

Scientists look for new life in ocean's 'last frontier'

□ Biologists are investigating the unspoiled, unexplored waters off Cuba's coast.

By Katherine Bouma

OF THE SENTINEL STAFF

Florida biologists arrive in Havana Harbor late tonight to begin the first oceanographic exploration of the deep waters off Cuba.

Cuba's coral reef is one of the world's most pristine, and the waters are the most unspoiled of the Caribbean, the biologists from Fort Pierce's Harbor Branch Oceanographic Institution said.

"It's an expedition into what we truly think is the last frontier," said Grant Gilmore, chief scientist of the monthlong trip. "We've been to Central America. We've been to the West Indies. We've been to the Bahamas and Florida. There's just one gap in our knowledge, and that's Cuba."

Studying the ecosystem of the ocean in an area so unchanged by tourism and development will allow scientists to determine how much that activity affects the sea, Gilmore said.

The scientists also will explore the edge of the Cayman Trench, which at 20,000 feet is the second deepest spot in the Atlantic. The 41-member crew will travel in the Seward Johnson, a 200-foot ship equipped with a four-seat submarine with a Plexiglas dome that scientists can use to dive to 3,000 feet.

The submarine is equipped with cameras and lights to capture sharks, fish and invertebrates on videotape. Suction devices also can bring small organisms on board.

The team includes fish specialists, ecologists and other biologists from Harbor Branch and San Francisco's California Academy of Sciences. The crew will be joined by two Cuban scientists who have been able to study only the shallows of the ocean with less sophisticated equipment, Gilmore said.

Two of the biologists are experts on bioluminescent organisms and will dive at night without lights to look for creatures that glow in the dark. Another will be looking for new species with applications to medical research.

CIA: Castro appears to be safe for now

REUTERS

WASHINGTON — The CIA has said it sees no short-term threat to the regime of Cuban President Fidel Castro, an old foe and repeated assassination target in the early 1960s.

"Fidel Castro appears healthy for a man of 70, and his political position seems secure," CIA Director George Tenet said in an intelligence assessment made public this week.

"Unless he suffers a health crisis, he is likely to be in power a year from now," Tenet said in a written reply to questions from the Senate Select Committee on Intelligence.

Tenet's remarks were sent to the panel in June for publication in the committee's report on its annual hearing over threats to U.S. national security.

In his written reply, the CIA director said Castro, who

crushed a disastrous CIA-backed invasion by Cuban exiles in April 1961 at the Bay of Pigs, had "faced no challenges in recent years from the Cuban elite."

The last significant case of popular unrest occurred in August 1994, when anti-Castro demonstrators took to the streets of downtown Havana. Security forces had little problem controlling the demonstrators, Tenet said.

Castro took power on Jan. 1, 1959. He quickly angered Washington by seizing U.S.-owned property in Cuba and allying himself with the Soviet Union.

In line with President Kennedy's wish to get rid of Castro, the CIA plotted such cloak-and-dagger scenarios as the use of poisoned cigars.

The CIA also undertook anti-Castro operations with the aid of the Mafia's old gambling contacts in Havana.

Gilmore said the ocean's ecosystems are so uncharted biologists probably will find many new species and others thought to be extinct.

"People take the oceans for granted, and they don't realize that we don't know what's in 6 feet of water, much less 3,000," he said. "If you take a commuter flight from Orlando to Miami and you look out the window, that's the average depth of ocean. Imagine all the fish there would be between your seat and the surface of the Earth."

The Cuban expedition is funded by Harbor Branch and the Discovery Channel, which plans two one-hour documentaries on the trip. The cable network also will post stories and photos from the trip on Discovery's Internet page every day in December.

"We're getting not only a first look at a very rare environment, but a last look as well," said Bill Belleville, an Orlando environ-

mental writer covering the expedition for Discovery. "It's baseline data against which they can measure impacts and changes in the years ahead, and that's pretty valuable stuff."

"Cuba is the largest island in the Caribbean," Belleville added. "It's got a very healthy rate of biodiversity. The question is: Does this exist in water as well?"

The Discovery Channel will likely spend more than \$1 million on the project before it airs in late 1998 or early 1999, said Mike Quattrone, Discovery general manager.

"The combination of something that had never been seen before, with equipment that is top of the line, and superb scientists was just too good to pass up," Quattrone said.

Producers spent about a year setting up the research program, including coordinating with the Cuban and American governments.