to suppose stability can be attained in any other way. Supplementary rules must be expected from time to time and are fully advisable, but not revolutionary changes in the already accepted rules. No one has ever claimed, as far as I know, that the possibilities of progress in the rules are exhausted or ever will be.

I confess myself entirely unable to understand Dr. Cook's characterization of De Candolle's annotated rules as 'quite lacking in logical arrangement and definite statement.'

These are the very characteristics which it seems to me they possess in an eminent degree, though naturally they do not go as far as required by the needs of science thirty-five years later. Moreover, I do not hesitate to say that 'evolutionary conceptions' of nature and systems of 'recording the results of biological study' have nothing whatever to do with the rules of nomenclature. I cannot help suspecting that the attempt to combine two or three irreconcilable categories in one system is at the bottom of Dr. Cook's difficulties. It may be practicable to devise a system which would exhibit evolutionary conceptions, and this might be very useful if it proved possible; but this system would not be that which we use for animals and plants according to Linnæus and his followers, and the two things are incapable of combination. The attempt to mix them would only result in intensified confusion.

WM. H. DALL.

SMITHSONIAN INSTITUTION,
July 7, 1902.

RANGE OF THE FOX SNAKE.

TO THE EDITOR OF SCIENCE: Traditions often develop into truths for want of critical examination at an early stage in their career.

In his very complete catalogue of New York snakes, lately issued, Mr. E. C. Eckel refers to Dr. J. A. Allen as having 'described' a specimen of the fox snake (*Coluber vulpinus*) as captured in 1861 near Wenham, Mass., and in SCIENCE of June 27 Mr. Max Morse adopts the statement and suggests that Professor Cope, in fixing the range of this species, overlooked this record.

The references which evaded the minute inspection of my late friend, Professor Cope, were very few, and fewer still, after capture, escaped from that extraordinary memory. As a matter of fact he did have this record in mind in his Check List of 1875, where Massachusetts was given as the eastern limit of this species. The fact that this reported extralimital occurrence is now unverifiable is doubtless the real reason why it was passed over by Cope in his later work, as it was by myself in preparing, two years ago, a review of North American snakes.

In reality Dr. Allen did not 'describe' this specimen, nor had he apparently ever seen it; he merely in 1869 stated that a specimen had been entered on the catalogue of the Museum of Comparative Zoology, as having been received from Wenham, Mass., in 1861, and that Professor F. W. Putnam believed the identification to be correct. That Dr. Allen himself doubted this is shown by the language of his next sentence: '*If it is* this species, etc.' Forty years ago herpetologists were less plentiful, and identification of species was less exact, than at present, and it is easily conceivable that one not fully familiar with the group might have mistaken an example of *Ophibolus doliatus triangulus* for the then little-known *Coluber vulpinus*. Indeed Baird and Girard, in the original description of the latter species, mention the similarity in general aspect of the two. That there was such an error in identification is much more likely than that a large and conspicuous species, not otherwise known east of Ohio, should have naturally occurred at a point so distant as the extreme northeastern county of Massachusetts.

A suggestive case is that of a living *Ophibolus rhombomaculatus* received by me in June of last year, with the history from a well-intentioned source, of its capture during the previous September, near Erie, Pa. Now this rather rare species has never, to my knowledge, been previously detected north of the District of Columbia, and the best explanation of its supposed occurrence at such a remote point seems to lie in an inference from the fact that the specimen had passed through the hands of a person from a southern State, who was

something of a collector without being an ophiologist of experience. The high probability that some of his snakes had become mixed has prevented a public record of this alleged locality, in the absence of further evidence.

The collector of living specimens needs especially to guard against being misled by errors of this class, for the reason that living animals are not usually labeled when collected, beyond the possibility of confusion.

A few such cases taken at random from memory in the experience of the Zoological Society are the receipt of a South American heron, said to have been captured near Portland, Oregon; a tayra from west Africa; a bald eagle from Brazil; a southern fox squirrel from Java; a North African species of hedgehog from Manila; and a coyote captured in Porto Rico by soldiers of a volunteer regiment which served in that campaign.

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SHORTER ARTICLES.

PRELIMINARY NOTE ON A NEW ORGANISM PRODUCING ROT IN CAULIFLOWER AND ALLIED PLANTS.

DURING August and September of 1901 my attention was drawn to a disease of cauliflowers in the vicinity of Guelph, Ontario. The plants, which were well grown and cared for, showed symptoms of rot, the interior of the stem, and often all the flowering or edible part being changed into a dark-colored soft mass. Examination of this rotted material revealed the presence of enormous numbers of bacteria. Subsequently, the causal organism was isolated in pure culture, and its pathogenicity and relation to the rot were established by inoculation of healthy cauliflower plants, the production of rot in these plants, and the reisolation of the germ, and its cultivation on various media.

The organism is a medium-sized motile bacillus, with peritrichous flagellæ, five to nine in number, stains slowly with methylene blue (Loeffler), better with carbol-fuchsin. Grows best under aerobic conditions, but is able to grow slightly in atmosphere of hydrogen. Liquefies gelatin; grows on surface agar as a moist, whitish, slightly opalescent growth, which becomes more massive with age; curdles milk slowly, producing slight digestion, with acid reaction (litmus). Produces heavy cloudiness in bouillon. Changes the red color of rosolic acid peptone bouillon to a light brown. On slices of raw potato, produces a deep creamy growth; the potato is completely softened, with the production of a considerable amount of ammonia. Grows well on raw slices of the following vegetables, producing softening or rotting: cauliflower, cabbage, turnip, rape, radish, horseradish, kale, celery, artichoke, asparagus, carrot, onion, tomato and parsnip. It does not grow on raw beet, and on sugar beet but very sparingly.

The growth on some of the above vegetables, notably cabbage, horseradish and onion, is frequently accompanied with the production of gas bubbles, and disagreeable, offensive odors.

The organism grows best at 25–30° C., but grows well at both 20° and 37° C.

The action of the bacillus on the plant is similar to the *Pseudomonas* described by Potter. It dissolves the middle lamella; the enzyme produced by the bacillus may be isolated from the rotted cauliflower or from bouillon.

The name proposed for the organism is *Bacillus olereaceæ*.

F. C. HARRISON.

July 1, 1902.

RECENT MUSEUM REPORTS.

THE annual reports of three of our great museums have appeared within the last few months and may well be considered together. These, in their order of appearance, are the Field Columbian Museum at Chicago, the American Museum of Natural History of New York City, and the United States National Museum at Washington. This last is so far behind the others in date, being for the fiscal year ending June 30, 1900, that it is a little difficult to make exact comparison with them. Each of these institutions expresses a need for more money for current expenses and the National Museum makes its regular annual plea for more room. How necessary more