lower frequencies, but tuned up to high frequencies, as he chooses.

Latest device for trying to unlock the dolphin language is the SCEPTRON pattern recognizer, developed by the Sperry Gyroscope Company, Great Neck, N. Y. This miniature computer is designed to "memorize" sounds of the dolphins, to record communication patterns between man and dolphin and to catalogue dolphin noises in order to translate them into something meaningful to human beings.

Can Dolphins 'Talk'?

A highly controversial subject among dolphin lovers and research scientists is the assumption that dolphins are trying to communicate with men. According to Dr. Lilly, the intelligent dolphin is eager to learn from man, and wanting to communicate with him and cooperate with him, despite such communication handicaps as having to live in an environment of water and having no manipulative parts such as fingers and hands.

Dolphins acquire and exhibit an uncanny knowledge about human beings, Dr. Lilly believes. For instance, he has found that the dolphin deliberately lowers his noise frequencies into the ranges audible to the human ear, somewhere below 10,000 cycles per second and emits them in air for man.

If human beings could learn to communicate with these intelligent creatures of the sea, Dr. Lilly believes, we could learn many things about man and the sea.

For instance, the dolphin could help man by passing on information about nose cones and satellites that fall into the sea, by directing fishermen to locate and catch fish, and by helping to measure the sea currents, temperatures and land formations of his native habitat, the oceans—to say nothing of the spiritual and moral value man would gain by communicating with such a pleasant and intelligent creature.

• Science News Letter, 86:138 August 29, 1964

Marineland of Florida

DANCING DOLPHINS—Upright in the water, these dolphins seem to be performing for their dinner in Marineland of Florida, where scientists are studying their means of communication.

ICHTHYOLOGY

Fish Eat Weeds to Aid Power Plant Operation

➤ SOME 15,000 grass-eating fish are helping to keep the lights burning in England.

The fish are young grass carp that thrive on the large crops of weeds growing in the Cavendish Dock, which supplies water to the cooling system of the electric power station at Barrow-in-Furness.

The fast-growing weeds had clogged the water inlets and often nearly stopped its flow.

The young fish, about two to two and a half inches long, were flown to England from Hong Kong in 60 water-filled plastic bags packed in an electrically heated box. Upon arrival in England, the fish were put into a 3,000-gallon tank of freshwater. The water was changed gradually until it became a mixture of fresh and saltwater similar to that in the dock.

The grass carp, which will weigh about 70 pounds full grown, are busily eating weeds in the dock to keep the water flowing freely.

The Central Electricity Generating Board in England, which ordered the carp, decided to use these fish as a solution to the weed problem after an experiment. In the test 25 grass carp were taken from the London Zoo and put into the dock.

These fish made gluttons of themselves on the vast amount of food available, said Frank Dale, senior chemist to the board. It was then decided that at least 14 tons of grass carp would be needed to keep the weeds down.

The board still has one problem, however, it does not know whether these fish will breed in England. This may mean that the whole operation will have to be repeated in a few years.

U.S. Tests Grass Carp

Grass carp are being tested in the United States for their ability to eat aquatic weeds.

Nearly 100 of these fish were flown from Malaysia eight months ago to Stuttgart, Ark.

They are a possible solution to the aquatic weed problem in lakes, ponds, streams and fisheries, Paul Thompson, chief, division of fish research, U.S. Fish and Wildlife Service, told SCIENCE SERVICE.

Aquatic weeds interfere with fishing, boating and raising fish, particularly in many southern states.

• Science News Letter, 86:139 August 29, 1964

Nature Note

Japanese Puffer Fish

➤ The Japanese puffer fish, *Sphoerides rubripes,* contains poisons 50 times as deadly as strychnine and 1,000 times as lethal as cyanide.

Yet the fish is eaten throughout Japan as a culinary delight, fugu. Only highly skilled and licensed Japanese cooks prepare fugu by removing the ovaries, roe, liver and skin to remove the source of the fish's poison. But despite the efforts of the Japanese Government to control fugu preparation, many Japanese and foreign visitors alike join their departed ancestors each year because fugu was "out of this world" for them.

The fish's poisons—tetrodotoxin and tarichatoxin—are among the most deadly known. They have even been used to drop Ian Flemming's James Bond in his tracks. It is estimated that a teaspoon of pure toxin from the puffer fish would kill seven million mice on the spot.

• Science News Letter, 86:139 August 29, 1964

OCEANOGRAPHY

355-Foot Seagoing Cigar Is Automatic Laboratory

➤ A CIGAR-SHAPED laboratory bigger than a football field floats on end in the water.

The strange-looking craft is called SPAR, for Seagoing Platform for Acoustical Research, and it is designed to make exact measurements of sound transmission under water. SPAR carries no crew; instead it automatically collects data from clusters of gyrocompasses, direction finders, hydrophones and radio transmitters. It sends its information by a floating cable to a nearby ship, and simultaneously makes a recording for later use.

Floating six-sevenths submerged, SPAR is very stable and can make accurate measurements as deep as 50 fathoms (300 feet).

Built by Aerojet-General Shipyard, Inc., Jacksonville, Fla., and officially launched July 17 for use by the U. S. Navy, SPAR will probably see service early in 1965.

• Science News Letter, 86:139 August 29, 1964