



In the first place, it aids the animal greatly in the capture of its prey. The polar bear feeds, for the most part, upon seals, and catches them as they lie resting upon the snow-covered ice. If its coat were brown or black, it would

be seen by them while still at a distance, and every seal would shuffle over the edge of the ice into the sea. But a white animal, creeping over white snow, is almost invisible; and before the victim is aware of its danger it is struggling in the grip of its terrible foe.

In the second place, white clothing is the warmest of all, for it radiates heat instead of conducting it. It is true that in hot weather it is also the coolest; but that is for precisely the same reason. It reflects the heat back instead of allowing it to pass through. We wear white clothing when we engage in athletic contests, and cover the roofs of our greenhouses with a coating of whitewash; that is because the heat from outside

has to be prevented, as far as possible, from getting inside. In the same way, white fur prevents the heat that is inside from getting outside, just as the tea in a white teapot cools much more slowly than in a black one. And the polar bear remains warm and comfortable, in its dress of "winter white," even when swimming for hours in icy

water, or meeting the full force of an Arctic gale when the mercury almost freezes in the thermometer.

But the animal takes advantage of the heat-retaining properties of "winter white" in another way as well. The mother bear, at certain times, spends the greater part of the winter in that curious state which we term "hibernation"; that is to say, she passes into a deep sleep, during which she needs no food, while she almost ceases to breathe, and the blood scarcely flows through her body. While in this condition, her furry coat is not sufficiently warm, for the bodily heat inside it is greatly reduced. So, before she falls into her torpor, she scoops out a hollow in the snow, and then allows herself to be completely covered in by the falling flakes. Thus the snow itself acts as an outer garment, and partly by reason of the air which is entangled between its particles, and partly because of its whiteness, keeps her snug and warm till spring returns.

Then animals which live in somewhat lower latitudes become white in winter, although their fur may be brown, or even black, during the remainder of the year. Thus the Arctic fox, which inhabits Lapland, Iceland, Siberia, and North America, is either brown or slaty grey in summer, but becomes snowy white in winter; while, during spring and autumn, its fur is more or less mottled. The celebrated ermine, so valued for its beautiful white coat, is only the stoat in its winter dress. In this country the change of hue is seldom complete; but in more northern latitudes the ruddy brown of summer gradually pales into the creamy white with which we are so familiar. The same rule holds good with the birds; they, too, don suits of "winter white" in high latitudes. Even the insects, very often, are white; and the farther north that we find them, the more pure and unbroken is their snowy covering.

So, by a wise and wonderful provision of Nature, or rather of Him Who is behind Nature, the change of colour is brought about by the very cold that renders it necessary, and animals whose life depends upon their bodily warmth are protected from the freezing climate in which, very often, almost their entire existence has to be spent.