

THE SYSTEMS OF NATURE

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One of the features of the system of nature which we see as we look around us is predation, carnivorous animals preying on others. But most Creationists believe that it was not always thus; until after the fall, and possibly until after the Flood, all animals, and man, lived on vegetables.¹

What is more, it is prophesied that such a state of affairs will be restored: the wolf shall dwell with the lamb, the cow and the bear shall feed (i.e., eat the same food?), and the lion shall eat straw like the ox.²

Well, what we see today certainly does not fit any such picture. These things existed in the past, or are yet to come upon the Earth.

Some may question whether such things are possible, arguing that some animals simply could not live, nor ever could have lived, on vegetables; and also that predation is necessary to maintain the balance of nature. It is worth while, then, to consider these matters in a little more detail, to see what possibility there is for changing from the present system of nature to the one described in the prophecy, which I call the Isaiah model.

We may note, as a preliminary point, that, while ecosystems do not evolve, they do interact when the system in any given environment changes. Also, quite large changes within the kind are possible, through adaptation, according to what I have called the fourth law of creation.³ For instance, in the Hawaiian islands, the nettle plant has grown into a tree-sized plant, without stinging hairs.

Let us now consider some of these points.

The Efficiency of the Isaiah Model

There is no question that the Isaiah model would be more efficient, in the sense of enabling the Earth to support more animals and men. A (human) vegetarian can live off an area of land of about one half acre, whereas a meat-eater would need about two and one half acres to support the animals on which he himself would feed. Therefore, in the Isaiah model, the same area could support many more vegetarians. (We may assume that much the same ratio would hold for animals as for man.) This point certainly deserves consideration by those who talk about the population explosion.

Is Predation Necessary?

Obviously predators do have some effect on the populations on which they prey, but not as great a one as many people think. If they take only the weakest (as a rule) in no way do they have a far-reaching effect on the population.⁴ In the Isaiah model, control would be taken care of by some natural means, or some means approved by God. Examples of this kind of "predatorless control" are in evidence even now.⁵ For example, when foxes are removed from an area where pheasants are common, the pheasant population hardly changes. Most furry animals, and birds, have a system of terri-

torial population control. They stake out a territory which provides enough of the necessities of life, and reproduce accordingly; never overfilling an area, and "instinctively" knowing how much territory they will need. Even when food is plentiful, they do not begin to breed at an alarming rate, which would most certainly upset the "local" balance.

The Adaptability of Animals

Let us consider some cases in which animals have changed their diets. In the present system, it may be easier to find changes to meat-eating, rather than from; but what has changed in one direction should be able to change in the other.

The kea, a parrot-like bird in New Zealand, used to live on a diet of fruit and vegetables. Now, following the introduction of sheep, they dine on the carrion of dead sheep.

The brown bear, polar bear, fox, lion, leopard, and baboon all have one thing in common, viz. large canine teeth. Yet the brown bear eats a great deal of fruit and vegetables. The fox eats a very varied diet, including, besides meat, fish, insects, fruit, and vegetable matter. Fruit and vegetables make up a large part of the baboon's diet, but it will eat meat. The polar bear is a meat-eater, as we all know; but when summer conditions prevail that little bit longer it includes a great deal of plant material in its diet.

Animals' very strategies for getting food can vary widely. In swamplands in the United States, it is reported, rabbits have been seen swimming, and diving for food.

Among bats there is a great variety; for instance, fish-eaters, fruit-eaters, and insect-eaters. The fruit-eaters have very long and sharp pointed teeth. There is a bat which drinks the nectar of flowers, pollinating them in the process. See Figure 1.

It has been reported that there is a dog in Sweden which refuses to eat meat, preferring vegetables and confusing the veterinary fraternity.

Just after the recent eruption of Mount St. Helens in the United States, ladybirds, which normally thrive on a diet of aphids, returned to the area and, in the absence of the once abundant aphid population, commenced to dine on the sap of a type of fern, cutting out the aphid "middle-man."

A report some years ago told of horses, which were used to haul nets in the winter, becoming stranded, along with the fishermen, on an ice-floc. When the hay was exhausted, the horses were fed fish for several days.

Again, many reptiles eat fruit and vegetables; for instance tortoises, and the iguanas of the Galapagos Islands.

A most remarkable story, which I have reason to believe is perfectly true, concerns an elephant in a zoo in Germany. A woman, who evidently had some kindly feeling toward it, volunteered to stay with the elephant one night, when it seemed ill. When the keeper arrived the next day, all that he could find of the woman

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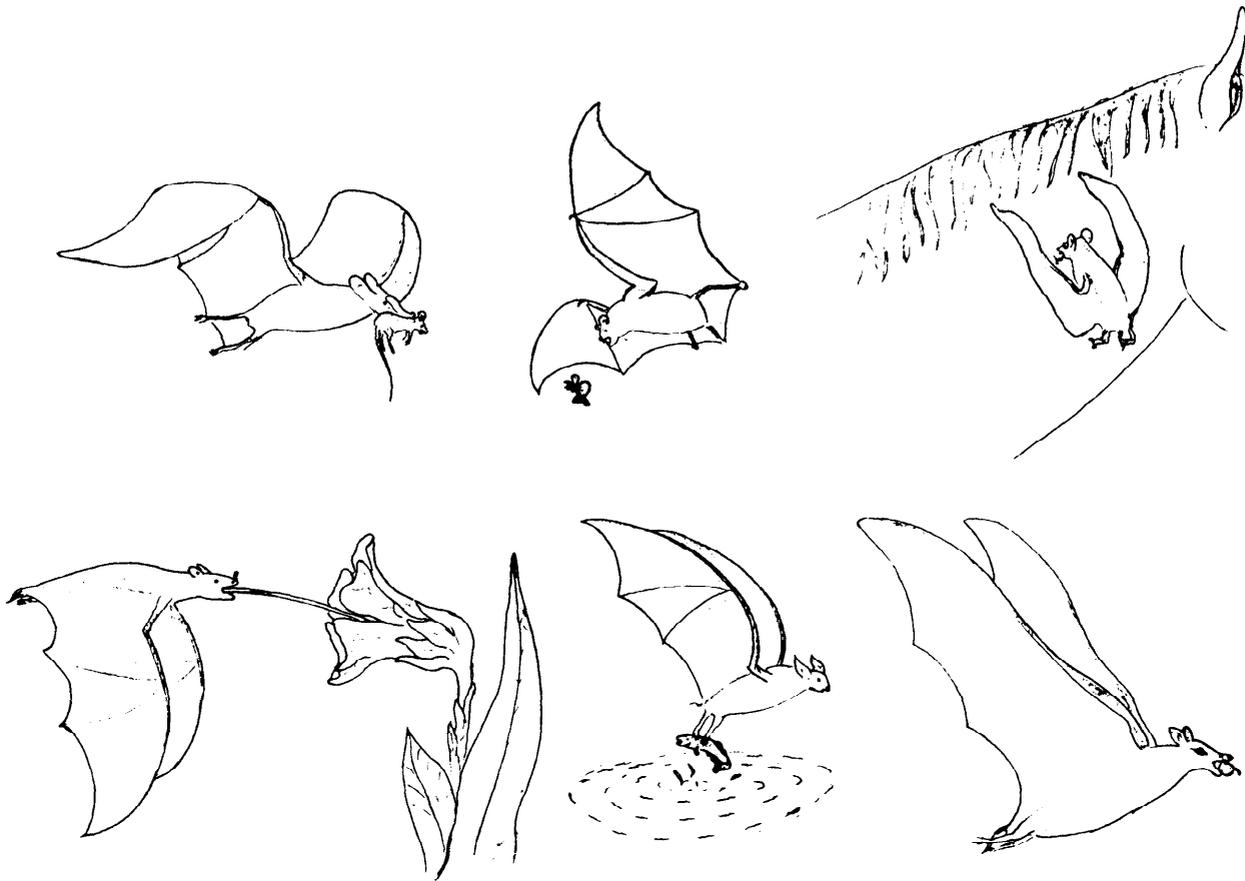


Figure 1. Some of the various modes of livelihood adopted by bats. This picture was drawn by Mr. Paul Stanton.

was her handbag. But evidence of the woman's fate was found later in the animal's droppings, in which were undigested pieces of her coat. It may have been that some vitamin or mineral was lacking in the elephant's diet. It is known that deficiencies may lead cows to eat the wood around their stalls, or chickens to turn cannibal.

Incidentally, whilst on the subject of elephants, there is a very rare species (or sub-species; the classification is, as yet, uncertain) of elephant which lives in the Kalahari Desert. It is very well adapted to its desert existence, drinking very little water and sustaining itself on a far less abundant supply of food than its plain-dwelling relatives. This case is, of course, of great interest to the human inhabitants of desert and semi-desert areas everywhere; for it suggests that domesticated animals, too, might adapt to such conditions.

Again, it is reported that during the war zoos, in some countries, had to feed their carnivores fruit and vegetables for a time, meat being in short supply. Apparently the carnivores coped reasonably well with such a diet.

Diet, Enzymes, and Vitamins

In considering changes of diet, it must be remembered that different enzymes may be required, to

break down the new type of food.

An example may be found today within the human population. A great many people throughout the world cannot digest cows' milk. Why not? Such people cannot make use of the natural sugar lactose, found in milk. They lack the necessary amount of the enzyme which acts on lactose, breaking it down into the smaller sugars glucose and galactose, which are easily assimilated by the human digestive system. In other cases, too, the lack of the right enzyme, or of sufficient amounts of it, can put restrictions upon a choice of diet. Thus northern European people can digest cows' milk; many others cannot. There seems to be some possibility, however, that these lacks of an enzyme may be altered or reversed, even in the case of an individual.

A similar thing may be said about vitamins. Humans cannot manufacture vitamin C within the body, as most mammals can. Many of those mammals, however, eat also a large amount of fruit, thereby at least doubling their intake of vitamin C; and they seem to come to no harm thereby.

Another vitamin necessary for man's well-being is B 12, the lack of which causes pernicious anaemia. This vitamin we derive mostly from meat, in our present diet. But investigations by Dr. Frey Ellis and his

colleagues, at Kingstom Hospital, London, have uncovered cases of vegans (strict vegetarians who do not consume even dairy products or eggs) living up to seventeen years without supplements of vitamin B 12 in any form, yet maintaining serum levels.⁶ They appear to have adapted (or reverted) to a state in which they absorb the vitamin from the colon, possibly by a change in the mucosa. Or, possibly a small part of the terminal ileum has become colonized by bacteria producing vitamin B 12.

It would appear, then, that in switching to another system of nature, problems about enzymes and vitamins would not be insoluble.

"Born Free"

In the book (or film) of the title mentioned, it is recorded that Elsa, the lioness, did not know how to kill or to hunt, nor did she appear keen to learn. She just played with live animals, or chunks of meat, offered to her. Even when repeatedly charged by a wart hog, she did nothing in the way of defence; and had they not been separated she would likely have been killed.

A similar story has been presented by the B.B.C. A Russian scientist and his family had been keeping

a young polar bear. He took the bear to the Arctic, thinking to introduce it to its natural environment; but the attempt was a failure. The bear, just like Elsa the lioness, played with the meat (a seal), having no idea what it was supposed to do.

It would appear, then, that in matters of behaviour there would be no insuperable difficulty in going to the Isaiah model.

References

1. Lambert, Grant R., 1983. Was the pre-Flood animal kingdom vegetarian? *Creation Research Society Quarterly* 20 (2):88.
2. Isaiah 11:6-9.
3. Brown, Colin, 1982. Variation and the fourth law of creation. *Creation Research Society Quarterly* 19(2):100-103.
4. Smith, E. Norbert, 1976. Which animals do predators really eat? *Creation Research Society Quarterly* 13(2):79-81.
5. Custance, Arthur C., 1971. The survival of the unfit. Doorway Paper No. 53. Published by the author at P.O. Box 291, Brockville, Ontario, Canada.
6. Information from The Vegetarian Society of the United Kingdom Ltd., 53 Marloes Road, Kensington, London W8, England.
(Editor's note) May I mention another instance? As a boy on the farm I have seen swine, which normally had a vegetable diet, maim and eat chickens which had strayed into the pig-pen. The chickens, in turn, which ordinarily live on grain, would occasionally catch and eat small mice.

PANORAMA OF SCIENCE

Magnetic Field Reversals

Much emphasis is placed on alleged reversals of the earth's magnetic field. Support data are largely found in igneous rocks at the earth's surface. This material maintains a record of the surrounding magnetic field at the time of solidification. Alternating patterns of magnetic alignment are especially evident adjacent to the mid-oceanic ridge systems. This reversal interpretation of data conflicts with the model of a one-time decaying field, as explained by Thomas Barnes.

A possibly-related phenomenon is described in a recent book on the subject of earthquake prediction.¹ Several instances are described in which sudden magnetic changes coincide with seismic activity. One story is told of a Tokyo merchant who kept a large three-foot diameter horseshoe magnet in his store window. Just two hours before a severe 1855 earthquake, the magnet suddenly lost all its attractive strength and dropped off attached objects. Following the quake, the magnet regained its strength. The episode remains a mystery. Could there have been a temporary, local "transient field" that demagnetized the horseshoe coincident with the earthquake? There is at present no explanation for such anomalous magnetic activity. In the laboratory, a strong opposing field produced with unusual windings is required to demagnetize a horseshoe magnet. Nevertheless, intense, natural transient fields cannot be ruled out. After all, we are only now beginning to acknowledge the related optical electromagnetic glow associated with earthquakes.²

At this stage, one might suggest that electrostatic forces repelled the objects from the Tokyo horseshoe magnet. However, the necessary charge density to overcome such a permanent magnet is entirely unreasonable. Also, demagnetization effects are not limited to the Tokyo event. Immanuel Kant describes a 1755 earthquake in Lisbon: "I cannot pass in silence over the fact that on that terrible All Saints Day the magnets in Augsburg threw off their load and that magnetic needles were brought into disorder."³ Other scientists including Robert Boyle have also reported similar happenings during earthquakes in Naples, Rome, etc.

By extrapolation of this phenomenon, one wonders about transient magnetic fields along the oceanic ridges. By definition, these and all other regions of igneous activity are intense seismic areas. The suggestion is that local transient fields at the time of material flow may be responsible for the recorded magnetic alignments. In this case, alternate bands of alignment are due to temporary local field changes instead of complete earth field reversals. The complications of sea water permeability, rock temperature, and field generation remain to be worked out. However, since there is no known mechanism for reversing the earth's entire field, local seismic field transients certainly deserve consideration as an alternate interpretation of the data.

—Contributed by Dr. Donald B. DeYoung