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drop other foods they had already picked up, if they found it available. Their preference for bees rather than other insects might appear strange at first, for bats fly at night and bees by day, so that they do not normally meet. However, Prof. Gates suggested, the nectar carried by the bees may have given them an attractively sweetish taste.

All the food had to be chopped up very fine, for bats are rather helpless, with both arms and legs involved in their wide "leathern" wings, and their mouths are adapted only to the intake of very tiny morsels. Their meals must be served in very shallow dishes, as must also the necessary supply of drinking water.

30 Million Years Late

Okapi, queer-looking jungle cousin of the giraffe and one of the world's rarest mammals, is a "living fossil," 30 million years out of step with the times.

This is the verdict rendered by Edwin H. Colbert, research worker at the American Museum of Natural History. Mr. Colbert has made a careful examination of okapi skeletal material, and finds that though the animal is related to the modern giraffe, it is in all respects more primitive than any fossil giraffe known. He considers it to be more like what an ancestor-giraffe might have been, back in Miocene times, 30 million years ago.

Although not an extinct animal, the okapi is apparently about as near extinction as a species can get, and still survive. It was never seen by white men until the beginning of the present century, when its discovery by Sir Harry Johnston, then governor of the British province of Uganda in Africa, caused a furor in the scientific world and even a newspaper sensation. It lives in the dense tropical jungle, where its extreme shyness and skill at concealing itself make its detection exceedingly difficult. Not so tall or long-necked as the giraffe, it still shows its zoological kinship in its high shoulders, peculiarly shaped head, and little nubbins of horns.

Looks Like a Bear, But Isn't

Panda, one of the strangest-looking animals that wears fur, has been put in the same family pew with raccoons, though to outward appearance it is more like a bear. The newest effort toward a correct classification of this puzzling beast was reported by Prof. William K. Gregory of the American Museum of Natural History.

The panda, which lives in the most inaccessible parts of the Himalayas, is

about as big as an American black bear, and is bear-like in appearance and general habits. It is marked like nothing else alive, with black legs, a black band around its body at the shoulders, black ears and a black spot around each eye; the rest of the creature is light-colored. (See SNL, Feb. 29, for picture.)

Prof. Gregory made an exhaustive

comparison of the bones of panda specimens, detail for detail, with the bones of bears and of raccoons, as well as with fossil remains of bear- and raccoon-like animals now extinct. Despite differences in size, there were more fundamental shape-resemblances between the bones of panda and raccoon.

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MEDICINE

Heat, Cold and Scratch Allergies Added to List

SCRATCH allergy has been added to the list of conditions of hypersensitivity, Dr. Williams W. Duke of Kansas City reported to the American Medical Association meeting in that city.

Besides persons who are sensitive to pollen, such as hay fever sufferers, and those sensitive to foods, heat, cold and effort, reported at previous annual meetings of the American Medical Association, Dr. Duke has now discovered patients who are so sensitive to mechanical irritation that a slight scratch may cause them to develop any reaction from hives to shock and possibly sudden death.

Such individuals can be desensitized, Dr. Duke reported, by scratching themselves thoroughly each morning and evening with a stiff hair brush or bath brush. Similar treatment by small exposure to the causative agent, whether heat, light, cold or effort, will "cure" the hypersensitivity in the other patients.

Swimming Danger

Danger lurks at the bathing beach for those unfortunate persons who are hypersensitive to cold. Facts about this peculiar condition were shown by Dr. Bayard T. Horton of the Mayo Foundation for Education and Research, Rochester, Minn., in the scientific exhibit.

Nearly half of the persons studied collapsed after they had been in swimming, and some had to be rescued from the water. Besides the general reaction, which may cause collapse and unconsciousness, discoloration of the hands and feet and marked flushing of the face may occur. In one patient, the temperature of the cheek increased several degrees at the height of the reaction. Cold air as well as cold water brings on the condition in susceptible persons.

Experimental studies showed that the reaction is a chemical one. The effect of the cold is apparently to increase the amount of histamine in the blood. This

substance, which occurs naturally in the body, produces similar disturbances of the circulation when injected into the blood stream.

Among the 20 patients suffering from this condition who came to Dr. Horton for treatment was a young farmer who had all his life been accustomed to going outdoors in the severe cold of Minnesota winters. Quite suddenly he developed the sensitiveness to cold which prevented his carrying out his usual farm duties.

A method of curing this allergic disease was reported by Dr. Horton. The cure for the condition is cold water. Immersing the hands in very cold water twice a day, Dr. Horton reported, cured the condition in all the cases he has been able to follow.

Hay Fever Map

Havens for hay fever sufferers who owe their affliction to ragweed pollen were reported by Oren C. Durham, North Chicago, Ill., botanist. For ten years Mr. Durham has ranged the country making a scientific study of the amount of ragweed pollen in the air at various localities. Assisting him were volunteer and regular observers of the U. S. Weather Bureau.

Mr. Durham rated about a hundred localities in North America by means of a pollen index method he devised. Ragweed hay fever sufferers, it appears from his report, may find sneeze-free refuge in the following places: Sacramento, Miami, Reno, Portland, Ore., Seattle, Spokane, Prince Albert, Sask., and Mexico City.

Blood Test

A new test for sensitiveness to certain foods was reported by Dr. Warren T. Vaughan of Richmond. Persons, who cannot tolerate certain foods, such as shellfish, milk, eggs, or wheat, have in the past been tested by a skin scratch

method like that used to test hay fever patients. By this method physicians could determine which specific food or foods caused the often grave disturbance from which these hypersensitive or allergic patients suffered.

The new test Dr. Vaughan reported this morning is a blood test. A decrease in the number of white blood cells occurs in these patients after they have eaten the food to which they are sensitive, Dr. Vaughan found. Testing the blood of these patients after they have gone without food for 12 hours and then at three half-hour intervals after they have eaten the suspected food is the method used. The results agreed well with those obtained by skin tests and in some cases Dr. Vaughan found the blood test more sensitive than the skin test.

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CHEMISTRY

Italy To Use Surplus Wine For Motor Fuel

ITALY'S bumper "vino" crop last year is going to be used—at least the surplus—as a source of motor fuel. In its search for gasoline substitutes Italy is now looking over the large wine crop, says a report from Trade Commissioner E. Humes at Rome to the U. S. Commerce Department's Chemical Division.

From the surplus would be made alcohol which might be blended with gasoline as a motor fuel. A census of individual wine holdings is now being made, states Commissioner Hume's report, with a view to ascertaining the amount which will be available for conversion into alcohol for motor fuel.

With only 3 per cent. of its gasoline needs coming from domestic sources, Italy has used the last few years to develop intensively the manufacture of industrial alcohol for fuels. Early in 1936 a law was passed making a 20 per cent. blend of alcohol in gasoline compulsory, states the report.

Raw materials for distillers have been provided by increasing the acreage of sugar beets and a limitation has been placed on the amount of sugar beet molasses used for sugar recovery in order to increase the supply for alcohol producers.

Italy's production of absolute alcohol tells the story of the effectiveness of these and other measures. Production in 1934 was 11,000,000 gallons. In 1935 it was 13,200,000 gallons and the output is expected to reach 26,000,000 gallons of alcohol by 1938.

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BIOLOGY

Strange Hybrids Started By Male Nuclei in Female Egg

LIFE development starting with only the nucleus of the male cell introduced into a part of the egg from which the female nucleus had been taken away was reported before the meeting of the National Academy of Sciences, by Dr. Sven Hörstadius of the University of Stockholm.

Dr. Hörstadius worked with two different genera of sea urchins. With fine glass needles he cut the unfertilized eggs of one genus in two, leaving the nucleus of each egg in one of the halves. The half without a nucleus he fertilized with the sperm of the other kind of sea urchin, thus producing a hybrid containing only paternal nucleus and only maternal cytoplasm, which is the general life-stuff or protoplasm of the cell. These strange hybrids lived to be three weeks old, as larval sea urchins. They might have lived longer; but at that point Dr. Hörstadius had to leave the laboratory where he was working and return home.

The problem on which the Swedish biologist was working was the old question whether the nucleus of the cell is completely the "boss" of the cellular life-activities, or whether the rest of

the protoplasm (the cytoplasm) has any authority of its own.

In Dr. Hörstadius's hybrids, the character of the male parent was dominant, but not completely so. Some signs of the maternal characters asserted themselves also, indicating that the cytoplasm was not entirely passive in the presence of the nucleus.

However, the question was not considered closed by Dr. Hörstadius and his American colleagues who discussed the matter after his address. The cytoplasm, it was pointed out, may not possess its apparent "authority" in its own right. It may have been so deeply influenced by the female nucleus, before it was removed, that it continues to "carry out orders" even when left to itself. Also, there is the possibility that some small fragments of the nucleus may be left in the supposedly quite un-nucleated cells, for it is difficult to see a living nucleus with absolute distinctness, even under a strong microscope.

For these and other reasons, therefore, the Swedish scientist preferred to turn in a Scotch verdict, and leave the question open for further investigation.

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SILVACULTURE

Trees Now Showing Damage Due To Spring Floods

TREE damage due to floods of the early spring in New England is only now becoming fully manifest. In a recent issue of SCIENCE (May 1), Prof. Malcolm A. McKenzie of the Massachusetts Agricultural Experiment Station gives a condensed summary of his survey of the deadly effects of the flood, with suggestions for remedies.

One of the most devastating types of damage was due not to the water itself but to oil from flooded reservoirs floating on its surface. This coated the needles of evergreen trees, and has already killed many valuable ornamental specimens. Smaller evergreens, which were completely submerged when the oil came floating down, escaped. Oil damage to hardwood trees was also limited,

due to the fact that they were leafless and dormant at the time of the floods.

More easily visible are the terrible bark wounds made by the battering of floating masses of ice. Many trees were entirely girdled by this ice erosion, and others can be saved only by prompt surgical work on the ragged edges of the wounds, with protection of the bare wood while the bark grows over it again. Other trees have had unsightly and harmful masses of debris lodged in their branches, and must be cleared and pruned if they are to be saved.

Trees that were entirely uprooted by the floods joined the ice floats and themselves became battering-rams in the grip of the charging waters.

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