

## A souped-up turtle – 2

If a green sea turtle had to learn all the actions which it performs, it would be rightly regarded as a **highly intelligent animal**. It has the **sophisticated navigation** skills to swim over the horizon through the ocean to find a tiny island more than 2,000 km away.

- To ensure the continuance of the species, an entire group sets out for the distant mating site, offshore the egg-laying beach. To increase the numbers of hatchlings, the females mate multiple times in one season.

At each mating, all the females mate at about the same time. This sets the clock for a near simultaneous hatching of the young turtles and their subsequent race to the sea, which is **the best strategy** to overwhelm predators.

- The female then in some way selects a beach with sufficient sand above the high tide line. She climbs her way up, usually at night, which **minimizes drawing the attention of predators**. She also knows enough to keep moving up the beach until she is above the position of highest tidewater, where her eggs will not be drowned.

Although her rear flippers are for the purpose of steering while travelling through the water, she is also possesses **the inborn skill** to use them for digging a hole in the sand.

- Having laid her eggs, she takes care, not only to **cover the eggs** with sand, but also to smooth and shape the top for **an undisturbed appearance**. If there is vegetation nearby she may even move some of it to further disguise her nest. During this time there appear to be tears running from her eyes, but it has nothing to do with her feelings.

They are coming from the lachrymal gland which is located near her eye socket. This gland removes excess salt from the body, a job that the kidneys are unable to perform. Not only does this animal act in a very intelligent manner, but its body is supremely designed for its environment.

- After each young turtle is hatched, it digs **in the right direction** to get out of the hole in the sand. It then crawls **towards the brightest horizon**, which in a natural environment is the shoreline. As soon as it reaches the sea, it takes a drink, and its salt-removing gland begins to function.

It moves about, feeding in the open ocean while growing to maturity. Reaching adulthood, the turtle, with its **built-in guidance system**, finds its way to the sea grass meadow its parents came from, and begins grazing there.

- No one has suggested that a green sea turtle conducts its amazing way of life because it is highly intelligent. It is well understood that this animal is acting on **instinct**, which can be defined as complex **unlearned** behaviour. The turtle is reacting automatically to conditions in its environment, rather than deciding what it should do.

William H. Thorpe has shown that instinctive behaviour is genetic, in other words it is inherited, programmed into the DNA. He speaks of instinct as “complexes of precisely controlled movement, known as **fixed action patterns**,” operating under “the **precise control of coordinated complexes of nerve cells**.”

- He provides an example in the complex movements of **swallowing** in the dog, which is not consciously controlled. “**Eleven separate muscles or muscular systems** are found to discharge one after the other, **precisely timed** to a matter of milliseconds, and all under the control of the central nervous system” (brain and spinal cord).

Similarly complex systems can be seen operating in our green turtle, faithfully passed on from generation to generation. To propose that such finely co-ordinated systems have no designer must be regarded as irrational. *“O LORD, how manifold are Your works! In **wisdom** You have made them all” - Psalm 104:24.*