Broad / Anthropologist and cave explorer	To explore “human-environment interaction and marine reserve network design” (NG.com); “to publicize the importance of Blue Holes and the threats they face”(NGM)	Kenny needed different areas of expertise involved to study different aspects of how humans and the environment interact here
Wes Skiles / cinematographer and director, leading cave explorer	To capture images of what lies underground within the caves	Wes needed the researchers to provide the science within the Blue Holes
Jennifer Macalady / Geomicrobiologist	To study the water chemistry of the Bahamas’ Blue Holes to understand conditions most similar to the earliest, oxygen-free environments that supported life. By studying what bacteria thrive without oxygen here, she can predict what might exist in similar environments on distant planets (Mars) and moons (Jupiter’s Europa).	Jennifer is not a diver, so needed the divers to collect samples for her research
Peter Swart / Marine Geology and Geophysics	Research aims to “gain valuable information about sudden climate shifts of the past. These include prolonged storms that blew Saharan dust across the Atlantic from Africa thousands of years ago, leaving high concentrations of iron in the stalagmites and red stripes visible in the sediment of cave walls. Information from speleothems will shed light on today’s rapid warming and the associated rise of sea level.”	Works with a team that will analyze the samples to determine past climate changes and impacts

Nancy Albury / Branch manager and curator of Paleontology for the National Museum of The Bahamas;	To establish governmental conservation priorities for blue holes and caves and increase public awareness of these fragile ecosystems.	Likely played a role in ensuring the Bahamas allowed this research to happen, and acted as liaison between foreign scientists and Bahamas government and citizens
Tom Iliffe / marine biology in caves	To study biodiversity, ecology, evolution and conservation of animals inhabiting saltwater caves	Has named four new species after Brian Kakut, who discovered them; he and other scientists have discovered many previously unknown organisms in these and other flooded caves around the world--more than 300 new species
Keith Tinker / Director of the National Museum of the Bahamas, The Antiquities, Monuments and Museums Corporation	Interested in "history of the Caribbean and the Bahamas in particular; the protection of underwater cultural heritage and underwater archaeology in the Bahamas; perspectives on Bahamian architectural significance in preservation; cultural heritage and the part that the Antiquities, Monuments and Museums Corporation plays in scientific research in the Bahamas"	Likely played a role in ensuring the Bahamas allowed this research to happen, and acted as liaison between foreign scientists and Bahamas government and citizens
Brian Kakuk	"one of the world's foremost cave divers" (NGM – Aug 2010); U.S. navy diver, cave diver, Diving Safety Officer	has discovered more than a dozen new animal species
David Steadman	Ornithology and paleontology, in particular the evolution, biogeography, paleontology, and conservation biology of tropical and subtropical birds	Needed the cave divers for sample collection.
Amy Clement, University of Miami	Climate modeler	Uses the data collected from the expedition with other data on climate to further understand climate impacts.
Nikita Shiel-Rolle, graduate student at the University of Miami	Bahamian cave diver and marine science student	As graduate students is learning from experts and is likely contributing to data collection.
Michael Pateman, archaeologist and cave diver with the National Museum of the Bahamas	Recovered the remains of two more Lucayans. He will carbon-date and study the bones seeking information about the age, sex, stature, diet, and life stresses of these individuals as well as how they died.	Newly trained cave diver, so likely depended on help of experienced divers.