

intermediary metabolism of the foodstuffs, their interconvertibility and the chemical reactions concerned in the exchange of energy. Soon the question whether alcohol is a food will be heard again. I have ventured rather to direct attention to less popular and partly neglected opportunities for intensive study.

Sir William Osler, describing a special part of medical literature, once remarked: "What a desolate sea of theory and speculation!" Most of us are familiar with such areas in our own domains of science. They call for initiative and forethought to explore and chart them more satisfactorily.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE SEVENTEENTH ANNUAL MEETING OF THE PACIFIC DIVISION

By Dr. J. MURRAY LUCK

SECRETARY, STANFORD UNIVERSITY

THE seventeenth annual meeting of the Pacific Division of the American Association for the Advancement of Science, together with its associated societies, was held from June 12 to 15 in Salt Lake City, Utah, eleven years having elapsed since the association last met in this region. Generous hospitality was provided by the University of Utah.

Two hundred eighty-seven members and guests registered for the meeting and twelve of the associated societies participated. Though ranking as one of the smaller meetings of the Division, the sessions were of singular interest by virtue of the large proportion of excellent papers and the lively discussions which followed.

The sessions commenced on the afternoon of June 12 with reviews of the scientific contributions of the past year in four fields of science. Dr. H. H. Kimball, president of the American Meteorological Society, presented the report on recent advances in meteorological research. Studies of the Bjerknes polar front theory of the development of cyclonic storms and investigations on the vertical temperature distribution in the atmosphere were reviewed in some detail. The researches at Point Barrow, Alaska, proceeding under the program of the International Polar Year were outlined. Professor R. G. Aitken, director of the Lick Observatory, presented the review on "Astronomy and Astrophysics." Attention was given to some of the major problems of stellar research, such as the distribution of stars, their spectral peculiarities and distances, their apparent and absolute magnitudes and radial velocities. The bearing of these investigations on current theories of the nature of the universe was discussed. Several recent observations of general interest were referred to: the meteoric shower of last November, night sky radiation, bands identified in the spectra of Venus and Jupiter, the total eclipse of August 31, and observation of the corona without eclipse. Professor Eliot

Blackwelder, of Stanford University, reviewed the recent contributions in geology and seismology, selecting five or six problems of major interest which are being actively investigated in the west. Among these might be mentioned the nature and origin of batholiths, the origin of the characteristic plains of deserts and certain problems of mountain growth. The final review on "Chemistry in Relation to Medicine" was presented by Dr. Chauncey D. Leake, professor of pharmacology in the University of California.

In the evening Professor W. F. Durand, of Stanford University, retiring president of the Pacific Division, presented an address on "The Development of our Knowledge of the Laws of Fluid Mechanics." This will be published *in extenso* in SCIENCE. Prior to President Durand's address, Dr. George Thomas, president of the University of Utah, formally welcomed the association and its guests.

The morning of Tuesday, June 13, was devoted to a symposium on "Scientific Problems of the Great Salt Lake," in which five papers of considerable interest were presented by members of the faculty of the University of Utah whose studies have been largely centered upon the problems under discussion. The titles are "The Ancestry of Great Salt Lake," Dr. Hyrum Schneider; "Climatological and Hydrological Problems," T. C. Adams; "Chemical Deposits and Problems," Dr. Thomas B. Brighton; "Animal Life and Relations," Dr. A. M. Woodbury, and "Plant Life and Relations," Dr. Walter P. Cottam.

At 4 p. m. President and Mrs. Thomas received the members and guests of the Division and associated societies. In the evening, Dr. H. H. Kimball addressed the association on "Meteorology—Ancient and Modern; its Development and Applications." The address was largely devoted to the growth of observational and experimental work in meteorology as conducted under the auspices of various government departments from 1812 on.

The concluding evening address on "Earthquake Habits of Many Lands" was presented on Wednesday, June 14, by Professor Bailey Willis, of Stanford University. Attention was given to the origin of earthquakes, the hypotheses prevalent among the ancients, and the newer theories which attribute earthquakes to slips along recognized faults under the influence of excessive lateral pressure in the outer shell of the earth. The earthquakes of various regions were discussed in some detail.

Six excursions to adjacent areas of scientific and scenic interest were made during the course of the meetings. These trips included the Timpanagos scenic loop—one of the most picturesque mountain highways in Western America, the Bear River game refuge, which serves as an important breeding area for wild fowl and aquatic birds in the West, and Bird Island in Great Salt Lake, where countless numbers of wild fowl—the sea gull, pelican, cormorant and blue heron—make their nests. The large open-cut copper mine at Bingham and the smelter at Garfield were visited. Members interested in geology enjoyed a trip to the beautiful Little Cottonwood Canyon, while an excursion into Tooele Valley gave opportunity for observing various stages of plant succession, from the extreme halophytic pioneers to the desert climax types.

Business sessions of the Pacific Division of the American Association for the Advancement of Science, the executive committee and the affiliation committee were held. At the general business sessions on June 13, Professors A. O. Leuschner and A. R. Davis, of the University of California, were elected to the executive committee in succession to Dr. J. H. Moore and Professor R. E. Clausen, who are retiring after five years of service. A resolution of gratitude for the generous hospitality of the University of Utah was unanimously adopted. Announcement was made that the meeting of 1934, which will be held in Berkeley, California, in June, will be a national meeting of the entire association. At the meeting of the executive committee on June 14, Professor Joel H. Hildebrand, of the University of California, was elected to the presidency of the Division for the ensuing year. Professors E. G. Martin and J. Murray Luck, of Stanford University, were re-elected vice-president and secretary-treasurer, respectively.

Dr. R. V. Chamberlin, Dr. T. B. Brighton, L. L. Daines, Dr. D. A. Lyon, H. L. Marshall, Dr. F. J. Pack and Dilworth Walker served as chairmen of the committees in charge of the local arrangements.

The reports of the scientific sessions of participating societies follow:

AMERICAN ASSOCIATION OF ECONOMIC ENTOMOLOGISTS, PACIFIC SLOPE BRANCH

(Report by H. A. Scullen)

A total of twenty-four papers were listed on the program. Dr. George F. Knowlton and M. J. Janes gave a report on studies relating to the food habits of lizards, showing them to be important predators of the beet leafhopper. R. A. Fulton reported on studies relating to the fat content of *Eutettix tenellus* Baker and its relation to hibernation and overwintering ability. An interesting case of "Insect Tolerance" was reported on by Dr. R. L. Webster. Evidence was presented to show a developing tolerance to oil-lead arsenate sprays by the San Jose scale.

The Thursday program began with the presentation of two papers by A. F. Swain. The first was entitled, "Detection and Measurement of Surface Oil on Citrus Following Spraying," by A. F. Swain and Don Green. The second was a report on "A Study of the Possibility of Increasing the Toxicity of HCN by the Addition of Auxiliary Gases," by F. S. Pratt, A. F. Swain and D. N. Eldred. Common species of Coccinellidae were used in these studies. Russell S. Lehman gave a progress report on work being done on fumigants for the wireworm, *Limonius californicus* Mann. The efficiency of thirteen fumigants compared with carbon disulfide were studied under controlled conditions. Latest methods of applying liquid sprays by airplane were presented in a paper by Frank B. Herbert. Some results from studies on the pea weevil in the Pacific Northwest appeared in two papers. T. A. Brindley presented a paper on "Some Notes on the Biology of the Pea Weevil, *Bruchus pisorum* L. (Coleoptera, Bruchidae) at Moscow, Idaho," and A. O. Larson, T. A. Brindley and Frank G. Hinman, a paper on "The Local Dispersal of the Pea Weevil." Laboratory studies on the effects of low temperature on the adults of the Colorado potato beetle and its possible relation to the northern spread of that insect were reported on by Professor G. Allen Mail and R. M. Salt. In a paper on "The Identity of Two *Lygus* Pests (Hemiptera, Myridae)," Dr. W. E. Shull raises *Lygus etisus* Van Duzee and *L. hesperus* Knight to the rank of species and new common names are proposed. Dr. Shull also presented a paper on "A Method of Inhibition of Coagulation in the Blood of Insects" by exposure to vapor of acetic acid. In a paper presenting results from studies on ants associated with aphids, Dr. Charles R. Jones showed that species and genera of ants mixed freely with those of other species and genera. The life history, distribution and control of the western yellow willow tingid (*Corythucha salicata* Gibson) was discussed in a paper by B. G. Thompson and K. L. Wong. The

results of tests on the control of the pepper weevil by various fluorine compounds were presented in a paper by J. C. Elmore. Comparative studies have recently been made with various types of spray tank agitators and the results of these studies were given in a paper by Arthur D. Borden.

On Wednesday afternoon the visiting entomologists were taken on a field trip to observe the alfalfa weevil problem under the able leadership of entomologists working with that insect.

The following officers were elected for the ensuing year: *President*, George I. Reeves; *vice-president*, W. B. Herms; *secretary-treasurer*, H. A. Scullen.

The 1934 meeting will be held at Berkeley in connection with the Pacific Division of the American Association for the Advancement of Science.

AMERICAN CHEMICAL SOCIETY, PACIFIC INTER-SECTIONAL DIVISION

(Report by C. R. Kinney)

Sixteen papers were presented. The first was by Professor O. F. Stafford on the solvent properties of acetamide. Predicting that acetamide would have good solvent properties because of the different groups present, Dr. Stafford tested the solubility of some 400 substances and discovered that only about 4 were insoluble. Dr. G. W. Sears with F. Lohse described the results of their study of the reaction between tungstic acid, chlorine and carbon, in which the carbon appears to act as a catalyst and not as a reducing agent. Dr. J. W. McBain gave two very interesting papers; the first, with C. R. Dawson, was on "Accelerated and Retarded Diffusion in Aqueous Solutions." The sintered glass cells that were used were exhibited and values for the diffusion of certain ions were given. The second paper on the "Air-driven Ultracentrifuge" was particularly interesting to those who had not seen the apparatus before. R. C. Swain reported his findings on "The Measurement of Absolute Adsorption by the Microtome Method." A slide showing the elaborate apparatus provoked particular interest.

At the beginning of the Wednesday morning meeting, Dr. Merle Randall abstracted a paper on "The pH Buffering Power of Several Vegetables" by G. L. Marsh and Dr. W. V. Cruess. The next two papers were on complex cyanides by Dr. W. D. Bonner and associates. The first, with M. J. Miles, gave the results of a determination of the composition of the complex nickel cyanides. The second, with Dr. S. F. Ravitz and M. J. Miles, described the results of a study on the "Complex Cupro-Cyanide Ions and the Silver Iodide Complex Ions." Two papers on organo-boron compounds were presented by Dr. C. R. Kinney, H. T. Thompson and T. M. Burton. Dr. G. S. Parks gave a very interesting paper on "The Coefficient of

Thermal Expansion of Boron Trioxide," in which values were given at various temperatures over the softening range of boron trioxide. At these temperatures the coefficient of expansion rose very rapidly. Dr. Kenneth A. Kobe presented two papers on furan. The first, with K. W. Gerstmann, dealt with polymerization of furan and the second, with C. S. Huey, contained evidence that the oxygen of furan was conjugated with the carbon atoms of the ring. Two papers, on the "Hydration of Wood Pulp in Zinc Chloride Solution," by Professor W. L. Beuschlein and B. L. Rausehert, and "A Study of Adsorption at the Benzene-Sodium Oleate Solution Interface," by K. M. Seymour, K. A. Wright and Dr. H. V. Tartar, were read in abstract. The last paper was by Dr. J. R. Lewis, on "The Use of Analogies in Teaching Chemistry."

The executive committee for the coming year will be Dr. J. L. St. John, State College of Washington, *chairman*; Dr. C. R. Kinney, University of Utah; and Dr. G. K. Rollefson, University of California (newly elected member). Dr. Rollefson will also be chairman of the program committee for the Berkeley meeting, 1934. The results of the annual high-school chemistry contest were not available for announcement at the dinner, but may be included now. Professor R. K. Strong, of Reed College, was in charge of the contest. First place and the loving cup went to the high school of Ashland, Oregon. Second and third places went to Folsom City, California, and Snohomish, Washington, respectively.

AMERICAN METEOROLOGICAL SOCIETY

(Report by J. Cecil Alter)

Dr. Herbert H. Kimball presided. Dr. Hyrum Schneider gave an extemporaneous talk on "Weather Observations as Laboratory Material in Teaching Climate," showing particularly the relationship between local sky and other signs and the daily weather map. The talk gave rise to a general discussion of weather forecasts.

S. R. Boswell's paper, "Settling Weather Disputes," was read by Blaine N. Ramsden, and set forth the many ways in which a county agricultural agent, who is also a cooperative weather observer, disseminates the facts about the weather, replacing tradition, belief and mistaken impressions; and especially how a knowledge of temperatures and rainfall enable the county agent to advise the farmers in regard to watering, cultivating and harvesting crops. "Lights and The Weather Man," by L. B. Fuller and H. H. Krueger, described the various ways in which wind, rain, snow and temperature changes stretch, sag, whip and break or "short" electric transmission wires, and how precipitation and especially deposits there-

from will cause short circuits over the best of insulators. J. Billeter gave a paper on "The Effect of Meteorological Conditions upon the Formation of Salt Lake City's Smoke Cloud," showing especially where the smoke originated, and how it was gathered by winds over a certain part of the city. Sunny days and high barometric pressures, by convectional action, aided in increasing the depth of smoke. Some ingenious but futile methods were reported for ridding the city of smoke; it can in fact be lessened only by reducing the amount generated in homes and large heating plants. Clarence R. Kallquist read a paper on "Results of Pilot Balloon Ascensions above the Arctic Circle," showing wind movements over Greenland especially. This paper brought out a general explanation of the so-called Polar Year of cloud and upper air meteorological observations, especially within the Arctic Circle. The contribution of cloud photographs to the Polar Year program was explained by F. L. Disterdieck; Mr. Floreen's exhibit of cloud photographs made at Cheyenne was on display.

After some discussion of lenses and methods of photography, F. L. Disterdieck exhibited an automobile wind-shield that had been sandblasted and deeply pitted by a severe Wyoming sand storm. Hundreds of automobiles were cleared of their paint, and their glass parts rendered opaque by the sandblasting. After an explanation of the Polar Year program, Dr. H. H. Kimball gave a paper on "The Use of Glass Color-Screens in the Study of Atmospheric Depletion of Solar Radiation," which explained how oblique rays of the sun encountering atmospheric dust, moisture and other obstruction can be reduced to vertical or normal rays for the place. Ralf R. Woolley presented a paper on "Some Historic Floods in Utah," gleaned from sequestered records prior to those of precipitation and stream measurement. The floods referred to occurred in Utah mostly between 1850 and 1890, the author pointing out that floods occurred as frequently then as now, and that the works of man or his utilization of the watersheds do not prevent or augment flooding. In the animated discussion which followed, the parts played by controlled grazing and forestry in flood control received attention. Dr. Wayne B. Hales presented the results of a balloon study with a portable anemometer of the canyon winds of the Wasatch mountains. He showed the advantages to agriculture of the canyon winds in prolonging the frost-free season and in preventing the extremes of diurnal temperatures that would otherwise occur. "The Unseasonable Fire Weather in October, 1932, in Western Oregon," was the subject of a paper prepared by Charles I. Dague, and read by Blaine N. Ramsden. This set forth the extraordinary occurrence of extreme desiccation in a region

normally very wet or moist, and emphasized the fact that low humidity, more than wind, was the cause of increased fire hazards. "An Exact Method of Eliminating the Annual Cycle from Temperature Data," by Jesse W. Smith and Joe R. Fuks, presented a statistical method of smoothing temperature curves which is claimed to be more useful than ordinary methods. The paper on "Some Meteorological Fluctuations of Ground-Water Levels," by George H. Taylor, explained how daily, yearly and secular trends in precipitation, evaporation and transpiration affect ground water levels, and consequently the stages in wells under observation. Irregular barometric pressure changes were shown to be especially effective in producing changes in the water level in some wells, and changes also were noted during and after an earthquake.

A. B. Purton presented a paper on "Transpiration and Stream Flow," in which he reported and explained the phenomenon of willows absorbing by transpiration the greater part of the flow of a small stream during the daytime, allowing the stream to rise appreciably at night. Thomas C. Adams read a paper on "Evaporation from Great Salt Lake," in which new data on the general subject of evaporation in different seasons of the year and the results of laboratory studies on evaporation from fresh and salt water were presented. E. G. Thorum explained in a paper on "Forecast of Spring Run-off in Streams of the Western United States from Precipitation Data at Indicator Stations," how a few selected precipitation stations in the lower, settled country are used in predicting the early summer flow of Bear River, a large Utah-Idaho-Wyoming mountain stream intensively used for hydroelectric purposes.

A paper on "Earthquake Weather in Southern California," by Dr. Charles C. Conroy, was read by J. Cecil Alter. The paper showed by numerous comparisons and correlations that earthquakes could not be associated with any combination or characteristic of weather elements, unless it should be proved "that the axis of the prevailing (pressure) gradient is nearly perpendicular to the line of the involved fault." Carl Elges presented the last paper on "Forecasting the 1933 Runoff in the Humboldt Basin, Nevada: a Study in Great Basin Hydrology," showing how stream discharges are predicted by the snow survey system. The paper emphasized the methods of correcting the indicated flow by the consideration of factors other than snow supply.

AMERICAN PHYSICAL SOCIETY, 185TH MEETING
(Report by Leonard B. Loeb, secretary for the
Pacific Coast)

The sessions began at 9 o'clock on the morning of June 15 and extended until noon. The sessions re-

sumed at 1:30, to continue as a joint symposium with the Astronomical Society of the Pacific, there being four papers presented by invitation. The titles were as follows:

High terms in the spectra N^v and O^v: WILLOUGHBY M. CADY, California Institute of Technology.

Hyperfine structure and nuclear moment of Columbium: DR. NORMAN S. GRACE and STANLEY S. BALLARD, University of California at Berkeley.

Hyperfine structure of Molybdenum: DR. NORMAN S. GRACE and KENNETH R. MORE, University of California at Berkeley.

Hyperfine structure and nuclear spin of Lanthanum: DR. H. E. WHITE and A. E. ANDERSON, University of California at Berkeley.

Remarks on the "lines" of diffraction gratings: HAROLD D. BABCOCK, Mount Wilson Observatory.

Measurement of the Townsend coefficients for ionization by collision: FREDERICK H. SANDERS, University of California at Berkeley.

Uranium and thorium content of rocks determined from their surface radiation: ROBLEY D. EVANS, University of California at Berkeley.

The heat of dissociation of Bi₂ determined by the method of molecular beams: CHENG CHUAN KO, University of California at Berkeley.

Charging devices for portable ionization electroscopes: DR. E. J. WORKMAN, Reed College.

The study of a powerful source of positive alkali ions: PAUL KECK and DR. LEONARD B. LOEB, University of California at Berkeley.

Azimuthal investigation of the cosmic radiation: S. A. KORFF, Mt. Wilson Observatory.

Photographic studies of the planets in light of different wave-lengths: DR. W. H. WRIGHT.

Spectra of Mars, Venus and Jupiter under high dispersion: DR. T. DUNHAM.

Molecular spectra in the photographic infra-red: DR. D. M. DENNISON and A. ADEL.

Radioactivity and the age of meteorites: R. D. EVANS.

There were some twenty members of the Physical Society in attendance, covering institutions from Los Angeles, central California and Utah. It was voted to hold the 188th meeting on Friday, December 15, and Saturday, December 16, 1933, at Stanford University, California.

Members of the Physical Society met at an informal luncheon at the Union on June 15 and an informal dinner at the Union on June 17. The small attendance at these meetings was largely a result of the economic conditions throughout the country, together with the fact that a very much larger meeting was being held a week later in affiliation with the American Association at the Century of Progress Exposition in Chicago. A large percentage of the papers which would normally have come to the meeting of the Pacific Division were thus reserved in order to

make it possible for members to attend the 186th meeting in Chicago. Despite its small size, the meeting was highly successful and the papers were of excellent quality, especially so in the case of the joint symposium of the Astronomical Society of the Pacific and the American Physical Society. It was felt by members of the society, both from the population centers and from the local community, that the contacts made were mutually beneficial to all concerned, and that despite the small attendance at the meetings in the smaller institutions, these meetings served an exceedingly useful function in stimulating scientific advance.

AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS, WESTERN DIVISION

(Report by Lawrence E. Griffin)

The following papers, briefly abstracted, were presented:

Herpetological Habitats and Life Zones in Mexico: PAUL D. R. RÜTHLING, Santa Fe, New Mexico. Temperature and water seem to be the chief factors determining life zones in Mexico. Temperature varies according to latitude, elevation and exposure, causing greater restrictions to distribution than light, atmospheric pressure and other minor factors, and is of great influence in molding environment and creating barriers. A brief sketch is given of the west coast, Lower California, east coast, central plateau, and isolated Alpine regions, together with comments on the herpetological fauna typical of these distinct regions.

A plea for the systematic lumpers: ROLF L. BOLIN, Hopkins Marine Station. There exists too large a proportion of monotypic genera, a considerable number of which should be lumped in order to best display the relationship of the forms in question.

Distribution of the fishes of Oregon and Washington: L. F. SCHULTZ, University of Washington. Three hundred forty-seven species of fish have been taken in this area, 255 marine, 75 fresh-water and 17 common to salt and fresh water. Twenty-one species of marine fish have not been found outside the area; 11 of these occur in Puget Sound. The Columbia River has 33 native species and 16 introduced. In general the fauna of the coast of Washington, Puget Sound, and the coast of Oregon as far south as the Sixes River was derived from the Columbia River. The Rogue River, Klamath River and Oregon Lakes possess a distinct fauna.

A study of the variation of the dorsal scale rows of Charina bottae (Blainville): DR. VASCO M. TANNER, Brigham Young University. After a study of 120 specimens of the rubber snakes found in the eight western states, it was concluded that the evidence at present supports the contention that the öoids of this region should be considered as one species; also that the Utah specimens are not sufficiently distinct from other specimens taken throughout the western states to warrant being considered as a subspecies.

Notes on the native fish fauna of Utah: DR. VASCO M. TANNER. Utah has mainly two drainage basins, the Great Basin or Bonneville Basin and the Colorado River Basin. Twenty-nine native species, 23 introduced species, and 7 fossil species are reported.

Notes on the Catostomids of Utah: MERRILL C. HAMMOND, Brigham Young University. In the Colorado River system are found *Xyrauchen texanus*, *Catostomus latipinnis*, *C. insignis*, *Notolepidomyzon utahensis*, and *Pantosteus delphineus*. *Pantosteus platyrhynchus* is found in the Provo, Sevier and Weber Rivers. *Pantosteus virescens* is common in the Weber and Bear Rivers. *Catostomus ardens* may be a synonym of *C. fecundis*; *Chasmistes liorus* may be only a variant of *Catostomus fecundis*.

The mechanism of fang replacement in the rattlesnake: L. M. KLAUBER, Natural History Museum, San Diego, California. On each side of the head there is a pair of contiguous maxillary fang sockets. These are used alternately to hold the active fang, the immature fangs being held in a magazine in a staggered line behind the two sockets, the most mature of the future fangs being behind the vacant socket. When the time comes for a change this fang advances to the vacant socket anterior to it and becomes seated therein. The old fang drops out, leaving a vacant socket, to which, in due time, the next replacement advances.

Notes on some Washington amphibians: JAMES R. SLATER, College of Puget Sound. *Ambystoma tigrinum* has been taken in the larval condition in Sulphur Lake and Medical Lake, Wash. They are taken in large numbers at Medical Lake. *Rhyacotriton olympicus*, *Ascaphus truei*, *Ambystoma parotium*, and *Bufo boreas* were taken at Spirit Lake, Wash. *Plethodon intermedius* was taken north of any previously reported locality, near Pokum, B. C.

The Muellerian duct of the male Triturus torosus: DR. LAWRENCE E. GRIFFIN and HENRY WU, Reed College. The Muellerian duct of the male *Triturus* is an extremely slender tube which extends the length of the abdominal cavity, and has a definite lumen as far as its anterior extremity.

Infection with amphibian tubercle bacilli connected with a case of sex reversal in a frog: DR. LAWRENCE E. GRIFFIN, Reed College. A testis of normal appearance and connections replaced the right ovary. In the testis were found numerous masses of bacteria which have been identified as amphibian tubercle bacilli.

Some changes in the blood of certain Caudata, Triturus torosus, during desiccation: ALICE H. BRAMLETT and DR. F. M. BALDWIN, University of Southern California. A study made to discover the degree of desiccation as indicated by changes in concentration of blood cells, increase in specific gravity, and coagulation time. Rapid desiccation is fatal. In some cases death resulted when 32 per cent. of the body weight was withdrawn in 14 hours. When desiccation was carried out slowly, some lived 54 hours with a loss of weight of 38 per cent.

Notes on a new Cyprinoid genus, Pseudogyrinocheilus; and P. procheilus (Sauvage and Dabry) from western China: P. W. FANG, Metropolitan Museum of Natural History, Nanking, China. A detailed analysis and description of the new genus and of the species assigned to it.

An exhibition of living reptiles of Utah was prepared by Dr. Vasco M. Tanner and D. Eldon Beck.

Officers for the coming year were elected as follows: *President*, Dr. Vasco M. Tanner; *vice-president*, Dr. Tracy I. Storer; *secretary*, Dr. Arthur Svihla.

(To be concluded)

SCIENTIFIC EVENTS

BRITISH BOTANICAL EXPEDITION TO TURKEY

THE correspondent of the London *Times* from Constantinople records that E. K. Balls and W. Balfour Gourlay have returned from an expedition in Anatolia in search of plants for the Royal Botanic Gardens at Kew and in Edinburgh. They set out in March with field kit, an English-speaking chauffeur, and a second-hand car which they had bought in Constantinople. Their first objective was the Taurus region, but finding their movements there somewhat restricted by the local authorities they returned to Angora and explored the country surrounding Kirschahr, Kaisarieh, Sivas, Erzincjan and Gümüşhané. Here they found flora akin to that of Persia. At the end of May they had made their way to the Trebizonde vilayet, where the climate is less dry than in Central Anatolia and consequently the flora is more

luxuriant. There they worked until September 9 from sea-level up to 11,000 feet.

In spite of an unusually wet and late summer, Mr. Balls and Mr. Gourlay are highly satisfied with the results of their expedition. They have discovered new varieties of crocus, tulip, primula and alpine plants; rare lilies and foxgloves. Two perennial foxgloves, one white and yellow, and the other yellow and brown, and a golden autumn-flowering crocus growing on the borders of Lazistan they regard as their greatest finds. Masses of pale-blue hyacinth growing in a bog and from a distance resembling a sheet of shimmering water supplied the most striking sight of their travels.

At regular intervals during the summer they posted home seeds, bulbs and live plants, and nearly all arrived in good condition. Both spoke very warmly of the hospitality they received in all the villages they