

sure that the director and staff of the Indian Museum at Calcutta, where the collections of the I.M.S. investigator are deposited, will give them every assistance, and examine any specimens they may obtain. We want to know what are the organisms concerned in the production of the phosphorescence, and the physical conditions of the water in which they were living. The organisms can be strained out of the water by a silken or muslin net—or the hose turned to run through a piece of either cloth—and preserved in spirit or formic aldehyde (1 part in 30 of sea-water). They should be accompanied by exact information as to position, state of weather and moon, and temperature of the water; a sample of the actual water in a green beer-bottle would also be useful.

Phosphorescence so diffused as to make the sea appear absolutely white is, in my experience, rare. Indeed, I have seen "White Water" only on two occasions; the first halfway between Ceylon and Minikoi, on a dirty night towards the end of May, 1899 (heavy weather from south-west, maximum effect about 9.30 p.m., dark again by 11 p.m.); the second seen from Minikoi, about five weeks later, at the commencement of the Great Monsoon (south-west), time 9-10 p.m. A bottled sample of the water of the first showed only the same organisms as normally produce "sparks," but a tow-net sample of the second was so rich in the eggs, etc., of the organisms, which inhabit the slopes of Minikoi, and in breeding worms that normally bore into its corals, that I regarded it as perhaps a seasonal breeding phenomenon.

Waves of fire produced by myriads of sparks from minute water-fleas (especially Ostracods) and Protozoa are common in such tropical seas, but they merely mark the wind waves, and are not the same as the waves described by Capt. Palmer, which I think must be due to an optical effect. Globe or lantern-like effects produced by umbrella or barrel-shaped jelly-fish I associate with calm weather. They are most noticeable in the early part of the night, and do not usually last for more than an hour or two. As patches up to a few hundred yards across occur, and as the jelly-fish are sometimes so abundant that they can be collected in a bucket thrown overboard, the sea might be described as "White Water," but I am sure that this is not what the fishermen of the Indian Ocean know by that name. Fish passing through water highly charged with phosphorescent organisms frequently execute Catherine-wheels, etc., but fish themselves are often phosphorescent from bacteria living upon their skin.

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Proposals for a Plumage Bill.

PROF. DUERDEN'S letter in NATURE of January 15 might by its phrasing lead to the supposition that a few persons only are agitating for a novel Bill to prohibit the importation of plumage. The trade has been keenly opposed by all naturalists, not only in Great Britain, but also in the United States, Canada, Australia, and nearly every country in Europe for many years. The arguments now used were all urged by the trade when the Government Bill of 1914 passed its second reading in the House of Commons.

We are told that the introduction of another Bill will be "viewed with alarm in South Africa," although the ostrich-feather trade is a British Colonial industry carried on under totally different conditions from those of the trade in wild birds' (or "fancy") plumage. In December, 1913, the hon. secretary of the Ostrich Farmers' Association of South Africa, representing 1700 farmers, wrote to the Royal Society for

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the Protection of Birds as follows:—"My association has from time to time taken the feeling of its members on the subject-matter of the Bill about to be introduced by Mr. Hobhouse, and they have expressed their entire sympathy with, and approval of, the Bill. . . . The attitude taken up by the feather dealers in London is inexplicable to my association, and you have my assurance that they have not the least support from a single ostrich farmer in South Africa."

With regard to the "serious slump" said to have resulted from the Anti-Plumage Bill of 1914, it may readily be supposed that all such luxuries as feathers would suffer a slump during the war; but, as a matter of fact, one of the chief London brokers reported in 1915 that, "in spite of many difficulties, a large quantity of goods has been dealt with," and that there had been "a sudden improved demand from America." This demand followed the passing of the tariff clause prohibiting the importation into the United States of all "fancy" feathers.

Prof. Duerden himself reasons that decrease in "fancy" feathers would improve trade in ostrich feathers when he argues that the æsthetic tastes we have inherited from our barbarian ancestors demand that we should decorate ourselves with feathers of some sort.

The argument that we must encourage a French industry is also well-worn. It is true that the traders in Paris cried out in 1914 that the Hobhouse Bill was designed to protect the ostrich feather industry of the Cape at the expense of Parisian feather-dressers; but the Société d'Acclimatation de France replied: "The interests of workpeople will not be affected. . . . It is only a very small batch of speculators that can have to suffer. They are very rich."

Prof. Duerden has "grave doubts" whether the "ruthless destruction of birds" for trade can best be prevented by discouraging or prohibiting that trade. It is open to him to suggest a better way. The proposition that birds-of-paradise, lyre-birds, egrets, herons, trogons, orioles, terns, kingfishers, and all the rest of the feather-traders' victims, from albatross to humming-bird, might be "farmed" after the manner of the flightless ostrich, and plucked or killed for the market "in conformity with the highest humane demands," may be of interest to aviculturists; it has no practical bearing on the question of to-day. What science and humanity alike demand is immediate action to save the birds of the world from the ruthless and stupendous slaughter on which the trade now lives.

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23 Queen Anne's Gate, S.W.1, January 20.

THE suggestion made by Prof. Duerden (NATURE, January 15) for special breeding of birds as an alternative to prohibiting imports of their plumage is unacceptable to us for several reasons, but of these I need now only mention one, since this one appears to us conclusive. We hold that it would be impossible for the Customs to differentiate between the feathers of those birds which had been "farmed" and of those which had fallen victims to the ruthless plume-hunter. Prof. Duerden is, perhaps, unaware that a scheme similar to that which he adumbrates was advanced in 1914 by the Committee for the Economic Preservation of Birds, and was considered by the Government of the day to be unworkable.

The idea of our desired Bill being dangerous to the ostrich-farming industry has surprised us, previous Plumage Bills having been warmly supported by the