

## FORESTRY

**Wise Cutting Saves Trees**

► **FOREST OWNERS** in wind-battered sections of the United States can reduce tree losses by wise use of ax and saw.

Proper cutting methods vary throughout the country, but most of them involve cutting those trees most likely to be blown down first.

In the Lake states, this means trees that are taller than their neighbors and trees with defects such as rot and insect infestations. In northern New England, it means cutting fir trees before spruces.

The U. S. Forest Service does not recommend cutting all wind-susceptible trees at one time. By cutting some of the trees most likely to be blown down, timber owners can sell them and eliminate damage they may do to other trees.

A single tree blown over can become a gathering place in which insects multiply, then spread to live trees. When large trees are blown down, they can break or uproot smaller ones nearby or land on seedlings.

Science News Letter, June 2, 1956

## ENTOMOLOGY

**Find Mosquitoes Need Protein**

► **MOSQUITOES** need well-balanced diets to reproduce satisfactorily.

If their blood-food does not give the insects enough of the needed proteins, they will not have as many offspring as they could, Dr. Dwight M. DeLong, Arden O. Lea and John B. Dimond of Ohio State University have concluded.

The scientists gave yellow fever and malaria mosquitoes a variety of diets to see why those that feed on some animals lay more eggs than those that feed on others.

Numerous substances in sugar solution on saturated pads were fed to 200 fertile female *Aedes* mosquitoes for 16 days. Of the foods tested, only certain proteins or their derivatives stimulated egg production, the scientists report in *Science* (May 18).

They are now studying the role of vitamins in mosquito reproduction.

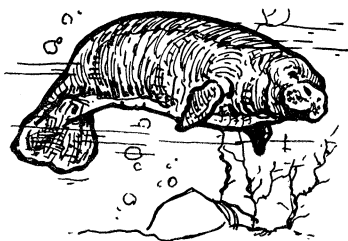
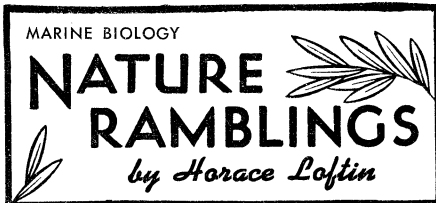
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**Mermaids**

► **LIKE MANY**, or most, of the ancient legends, stories of mermaids—half human, half fish—are based on fact. But as is often the case, the real "mermaid" is not the lovely, beguiling creature of the myth.

Instead of being petite and curvaceous, the mermaid of actuality is tub-like and weighs from 600 to perhaps 2,000 pounds. Legend gives the mermaid long, golden tresses, but a real one is completely bald-headed.

At a great distance across the water, she might remind a lonesome sailor of a beautiful woman in the sea, giving rise to the legend. At close quarters, the "mermaid" turns out to be only the great, lumbering sea cow.

You might think that close examination of the sea cow would dispel all thoughts

of enchantresses in the sea. But not so. Even the matter-of-fact scientist who classified the creatures called them "Sirenia," named for the beautiful sirens who led sailors to their death.

There are two general types of sea cows: the manatees of the Atlantic, such as are occasionally seen in southern Florida waters; and the dugongs of the Pacific and Indian Oceans and the Red Sea.

The American manatees—a disappearing race—are about nine to 15 feet long. Being true mammals, they suckle their young. To nurse, the mother sits up with her head and shoulders above water, holding the baby to her breast between her flippers. At birth, which takes place in the water, a young sea cow is about 30 inches long and can swim immediately.

Like the whales, the sea cows represent land-dwelling mammals that returned to the sea countless thousands of years ago. However, the sea cows are no more closely related to the whales than they are to most other groups of mammals, in spite of their similar habits.

The American manatee evidently once ranged as far north as North Carolina or Virginia. Today it seems to be restricted in the United States to a small stretch of water near the tip of Florida. It is still abundant in the wilder parts of Central and South America.

The largest of the race, Steller's sea cow, was extinct shortly after being discovered in the Bering Sea. The once-numerous species was the victim of sealers and whalers who killed them for their blubber.

Our American manatee is protected by law from hunters. Even so, thoughtless gunners still kill this inoffensive beast.

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## MEDICINE

**RI Vaccine Succeeds**

► **THE ARMY** now has a successful vaccine against the virus pneumonias, grippe and other cold-like diseases that attack recruits in training.

The diseases are called ARD, short for acute respiratory diseases. They are caused by a virus, and are severe enough to send a man to the hospital. They are not the same as the common cold.

The number of such cases was cut by more than 80% in trials at Fort Dix, N. J., the Army announced.

The new vaccine gives protection quickly, reaching maximum effectiveness within one week. Army medical officers are particularly enthusiastic about this because it means they can stop epidemics before they start sweeping through training camps.

The viruses against which the new vaccine protects cause more than half of all hospitalized cases of respiratory disease in military recruit camps. At Fort Dix about 20% of all the men who train there during the winter are put into the hospital because of this illness.

The new vaccine was developed and pre-

pared by the Army's department of respiratory diseases, headed by Dr. Maurice R. Hilleman, Walter Reed Army Institute of Research, Washington. It was evaluated in soldiers at Fort Dix by a field team headed by Maj. Reuel A. Stallones and Dr. Ross L. Gauld of the Institute.

It is made from tissue cultures of monkey kidney that had been infected with the two predominant RI viruses. These are also called ARD and APC viruses. The virus in the vaccine was killed with formaldehyde. The vaccine caused no untoward effects in the more than 350 persons who got it.

ARD has always been a major medical problem to the Armed Forces. At Fort Dix alone some 6,000 cases occurred between May, 1954, and June, 1955. The cost of hospitalization and time lost is conservatively put at more than two million dollars at this one training base.

Although the new vaccine is still considered to be on a testing basis, more and more recruits will receive a protective shot.

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