

THE PROGRAM OF THE FIFTH ANNUAL
NORTH AMERICAN SYMPOSIUM ON BAT RESEARCH

NOV. 29 and 30, 1974

THE MUSEUM
TEXAS TECH UNIVERSITY
LUBBOCK, TEXAS

Dilford Carter, Local Committee Chairman
Roy Horst, Program Committee Chairman

Friday, November 29, 1974

- 8:30 - 9:30 Registration
- 9:30 Opening Announcements and Welcome
Roy Horst and J. Knox Jones
- Session on Ecology Chaired by Donna Howell
- 9:45 DENSITY, BIOMASS, AND ENVIRONMENTAL IMPACT OF ARTIBEUS JAMAICENSIS
IN PANAMA.
Frank Bonaccorso* and Douglas Morrison, Dept. Zool, University of
Florida, Gainesville and Dept. Neurobiol. and Behavior, Cornell
University, Ithaca.
- 10:00 MORE ON THE DISTRIBUTION OF COLLOCALIA AND MOLOSSIDS.
M.B. Fenton, Dept. of Biology, Carleton University, Ottawa,
Canada K1S 5B6.
- 10:15 THE BAT HAZARD TO AIRCRAFT: ENVIRONMENTAL IMPACT WITH A VENGEANCE.
Leonard C. Ireland*, Victor A. Harris and Timothy C. Williams
Dept. of Psychology, Oakland University, Rochester, Michigan
& Depts. of Psychology and Biology, S.U.N.Y./B., Buffalo
- 10:30 Session on Behavior
Chaired by Mike O'Farrell
- 10:30 PRELIMINARY OBSERVATIONS ON THE FOOD SEARCHING BEHAVIOR OF COSTA-
RICAN FRUGIVOROUS BATS.
Theodore H. Fleming and William B. Sawyer,
THF: Dept. of Biology, University Missouri-St. Louis; WBS: Dept.
of Anthropology, Washington University.
- 10:50 ROOST SITE SELECTION IN ECTOPHYLLA ALBA.
Jeanne Mortimer* and Robert Pimm
Dept. of Zoology, University of Florida, Gainesville
- 11:10 FORAGING STRATEGY OF THE AFRICAN FALSE VAMPIRE.
Terry A. Vaughan
Dept. of Biological Sciences, Northern Arizona University, Flagstaff
- 11:30 INSECT PURSUIT STRATEGY IN EPTESICUS.
J.A. Simmons, W.A. Lavender, B.A. Lavender.
Dept. of Psychology, Washington University, St. Louis
- 11:50 Lunch. Afternoon Session will begin at 1:30 p.m.
- Session on Reproduction, Chaired by Robert J. Baker
- 1:30 RADIOIMMUNO ASSAY OF PLASMA ESTROGENS AND PROGESTERONE DURING DELAYED
DEVELOPMENT IN MACROTUS WATERHOUSII.
John M. Burns
Biological Sciences, Texas Tech. University

- 1:50 EMBRYOLOGY OF THE PHYLLOSTOMATIDAE.
William J. Bleier
Dept. of Biological Sciences, Texas Tech University
- 2:10 FACTORS INFLUENCING GROWTH AND SURVIVAL OF POSTFLIGHT YOUNG OF
MYOTIS GRISESCENS.
Merlin D. Tuttle
Museum of Natural History, University of Kansas
- 2:30 THE ANNUAL REPRODUCTIVE CYCLE IN NATALUS STRAMINEUS.
Barry Golden
University of Arizona, Tucson
- 2:50 - 3:00 Coffee Break (short)

Session on Conservation Chaired by Terry Vaughan
- 3:00 SUMMER ECOLOGY OF THE ENDANGERED MYOTIS SODALIS.
Stephen R. Humphary,¹ James B. Cope,² Andreas R. Richter,² and
Pamela P. Humphrey¹,
Florida State Museum, University of Florida, Joseph Moore Museum,
Earlham College
- 3:20 ECOLOGICAL EFFECTS OF CHLORODANE ON A COLONY OF MYOTIS LUCIFUGUS.
Thomas H. Kunz
Boston University
- 3:40 OF LISTERINE, HEALTH FOODS & BATS: SELLING THE "UGLIES"
Phoebe Wray
Endangered Species Productions, Inc., Boston
- 4:00 Tour of The Museum, led by the Local Committee Members.
Dinner Arrangements and details of after dinner events will be
announced.

Saturday, November 30, 1974

Session on Taxonomy and Systematics. Chaired by Thomas Kunz and
Don Wilson.

- 8:45 BATS OF NEW MEXICO
Don E. Wilson
National Museum of Natural History
- 9:05 MORE ON THE MOLECULAR SYSTEMATICS OF BATS
Vincent M. Sarich
Departments of Anthropology and Biochemistry, University of
California - Berkeley
- 9:20 CHROMATIN IDENTIFICATION AND ITS USE IN SYSTEMATIC STUDIES OF
BATS: A PROGRESS REPORT.
John W. Bickham and Robert J. Baker
Dept. of Biological Sciences, Texas Tech University

- 9:35 BATS OF GUADELOUPE
John C. Patton
Dept. of Biological Sciences, Texas Tech University
- 9:50 VARIATION IN THE AFRICAN MOLOSSID TADARIDA PUMILA.
Judy Eger* and Randolph Peterson
Dept. Mammalogy, Royal Ontario Museum, Toronto
- 10:05 BIOCHEMICAL GENETICS OF BATS.
Donald O. Straney
Savannah River Ecology Laboratory, Aiken, S.C.
- 10:25 Coffee break (20 minutes)
- 10:45 COMMENTS ON THE BATS OF JAMAICA.
R.J. Baker* and Hugh H. Genoways
Dept. of Biological Sciences and the Museum, Texas Tech University
- 11:00 GEOGRAPHIC VARIATION IN MYOTIS CALIFORNICUS IN SOUTHWESTERN NORTH AMERICA.
Michael A. Bogan
National Fish and Wildlife Laboratory, National Museum of Natural History
- 11:15 GEOGRAPHIC VARIATION IN ANTROZOUS PALLIDUS.
Chester O. Martin and David J. Schmidly*.
Dept. of Wildlife and Fisheries Sciences, Texas A&M University
- 11:30 KARYOTYPE OF ECTOPHYLLA ALBA AND ITS EVOLUTIONARY IMPLICATIONS.
Ira F. Greenbaum,* Don Wilson, and R.J. Baker
Texas Tech and National Museum of Natural History
- 11:45 Lunch (Afternoon session begins at 1:30)
- Session on Anatomy and Physiology
Chaired by John Burns and Scott Altenbach
- 1:30 FLIGHT MECHANISMS OF PHYLLOSTOMATINE BATS FROM CENTRAL AMERICA
Scott Altenbach
University of New Mexico
- 1:50 WHY DO BATS HANG UPSIDE DOWN?: A BIOMECHANICAL HYPOTHESIS
D.J. Howell
Auditory Labs, Princeton University
- 2:10 SOME HEMATOLOGICAL ASPECTS OF SOUTHWEST BATS
Shirl R. Naegle* and Michael J. O'Farrell
Dept. of Biological Sciences, University of Nevada - Las Vegas
- 2:20 DEVELOPMENT OF HEARING IN MYOTIS VELIFER.
Patricia Brown
Dept. of Biology, UCLA

- 2:40 OBSERVATIONS ON THE GASTRIC MUCOSA IN THE VAMPIRE BAT
Paul Scoles and Roy Horst*
University of Vermont
- 2:55 COMPARISON OF DIFFERENTIAL WARMING RATES IN RECTAL AND CHEST
MUSCLE TEMPERATURE IN SOME SPECIES OF DESERT BATS.
Joseph Hirshfeld,* Michael J. O'Farrell, W.Glen Bradley
Dept. of Biological Sciences, University of Nevada - Las Vegas
- 3:10 Coffee Break
- 3:20 COMPARITIVE ASPECTS OF MINIMUM BODY TEMPERATURE FOR FLIGHT AND
WING LOADING IN SOME DESERT BATS
Gary W. Jones* and Michael J. O'Farrell
Dept. of Biological Sciences, University of Nevada - Las Vegas
- 3:30 CYCLICAL CHANGES IN FLIGHT CHARACTERS, BODY COMPOSITION AND ORGAN
WEIGHTS IN MYOTIS THYSANODES AND M. LUCIFUGUS.
Michael J. O'Farrell* and Eugene H. Studier
Dept. of Biological Sciences, University of Nevada - Las Vegas
- 3:50 FLUORESCENT ANTIBODY AND MICRO-VOLUME SERUM NEUTRALIZATION STUDIES
OF THREE RABIES INFECTED COLONIES OF EPTESICUS FUSCUS.
Charles V. Trimarchi*, Jerome A. Andrulonis and John G. Debbie
Division of Laboratories and Research, N.Y.S. Dept. of Health
- 4:10 COMPARATIVE THERMAL RELATIONSHIPS OF SOME DESERT BATS.
W. Glen Bradley and Michael J. O'Farrell
Dept. of Biological Sciences, University of Nevada - Las Vegas
- 4:30 PHOTOGRAPHIC ANALYSES OF FLIGHT IN A WIND TUNNEL BY LEPTONYCTERIS
SANBORNI
Bruce A. Richardson* and Roger E. Carpenter
Dept. of Anatomy, University of Arizona and Dept. of Zoology,
San Diego State University
- 4:45 FALL ROOSTING METABOLISM OF ANTROZOUS PALLIDUS
Dennis R. Trune
Dept. of Anatomy, Louisiana State University Medical Center,
New Orleans
- 5:00 Very short business meeting and closing announcements.