THE East Malling Horticultural Research Station, Kent, England, has arranged for the investigations of six fruit experts from the Dominions to work at the station. The plan is financed by the Empire Marketing Board, and aims at helping fruit production in the Empire by enabling investigators who are taking up fruit research in the Dominions to see at first hand what is being done by their fellow-workers in the home country. Post-graduate workers will be invited to carry out individual research at the station for a period of two years. The East Malling Research Station is the present headquarters of the Imperial Bureau of Fruit Production, one of the eight agricultural research bureaus recently set up to coordinate fruit research throughout the Empire. Mr. R. G. Hatton, director of the station, is at present on an Empire tour, under the auspices of the Empire Marketing Board, during which he will visit Canada, Australia, New Zealand and Ceylon. The research station at East Malling has recently been enlarged as an Empire center for the study of all aspects of fruit culture under temperate conditions. The largest experimental cold store in the world, known as the Ditton Laboratory, has been opened for research into the cold storage of fruit. It contains a "model ship's hold," capable of taking 120 tons of apples, in which conditions on board ship can be almost exactly imitated.

Industrial and Engineering Chemistry reports that the Chung Hua Chemical Research Laboratory was founded in Shanghai in 1929 by the joint effort of the Tienchu Manufacturing Company and P. N. Woo, superintendent and chemical engineer of that concern. The motive for founding this laboratory was to stimulate industrial chemical research and to arouse interest among manufacturers in China to establish industrial fellowships similar to those of the Mellon Institute. At present it has two such fellowships. The laboratory employs three chemists with its annual fund mostly contributed from the founders. The administration is vested in the hands of a board of directors, consisting of nine members, one of whom is the director of the laboratory. Besides cooperating with other parties in solving their chemical and technical problems, the junior staff is doing general analytical work for business people. As a side issue, the laboratory is also acting as purchasing agent for those who wish to buy foreign scientific apparatus and factory equipment. In any case, only a nominal fee is charged and that is utilized solely for the expansion of the laboratory.

DISCUSSION

OUR FAUNA

GATES[1] has recently pointed out how little we know what earthworms may be found in that part of America whose fauna has been studied for the longest period of time, not to mention our lack of knowledge concerning their distribution, life history and ecology.

What is true of earthworms, a group of particular economic importance, is even more true of the moss mites (Oribatoidea). For instance, in one subfamily but one species had been recorded from New York and New England until the writer in 1929 added ten, chiefly from Connecticut. Among the Phthiracaridae but one species had been recorded from New England when in 1930 the same worker added sixteen, of which ten came from one locality. What is true of the above subfamilies, chosen at random, is true of others.

Not only are the species unknown, but in all papers that have come to my attention which claim to analyze or summarize the fauna of a given tract or area the Oribatoidea are ignored, or rarely a generic name appears. Even such "monographs" as Weese's[2] and Blake's,[3] which include turf and soil population, entirely ignore this group. Yet every cubic foot of forest floor contains dozens if not a hundred to two hundred, while no cubic foot of meadowland is without them if present random collections are indicative of general conditions. Furthermore, these animals are visible to a sharp eye.

What is true of the moss mites is equally true of other groups of Acarina, of Tardigrades and of other inconspicuous groups.

Undoubtedly, to know one's fauna is a fundamental necessity and is the only reason for the existence of a national Biological Survey. Were our fauna better known we would not have anatomists, histologists and experimental biologists working on material which represents two or three species (as has been done on Amoeba,[4] Paramecium[5] and even some fishes, or on wrongly identified material as in the case of Hydra,[6] numerous parasites and arthropods).

When one reviews such admirable, comprehensive faunal works as the "Tierwelt Mitteleuropas," "Faune de France," etc., one realizes how far behind is New England, even New York State (not to mention the rest of our extensive domain), in knowing the animal life available for advanced studies. Why should the Biological Survey confine its interest to flowering plants, mammals, birds and a little of other conspicuous forms while all the rest of the plant and

[1] SCIENCE, 60: 266–267, September 13, 1929.
[2] Illinois Biol. Monog., 9: no. 4, 1924.
[3] *Ibid.*, 10: no. 4, 1926.
[4] Schaeffer, Carnegie Inst. Pub. no. 345, p. 3.
[5] Wenrich, *Trans. Am. Micr. Soc.*, 47: 275.
[6] Hyman, *Trans. Am. Micr. Soc.*, 48: 242, ¶ 2.

animal kingdoms are, for the most part, neglected? True, the Bureau of Entomology studies insects but only the few of economic importance. Likewise the National Museum and other museums study some other groups, but what is needed is comprehensive and complete floral and faunal studies similar to those undertaken by the Biological Survey on mammals for all our animals and plants. The work done on mammals is admirable and highly commendable, but why exclude most of the other groups? We have only begun our biological survey.

Again, why do our New England museums and universities spend thousands of dollars to explore remote regions when they have not yet studied the fauna of their own country, not to mention state? There is one definite answer: because their staff is made up largely of mammalogists, ornithologists, herpetologists and other megascopologists who have exhausted the new species of their own countries and must find them elsewhere. The detailed distribution and life history of some of our New England mammals is still to be worked out, but new species from Brazil or the Congo make more appeal to the taxonomist. Could we not have more *bio*logists in our museums, or microfaunologists?

A water-bear enlarged to the size of a polar bear would attract a far bigger sightseeing crowd than would a floe-full of the latter. Why not give our industrial brothers the benefit of our experiences with the microscope and broaden their background to a limitless extent? A beginning has been tried with marked success at the American Museum; why not elsewhere and more extensively? Would not a two-foot model of a specimen of each family of invertebrates raise the hair on the neck of every city dweller? Would anything be more comical and instructive than a row of bee faces enlarged to a diameter of three or six inches? Should not our museums cut down their present large staff of experts on vertebrates in order to take on workers on less conspicuous animals? Would the state and local authorities welcome large models of bizarre invertebrates to take the place of cases of vertebrate skins? Each worker on such models would have to study his local fauna so that the biological survey of the neglected would develop from different centers, but its coordination should center at Washington.

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DINOSAUR EGG SHELL FRAGMENTS FROM MONTANA

FOLLOWING the announcement on October 13 that small fragments of shell, probably of dinosaur eggs, were found last summer near Red Lodge, Montana, by the Scott Fund Expedition, of Princeton University, the press has incubated the scraps so assiduously in the desire for "bigger and better" eggs that the resultant newspaper hatch reveals a number of amazing and monstrous hybrids. A foreign publication reports that the eggs found were eight feet long. In America an editorial discloses the delight of collectors in finding a whole nest of complete eggs after a gruelling search, and draws a moral therefrom. Another correspondent intimates that, since the Montana shell scraps are nearly black, the parent dinosaurs were black.

The reappearance of the postulation that dinosaurs had extinction forced upon them by the egg-eating habit of some of the contemporary mammals is one of the examples of atavism among the recent brood of mystic reports.

Due to these and other equally distorted, but popular, tales about the Red Lodge shell bits, several appeals for accurate information have been received. In an attempt to forestall any further exploitation of the discovery, or any even greater exaggeration of its importance, it seems desirable to make a statement concerning the circumstances of the find and the limited material collected.

Mr. E. J. Moles, Jr., a senior in the Princeton department of geology, and the writer spent the latter part of last summer in the vicinity of Red Lodge, at the invitation of Dr. J. C. F. Siegfriedt, in a search for vertebrate fossils which might aid in determining the stratigraphic elements and boundaries of the local Fort Union formation.

An attempt to locate the highly controverted and critical division between the Fort Union and the underlying Lance formation was undertaken in part because of the practical commercial value of the information to local oil and coal operators. This work was an extension of that begun in 1928 and 1929 by Scott Fund expeditions in the Bighorn Basin about twenty miles to the south, near Powell, Wyoming, where the boundary in question was established by the fortunate discovery, in the base of a massive persistent sandstone, of a Puerco, or Lower Fort Union, fauna only twenty feet above dinosaur remains in the Lance shale.

Geological essays sometimes become warm at the mention of the Lance-Fort Union contact because of the many interpretations which various reasoners have given the evidences that the Lance should be regarded as either Upper Mesozoic or Lower Cenozoic in age. The Lance strata east of Red Lodge are poorly exposed in most of the area due to the vegetation and soil mantle, but limited bare rock escarp-