

# SCIENCE

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## THE ADVANCING PENDULUM OF BIOLOGICAL THOUGHT

THE specialist often finds it interesting, and sometimes profitable, to pause in the intensive pursuit of his own little field and take time to contemplate the general trend of thought in biological science.

In my own case it is often borne in upon me that the zoological public is little interested in the group of animals, the Hydroida, with which I work, and it is a positive relief to contemplate the broader aspects of the field of natural science.

Let this, then, be my excuse for presenting a paper that is non-technical in form and more of the nature of a general survey of the path along which we have traveled in the acquisition of general biological truth.

Upon taking such a survey it at once becomes evident that progress has been made along a sharply zigzag road, with successive swings to right and left, involving abrupt changes of accepted theories. In fact this path is that which would be traced by a pendulograph as made by an advancing pendulum. The actual movements would be mainly to the right and left of a median line representing actual progress, but each swing of the pendulum would make a slight but sure advance along that median line.

The idea is not really new and has been incidentally touched upon by various writers; but it seems to me that it would be profitable to consider with some care a few of the comparatively recent swings of the pendulum, to note the advance made by each, and possibly to arrive at some general