nellid, forty-three species; and Calcarea, twenty-four species. There are no horny sponges, but some of the forms found were represented by a very large number of individuals. Of Hexactinellids there are ten species, all belonging to the Rossellidæ.

The number of marine algæ collected is but small, yet among them are some interesting novelties. The authors of the report upon them regard it as too early to attempt a comparison between the algoid floras of the Arctic and Antarctic. Some of the species are, however, certainly identical. A single species of *Lithothamnion* collected proves new. Seven species of mosses were found, bringing up to the number of fifty-one, the total of Antarctic species.

These volumes form an admirable addition to our knowledge of Antarctica, and will prove a lasting monument to the energy and devotion of those who constituted the little band of explorers in this, the most dreary and inhospitable region of the entire globe.

W. H. DALL

SCIENTIFIC JOURNALS AND ARTICLES

University of California Publications in Zoology, Vol. 3, is made up in large part of "Contributions from the San Diego Marine Laboratory." It includes several papers of a faunistic nature with descriptions of many new species from the pelagic fauna of the San Diego Region; on the littoral and pelagic Ostracoda and on the Cladocera by Chancey Juday, on the Copepoda by C. O. Esterly and on the Dinoflagellata by C. A. Kofoid. A list of "The Marine Fishes of Southern California," by E. C. Starks and E. L. Morris contains notes on the œcology and distribution of 246 species. A paper by H. B. Torrey on the California Shore Anemone (*Bunodactis xanthogrammica*) discusses the synonymy and occurrence of a widely distributed anemone. Mr. C. O. Esterly in "Some Observations on the Nervous System of Copepoda" describes the innervation of the æsthetasks of Copepod antennæ and ascribes a sensory function to the rostral prongs of *Diaptomus* and to certain furcal bristles of *Cyclops,* but finds no sensory nerve supply to the so-called tactile bristles of the antennæ. "A Discussion of Species Characters in *Triposolenia,*" a group of bizarre organisms belonging to the Dinoflagellates, by C. A. Kofoid, calls attention to the "unit" nature of specific characters, to their non-adaptive significance, to the coincident distribution of related species and to the support which these facts lend to the Mutation Theory. The same author finds in a second paper on "The Significance of the Asymmetry of *Triposolenia,*" that this is an adaptive structure which presents against the action of gravity the maximum vertical projection of the body on sinking and therefore delays descent from the illuminated upper strata of water to abyssal regions. In a paper by H. B. Torrey and Ann Martin on "Sexual Dimorphism in *Aglaophenia*" definite structural differences are shown to exist between the corbulæ of male and female colonies in the four California species. In each species, the leaflets of the male corbulæ are less completely fused than in the female, leading to a readily recognizable dimorphism. The purpose of "Biological Studies on Corymorpha, II., The Development of *C. palma* from the Egg" by H. B. Torrey was to discover (1) to what extent the form of the species might be determined by its activities, and (2) to compare the normal embryonic processes with those which appear in the regenerative development. The embryonic development is characterized by the plasticity of the tissues. The regions of the body, the tentacles, frustules, peripheral canals, axial endoderm, are molded largely out of more or less differentiated epithelial tissues without recourse to residual cells. These plastic processes are accomplished by various mechanical factors, including absorption of water, osmotic pressure, and amœboid movement.

Terrestrial Magnetism and Atmospheric Electricity for March contains a portrait of Roald Amundsen, and the following articles: "Concerning Pulsations of Short Period in the Strength of the Earth's Magnetic Field," by H. Ebert; "Contribution to the Study of the Effects produced on the Magnetic Declina-

tion by the Total Solar Eclipse of August 30, 1905," by C. Nordmann; "Note on the Present Position of the Earth's Magnetic Axis derived from Declination Data alone," by W. van Bemmelen; "What is the Earth's Magnetic Axis and its Secular Motion?" by L. A. Bauer; "Sketch of Life and Work of Roald Amundsen"; Notes: "Progress Magnetic Survey Pacific Ocean" [illustrated], "Magnetic Work in Canada, Mexico and Central America," "Personalia"; "Recent Papers in Atmospheric Electricity by Lüdeling, Lutz, Benndorf, Wood and Campbell, and Rudolph," abstracted by P. H. Dike.

DISCUSSION AND CORRESPONDENCE

THE ADMINISTRATION OF THE U. S. GEOLOGICAL SURVEY

To the Editor of Science: May I ask for space in your columns for the enclosed letters, which seem to me to be of sufficient general interest to warrant their publication?

Very truly yours,

W. S. Tangier Smith

Los Gatos, California,
July 26, 1907

Reno, Nev., June 1, 1907.

To the Director
U. S. Geological Survey,
Washington, D. C.

Sir: I hereby tender my resignation as assistant geologist on the United States Geological Survey.

This action was fully determined upon over four years ago, but was delayed, at first, until I should have finished the work upon which I was then engaged, and, later, as a measure of self-protection while my report of that work was in the hands of the editorial staff. The reasons for my resignation now are the same which determined my original decision to leave the survey, having been merely strengthened by my experience in the interval. Aside from some personal considerations (which are not essential to the present statement), these reasons all have to do with the character and management of the organization as I have known it.

Not to enter into details, I merely wish to record here my protest not only against the prejudiced and arbitrary methods of the geologist in charge of geology, and the commercial spirit which has grown up under his administration, but also, and chiefly, against the bureaucratic policy inaugurated before that administration and under it developed to such an extent that, in my opinion, it calls for protest from every self-respecting scientist who comes in contact with the organization. This policy is based on the assumption that any persons who hold positions of administrative authority on the survey constitute, *ipso facto*, an infallible scientific tribunal, whose function it is to pass judgment on the work of all other scientists who may be their official subordinates, and to suppress all heresies. As opposed to this assumption, I desire here to reaffirm what I have repeatedly declared in my communications and correspondence with officials of the survey—my conviction of the inalienable right of every scientist to the free expression of his own opinion, and the individual responsibility for his own work, no matter what the auspices under which the work is done, or opinions published.

Very respectfully,

(Signed) W. S. Tangier Smith

Department of the Interior,
United States Geological Survey,
Washington, D. C., June 11, 1907.

Dr. W. S. Tangier Smith,
Reno, Nevada.

Sir: I have forwarded your resignation to the Secretary of the Interior and have recommended its acceptance.

I regret that you feel that a protest is necessary against the administration of this bureau. I believe that the misunderstanding on the part of yourself and other geologists who have presented similar protests comes from the fact that you fail to see that administrative authority carries responsibility. Thus it is that in the matter of publication it is not so much the desire of the administrative officers of the survey to constitute themselves into a scientific tribunal as to be true to their official oaths and administer the survey with due regard for the letter and spirit of the congressional enactments which provide for the continuance of this work. You and I as individual scientists may have personal opinions regarding scientific work, but as long as we are members of a government organization we must conform to the purpose of the appropriation under which our work is done. In short, when we become members of an organization which pays for our work, we surrender a certain part of the "inalienable right,"