

GENERAL SCIENCE

STS Invitations Extended

► THE 22ND ANNUAL Science Talent Search has opened. Invitations to participate have been extended to talented science students through their science instructors and school principals. The graduating high school science students will compete for scholarships and awards totaling \$34,250.

After an Honors Group of about ten percent of these future research scientists has been chosen, the 40 most promising entrants will be selected to attend a five-day Science Talent Institute in Washington next spring. During the institute, the winners of five top scholarships ranging from \$3,000 to \$7,500 will be announced.

The Science Talent Search is conducted by SCIENCE SERVICE through its Science Clubs of America, and financed by the Westinghouse Educational Foundation of the Westinghouse Electric Corporation.

Dr. Watson Davis, director of SCIENCE SERVICE, said rules and instructions for the Search have been mailed to more than 50,000 science teachers and principals in public, private, and parochial secondary schools.

"This is the prime opportunity for students finishing high school to win recognition that will be of value to them in obtaining entrance into college and an achievement which will aid them throughout their scientific lives," Dr. Davis said.

"There is increasing need for new basic scientific knowledge necessary to accelerate the pace of technology and give new impetus to man's conquest of the unknown," he emphasized. "Those who have won recognition in previous Searches are already playing an important role in the scientific and technical work of the world. Those who will be selected in this Search will undoubtedly make similar contributions."

Since its beginning in 1942, the Science Talent Search has helped focus public attention on the need for better science education, as well as discovering and encouraging science talent at an early age.

A total of 381,675 high school seniors took part in the first 21 searches. Of these, 64,391—including 14,897 girls—completed the exhaustive final requirements.

Westinghouse scholarships and awards totaling \$347,250 have gone to 647 young men and 193 young women from among the 6,010 students picked for Honors Groups.

More than \$5,000,000 in scholarships and financial aid from other sources has come to Science Talent Search Winners and Honors Group members as a direct result of their placing in the Search. Unlike many scholastic competitions, the Search does not prohibit winners from accepting additional scholarships from other sources.

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BIOLOGY

Sea Turtle Knows Its Way

See Front Cover

► THE MARINE GREEN TURTLE, famed ingredient of gourmet soup, seems to be born knowing its way around.

Fresh from the egg, it exhibits little difficulty in heading directly for the ocean that may be out of sight and some distance away. It has also been found that an adult female will recognize and return to the same place on a beach for repeated egg-laying during a season.

The green turtle has also proved itself one of nature's finest navigators. Turtles tagged while nesting on seven-mile-wide Ascension Island in the South Atlantic have been recovered recently 1,400 miles away near Brazil.

Since turtles are seen at Ascension only at nesting time, they are presumed to migrate to Ascension—and to find it through a little understood capacity for scheduled migration involving high-seas navigation that has aroused the intense interest of scientists.

The green turtle, *Chelonia mydas mydas*, long has been the subject of intensive investigation by a University of Florida graduate research professor, Dr. Archie Carr. His work on the behavior, movement and ecology of the five genera of sea turtles indicates that there is a great deal to be learned about the highly developed travel-orientation

senses used by turtles in all phases of their terrestrial and aquatic travel.

In particular, their ocean migrations present an opportunity for fundamental advances in understanding all animal orientation and migration. His research has been supported since 1956 by the National Science Foundation.

Another aspect of Dr. Carr's interest in the green turtle is to insure that, unlike the bison of the Great Plains, it is not hunted into virtual extinction. In the Caribbean the green turtle historically used a number of nesting areas.

As a result of heavy commercial fishing, the world's most valuable reptile now comes ashore in that area in significant numbers for egg-laying only at Tortuguero on the coast of Costa Rica.

But a hopeful increase in numbers at Tortuguero has been observed by Dr. Carr. If the green turtle is coming back, it is largely owing to his research, which focused attention on the need to reserve a five-mile portion of the Tortuguero beach from commercial exploitation.

Dr. Carr also has been instrumental in forming the Caribbean Conservation Commission, working closely with the Costa Rican Government in an effort to restore the herbivorous green turtle to some of the pasture and beach nesting areas.

Together with his associates and with

the help of several governments, he has been transporting Tortuguero hatchlings to beaches throughout the Caribbean, releasing them in the hope that on attaining adulthood they will return for nesting to the area where they first gained the sea, rather than to Tortuguero where they hatched and were collected.

Whether the turtles will accept the transfers will not be known for another year. If their range can be extended, the method holds hope for providing a valuable source of protein for the diet of inhabitants of a vast area of Central and South America.

The green turtle nesting season is from February to April, when the 300-pound females find their way at night through the surf and the rocky shore line to the steep beaches of loose sand. Waiting for them in 1960 was Harold Hirth, a graduate student of Dr. Carr's at the University of Florida. He conducted the first tagging and extended observation of green turtles on the island, measuring and marking a total of 206. Two such turtles, headed back to sea, are shown on this week's cover.

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DRY BOX allows scientists at The Goodyear Tire & Rubber Company, Akron, Ohio, to experiment with chemicals requiring an absolutely dry and inert atmosphere.

GENERAL SCIENCE

Scientific Showcase Slated for Michigan

► A SCIENTIFIC showcase building will be built at Michigan State University, East Lansing, to show "better living through new ideas in science and engineering."

Technorama is a new type of learning center for science, scheduled to open in 1963, the University has announced. It will have an ultra-modern design and contain 150,000 square feet devoted to displays stressing the role and progress of agriculture.

The new Technorama will contain hundreds of exhibits. A half million visitors are expected each year.

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