

Bombay Ducks, p. 146, he says, "The hoopoe frequently visits England and would breed there if it were allowed to do so; but the moment the beautiful bird sets foot on our shore it is shot by some collector, who then proceeds to boast about his exploit. The consequence is that the hoopoe is a very rare bird in England, and is likely to remain so until severe measures are enacted against that enemy of nature, the collector of birds."

What is to be done? As one who believes that for the greatest good to the greatest number, it is more important to save the rare birds than have them run the risk of extermination in the interests of science, I believe the killing of such birds should be absolutely prohibited. Their appearance can be taught by carefully prepared plates or by skins protected by double glass-plates. If any one believes that it is absolutely essential to human welfare or to that of his guild that they be "collected," let him show the faith that is in him by going after them and standing up for fine and imprisonment like a man. For the species that are beginning to be rare, or better yet, for all harmless birds the laws should permit them to be shot only by accredited representatives of scientific institutions. Furthermore, all teachers and others engaged in promoting the interests of young people in wild life should discourage the collecting impulse as unsocial in its ultimate results. To test the logic of this position merely imagine what the result of the opposite course would be. Suppose all children throughout the land were urged to provide themselves with guns and to start collections of birds and eggs. What would this do to the factor of safety for the rarer birds?

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#### THE ACTION OF SODIUM HYDRATE UPON THE COMPOSITION AND DIGESTIBILITY OF GRAIN HULLS

IN an earlier publication of this journal,<sup>1</sup> a brief account was given of studies made at this station on the effect of dilute solutions of sodium hydrate on the composition and digestibility of grain hulls and other fibrous material.

Since this first report was made additional work has been done with barley hulls, cotton-

seed hulls and flax shives. It has been found that the soda solution had a pronounced influence in improving the digestibility of the barley hulls but that it was substantially without effect upon the digestibility of the cotton-seed hulls or flax shives. A special study is being made of its action upon the digestibility of the pentosans, fiber and lignin. It is intended to study the effects of other methods of treatment including the action of other chemicals upon grain hulls and similar materials.

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#### STENOMORPH, A NEW TERM IN TAXONOMY

IN the study of shipworms I have found that larval forms of various species seem to show no selective powers as far as the size of the wood to which they have attached themselves is concerned. It therefore happens that we find the same species growing in timbers sufficiently large to enable it to attain full size, which in different species varies from six inches to three and a half feet in length, and from a few millimeters to almost an inch in diameter; or the larval forms of the same species may attach themselves to a piece of lath or a twig and completely honeycomb this, just as they do the larger piece of timber, reaching sexual maturity in this state. Forms under such conditions are dwarfed and while they have the structural features of the larger species, these are all reduced correspondingly in size. To such forms distinct names have been given by some authors who did not understand the true inwardness of the situation. For such diminutive forms produced by their cramped habitat I wish now to propose the term *stenomorph*.

Specimens coming under this designation will probably be found in all species of shipworms as well as other boring and nestling mollusks and probably other groups of organisms.

It is more than likely that specimens grown in the small 2 x 4" test blocks, placed in various waters of our country by the Committee on Marine Piling Investigations of the National Research Council, will produce *stenomorphs* of the various species.

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<sup>1</sup> SCIENCE. Vol. LV, No. 1414, p. 131, February 3, 1922.