

APPENDIX G

Publications Resulting From Research Grants and Fellowships Fiscal Year 1958

This bibliography of some 1,315 items lists all papers published by NSF grantees and fellows for which the Foundation received publication information during fiscal year 1958. Notification of publication was usually in the form of a reprint or a copy of the paper or book. Approximately 170 grantee institutions and 50 fellowships are represented. Because of timelags between completion of research and publication of results, much of the experimentation covered by these papers was carried on prior to fiscal year 1958, while the results of a great deal of research during fiscal year 1958 will be reported in papers appearing in later lists.

The arrangement of entries is designed

to facilitate reference use of the compilation. Grantee items are grouped by National Science Foundation divisions or offices, by programs within each division, and alphabetically by grantee institution within each program.

Papers by fellows are listed in "Division of Scientific Personnel and Education." The fiscal year 1958 papers are listed under the issuing Journals which are arranged alphabetically, with fellows listed alphabetically under the Journal. Because this listing is the first to include fellowship reprints, a supplement is included to cover the years 1952-57. Items in this group are arranged alphabetically by fellow.

Division of Biological and Medical Sciences

DEVELOPMENTAL BIOLOGY

UNIVERSITY OF CALIFORNIA, Los Angeles, A. LANG

Lang, Anton. *The Effect of Gibberellin upon Flower Formation*. Proceedings of the National Academy of Sciences, 43: 709-717 (Aug. 1957).

Sachs, Roy M., and Anton Lang. *Effect of Gibberellin on Cell Division in Hyoscyamus*. Science, 125: 1144-1145 (June 1957).

UNIVERSITY OF CHICAGO, E. C. OLSON—Olson, Everett C., and Robert L. Miller. *Morphological Integration*. 317 pp. Chicago, Illinois, University of Chicago Press, 1958.

CORNELL UNIVERSITY, P. W. GILBERT—Gilbert, Perry W., and F. G. Wood, Jr. *Method of Anesthetizing Large Sharks and Rays Safely and Rapidly*. Science, 126: 212-213 (Aug. 1957).

FLORIDA STATE UNIVERSITY, C. B. METZ

Metz, Charles B. *Mechanisms in Fertilization*, pp. 17-45. In: *Physiological Triggers*, U. S. A., 1956.

———. *Mechanisms in Fertilization*. Journal of Cellular and Comparative Physiology, 46: 366-367 (Oct. 1955).

———. *Specific Egg and Sperm Substances and Activation of the Egg*. pp. 23-69. In: *The Beginnings of Embryonic Development*, Washington, D. C., American Association for the Advancement of Science, 1957.

Tyler, A., and C. B. Metz. *Effects of Fertilizin-Treatment of Sperm and Trypsin-Treatment of Eggs on Homologous and Cross-Fertilization in Sea-Urchins*. Pubblicazioni Stazione Zoologica, Napoli, 27: 128-145 (Dec. 1955).

———, Alberto Monroy, and Charles B. Metz. *Fertilization of Fertilized Sea Urchin Eggs*. Biological Bulletin, 110: 184-195 (Apr. 1956).

FORDHAM UNIVERSITY, C. A. BERGER—Berger, C. A., E. J. Feeley, and E. R. Witkus. *The Cytology of Xanthisma Texanum D. C. IV. Megasporogenesis and Embryo Sac Formation, Pollen Mitosis and Embryo Formation*. Bulletin of the Torrey Botanical Club, 83: 428-434 (Dec. 1956).

HARVARD UNIVERSITY, L. R. CLEVELAND

Cleveland, L. R. *A Factual Analysis of Chromosomal Movement in Barbulanympha*. Journal of Protozoology, 5: 47-62 (1958).

———. *Achromatic Figure Formation by Multiple Centrioles of Barbulanympha*. Journal of Protozoology, 4: 241-248 (1957).

———. *Additional Observations on Gametogenesis and Fertilization in Trichonympha*. Journal of Protozoology, 4: 164-168 (1957).

———. *Correlation between the Molting Period of Cryptocercus and Sexuality in Its Protozoa*. Journal of Protozoology, 4: 168-175 (1957).

Cleveland, L. R. *Movement of Chromosomes in Spirotrichonympha to Centrioles Instead of the Ends of Central Spindle*. Journal of Protozoology, 5: 63-68 (1958).

———. *Types and Life Cycles of Centrioles of Flagellates*. Journal of Protozoology, 4: 230-241 (1957).

SOUTHERN ILLINOIS UNIVERSITY, F. J. FINAMORE—Finamore, F. J., and G. T. Crouse. *Nucleotide and Nucleic Acid Metabolism in Developing Amphibian Embryos. I. Isolation and Chemical Identification of Acid-Soluble Nucleotides*. Experimental Cell Research, 14: 160-165 (1958).

JOHNS HOPKINS UNIVERSITY, A. T. JAGENDORF

Avron, Mordhay, and Andre T. Jagendorf. *Some Further Investigations on Chloroplast TPNH Diaphorase*. Archives of Biochemistry and Biophysics, 72: 17-24 (Nov. 1957).

Krogmann, David W., and Andre T. Jagendorf. *A Spectrophotometric Assay of the Hill Reaction with Ferricyanide*. Plant Physiology, 32: 373-374 (July 1957).

MARQUETTE UNIVERSITY, J. W. SAUNDERS, JR.

Saunders, John W., Jr., John M. Cairns, and Mary T. Gasseling. *The Role of the Apical Ridge of Ectoderm in the Differentiation of the Morphological Structure and Inductive Specificity of Limb Parts in the Chick*. Journal of Morphology, 101: 57-87 (July 1957).

——— and Mary T. Gasseling. *The Origin of Pattern and Feather Germ Tract Specificity*. Journal of Experimental Zoology, 135: 503-527 (Aug. 1957).

UNIVERSITY OF MICHIGAN, N. E. KEMP—Kemp, Norman E. *Electron Microscopy and New Frontiers in Cytology and Histology*. University of Michigan Medical Bulletin, 23: 197-210 (June 1957).

UNIVERSITY OF NORTH CAROLINA, D. P. COSTELLO—Costello, D. P., M. E. Davidson, A. Eggers, M. H. Fox, and C. Henley. *Methods for Obtaining and Handling Marine Eggs and Embryos*. 247 pp. Woods Hole, Massachusetts, Marine Biological Laboratory, 1957.

NORTHWESTERN UNIVERSITY, R. C. KING

King, R. C., and R. G. Burnett. *Oogenesis in Adult Drosophila Melanogaster. V. Mutations Which Affect Nurse Cell Nuclei*. Growth, 21: 263-280 (Oct. 1957).

———, ———, and N. A. Staley. *Oogenesis in Adult Drosophila Melanogaster. IV. Hereditary Ovarian Tumors*. Growth, 21: 239-261 (Sept. 1957).

UNIVERSITY OF PENNSYLVANIA, W. G. HUTCHINSON—Medill-Brown, M., and W. G. Hutchinson. *Effect of Penicillin, Growth Phase, Ultraviolet Light, and Ultrasonic Vibrations on the Ability of Proteus Mirabilis to Form L Type Colonies*. Journal of Bacteriology, 74: 280-285 (Sept. 1957).

PRINCETON UNIVERSITY, W. P. JACOBS—Jacobs, William P., and Ielene B. Morrow. *A Quantitative Study of Xylem Development in the Vegetative Shoot Apex of Coleus*. American Journal of Botany, 44: 823-842 (Dec. 1957).

RICE INSTITUTE, R. V. TALMADGE AND A. C. ENDERS—BUCHANAN, G. D. *Variation in Litter Size of Nine-Banded Armadillos*. Journal of Mammalogy, 38: 529 (Nov. 1957).

SOCIETY FOR THE STUDY OF DEVELOPMENT AND GROWTH, K. V. THIMANN-RUDNICK, DOROTHEA, ED. *Rhythmic and Synthetic Processes in Growth*. The Fifteenth Symposium of the Society for the Study of Development and Growth. 217 pp. Princeton, New Jersey, Princeton University Press, 1957.

STANFORD UNIVERSITY, D. L. STILWELL, JR.—Stilwell, Donald L., Jr. *The Innervation of Tendons and Aponeuroses*. American Journal of Anatomy, 100: 289-317 (May 1957).

TEXAS AGRICULTURAL EXPERIMENT STATION, J. N. WEAVER

Weaver, Nevin. *Effects of Larval Age on Dimorphic Differentiation of the Female Honey Bee*. Annals Entomological Society of America, 50: 283-294 (May 1957).

———. *Experiments on Dimorphism in the Female Honey Bee*. Journal of Economic Entomology, 50: 759-761 (Dec. 1957).

UNIVERSITY OF WISCONSIN, H. W. MOSSMAN—Orsini, Margaret Ward. *The Vascular Knot of the Hamster Uterus: The Placental Arterial Supply and Its Changes during Gestation and Postpartum Involution*. Journal of Morphology, 100: 565-599 (May 1957).

WITENBERG COLLEGE, K. J. NORSTOG—Norstog, Knut J. *Polyembryony in Hierochloa odorata (L.) Beauv.* Ohio Journal of Science, 57: 315-320 (Sept. 1957).

UNIVERSITY OF WYOMING, C. S. THORNTON—Thornton, Charles Stead. *The Effect of Apical Cap Removal on Limb Regeneration in Amblystoma Larvae*. Journal of Experimental Zoology, 134: 357-381 (Mar. 1957).

ENVIRONMENTAL BIOLOGY

AMERICAN MUSEUM OF NATURAL HISTORY, C. M. BREDER, JR.

Rasquin, Priscilla. *Cytological Evidence for a Role of the Corpuscles of Stannius in the Osmoregulation of Teleosts*. Biological Bulletin, 3: 399-409 (Dec. 1956).

———. *Ovarian Morphology and Early Embryology of the Pediculate Fishes Antennarius and Histrio*. Bulletin of the American Museum of Natural History, 114: 331-371 (1958).

———. *Studies in the Control of Pigment Cells and Light Reactions in Recent Teleost Fishes. Part 1. Morphology of the Pineal Region. Part 2. Reactions of the Pigmentary System to Hormonal Stimulation*. Bulletin of the American Museum of Natural History, 115: 7-68 (1958).

——— and Louise M. Stall. *Effects of Pitressin and Water Injections on Secretions of Brain and Hypophysis in a Teleost*. Journal of Comparative Neurology, 107: 273-293 (Apr. 1957).

UNIVERSITY OF ARIZONA, A. R. MEAD

Mead, Albert R. *Disease in the Giant African Snail Achatina fulica Bowdich*. Science, 123: 1130-1131 (June 1956).

———. *The Giant African (Kalutara) Snail in Ceylon*. Ceylon Forester, 11: 47-50 (Jan.-July 1955).

BERMUDA BIOLOGICAL STATION FOR RESEARCH, W. H. SUTCLIFFE, JR.

Bainbridge, Richard, and Talbot H. Waterman. *Polarized Light and the Orientation of Two Marine Crustacea*. Journal of

Experimental Biology, 34: 342-364 (Sept. 1957).

Williams, Roger W. *A New Distribution Record for Culex Sallinarius OOO: The Bermuda Islands*. Mosquito News, 16: 29-30 (Mar. 1956).

———. *Observations on the Breeding Habits of Some Heleidae of the Bermuda Islands (Diptera)*. Proceedings of the Entomological Society of Washington, 59: 61-66 (Apr. 1957).

———. *The Biting Midges of the Genus Culicoides Found in the Bermuda Islands (Diptera, Heleidae)*. 1. *A Description of C. Bermudensis N. SP. with a Key to the Local Fauna*. Journal of Parasitology, 42: 297-300 (June 1956).

———. *The Biting Midges of the Genus Culicoides in the Bermuda Islands (Diptera, Heleidae)*. 2. *A Study of Their Breeding Habitats and Geographical Distribution*. Journal of Parasitology, 42: 300-305 (June 1956).

Wirth, Willis W., and Roger W. Williams. *The Biting Midges of the Bermuda Islands, with Descriptions of Five New Species (Diptera, Heleidae)*. Proceedings of the Entomological Society of Washington, 59: 5-14 (Feb. 1957).

UNIVERSITY OF CALIFORNIA, La Jolla, B. P. BODEN—Boden, Brian P., and Elizabeth M. Kampa. *Records of Bioluminescence in the Ocean*. Pacific Science, 11: 229-235 (Apr. 1957).

UNIVERSITY OF CALIFORNIA, Santa Barbara, E. R. NOBLE—Noble, Elmer R. *Seasonal Variations in Host-Parasite Relations between Fish and Their Protozoa*. Journal of the Marine Biological Association, 36: 143-155 (1957).

DUKE UNIVERSITY, P. J. KRAMER—Kramer, Paul J. *Some Effects of Various Combinations of Day and Night Temperatures and Photoperiod on the Height Growth of Loblolly Pine Seedlings*. Forest Science, 3: 45-55 (Mar. 1957).

EMORY UNIVERSITY, F. H. BORMANN—Bormann, F. H. *Moisture Transfer between Plants through Intertwined Root Systems*. Plant Physiology, 32: 48-55 (Jan. 1957).

UNIVERSITY OF FLORIDA, A. CARR

Caldwell, David K., Archie Carr, and Thomas R. Hellier, Jr. *A Nest of the Atlantic Leatherback Turtle, Dermochelys Coriacea Coriacea (Linnaeus), on the Atlantic Coast of Florida, with a Summary of American Nesting Records*. Quarterly Journal of the Florida Academy of Sciences, 18: 279-284 (1955).

———, ———, ———. *Natural History Notes on the Atlantic Loggerhead Turtle, Caretta Caretta*. Quarterly Journal of the Florida Academy of Sciences, 18: 292-302 (Dec. 1955).

Carr, Archie. *Notes on the Zoogeography of the Atlantic Sea Turtles of the Genus Lepidochelys*. Revista de Biología Tropical, 5: 45-61 (1957).

——— and David K. Caldwell. *The Ecology and Migrations of Sea Turtles, 1. Results of Field Work in Florida, 1955*. American Museum Novitates, No. 1793, Oct. 1956, 23 pp.

——— and Leonard Giovannoli. *The Ecology and Migrations of Sea Turtles, 2. Results of Field Work in Costa Rica, 1955*.

American Museum Novitates, No. 1835, June 1957, 32 pp.

HIGHLANDS BIOLOGICAL STATION, INC., L. E. ANDERSON

Eaton, Theodore H., Jr. *Larvae of Some Appalachian Plethodontid Salamanders*. Herpetologica, 12: 303-312 (1956).

Habeeb, Herbert. *New Hydrachnellae from North Carolina*. Leaflets of Acadian Biology, No. 15, July 1957, 8 pp.

Stevenson, Henry M. *Summer Notes on Altitudinal Distribution in the Mountains of the Southeastern States in 1956*. Chat, 21: 2-8 (Mar. 1957).

INDIANA UNIVERSITY, D. G. FREY—Frey, David G. *The Late-Glacial Cladoceran Fauna of a Small Lake*. Archiv für Hydrobiologie, 54: 209-275 (Apr. 1958).

INDIANA UNIVERSITY, S. D. GERKING—Gerking, Shelby D. *A Method of Sampling the Littoral Macrofauna and Its Application*. Ecology, 38: 219-226 (Apr. 1957).

STATE UNIVERSITY OF IOWA, G. E. FOLK, JR.

Farrand, Richard L., G. E. Folk, Jr., and Marvin L. Riedesel. *Types of Mammalian Hibernation*. Proceedings of the Iowa Academy of Science, 63: 724-728 (Dec. 1956).

Folk, G. E., Jr. *Twenty-Four Hour Rhythms of Mammals in a Cold Environment*. American Naturalist, 91: 153-166 (May-June 1957).

Riedesel, Marvin L. *Serum Magnesium Levels in Mammalian Hibernation*. Transactions of the Kansas Academy of Science, 60: 99-141 (1957).

——— and G. Edgar Folk, Jr. *Serum Magnesium Changes in Hibernation*. Nature, 177: 68 (Apr. 1956).

LONG ISLAND BIOLOGICAL ASSOCIATION, B. WALLACE

Warren, Katherine Brehme, ed. *Cold Spring Harbor Symposia on Quantitative Biology, v. 22. Population Studies: Animal Ecology and Demography*. 437 pp. Cold Spring Harbor, L. I., N. Y., Long Island Biological Association, 1957.

UNIVERSITY OF MIAMI, H. B. MOORE

Moore, H. B. and D. L. O'Berry. *Plankton of the Florida Current. IV. Factors Influencing the Vertical Distribution of Some Common Copepods*. Bulletin of Marine Science of the Gulf and Caribbean, 7: 297-315 (Dec. 1957).

——— and E. G. Corwin. *The effects of Temperature, Illumination and Pressure on the Vertical Distribution of Zooplankton*. Bulletin of Marine Science of the Gulf and Caribbean, 6: 273-287 (Dec. 1956).

UNIVERSITY OF MICHIGAN, W. R. DAWSON

Dawson, William R., and George A. Bartholomew. *Metabolic and Cardiac Responses to Temperature in the Lizard Dipsosaurus dorsalis*. The Anatomical Record, 128: 538 (July 1957).

——— and Francis C. Evans. *Relation of Growth and Development to Temperature Regulation in Nestling Field and Chipping Sparrows*. Physiological Zoology, 30: 315-327 (Oct. 1957).

UNIVERSITY OF MISSOURI, P. W. FRANK—Frank, Peter W., Catherine D. Boll, and Robert W. Kelly. *Vital Statistics of Laboratory Cultures of Daphnia Pulex DeGeer as Related to Density*. Physiological Zoology, 30: 287-305 (Oct. 1957).

NEW MEXICO HIGHLANDS UNIVERSITY, L. M. SHIELDS—Shields, Lora Mangum, Charles Mitchell, and Francis Drouet. *Alga- and Lichen-Stabilized Surface Crusts as Soil Nitrogen Sources*. American Journal of Botany, 44: 489-498 (June 1957).

UNIVERSITY OF NEW MEXICO, C. C. HOFF—Hoff, C. Clayton. *List of the Pseudoscorpions of North America North of Mexico*. American Museum Novitates, No. 1875, Feb. 1958, 50 pp.

NORTH DAKOTA AGRICULTURAL COLLEGE, G. W. COMITA—Comita, Gabriel W., and Jean J. Comita. *The Internal Distribution Patterns of a Calanoid Copepod Population, and a Description of a Modified Clarke-Bumpus Plankton Sampler*. Limnology and Oceanography, 2: 321-332 (Oct. 1957).

NORTH DAKOTA AGRICULTURAL COLLEGE, L. D. POTTER—Potter, Loren D. *Phytosociological Study of San Augustin Plains, New Mexico*. Ecological Monographs, 27: 113-136 (Apr. 1957).

STANFORD UNIVERSITY, W. C. BROWN

Alcala, Angel C., and Walter C. Brown. *Discovery of the Frog Cornufer guentheri on Negros Island, Philippines, with Observations on Its Life History*. Herpetologica, 13: 182-184 (1957).

Brown, Walter C., and Angel C. Alcala. *Viability of Lizard Eggs Exposed to Sea Water*. Copela, No. 1. 39-41 (Apr. 1957).

UNIVERSITY OF VIRGINIA, B. D. REYNOLDS

Cheng, Thomas C. *A Study of the Metacercaria of Crepidostomum cornutum (Osborn, 1903), (Trematoda: Allocreadiidae)*. Proceedings of the Helminthological Society of Washington, 24: 107-109 (July 1957).

—. *A Study of the Metacercarial Cyst and Metacercaria of Crepidostomum Cornutum (Trematoda: Allocreadiidae); with Notes on the Similarity of the Larval Forms of the Genus*. Association of Southeastern Biologists, ASB Bulletin, 4: 11 (1957).

Holloway, H. L. *The Acanthocephala of Mountain Lake Mammals*. Virginia Journal of Science, 7: 285 (1956).

—. *Sorex Dispar at Mountain Lake, Virginia*. Journal of Mammalogy, 38: 406 (Aug. 1957).

Hutchison, Victor H. *Notes on the Plethodontid Salamanders, Eurycea lucifuga (Rafinesque) and Eurycea longicauda longicauda (Green)*. Occasional Papers of National Speleological Society, No. 3, Nov. 1956, 24 pp.

Johnson, Rose Mary. *The Agar Diffusion Technique as Applied to the Study of Serological Relationships among Crayfishes*. Virginia Journal of Science, 8: 177-184 (July 1957).

Sengbusch, Howard George. *A Modified Tullgren Funnel for the Collection of Small Invertebrates (Mesobiota) in Soil*. Turtox News, 34: 226-228 (Nov. 1956).

—. *A New Species of Oribatoid Mite from Guam with a Key to the Species of the Genus Nasozetes Sellnick 1930 (Acarina, Oribatei)*. Journal of Parasitology, 43: 93-96 (Feb. 1957).

—. *Checklist of Oribatoid Mites in the Vicinity of Mountain Lake Biological Station—Virginia. (Acarina, Oribatei)*. Virginia Journal of Science, 8: 128-134 (Apr. 1957).

WEST VIRGINIA UNIVERSITY, H. L. BARNETT AND V. G. LILLY—Berry, Charles R., and H. L. Barnett. *Mode of Parasitism and Host Range of Piptocephalis Virginiana*. Mycologia, 49: 374-386 (May-June 1957).

WOODS HOLE OCEANOGRAPHIC INSTITUTION, G. A. RILEY—Sanders, Howard L. *The Cephalocarida and Crustacean Phylogeny*. Systematic Zoology, 6: 112-129 (Sept. 1957).

WOODS HOLE OCEANOGRAPHIC INSTITUTION, J. H. RYTHER—Yentsch, C. S., and J. H. Ryther. *Short-Term Variations in Phytoplankton Chlorophyll and Their Significance*. Limnology and Oceanography, 2: 140-142, (Apr. 1957).

UNIVERSITY OF WYOMING, K. R. JOHN—John, Kenneth R. *Comparative Rates of Survival of Normal and Deformed Chub, Gila Atraria Girard, in Two Ocean Lake, Teton County, Wyoming*. Proceedings of the Pennsylvania Academy of Science, 31: 77-82 (1957).

GENETIC BIOLOGY

UNIVERSITY OF CALIFORNIA, Los Angeles, C. EPLING

Epling, Carl, and Wm. R. Lower. *Changes in an Inversion System during a Hundred Generations*. Evolution, 11: 248-256 (June 1957).

—, Donald F. Mitchell, and R. H. T. Mattoni. *The Relation of an Inversion System to Recombination in Wild Populations*. Evolution, 11: 225-247 (June 1957).

UNIVERSITY OF CALIFORNIA, Los Angeles, R. W. SIEGEL

Siegel, R. W. *An Analysis of the Transformation from Immaturity to Maturity in Paramecium Aurelia*. Genetics, 42: 394-395 (1957).

— and J. R. Preer, Jr. *Antigenic Relationships among Feulgen Positive Cytoplasmic Particles in Paramecium*. American Naturalist, 91: 253-257 (July-Aug. 1957).

UNIVERSITY OF CHICAGO, A. NOVICK—Novick, Aaron, and Milton Welner. *Enzyme Induction as an All-or-None Phenomenon*. Proceedings of the National Academy of Sciences, 43: 553-566 (July 1957).

COLUMBIA UNIVERSITY, S. M. GARTLER

Aschner, Bertha M., and Stanley M. Gartler. *Physiologic Variation of Renal Function in Twins: Diuresis After Water Intake*. Acta Geneticae Medicae et Gemellologiae, 7: 19-24 (Jan. 1958).

Gartler, Stanley M., and Richard E. Tashian. *Differential Excretion of D-Phenylalanine in Man*. Science, 126: 75-76 (July 1957).

— and Richard E. Tashian. *Some Factors Affecting Differential Excretion of D-Phenylalanine in Man*. Proceedings of the Society for Experimental Biology and Medicine, 96: 323-326 (1957).

Tashian, Richard E., and Stanley M. Gartler. *Genetic Implications of Certain Physiological Processes Affecting the Metabolism of L-Phenylalanine in Man*. American Journal of Human Genetics, 9: 208-217 (Sept. 1957).

COLUMBIA UNIVERSITY, L. S. OLIVE—Carr, A. J. H., and Lindsay S. Olive. *Genetics of Sordaria Fimicola. II. Cytology*. American Journal of Botany, 45: 142-150 (Feb. 1958).

UNIVERSITY OF DETROIT, P. F. FORSTHOEFFEL
Forsthoefel, Paulinus F. *Further Studies on the Effects of the Luxoid Gene on the Skeleton of the Mouse, Including Interactions with the Luxate Gene.* Genetics, 42: 370 (1957).

—, Penetrance and Expressivity of the Luxoid and Luxate Genes in Heterozygous C57BL Mice. Genetics, 41: 642-643 (1956).

—, The Interaction of the Luxoid and Luxate Genes in the Offspring of C57BL Mice Heterozygous for Both Genes. Genetics, 40: 572 (1955).

UNIVERSITY OF MICHIGAN, D. L. NANNEY

Nanney, David L. *Inbreeding Degeneration in Tetrahymena.* Genetics, 42: 137-146 (Mar. 1957).

—, Mating Type Inheritance at Conjugation in Variety 4 of Paramecium aurelia. Journal of Protozoology, 4: 89-95 (1957).

UNIVERSITY OF MISSOURI, E. R. SEARS, A. C. FABERGE, AND E. NOVITSKI.

Novitski, E., and Iris Sandler. *Are All Products of Spermatogenesis Regularly Functional?* Proceedings of the National Academy of Sciences, 43: 318-324 (Apr. 1957).

Steinitz-Sears, Lotti M., and E. R. Sears. *Ultraviolet and X-Ray Induced Chromosomal Aberrations in Wheat.* Genetics, 42: 623-630 (Sept. 1957).

RESEARCH FOUNDATION OF STATE UNIVERSITY OF NEW YORK, E. M. WITKIN—Witkin, Evelyn M. *Time, Temperature and Protein Synthesis: A Study of Ultraviolet-Induced Mutation in Bacteria.* pp. 123-140. In: Cold Spring Harbor Symposia on Quantitative Biology, v. 21, Cold Spring Harbor, Long Island, N. Y., Long Island Biological Association, 1956.

UNIVERSITY OF NORTH CAROLINA, D. U. GERSTEL

Gerstel, D. U., and L. L. Phillips. *Segregation in New Allopolyploids of Gossypium. II. Tetraploid Combinations.* Genetics, 42: 783-797 (Nov. 1957).

Weaver, James B., Jr. *Embryological Studies Following Interspecific Crosses in Gossypium. II. G. Arboreum G. Hirsutum.* American Journal of Botany, 45: 10-16 (Jan. 1958).

PURDUE RESEARCH FOUNDATION, D. C. WARREN AND A. E. BELL—Bell, A. E., C. H. Moore, and D. C. Warren. *The Evaluation of New Methods for the Improvement of Quantitative Characteristics.* pp. 197-212. In: Cold Spring Harbor Symposia on Quantitative Biology, v. 20, Cold Spring Harbor, Long Island, N. Y., Long Island Biological Association, 1955.

RANCHO SANTA ANA BOTANICAL GARDEN, V. GRANT—Grant, Verne. *The Plant Species in Theory and Practice.* pp. 39-80. In: Species Problem, Washington, D. C., American Association for the Advancement of Science, 1957.

UNIVERSITY OF ROCHESTER, K. W. COOPER—Charles, Donald R. *The Fiducial Limits of Tetra-d-Rank Frequencies.* Genetics, 42: 729-734 (Nov. 1957).

ROSCOE B. JACKSON MEMORIAL LABORATORY, M. C. GREEN—Green, Margaret C. *Modifiers of the Pleiotropic Effects of the Short Ear Gene in the Mouse.* Journal of Heredity, 48: 205-212 (Sept.-Oct. 1957).

RUTGERS UNIVERSITY, W. SZYBALSKI—Braendle, Donald H., and Wacław Szybalski. *Genetic Interactions Among Streptomyces: Heterokaryosis and Synekaryosis.* Proceedings of the National Academy of Sciences, 43: 947-955 (Nov. 1957).

SANTA BARBARA BOTANIC GARDEN, M. S. WALTERS—Walters, Marta Sherman. *Studies of Spontaneous Chromosome Breakage in Interspecific Hybrids of Bromus.* University of California Publications in Botany, 28: 335-447 (1957).

TULANE UNIVERSITY, E. P. VOLPE

Anderson, Steven C., and E. Peter Volpe. *Burns and Kandiyohi Genes in the Leopard Frog Rana pipiens.* Science, 127: 1048-1050 (May 1958).

Volpe, E. Peter. *Embryonic Temperature Adaptations in Highland Rana pipiens.* American Naturalist, 91: 303-310 (Sept.-Oct. 1957).

—, Genetic Aspects of Anuran Populations. American Naturalist, 91: 355-372 (Nov.-Dec. 1957).

WESLEYAN UNIVERSITY, E. CASPARI—Caspary, Ernst, and Ingrid Blomstrand. *The Effects of Nuclear Genes on the Structure and Differentiation of Cytoplasmic Particles.* pp. 291-301. In: Cold Spring Harbor Symposia on Quantitative Biology, v. 21, Cold Spring Harbor, Long Island, N. Y., Long Island Biological Association, 1956.

UNIVERSITY OF WISCONSIN, R. A. BRINK—Brink, R. Alexander. *A Genetic Change Associated With the R Locus in Maize Which Is Directed and Potentially Reversible.* Genetics, 41: 872-889 (Nov. 1956).

UNIVERSITY OF WISCONSIN, J. LEDERBERG
Lederberg, Joshua. *Sibling Recombinants in Zygote Pedigrees of Escherichia Coli.* Proceedings of the National Academy of Sciences, 43: 1060-1065 (Dec. 1957).

—, Viruses, Genes and Cells. Bacteriological Reviews, 21: 133-139 (Sept. 1957).

— and Jacqueline St. Clair. *Photoplasts and L-Type Growth of Escherichia Coli.* Journal of Bacteriology, 75: 143-160 (Feb. 1958).

Morse, M. L. *Transduction and Transformation.* Annals of the New York Academy of Sciences, 68: 324-334 (Oct. 1957).

Wright, Robert E., and Joshua Lederberg. *Extranuclear Transmission in Yeast Heterokaryons.* Proceedings of the National Academy of Sciences, 43: 919-923 (Oct. 1957).

METABOLIC BIOLOGY

BRYN MAWR COLLEGE, R. L. CONNER—Conner, R. L., and Misako Nakatani. *Stigmasterol Antagonism of Certain Growth Inhibitors for Tetrahymena piriformis.* Archives of Biochemistry and Biophysics, 74: 175-181 (Mar. 1958).

Conner, Robert L. *Interaction of Stigmasterol and 2,4-Dinitrophenol in the Growth of Tetrahymena Piriformis.* Science, 126: 698 (Oct. 1957).

CALIFORNIA INSTITUTE OF TECHNOLOGY, J. BONNER

Bonner, James, and Robert J. Foster. *The Growth-Time Relationships of the Auxin-Induced Growth in Avena Coleoptile*

Sections. *Journal of Experimental Botany*, 6: 293-302 (June 1955).

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