

width along much of both coasts and in the numerous river valleys. The interior of the island is a plateau with large areas covered by barrens and sphagnum bogs. In passing eastward from New Brunswick to Nova Scotia the flora becomes distinctly poorer, many species dropping out and few new ones appearing. Cape Breton with a smaller area than the rest of the province and forming its northeastern limit shows a further decrease, although a comparatively large number of forms are known from the island that do not occur on the mainland, while others grow more luxuriantly there, even at the extreme north. Among the former may be mentioned *Samolus floribundus* H.B.K., *Peramium Menziesii* (Lindl.) Morong, *Parnassia parviflora* DC. and *Galium kamtschaticum* Steller; among the latter *Cypripedium reginae* Walt., *Caltha palustris* L., *Anemone canadensis* L., *Blephariglottis blephariglottis* (Willd.) Rydb., *Vagnera stellata* (L.) Morong and *Rubus Chamæmorus* L. The dwarf mistletoe, *Razoumofskyia pusilla* (Peck) Kuntze, apparently of wide distribution in northern Nova Scotia, extends at least fifty miles up the west coast of the island. The ferns are also noteworthy. All the common and a majority of the rarer species of the mainland grow at least as well in Cape Breton, together with two additional species, *Dryopteris Felix-mas* (L.) Schott and *Polystichum lonchitis* (L.) Roth., the former widely distributed, but the latter known only from two widely separated localities.

The third paper, by Le Roy Abrams, was on 'Notes on the Flora of Southern California.' After speaking briefly of the topography and general climatic conditions of southern California Mr. Abrams called attention to the extreme variation in the flora and exhibited a series of specimens illustrating the coastal and mountain floras. Among these specimens were three of his recently described new species: *Cheiranthus suffrutescens*, *Heuchera elegans* and *Godetia Dudleyana*.

Other especially interesting plants exhibited were *Romneya trichocalyx* Eastw., *Quercus Engelmanni* Greene and *Calochortus Catalinae* Wats.

EDWARD W. BERRY,  
Secretary.

#### DISCUSSION AND CORRESPONDENCE.

##### THE NOMENCLATURE OF PHYSIOGRAPHY.

TO THE EDITOR OF SCIENCE: I regret very much that the technical nomenclature of the comparatively new science of physiographic geology does not suit Dr. Eastman, of Harvard.

It is essential to ultimately possess a descriptive name for every topographic form. This is a difficult task, and one, in which a field worker, like myself, who seldom has the leisure or opportunity to devote to closet study, finds most difficult, but we do the best we can, and some people manage to understand us.

If I am not mistaken, the science of paleontology, which is indebted to Professor Eastman for his editorial and linguistic assistance, has been floundering for over a century in the throes of an obscure and specialized nomenclature which may be as unintelligible to the physical geographer as the verbiage of the latter seems to Professor Eastman.

It is my opinion, founded on some experience, that language is only an instrument for recording ideas, and that so long as the work is accomplished, the kind or character of the tool is irrelevant. No one appreciates more than I the importance of simple English to good literary form; but I think Professor Eastman is wasting words, SCIENCE's useful space, and myself and most valuable time, in discussing an elementary lack of literary style, weakness inherent in most men except a few rare literary geniuses, whom, so far as I am aware, have not been noted for their acumen in scientific research, or even in scientific statement.

ROBT. T. HILL.

##### A PECULIAR HABIT OF THE BADGER.

ONLY now, in reviewing the classic work of Dr. Elliot Coues on 'Fur Bearing Animals,'\* have I been brought face to face with his statement regarding a peculiar habit of the badger. Otherwise, the information here given would have been made public long ago.

On p. 288 of that volume he quotes Audu-

\* U. S. Geol. Surv., Hayden. Misc. Pub., VIII., 1877.

bon and Bachman (1843) with reference to the actions of a badger in captivity, in part as follows:

We occasionally saw him assume rather an interesting attitude, raising the fore part of his body from the earth, drawing his feet along his sides, sitting up in the manner of the marmot, and turning his head in all directions to make observations.

The author (Dr. Coues) continues:

The assuming of this attitude may have been a result of confinement, as I have not observed it when I have seen the animal in a state of nature, nor does it appear to have been noticed by others.

While acting as the geologist of Captain Wm. A. Jones's Expedition through the Yellowstone Park, in 1873, I was enabled to make a few desultory notes concerning the wild animals, a list of which was published in the *American Naturalist* in February, 1874. On a little trip back over our trail along Yellowstone River and Pelican Creek, I passed through two or three of our deserted camps. Near one of these, my assistant shot a fine specimen of *Lepus bairdii*, Hayden,\* which upon dissection proved to be a male, to my astonishment giving evidence of having recently suckled its young. The discovery of this interesting fact relating to this species had been made, with abundant evidence, by Dr. Merriam in the same region the preceding year, but this had not been made public at the time.†

At dusk, as we were preparing to camp near the lower end of Yellowstone Lake, we started up a badger which ran from us with its peculiar cross-legged, sidling lope until nearly out of range of rifle shot, when it suddenly turned, rose to a sitting posture, stroked its fore legs down along its side, eyeing us in very much the same manner as is customary with the marmot, remaining thus until I had discharged my carbine by a shot

which struck the ground far enough in front to ensure his safety. Upon this he retreated some distance, repeating the performance several times as I advanced towards him, but not again remaining within gun-shot distance. This animal did not move off in a direct line, but pursued a tortuous course as it ran, very much as if he were attempting to dodge a pursuer gifted with greater powers of speed. Moreover, the general course lay along an open swale somewhat transverse to our line of approach. His whole demeanor was wary in the extreme, and fully sustained his reputation as a 'badger.'

THEO. B. COMSTOCK.

LOS ANGELES, CAL.,

October 10, 1904.

#### SPECIAL ARTICLES.

##### AMPHIBIA VERSUS BATRACHIA.

THE question as to the proper systematic name of the class of vertebrates containing the frogs, toads, salamanders, etc., has been discussed in this journal several years ago by competent authorities with the result that the disputants agreed to disagree as they had done before. The conflicting arguments may be briefly stated as follows: *Amphibia* is the proper term, because it is the oldest class term, while on the other side it was contended that *Batrachia* is the only tenable name, since it is the appellation first given to the group having a compass essentially identical with the limits of the class in its modern acceptance. It is true that *Batrachia* was given to the group only as an order, but it was contended—and I believe correctly so—that it is more essential that the selection of names for groups higher than genera should be guided by their contents rather than by their rank. The law of priority, as distinctly specified by the American Ornithologists' Union code of nomenclature does not apply to these higher group names.

Those who accepted the name *Batrachia* did it under the universal impression that the first application of this term dated from Brongniart's use of the French form *Batraciens* in 1800, latinized in 1802 by Macartney into *Batrachia*. The order so designated corre-

\* U. S. Geol. Surv. of Wyoming, etc., Hayden 6th Annual Report, 1872.

† In the article mentioned above (*Amer. Nat.*, 1874), I remarked that *Lepus bairdii* had not been met by me. This was because I had not then seen a description and so did not properly identify it at the time.