

Here the female fish scoops out a little hole or nest on the river bed in quiet water, and deposits her eggs or roe. The male fish swims over the eggs and, probably excited by their presence, deposits upon them a substance from his body, termed milt, which fertilizes the eggs and causes them to hatch. This milt from the male fish carries many little wriggling things called sperms which bite into the eggs and bring them to active life. The process may be termed external copulation, as the male and female do not come into direct contact with each other as in the higher forms of life.

In the case of the sea-horse (*Hippocampus Hudsonius*) the female lays her eggs in a pouch on the male's body. He fertilizes these eggs and protects them until they hatch. Nature has many and varied ways of bringing about the process of reproduction.

The female insect is usually much larger and stronger than the male. The female butterfly is fifteen times as long and ten times heavier than the male.

Some male creatures die after completing the sex act, as in the case of butterflies and eels. Nature seems to regard him as no longer necessary. The female mantis, (insects something like grasshoppers, that live upon other insects) devours the male while he is engaged in the sex act.

In some of the lower forms of life the eggs develop without fertilization from the male. This process is known as parthenogenesis, a Greek word meaning virgin-birth. These species include algae, some of the common ferns, the dandelion, some species of everlasting, the meadow rue occasionally, the hawk-weed (*Hieracium*), and water mold (a kind of fungus). This process is unusual in nature, however, and the cause or stimulus which starts development of the embryo in such cases is not yet known.

In some forms of sea life, the male first secretes the spermatozoa, and then the female absorbs it as it floats about in the water.

The males of some lower reptiles such as the lizard, have two penes. In the higher reptiles only one penis is found.

In the spring or mating season the birds come north, full of liveliness and song. They separate into pairs, and each pair goes about the business of building a nest. Then the male bird hovers over the female and finally perches upon her back. A stream of fluid containing sperm passes from his body to hers. The eggs in the female body are thus fertilized and begin to grow. When the eggs are ready to pass out of her body, she lays them in the nest. The male and female birds take turns sitting upon the eggs to keep them warm until they are hatched. The mother bird may lay eggs which have not been fertilized by the male, but they never hatch. In a female bird the left ovary alone functions, the right ovary being degenerate. In ducks, geese, and ostriches a well-developed penis is present in the male. That of the male ostrich is fibrous and bifurcated at the base.

"Every life comes from an egg" is an old proverb. One of the oldest metaphysical problems which has never been answered is: "Which came first, the chicken or the egg?" The bird's egg contains food or "white" upon which the unhatched bird or "yolk" feeds until it is strong enough to break through the shell.

The male breeding season of animals is termed "rutting," and the periods when females accept sexual intercourse are termed "heat." They are included under the term oestrus. Many children, especially those living in the country, observe instances of intercourse between animals. Parents and teachers can use such observations as a basis for sex instruction. Behavior of animals resembles that of humans to a great extent, and the sex organs are of similar construction.

## TEACHING OF CHILDREN

Parents who do not feel competent to teach their children the facts stated below, can tear it out and give it to them to read.

THE egg from which all life springs is called an ovum. Have you ever seen the roe of a fish? It is made up of hundreds of tiny eggs, each of them may be an embryo fish, when the eggs have been fer-