

An Unconventional Hunter

The Venus Plant

H A R U N Y A H Y A

In the sixth ayah of Surah Hud, Allah states that Allah gives the "sustenance" of all living things, that is, all the provisions that provide for their subsistence:

There is no creature on the earth which is not dependent upon Allah for its provision. He knows where it lives and where it dies. They are all in a Clear Book. (Surah Hud: 6)

One can easily recognize how Allah "gives sustenance" to all living things once one looks around oneself conscientiously and with wisdom. All our food and drink are things that are "made" and "created". The water we drink, the bread, fruits and vegetables we eat are all the results of a special creation. Take a fruit, an orange for instance.... This fruit is originally formed on the branch of a tree, which is, in fact, a mass of wood. The tree absorbs minerals and water from the soil and combines them with the energy it obtains from the sun. The result it yields is extremely useful for the human body, extremely tasty and fragrant when consumed by humans. Moreover, it is in a very healthy and aesthetically pleasing wrapping.

How does a tree bring about such a yield? Why is it so useful to the human body? Why do all fruits contain essential vitamins appropriate to the seasons in which they grow? Why are they so tasty and not bitter? Why are they so fragrant and do not stink?

Certainly a tree is just a bulk of wood and it is out of the question for it to produce a fruit on its own and equip it with features essential for human use. Just as Allah sustains human beings, so does He sustain the animals.

It is by no means difficult for one to understand the might and omnipotence of Allah if one conscientiously examines, within the boundaries of wisdom and logic, the systems with which animals are endowed to get their food.

AN UNCONVENTIONAL HUNTER: THE VENUS PLANT

Besides the predators we have mentioned so far, there are also some plants which "hunt" by using amazing methods. One of these is the "Venus" plant, which catches and feeds on insects that visit it.

The hunting system of this plant works as follows: a fly looking for food among the plants suddenly comes across one which is very attractive: the Venus plant. What makes this plant, which resembles a pair of hands holding a bowl, attractive, is its charming red color and, more importantly, the sweet scent secreted by the glands surrounding its petals. The fly is charmed by this irresistible smell and lands on the plant without hesitation. While moving towards the origin of the food, it inevitably touches the seemingly harmless hair over the plant. After a short while, the plant suddenly snaps its petals shut. The fly is left tightly compressed between two petals. The Venus plant starts to secrete a "flesh dissolving" liquid, which causes the fly to turn into a jelly-like substance, and then the plant consumes the fly by absorbing it.

The swiftness of the plant in catching the fly is remarkable. The speed of the plant in closing is faster than the fastest closing speed of the hands of a human (if you try to catch a fly sitting on your palm, you most probably would not succeed, but the plant does). How, then, can this plant, which has no muscles or bones, make such an abrupt move?

Research has shown that there exists an electrical system inside the Venus plant. The system works as follows: the strokes of the fly on the hairs of the plant are transmitted to the receptors under the hairs. If this mechanical push is strong enough, these receptors will send electrical signals along the petal, just like waves in a pool. These signals are carried to the motor cells that cause the petals to make sudden moves, and finally the mechanism is activated to swallow the fly.

In addition to the stimulus system of the plant, the mechanical system by which the trap is closed also is created perfectly. As soon as the cells inside the plant receive electrical stimulation, they change the concentration of water within themselves. The cells inside the trap release water from their bodies. This event is like the dying of a deflated balloon. The cells outside the trap, on the other hand, take in excess water and swell. Thus, the trap is closed in the same way as when a person, in order to move his arm, needs to have one muscle contract and one relax. The fly trapped inside the plant actually touches the hairy strands repeatedly, causing the propulsive electrical force to discharge again, and making the trap more tightly closed. Meanwhile, the digestive glands in the trap are also activated. As a result of stimulation, these glands kill the insect and start slowly dissolving it. Thus, the plant feeds on digestive fluids that have turned into a bowl of soup enriched by plant proteins. At the end of the digestion, the mechanism that makes the trap close works conversely to open it.



A few hairs inside the petals of the plant activate the trapping mechanism of the flower.

This system has yet another interesting feature: in order to activate the trap, the hairs have to be touched twice in succession. The first touch generates a static electric charge but the trap is not closed. The trap is only closed with a second touch after the static charge reaches a certain point and discharges. Due to this dual action mechanism, the flytrap is never closed without purpose. For instance, the trap does not become activated as soon as a raindrop falls on it.

Now, let us contemplate this striking system. The whole system has to exist at the same time for the plant to catch its prey and digest it properly. The absence of only one element would mean death for the plant. For instance, if there were no hairs inside the leaf, the plant would not close, as the reaction would never start although the insect would walk all over and inside the plant. If the closing system were there, but if the plant were devoid of secretions to digest the insect, the whole system would be useless. In brief, any element lacking in the system would mean the death of the plant.

This plant, since the moment it was created, must have always possessed the features we refer to here. The plant, no doubt, did not suddenly transform into a hunter. It is certainly not the "magical spell of coincidences" that has made the plant such a professional hunter.

The most important point is that this proficient hunter does not have the capacity to think. If this living being were not a plant but an animal, then the advocates of evolution would possibly claim that the animal had progressed by itself with the estimable contributions (!) of "nature". What we are talking about here is that this system is found in a plant, a being with no brain or similar structure, and which is certainly unconscious. The plant is not even aware that it is hunting. It, too, is already created with a system by which it can feed itself without any effort just like all other plants.