
DARWIN'S EARTHWORMS.

A Great Man's Interesting and Instructive Experiments.

In one of his last essays Richard Jeffries referred with great enthusiasm to Mr. Darwin's book on earthworms, speaking of it as especially valuable to the practical farmer, as well as interesting to the unscientific lover of country life and field learning.

The book has, moreover, a larger than common measure of the peculiar charm that characterizes all Mr. Darwin's literary work, the charm of homely industry and fascinating research delightfully recorded.

The introduction speaks of the thin layer of mold on the earth's surface, the "dirt," commonly supposed to be much deeper than it is, as being constantly altered and added to by the action of earthworms. Astonishing statistics are given concerning the number of them to the square foot in common soil, and the amount of earth



MR. DARWIN IN HIS GARDEN.

thrown to the surface in a year by "castings." One is already interested, and then ready to offer respect to the worm, when it is further shown that earthworms possess important "mental qualities."

A diagram showing the structure of the worm is given, but the book deals rather with the psychology than with the anatomy of earthworms. The series of experiments recorded demonstrating that earthworms have power of attention, discrimination and social instincts is delightful, for not only does one see Darwin at home with the flowerpot, containing the worms, at his elbow for daily consideration, month after month, but one becomes personally interested in the earthworms as a colony. It is possible to feel sorry when one of them dies.

Fat, squirming earthworms brought to the surface by a chance spadeful of soil in the garden seem to be there by chance, mere in-earth dwellers. But Darwin began his work among them by regarding each as an individual of well-developed intelligence and inhabiting a carefully made house of his own; an individual with whims and fancies, even.

The experiments which were to test the earthworm's mental capacities were for the most part very simple and homely, all the household taking part.

It is amusing to follow Mr. Darwin up and down the garden walks with his lantern, perhaps crawling cautiously on his hands and knees, surprising the earthworm at his nightly toil—the searcher assisted not infrequently by "my sons." And it is entertaining to picture him with a covered lantern personating the moon, shedding a dim light over the flowerpot where the worm colony were kept to test their sensibility to light.

To see if they objected to change of temperature, he drew near tenderly with the heated poker; only one of the worms "dashed into its burrow," which settled the point of the degree of development of their temperature sense.

They were taken to the parlor to listen to the piano and bassoon, fed with familiar and unfamiliar kinds of food and treated in all ways with the greatest care and consideration.

To demonstrate the existence of sense of touch was less important; everyone knows how ill at ease the earthworm is out of its natural contact with common soil. But Darwin's object was to find out what a practically deaf, blind and dumb individual, such as the earthworm is, would do under unusual conditions to make itself comfortable. That worms rarely do have a choice in the matter of food and even architecture is no longer absurd, in the light of Mr. Darwin's years-long researches. But with all these facts accepted, we are still unprepared to hear that an earthworm is sometimes ill. It is true that with his one species of parasite he is very low in the scale compared with man exalted by his several dozen species. But it is a fact that his one parasite can cause the earthworm so much discomfort that he crawls away from his cherished home to die by the wayside in great despair. There is Darwin's hearty assurance to comfort us that the worm really suffers less, however, than his actions would imply.

—Louise Lyndon, in Chicago Inter Ocean.