



Defeating Winter

LIVING things use a wide variety of means in defeating or evading the deadly blight of winter!

Plants, in general, have the hardest time of it. Lower forms, being mostly aquatic, keep refuge in the water, as fish do, and stolidly stick it out. Water seldom freezes all the way to the bottom. Some of these pond inhabitants, at that, produce resistant spores in autumn, that fall to the bottom and lie dormant until spring.

Higher plants either trust the fate of coming generation to their seed and submit to being frozen to death, as the annual herbs do, or crouch beneath coverings of dead leaves and drifted snow, or even retreat into bulbs, root-stocks, etc., leaving no parts exposed above the surface. Trees, shrubs and woody vines either shed their leaves and stand as skeletons through the bitter season, or cling stubbornly to close-reefed evergreen foliage, and wrestle it out with the storms.

Animals, being motile for the most part, have a wider choice. Some, like short-lived insects, entrust the fate of the species to eggs or pupae, as annual plants do to seeds, and make no attempt

to live through the winter. Others, notably birds, frankly run away, migrating southward in vast flocks as winter moves down the map, to return north with spring.

Many hibernate; and there are all degrees of hibernation. Some, like ground squirrels and frogs, pass into a "death-seeming swoon," from which it is extremely difficult to arouse them without warming them up to springtime temperature. Others, like bears and some species of squirrels, sleep deeply or lightly, as particular environmental conditions dictate. Some bears go into their

dens in autumn and are not seen again until spring. Others emerge during thaws and forage for a little extra food to supplement their stored fat. In the South, of course, bears do not hibernate at all.

Many animals, like hawks and owls, chickadees and nuthatches, the fox, wolf and weasel tribes, rabbits and quite a number of rodents, are able to find enough food to keep their life-fires going full blast all winter, especially since the majority of them are able to make or find warm shelter of some kind.

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MEDICINE—GENETICS

Tendency To Die of Heart Disease Runs in Families

WEAK HEARTS are inherited; or, to put it another way, a constitution less resistant to the causes, whatever they may be, of heart and blood vessel diseases is inherited. Statistical evidence for this is reported by Dr. Antonio Ciocco, of the U. S. National Institute of Health and the Johns Hopkins School of Hygiene and Public Health. (*Human Biology*)

Studying death certificates, family histories and life insurance records of 2,309 white men, Dr. Ciocco discovered that "death from cardiovascular (heart and blood vessel) diseases was more frequent among the fathers and mothers of men who died from cardiovascular diseases than among the parents of men who died from other causes."

Seeking an explanation for this, Dr. Ciocco ruled out contagion, which would play a role only in the case of rheumatic heart disease, and living conditions on the ground that at the time the men applied for life insurance policies both

parents were dead and the men themselves had reached adulthood in presumably good health.

"It appears more probable, therefore," he states, "that here is exemplified a manifestation of the hereditary transmission of an organ weakness, that is, a constitution less resistant to whatever immediate factors cause cardiovascular diseases."

The findings do not necessarily mean, Dr. Ciocco warns, that the way to prevent heart and blood vessel disease is by selective breeding. Rather, he hopes, the findings will lead to a realization that a family history of heart and blood vessel disease in an otherwise healthy person is "a forecasting sign indicating the probable need for special care and observation."

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