and Marshall,[13] in 1931, corrected the systematic nomenclature and have listed the species as *Listroderes costirostris* Schoenherr. As to the advisability of adopting this specific name in America, Buchanan has also kindly given his views as follows:

> The citing of *obliquus* in the Schenkling catalogue as an aberration ('ab.') indicates that the compilers regard it as some sort of a subordinate form, but not an absolute synonym, of *costirostris;* and, until the two are found to be synonymous through an examination of the type specimens or through other means, it would seem preferable to continue the use of the name *obliquus* Gyll. in North American literature, either as *obliquus* alone or as *costirostris* ab. *obliquus.*

The common name, vegetable weevil, was approved by the American Association of Economic Entomologists in 1931.[14]

E. O. ESSIG

UNIVERSITY OF CALIFORNIA

NOMENCLATORIAL NOTES ON GASTROTRICHA

(1) THE genus *Dactylopodola* Strand:

Dactylopodella Remane, 1926, *Zeits. Morph. Ökol.,* 5: 664 non G. O. Sars, 1905, Crust. Norway, 5: 131 (Copepoda).

Dactylopodola Strand, March, 1929, Acta Univ. Latv., 20: 5.

Dactylopodalia Remane, 30 May, 1929, Kükenthal and Krumbach, Handb. Zool., 2 (4): 130.

Professor Embrik Strand kindly informed me personally of the month of publication of his paper. As a consequence of the above synonymy it is necessary to form the new family name Dactylopodolidae in place of Dactylopodellidae Remane 1927 and Dactylopodaliidae Remane 1929, and also the new combinations *Dactylopodola baltica* (Remane) and *Dactylopodola typhle* (Remane).

(2) *Lepidodermella* nom. nov.:

Lepidoderma Zelinka, 1889, *Zeits. wiss. Zool.,* 49: 300 non Reuss, 1856, Denks. Akad. Wiss. Wien, 10: 83 (Eurypterida).

As I can not find that this homonym has ever been corrected, I propose here as a substitute the name *Lepidodermella.* We have, hence, the new combinations *Lepidodermella squammata* (Dujardin), *Lepidodermella concinna* (Stokes), *Lepidodermella ocellata* (Metschnikov) and *Lepidodermella zelinkai* (Konsuloff).

CHARLES H. BLAKE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

[13] S. Schenkling and G. A. K. Marshall, "Curculionidae: Cylindrorrhininae." Coleopterorum Catalogus (Berlin, Junk, 1931), pars. 114, p. 7, Feb. 12, 1931. (Bibliography.)

[14] *Jour. Econ. Ent.,* 24: 1291, 1303. 1931.

MALVACEOUS PLANTS AS A CAUSE OF "PINK WHITE" IN STORED EGGS

A TYPE of deterioration in stored eggs in which the egg white becomes pink, and the yolk becomes large, salmon colored and watery in consistency, but turns rubbery when cooked, has caused severe losses in the United States in past years. Eggs from hens fed raw cottonseed products have been known to suffer the same or a similar type of deterioration, but most examples of "pink white" eggs on the market have come from flocks to which cottonseed products were not available.

It was discovered in this laboratory that the extracted yolk fat of "pink white" eggs, and also of fresh eggs from hens fed cottonseed oil gave the Halphen test for cottonseed. It was also discovered that seeds of certain members of the family Malvaceae (other than cotton) notably *Malva parviflora, Lavatera assurgentiflora* and *Althaea sp.* gave positive Halphen tests. Consequently, groups of hens were fed rations containing seeds of *Malva parviflora* and of *Lavatera assurgentiflora.* Eggs from these birds gave a positive Halphen test and also turned pink after a period of storage, while eggs from the same birds, before the seeds were added to the rations, gave a negative test and did not turn pink after the same period of storage.

It is concluded that these and possibly other members of the family Malvaceae when eaten by laying hens may become responsible for "pink white" deterioration in stored eggs. *Malva parviflora* is a common weed in poultry districts and is more available to poultry than other members of the family, so that this species is probably the important cause of "pink white" deterioration.

F. W. LORENZ
H. J. ALMQUIST
G. W. HENDRY

UNIVERSITY OF CALIFORNIA

INCOMPLETE NUCLEAR DIVISIONS AND NOT AMITOSIS IN THE TAPETUM OF THE EUSPORANGIATE FERNS

IN 1913 the writer began an investigation of the nature of the nuclear divisions in the tapetum of *Botrychium virginianum* (L.) Swarz. He was soon led to the conclusion that the nuclei undergo incomplete divisions similar to those described by him in *Nephrodium hirtipes* Hk.[1]

As a result of this investigation, extending over a period of two decades, the writer has been convinced that the amitotic divisions described by some workers as occurring in the tapetum of the *eusporangiate* filicales do not take place.

[1] W. N. Steil, "Apogamy in *Nephrodium hirtipes* Hk." *Ann. Bot.,* 33: 109–133, 1919.

The incomplete nuclear divisions, which begin in the young tapetum, result in the formation of nuclei of irregular form, commonly, dumb-bell and kidney-shaped, which have suggested to some workers that the nuclei divide amitotically. The nuclei, as a result of successive incomplete divisions, are polyploid and of unusually large size.

The organization of chromosomes, the presence of spindle fibers and various stages in the reorganization of the resting daughter nuclei are some of the evidences that incomplete divisions, and not amitotic divisions, occur in the tapetum.

The incomplete nuclear divisions herein described have been studied in two *eusporangiate* ferns, namely *Botrychium virginianum* (L.) Swarz and *Ophioglossum vulgatum* L.

A detailed discussion of these nuclear divisions in the tapetum of the ferns studied will be presented in the near future.

W. N. STEIL

MARQUETTE UNIVERSITY

THE FOURTEENTH ANNUAL MEETING OF THE AMERICAN GEOPHYSICAL UNION

THE fourteenth annual meeting of the American Geophysical Union and the sessions of its sections were held at Washington, D. C., on April 27, 28 and 29.

Progress-reports on geodetic work in the United States and Mexico were presented before the Section of Geodesy, as also papers on gravity-work, on application of radio to astronomical longitude-determinations of the Geodetic Survey of Canada, on the moon's influence on latitude and on the expansion and developments in the time-service at the U. S. Naval Observatory.

The Section of Seismology of the union held a joint meeting with the Eastern Section of the Seismological Society of America. An interesting series of progress-reports, papers and informal communications, totaling 39, was presented at the three sessions of this joint meeting, including, among others, progress-reports on developments of seismological instruments and on the work of various seismograph-stations in the United States and Mexico; papers relating to recent earthquakes, to discussion of methods in seismological determinations, and to precise geodetic measurements and their relation to seismological investigations; and an informal discussion of earthquake-code.

At its meeting the Section of Meteorology had the privilege of hearing a paper by Dr. L. Vegard, of Norway, on the auroral spectrum, in addition to papers by members of the union and other guests on meteorological problems in relation to radiation, on trade-winds of the eastern Caribbean, on reduction of meteorological data from Cruise VII of the *Carnegie,* on interesting facts concerning warm and cold waves, on the value of cloud-observations, on the Giao theory explaining the formation of precipitation in relation to fundamental concepts of the polar-front theory, on turbulence-factors of Linke and Ångstrom and their practical applicability, and on the time, type and areal distribution of tornadoes in the United States.

The reports and papers presented before the Section of Terrestrial Magnetism and Electricity included progress-reports on the year's investigations and projects in the United States, Canada and Mexico and on the International Polar Year of 1932–33, while the papers related to cosmic rays, to earth-resistivity measurements, to ozone and the sunspot-cycle, to cosmic radio correlations and to effect of magnetic activity upon secular change.

As in past years, the meeting of the Section of Oceanography consisted mainly of the progress-reports of eight governmental bureaus and private research organizations engaged in oceanographic work in the United States and Canada. Besides these reports, there were papers on the submarine valleys of the Bahamas, on submarine mock valleys, on investigations of submarine valleys, on monthly sequence of sea-surface temperature on the New York-San Juan steamship route, on air- and water-temperatures in the West Indian region, on development of our conception of the Gulf Stream system and on data from borehole on New Providence Island, Bahamas.

In the Section of Volcanology the papers dealt with volcanic explosions and overthrusts, with the Tertiary Volcano at Cripple Creek, Colorado, and the volcano of Santa Maria in Guatemala, with some features of volcanic sequence in the Cascade Region in Oregon, and with volcanic history of the Magdalena District, New Mexico.

The Section of Hydrology devoted three sessions to hearing reports of its nine permanent research committees and 25 papers covering numerous investigations and developments in scientific hydrology throughout the United States. These brought out clearly the effective cooperation existing between the various hydraulic stations and laboratories of the federal government, of the state governments, of universities and of consulting engineering organizations.

At the business session of the general assembly the general secretary reported a total membership of 355, as of April 28, 1933. Among other things, the gen-