



☼ * ○ • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

resembling squirrel and wild duck. Actually, the animals are fairly closely related to squirrels, and Maryland muskrats have for some years been sold, especially on the Philadelphia market, as "marsh hare."

In addition to fur and meat, muskrats can produce still another source of revenue for trappers. Just under the skin, near the tail, are two glands which secrete the strongly musk-scented substance whence the animal gets its name. These can be used as a raw material in the perfume industry, to replace formerly imported musk.

Science News Letter, February 27, 1943

"Cheaper Cuts" of Fish

► RECOMMENDATION of kinds of fish that do not now reach many American tables, paralleling the boost that the cheaper cuts of meat received a few years ago, was put forth by several speakers at the meeting. Such species as carp, sucker, lake herring, etc., swim in our fresh waters in immense numbers; their flesh is nutritious but they remain neglected, J. Victor Skiff of the New York State Conservation Department pointed out. And even if American housewives began to ask for these cheaper fish they wouldn't be able to get them, because American commercial fishermen have neither the knowledge nor the equipment needed to take them in paying quantities.

One state's program to find the actual food values in these neglected fish and to tell the people about them was described by Fred A. Westerman of the Michigan Department of Conservation. Research is in progress, he stated, to determine the best methods for preparing, preserving, storing and cooking carp, suckers, herring and smelt.

There is also the possibility that one or another of these scaly Cinderellas may turn out to be a rich vitamin source, just as shark livers have recently done. At any rate, the Michigan program includes careful assays for mineral and vitamin contents.

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Feeding Fish to Animals

► FUR FARMERS, notably those who rear foxes and minks, are also looking toward these coarse-fleshed fish as possible replacements for the meat rations now so difficult to get, Charles E. Kellogg of the U. S. Fish and Wildlife Service told the meeting. (Turn to page 138)

must allow for it in calculating positions of the stars.

If the earth did not move, there would be no aberration. But the movement of the earth around the sun causes another effect, which we can see this month. All the planets revolve around the sun in the same direction, but more slowly the farther out they are. Mercury rushes around at about 30 miles a second, Venus at 22, earth at 18.5, Mars at 15, Jupiter at 8 and Saturn at 6.

Perhaps you have been on a fast train, passing a slower one on the next track, and it looked as if the slow train were actually going backwards. In the same way, as the earth passes Jupiter, that planet for a time seems to be going backwards through the sky. The normal motion of the planets we see is from west to east, but during recent months, if you had watched Jupiter, you would have seen it apparently moving westward among the stars. This is called its retrograde movement, and then we were pass-

ing it. But now we have swung past, and on the 12th of March Jupiter is stationary. After that he will move eastwards, until we pass him again next year.

Celestial Time Table for March

Mar.	EW T	
2	11:25 p.m.	Moon passes Mars.
4	3:00 a.m.	Moon nearest, distance 225,600 miles.
6	6:34 a.m.	New moon.
8	4:16 a.m.	Moon passes Venus.
11	10:00 p.m.	Jupiter stationary, starts eastward motion.
12	7:21 a.m.	Moon passes Saturn.
13	3:30 p.m.	Moon in first quarter.
15	2:28 p.m.	Moon passes Jupiter.
	10:00 p.m.	Moon farthest, distance 251,500 miles.
21	8:03 a.m.	Sun crosses equator, Spring commences.
	6:08 p.m.	Full moon.
28	9:52 p.m.	Moon in last quarter.
31	1:00 p.m.	Moon nearest, distance 228,900 miles.

Subtract one hour for CWT, two hours for MWT, and three for PWT.

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WILDLIFE

Muskrat Is Tasty Dish

Louisiana swamps produce meat equivalent of about 16,000 steers. Meat resembles squirrel or wild duck. Muskrat also produces fur and perfume material.

► MEAT from muskrats, hitherto largely wasted, is not only a very tasty dish but can replace really considerable quantities of more conventional meat, now made scarce by rationing, James N. Gowanloch of the Louisiana Department of Conservation told the eighth North American Wildlife Conference at Denver. One year's product of the lush Louisiana swamps dresses as nearly 6,-

500,000 pounds, equivalent to the beef in 16,000 dressed steers.

Total muskrat production of North America amounts to more than 16,500,000 animals a year, Mr. Gowanloch said. Louisiana muskrats, a distinct subspecies, are rather smaller than those of the northern states, but at that they dress at about a pound of good meat apiece. Their flavor is described variously as

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A serious drawback in the feeding of raw fish is that it tends to destroy the Vitamin B₁ content of all the food eaten, which brings about a serious illness known as the Shastek paralysis. This can be avoided either by cooking the fish, or by alternating raw fish with other foods in the animals' diet.

One fortunate circumstance in the present emergency, pointed out by Mr. Kellogg, is that the principal fur-farming states, grouped around and to the west of the upper Great Lakes, are also the principal sources of fish that can be used for feeding the animals.

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NUTRITION

Special Diets Aid Army Specialists

► PEAK efficiency for America's fighting men can be obtained only through further nutritional research to provide special diets for specialists in the armed forces, Dr. Charles G. King, scientific director of the Nutrition Foundation in New York, declared.

A major source of aviation accidents, for example, is said on good authority to have been practically eliminated by one of our allies through a change in food practice.

"The fatigue of the aviator is a special kind of fatigue," Dr. King explained, "quite different from the physical exhaustion of a soldier operating a tank."

Dr. King called for more investigation of just what the aviator should eat to best fortify himself against the sudden temperature changes, strain of flying at high altitudes and other constantly changing stresses of combat flying. Extensive use of dehydrated foods has produced new problems to be solved by the nutritionist. Scientists must now seek new information concerning loss of vitamins and protein and the value of the vitamin B group in these food forms.

Importance of food on the production front was demonstrated by a Canadian firm that actually found that it paid in terms of increased production to provide nutritious lunches free to employees.

An infant mortality rate in England 20% under prewar figures, obtained through special provision for feeding children and pregnant or nursing mothers, was cited by Dr. King as indicating what can be accomplished in the civilian population even under war conditions.

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MEDICINE

Red Blood Cells Salvaged

Salt solution of cells used to supplement direct transfusions. Must be used within one week after blood is drawn. Method first tried by Detroit Red Cross.

► RED BLOOD cells, formerly a waste by-product in the preparation of blood plasma, are now being salvaged. A saline solution of the red cells from blood collected by the Red Cross for the armed forces is being distributed in Detroit to eight Wayne County hospitals, to supplement direct transfusions or use of blood in "banks."

Detroit, among the 31 blood donor centers of the Red Cross in the United States, is the first to use the red blood cells, according to Dr. Warren B. Cooksey, technical supervisor of the Detroit center. While the 31 Red Cross blood donor centers have provided more than 1,500,000 pints of blood plasma for the treatment of armed forces and others, a paradox in the situation has been that, except on a very small scale, the red cells have been separated from the plasma and thrown away, although it is these cells, traveling in millions in the blood, which distribute to all tissues the oxygen they require.

The function of blood plasma, administered to patients, is to restore volume to the circulatory system. Without this volume the remaining blood cells and those being manufactured in the bone marrow cannot circulate.

Blood plasma is prepared for preservation over long periods. No means have been discovered for preserving and shipping red cells in the same manner, but when these cells are put in some favorable solution they can be used within one week after the blood has been drawn from a donor.

Three months ago the Detroit center undertook the preparation of this solution, saving all red cells instead of treating them as waste, and less than a month ago delivery of the solution was undertaken to nearby hospitals.

"This means that the blood banks in these hospitals may be tremendously supplemented," Dr. Cooksey said. "In any general hospital from 50% to 60% of patients needing new blood, either by direct transfusion or from the blood bank, are clearly cases in which the red cell solution serves just as well as the transfusion of bank blood. All red cell solutions are typed, as in direct transfusion blood or that preserved in blood banks.

"Red cells are universally needed in anemia cases. In cases of shock, only blood plasma is needed, for in shock, plasma, the fluid element of the blood, is rapidly absorbed by the body tissues. Use of the red cell solution has proved to be a remarkable aid in the treatment of various types of anemia."

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SAFETY

More Hurt in Homes Than on the Job

► HOME ACCIDENTS sabotage more man-hours of American war workers than injuries in the industrial plants themselves, Miss Ethel M. Hendriksen of the New York State Health Department told the National Safety Conference in Chicago in urging immediate action to make the home safe for more work production.

Time lost from home accidents last year was sufficient to have built 2,750 bombers or 70 destroyers. Thus home safety is everybody's business and a factor in the war effort, Miss Hendriksen argued.

Even an accident to another member of the family may upset a war worker, cause lost time and lowered efficiency.

With home and farm accidents on the increase, a preventive campaign should be started, Miss Hendriksen urged.

Safety measures include increasing storage space to reduce the clutter under foot. Non-slip floor polishes should be used. Avoid metal edgings. Repair and add railings on stairs.

Especial attention should be given to plans for war and post-war housing, Miss Hendriksen recommends, to see that safety is not sacrificed to speed and cheapness.

Driveways and entrances to homes should permit an unobstructed view. Outside steps and danger spots should be lighted. Pools and steep terraces should be eliminated.

Household furnishings, equipment and appliances must also be considered from the standpoint of safety.

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