some other part. Invariably, however, all would join in.

This habit was first observed by me several years ago, just how long I do not remember. It is associated with my earliest recollections of the insect. I have made more or less careful observation of it and taken notes several times, the first time in 1912. I do not think that I ever saw a colony that did not have the habit and I have had them in the laboratory every summer for several years. Observations of the habit may be made on colonies confined in the breeding cage or on those in the natural conditions. There seems to be no difference.

There is no doubt in my mind that this habit is an excellent example of synchronous rhythmic motion, not occasional or accidental, but habitual with the species. It may be well added to Mr. Craig's single, more or less doubtful, example, that of the chirping of crickets.

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THE POPULAR NAMES OF NORTH AMERICAN PLANTS

An article under this title in Science for February 2, by J. Adams, opens a question which has interested the present writer partly for the same reasons as there given, and he has passed through various stages of mental attitude toward it.

A notable fact is that common names when once established are apparently more stable than the scientific names. The names of birds furnish a good example of this, very few common names having been changed in the last fifteen years while a fourth or more of the scientific names have been changed, and some of them two or three times. However, the number of species of seed plants is about ten times as great as that of birds.

This very stability indicates difficulty in establishing common names where none exist. Names are a result of necessary "handles," and the greater part of those species which have not received them are not regarded frequently enough to establish names. The essential qualities of a name would seem to be significance and simplicity. The use of qualifying adjectives should be avoided as far as possible. The writer is not certain that a species must bear the same name in different regions, or that different species may not have the same one inasmuch as a name which is appropriate in one place may not be in another, and similar species often occupy similar places in different regions. The writer places much value on local lists, keys, etc., including a single state or natural area. This restricts the number of species involved and simplifies identification.

The surest way to acquaint the general public with the names of plants is through illustrations. Is it not possible to have a cooperative system by which different states would be responsible for certain portions and thus distribute the cost of production as widely as possible? This would eliminate the duplication now current from the publication of similar material in different places and permit the use of first-class illustrations of uniform quality, as well as help to unify the names.

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FAUNAL CONDITIONS IN SOUTH GEORGIA ISLANDS

During a recent visit to the islands of South Georgia (latitude 54° south) a very curious faunal condition was noted, and as this is, perhaps, of biological interest, it may be well to state briefly the facts of the case.

South Georgia lies in the sub-Antarctic region a few hundred miles to the east of Cape Horn. The season is open for about three months, but quite rigorous the remainder of the year. The principal vegetation is tussock grass, and this at one time supported many rabbits and perhaps a few other species of mammals. A few decades ago, the whaling industry was started with South Georgia as a base of operations. To-day there are nine whaling stations on the large island, and in a good season of three or four months, several thousand whales are handled. The carcasses are allowed to drift along the beach, as soon as the outer coating of blubber has been removed.

As a result of this, there are several miles of these huge decaying masses around the various stations.

Until about thirty years ago, there were no rats on the islands. At that time a sealing vessel allowed a few rats to go ashore, and the result to-day is appalling in its enormity.

The conditions have been ideal for these rats—with their nests in the tangled bunches of tussock and peat, and with a constant supply of meat in all stages of decomposition and cold storage close at hand!

There are literally millions of these rodents working away at the carcasses and swarming along the well-traveled trail which they have made on the mountain slopes. Even when the winter snows cover the place, operations in this rat haven are not stopped.

It was stated at one of the whaling stations that the rats have devastated the few small animals living on the island, and, indeed, are a menace to the health and safety of the place.

It would be interesting to know what characteristics the rat would develop after a few years of such a specialized habitat.

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SCIENTIFIC BOOKS

Les Sciences Biologiques Appliquées à l'Agriculture et la Lutte Contre les Ennemis des Plantes aux États-Unis. By DR. PAUL MARCHAL. Extrait des Annales des Épiphyties Tome Troisième. Paris, Librairie Lhomme. 1916. Pp. 30–390.

It does not seem like four years since Dr. Marchal visited this country and traveled from east to west and north to south, visiting the field laboratories of the Bureau of Entomology and educational institutions, yet actually that trip was taken in the summer of 1913. His book, under the title (translated) "Biological Sciences Applied to Agriculture and the Struggle against the Enemies of Plants in the United States," was received in this country in November last, its publication having been delayed by the war, and it is even now printed only in a very small edition. It is a large royal octavo volume covering nearly four hundred pages, abundantly illustrated. Marchal has a remarkable mind. It is little less than marvelous that in two months and a half he should have grasped the whole field in so perfect a way as to be able to write a book which is especially illuminating to us who are in the middle of things and who can not get the perspective which he reached after he returned to France and collected and classified his notes and impressions. The larger part of the book is devoted to the Bureau of Entomology, pages 52 to 198 being given to this service. The rest of the Department of Agriculture is considered in the following 30 pages, and 20 more are given to the experiment stations, the state entomologists, the Horticultural Commission of California, and the forestry services of the different states. Then follow 40 pages on universities and agricultural colleges, especial space being given to Cornell University and the universities of Illinois, California, Stanford and Harvard. He is enthusiastic over the Association of Economic Entomologists. The remaining 100 pages of the book are devoted to chapters on insect carriers of disease, the methods employed in the struggle against the enemies of crops (this chapter being divided into cultural methods, biological methods and technical methods), the laws concerning the protection of plants, including the insecticide law, and a conclusion. In this conclusion, after praising in an unstinted way the establishments of this country and the work which has been done, he especially points out that, far from narrowing itself in applications of science, the United States holds a place of the first rank in creative science. He thinks that France has much to learn from America, although it would be a mistake in his country to create an organization imitating in all respects the Department of Agriculture at Washington. He shows that the economic and cultural conditions are quite different on the two continents and that certain questions which have prime importance here have only a secondary interest in France. He is inclined to think that the United States Department of Agriculture is rather over organized, and thinks that the future will bring about a