

PROTECTIVE COLORING IN TERNS.

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Protective coloring in birds has been and still is a subject of great interest to the ornithologist. Since ecological factors are receiving so much attention now on the part of biologists, every item bearing upon variations due to environment is of interest, since it throws some light upon the question of evolution.

One of the most remarkable instances of protective coloring came under my observation during the past summer on the island of Penikese, made famous by Louis Agassiz's first marine laboratory. This island is occupied by only one family. Nothing is raised except a few garden plants and sheep. There are other inhabitants of the island, however, that are more important than sheep—at least to the biologist. These are the terns. Long before one reaches the island he can hear the shrill voices of myriads of these birds as they fly about the island almost constantly from daylight to dark. These terns are protected by law and hence have become very numerous. Almost countless thousands are to be found. The sounds of their shrill voices make a lasting impression upon a person. The island is entirely made up of glacial material, here and there covered with grass. The beaches around the entire island are quite wide and covered with granite pebbles of various colors, mostly of a white, gray or slate color, giving them a mottled appearance. The grass and the soil is very much the same in color. The dead grass furnishes a fine place for nesting and also for hiding-places for the young birds. In the breeding season the nests and young birds are so numerous that one has to pick his way carefully, lest he step on some of them. They are so nearly the color of the ground and grass that you can hardly see either bird or nest. If the parent bird is on the nest the deception is almost perfect.

The most deceptive coloring is in the young birds when they lie out on the pebbles to warm themselves in the sunlight. The imitation is so perfect that you have to look for some time before you can see the birds. The eggs are mottled in the same way as the sticks, grass and earth that compose the nests. The adult birds are not mottled as are the young birds or the eggs, thus showing that this is truly a protective coloring.