

University) cautioned against assuming that mammalian and teleostean hormones are the same. Lester R. Aronson (American Museum of Natural History) presented convincing experimental evidence that mammalian or synthetic estrogens cannot be substituted for the natural ones in *Tilapia macrocephala*. He also showed that functioning males occasionally produce significant quantities of estrogens.

Practically nothing is known about the selective advantages that hermaphroditism presumably must confer on the fish exhibiting it. It may be deduced that, all things being equal, a synchronously hermaphroditic species should have a reproductive potential nearly twice that of a gonochoristic one, since the hermaphroditic form has dispensed with separate sperm producers, each of which requires about as much food and *lebensraum* as does an egg producer. If this is true, it might well be asked why all species are not hermaphrodites and what are the special problems that must be met before functional hermaphroditism can be acquired. These and related questions were discussed by Christian, Liem, Barlow, and the conference chairman, James W. Atz (American Museum of Natural History).

After the conference, many of the participants took an extended field trip to the Dry Tortugas where they spent 4 days observing the marine life of the islands. The conference was supported in part by the National Science Foundation.

JAMES W. ATZ

Department of Ichthyology, American Museum of Natural History,
New York, New York

Forthcoming Events

November

11-12. **Kentucky** Acad. of Science, Univ. of Kentucky, Lexington. (D. M. Lindsay, Georgetown College, Georgetown, Ky.)

11-13. **Gerontological** Soc., 18th annual, Los Angeles, Calif. (W. D. Obrist, Dept. of Psychiatry, Duke Univ. Medical Center, Durham, N.C. 27706)

11-13. **Bases for Nuclear Spin-Parity** Assignments, conf., Gatlinburg, Tenn. (F. K. McGowan, Oak Ridge Natl. Laboratory, P.O. Box X, Oak Ridge, Tenn. 37831)

12-13. **Clinical Pathology of Infancy**, Assoc. of Clinical Scientists, Washington, D.C. (F. W. Sunderman, 1833 DeLancey Pl., Philadelphia, Pa. 19103)

12-13. Society for **Industrial and Ap-**

plied Mathematics, western regional, Seattle, Wash. (B. H. Colvin, Boeing Scientific Research Laboratories, P.O. Box 3981, Seattle)

12-14. Association of **Clinical Scientists**, Washington, D.C. (R. MacFate, 300 N. State St., No. 5322, Chicago, Ill. 60610)

12-15. **Neutrality of Medicine**, 2nd intern. congr., Paris, France. (R. Ellenboger, Ministère des Anciens Combattants et Victimes de Guerre, 37, rue de Bellechasse, Paris 7^e)

14-15. National Medical Foundation for **Eye Care**, Chicago, Ill. (L. A. Zupan, Room 6, 1100 17th St., NW, Washington, D.C.)

14-16. Hedrologicum Conlegium, Intern. Soc. for the Study of **Diseases of the Colon and Rectum**, 2nd congr., Tokyo, Japan. (J. F. Montague, 104 E. 40 St., New York 10016)

14-17. Southern **Medical** Assoc., Washington, D.C. (R. F. Butts, 2601 Highland Ave., Birmingham 5, Ala.)

14-18. Mexican **Dental** Assoc., 1st intern. congr., Mexico City. (R. Espinosa de la Sierra, Asociación Dental Mexicana, Sinaloa no. 9, Mexico 7, D.F.)

14-18. **Dental**, Pacific intern. conf., Honolulu, Hawaii. (W. A. Wakai, 291 Alexander Young Bldg., Honolulu 96813)

14-18. Society of **Exploration Geophysicists**, 35th annual intern., Dallas, Tex. (Dallas Geophysical Soc., Dallas)

14-19. American Acad. of **Ophthalmology and Otolaryngology**, Chicago, Ill. (W. L. Benedict, 15 Second St., SW, Rochester, Minn.)

14-21. **Air Pollution**, 1st world congr., Buenos Aires, Argentina. (D. D. Torti, Asociación Argentina Contra la Contaminación del Aire, Sarmiento 680, Buenos Aires)

15-16. **Hypervelocity Techniques**, 4th symp., Tullahoma, Tenn. (J. Lukasiewicz, vonKarman Gas Dynamics Facility, ARO, Inc., Arnold Air Force Station, Tenn. 37706)

15-16. **Science** conf., 4th annual, Belfer Graduate School of Science, Yeshiva Univ., New York, N.Y. (A. Gelbart, Belfer Graduate School of Science, Amsterdam Ave. and 186th St., New York 10033)

15-17. Association of **Military Surgeons** of the U.S., Washington, D.C. (F. E. Wilson, 1500 Massachusetts Ave., NW, Washington, D.C.)

15-18. **Aircraft Design and Technology**, Los Angeles, Calif. (American Inst. of Aeronautics and Astronautics, 1290 Sixth Ave., New York 10019)

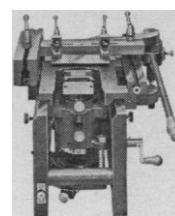
15-18. **Information Problems in the Drug Industry**, conf., Philadelphia, Pa. (C. P. Butcher, Graduate School of Library Science, Drexel Inst. of Technology, 32nd and Chestnut Sts., Philadelphia)

15-18. American **Nuclear** Soc./Atomic Industrial Forum, winter meeting, Washington, D.C. (O. J. DuTemple, American Nuclear Soc., 244 E. Ogden Ave., Hinsdale, Ill. 60521)

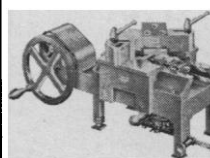
15-19. **Animal Care Panel**, 16th annual, Philadelphia, Pa. (H. P. Schneider, Hahemann Medical College, 230 N. Broad St., Philadelphia 19102)

15-19. **Gulf and Caribbean Fisheries** Inst., 18th annual session, Miami, Fla. (Executive Secretary, 1 Rickenbacker Causeway, Miami 33149)

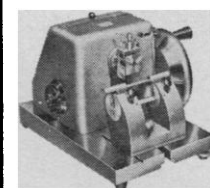
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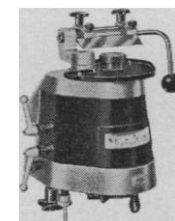
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15-19. **Magnetism and Magnetic Materials**, San Francisco, Calif. (W. D. Doyle, Franklin Inst. Laboratories, Philadelphia, Pa.)

15-19. **World Federation for Mental Health**, 18th annual, Bangkok, Thailand. (F. Cloutier, 1, rue Gevray, Geneva, Switzerland)

15-19. **Disposal of Radioactive Wastes into the Sea and Fresh Waters**, symp., Vienna, Austria. (Intern. Atomic Energy Agency, 11 Kärntnerring, Vienna I)

15-20. **Productivity, Technology, and Change**, conf., London, England. (British Productivity Council, Vintry House, Queen St. Pl., London, E.C.4)

16-18. **Physics of Failure in Electronics**, 4th annual symp., Chicago, Ill. (M. Goldberg, IIT Research Inst., 10 W. 35 St., Chicago 60616)

16-18. **Spacecraft Sterilization Technology**, 1st natl. conf., California Inst. of Technology, Pasadena. (Office of Space Science and Applications, NASA, 400 Maryland Ave., SW, Washington, D.C.)

17-19. **Eastern Analytical Symp.**, New York, N.Y. (M. E. McGoldrick, Armco Steel Corp., P.O. Box 1697, Baltimore, Md. 21203)

17-19. **Micrography**, intern. congr., Tokyo, Japan. (Mrs. J. Lang, 2501 Hudson Rd., St. Paul, Minn. 55119)

17-20. **Canadian Cardiovascular Soc.**, Winnipeg, Man. (J. B. Armstrong, 1130 Bay St., Toronto 5, Ont.)

17-20. **Hyperbaric Oxygenation**, 3rd intern. conf., Duke Univ. Medical Center, Durham, N.C. (I. W. Brown, Jr., Dept. of Surgery, Duke Univ. Medical Center, Durham)

18. **Society of Military Otolaryngologists**, Chicago, Ill. (G. R. Hart, Box 223, U.S. Naval Hospital, Philadelphia, Pa.)

18-19. **Computational Methods in Crystallography**, conf., London, England. (Meetings Officer, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1)

18-19. **Electronics**, Mid-America conf., Kansas City, Mo. (W. Wiley, Bonzer Inc., 11111 W. 59th Terrace, Shawnee, Kan.)

18-21. **American Anthropological Assoc.**, Denver, Colo. (S. T. Boggs, 1530 P St., NW, Washington, D.C. 20005)

18-24. **Tropical Oceanography**, intern. conf., Miami Beach, Fla. (F. F. Koczy, Inst. of Marine Science, Univ. of Miami, Miami 33149)

20-21. **American Folklore Soc.**, Denver, Colo. (T. P. Coffin, Box 5, Bennett Hall, Univ. of Pennsylvania, Philadelphia 19104)

21-26. **Orthopedics and Traumatology**, 6th Latin American congr., Lima, Peru. (G. de Velasco Polo, Zacatecas 117, Mexico 7, D.F.)

22-24. **Electromagnetic Sensing of Earth by Satellites**, intern. symp., Coral Gables, Fla. (R. Zirkind, Polytechnic Inst. of Brooklyn, Graduate Center, Farmingdale, L.I., N.Y.)

22-26. **Nuclear Electronics**, conf., Bombay, India. (K. Zybylski, Div. of Scientific and Technical Information, Intern. Atomic Energy Agency, 11 Kärntnerring, Vienna, Austria)

22-26. **Plutonium**, intern. conf., London, England. (Inst. of Metals, 17 Belgrave Sq., London, S.W.1)

22-3. **Volcanology**, intern. symp., Auck-

land and Wellington, New Zealand. (J. Healy, Dept. of Scientific and Industrial Research, Rotorua, New Zealand)

24-29. **American College of Apothecaries, Inc.**, Miami Beach, Fla. (R. E. Abrams, Hamilton Court Hotel, 39th and Chestnut St., Philadelphia, Pa. 19104)

25. **Central Assoc. of Science and Mathematics Teachers**, Chicago, Ill. (A. M. Hach, 1220 Wells St., Ann Arbor, Mich.)

25-27. **National Council for Geographic Education**, New York, N.Y. (T. G. Gault, The Council, Indiana State College, Indiana, Pa.)

25-27. **Reinforced Plastics**, 4th intern. conf., British Plastics Federation, London, England. (The Federation, 47-48 Piccadilly, London, W.1)

26-27. **Interactions of Space Vehicles with an Ionized Atmosphere**, 2nd symp., Univ. of Miami, Coral Gables, Fla. (A. R. Hochstim, Inst. for Defense Analyses, 400 Army-Navy Drive, Arlington, Va.)

26-27. **American Inst. of Ultrasonics in Medicine**, 1st Pan American meeting, Lima, Peru. (C. Bustamante Ruiz, Dept. of Physical Medicine and Rehabilitation, Hospital Obrero, Lima)

28-3. **Radiological Soc. of North America**, Chicago, Ill. (M. D. Frazer, 713 Genesee St., Syracuse, N.Y.)

28-4. **Odontological Federation of Central America and Panama**, San Jose, Costa Rica. (R. Pauly S., Univ. of Costa Rica, San Jose)

28-4. **Odontological Soc. of Chile**, 5th intern. congr., Santiago. (J. Pequeño, San Antonio 510, Santiago)

29-30. **Biochemical and Pharmacological Aspects of Basal Ganglia Disease**, symp., Columbia Univ. College of Physicians and Surgeons, New York, N.Y. (M. D. Yahr, New York Neurological Inst., 710 W. 168 St., New York 10032)

29-2. **Entomological Soc. of America**, New Orleans, La. (R. H. Nelson, ESA, 4603 Calvert Rd., College Park, Md., 20740)

29-3. **Metallurgy**, 1st operating conf., Pittsburgh, Pa. (Metallurgical Soc. of American Inst. of Mechanical Engineers, 345 E. 47 St., New York 10017)

29-3. **Phytopharmacology**, intern. conf., Amsterdam, Netherlands. (California Chemical S.A. Française, 19, avenue George V, Paris 8°)

29-4. **Space Technology and Science**, 6th intern. symp., Tokyo, Japan. (D. Mori, Inst. of Space and Aeronautical Science, Univ. of Tokyo, 856 Koma-ba-machi, Meguro-ku, Tokyo)

29-8. **Rehabilitation of Persons with Dulled Sensory Perception**, intern. conf., Braunschweig, Germany. (Sonnenberg Intern. Center, P.O. Box 460, 33 Braunschweig)

30-2. **Computers**, fall conf., Las Vegas, Nev. (R. Sheehy, Bunker-Ramo, Co., 8433 Fallbrook Ave., Canoga Park, Calif.)

December

1-3. **Ultrasonics**, symp., Boston, Mass. (J. H. Rowen, Bell Telephone Laboratories, Murray Hill, N.J. 07971)

1-3. **American Water Resources Assoc.**, first annual, Univ. of Chicago, Chicago, Ill. (AWRA, P.O. Box 434, Urbana, Ill.)

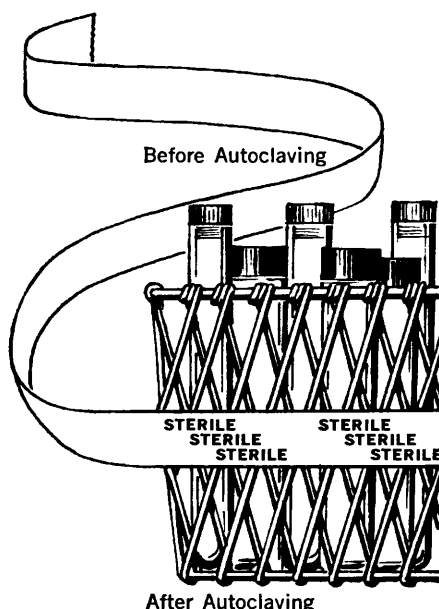
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2-3. **Bone Marrow**, conf., San Francisco, Calif. (L. J. Cole, Experimental Pathology Branch, U.S. Naval Radiological Defense Laboratory, Hunter Point, San Francisco 94135)

2-3. Society of **Plastics Engineers**, regional technical conf., Newark, N.J. (SPE, 65 Prospect St., Stamford, Conn. 06902)

3-5. **Leptospirosis**, intern. colloquium, Antwerp, Belgium. (A. Grare, Inst. de Médecine, Tropicale Prince-Leopold, Antwerp)

3-5. Academy of **Psychoanalysis**, mid-winter meeting, New York, N.Y. (H. Davidman, 125 E. 65 St., New York 10021)

3-5. American **Psychoanalytic Assoc.**, fall meeting, New York, N.Y. (APA, 1 E. 57 St., New York 10022)

3-4. **Macromolecular Metabolism**, symp., New York, N.Y. (New York Heart Assoc., 10 Columbus Circle, New York 10019)

5. American Acad. of **Dental Medicine**, mid-winter annual meeting, New York, N.Y. (S. Conrad, 133-28 228th St., Laurelton, N.Y. 11413)

5-9. American Inst. of **Chemical Engineers**, Philadelphia, Pa. (AICE, 345 E. 47 St., New York 10017)

5-11. American **Rheumatism Assoc.**, congr., Mar del Plata, Argentina. (G. Speyer, 10 Columbus Circle, New York)

6. **Food Law** Inst. and Food and Drug Administration, joint educational conf., Washington, D.C. (FDA, Washington, D.C.)

6-7. Medical and Social Aspects of **Migration**, Ciba Foundation guest symp., London, England. (Ciba, 41 Portland Pl., London, W.1)

6-8. **Transmission of Viruses** by the Water Route, symp., Cincinnati, Ohio. (G. Berg, U.S. Public Health Service, 4676 Columbia Parkway, Cincinnati 45226)

6-10. **Space Communication**, Paris, France. (UNESCO, Pl. de Fontenoy, Paris 7^e)

6-10. Practices in the Treatment of Low and Intermediate Level **Radioactive Wastes**, symp., Vienna, Austria. (Intern. Atomic Energy Agency, Kärtner Ring 11, Vienna 1)

6-10. Structure and Function of the **Nucleolus**, symp., Montevideo, Uruguay. (F. A. Saez, Instituto de Investigaciones de Ciencias Biológicas, avda. Italia 3318, Montevideo)

6-12. **Hydraulics and Fluid Mechanics**, 2nd Australasian conf., Auckland, New Zealand. (A. J. Raudkivi, Univ. of Auckland, School of Engineering, Ardmore College Post Office, Auckland)

7-10. American Soc. of **Agricultural Engineers**, winter meeting, Chicago, Ill. (J. L. Butt, P.O. Box 229, St. Joseph, Mich.)

8-10. **Coccidioidomycosis**, 2nd natl. symp., Phoenix, Ariz. (Arizona Tuberculosis and Health Assoc., 733 W. McDowell Rd., Phoenix 85007)

8-10. Changing Concepts of **Human Habitation**, symp., Roorkee, India. (D. Mohan, Central Building Research Inst., Roorkee)

8-10. New Concepts in **Gynecological Oncology**, symp., Hahnemann Medical College and Hospital, Philadelphia, Pa.



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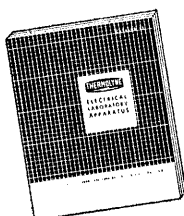
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8-15. American Acad. of **Optometry**, Chicago, Ill. (C. C. Koch, 1506 Foshay Tower, Minneapolis, Minn.)

9-10. **Ciba Foundation** guest meeting European Pancreatic Club. London, England. (H. T. Howat, 41 Portland Pl., London, W.1)

12-14. **Lymphatic System**, intern. conf., New Orleans, La. (H. S. Mayerson, Dept. of Physiology, School of Medicine, Tulane Univ., New Orleans 70112)

13-15. **Aerothermochemistry of Turbulent Flows**, conf., American Inst. of Aeronautics and Astronautics, San Diego, Calif. (H. Yoshihara, Space Sciences Laboratory, Mail Zone. 596-00, General Dynamics/Astronautics, Kearny Villa Rd., San Diego)

13-15. European **Biological Editors**, Paris, France. (D. S. Ferner, Dept. of Biology, Univ. of Washington, Seattle)

13-15. Radiological Protection in the **Industrial Use of Radioisotopes**, intern. conf., Paris, France. (J. Pradel, 66 rue Augustin Dumont, Malakoff, Seine, France)

13-18. **Engineering and Technological Sciences**, conf., Bangkok, Thailand. (P. Purachatra, Assoc. of Southeast Asian Insts. of Higher Learning, Chulalongkorn Univ., Race Course Rd., Bangkok)

15-18. **Microbiology**, 1st Central American Congr., Univ. of Costa Rica, San José. (F. Montero-Gei, School of Microbiology, Univ. of Costa Rica, Apartado 2157, San José)

19-21. Middle East **Neurological Soc.**, Jerusalem, Jordan. (F. S. Haddad, Orient Hospital, Beirut, Lebanon)

19-23. **Indian Statistical Inst.**, Malleswaram, Bangalore. (S. R. Ranganathan, Indian Statistical Inst., Documentation Research and Training Centre, 112 Cross Rd. 11, Malleswaram)

20-21. **Nuclear Medicine**, 2nd natl. Congr., Tel Aviv, Israel. (P. Czerniak, Israel Atomic Commission, Soreq Nuclear Research Center, Doar Yavne)

20-22. **British Biophysical Soc.**, 20th winter meeting, London, England. (R. E. Burge, Physics Dept., Queen Elizabeth College, Campden Hill Rd., London W.8)

20-22. **American Physical Soc.**, Los Angeles, Calif. (W. Whaling, California Inst. of Technology, Pasadena 91109)

26-31. **American Assoc. for the Advancement of Science**, annual, Berkeley, Calif. (R. L. Taylor, AAAS, 1515 Massachusetts Ave., NW, Washington, D.C.)

In addition to the 20 sections of the Association and five AAAS committees, the following organizations have arranged sessions at AAAS annual meeting 26-31 December in Berkeley:

Mathematics

American Mathematical Soc. (R. S. Pierce, Univ. of Washington, Seattle)
Association for Computing Machinery. (H. D. Huskey, Univ. of California, Berkeley)

National Council of Teachers of Mathematics. (J. D. Gates, 1201 16 St., NW, Washington, D.C.)

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Many of the authors were selected from nominations made in consultation with a European committee meeting in Ghent and a British committee meeting in London. This procedure assures that these authors are of distinguished international stature.

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Volume II: 1963, 1028 pp., 516 figs., \$32.00

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Astronomy

American Astronomical Soc. (G. C. McVittie, Univ. of Illinois, Urbana)

Geology and Geography

Association of American Geographers. (M. Mikesell, Univ. of Chicago, Chicago, Ill.)

National Geographic Soc. (R. Gray, 17th & M Sts., NW, Washington, D.C.)

National Speleological Soc. (G. W. Moore, U.S. Geological Survey, Menlo Park, Calif.)

Zoological Sciences

American Fisheries Soc. (H. K. Chadwick, California Dept. of Fish and Game, Sacramento)

American Soc. of Zoologists. (A. G. Richards, Univ. of Minnesota, St. Paul)

Animal Behavior Soc. (E. M. Banks, Univ. of Illinois, Urbana)

Herpetologists' League. (F. B. Turner, Univ. of California, Los Angeles)

Society of Systematic Zoology. (J. G. Rozen, Jr., American Museum of Natural History New York, N.Y.)

Zoological and Botanical Sciences

American Soc. of Naturalists. (C. Hubbs, Scripps Inst. of Oceanography, La Jolla, Calif.)

Ecological Soc. of America. (G. M. Woodwell, Brookhaven Natl. Laboratory, Upton, L.I., N.Y.)

Western Soc. of Naturalists. (J. M. Craig, San Jose State College, San Jose, Calif.)

Psychology

Western Psychological Assoc. (G. A. Mendelsohn, Univ. of California, Berkeley)

Social and Economic Sciences

American Economic Assoc. (R. R. Nelson, RAND Corp., Santa Monica, Calif.)

American Political Science Assoc. (J. F. Triska, Stanford Univ., Stanford, Calif.)

American Soc. of Criminology. (C. Newman, Univ. of Louisville, Louisville, Ky.)

American Sociological Assoc. (W. Form, Michigan State Univ., East Lansing)

Metric Assoc. (R. Fischelis, Ohio Northern Univ., Ada)

National Inst. of Social and Behavioral Science. (D. P. Ray, 863 Benjamin Franklin Station, Washington, D.C.)

Population Assoc. of America. (E. S. Lee, Univ. of Pennsylvania, Philadelphia)

Society for the Scientific Study of Religion. (C. Y. Glock, Univ. of California, Berkeley)

History and Philosophy of Science

Philosophy of Science Assoc. (C. W. Churchman, Univ. of California, Berkeley)

Society for General Systems Research. (H. Thal-Larsen, Univ. of California, Berkeley)

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