

PROGRAM OF THE FOURTH ANNUAL
NORTH AMERICAN SYMPOSIUM ON BAT RESEARCH

November 23 and 24, 1973

at the

Delta Towers Hotel

New Orleans, Louisiana

Local Arrangements and Host, Alfred Gardner

Program arranged by Roy Horst

Friday, November 23, 1973

- 8:30 - 9:00 Registration (in meeting room)
- 9:00 Opening Remarks and Announcements
Roy Horst and Alfred Gardner
- 9:15 Session on Taxonomy and Systematics
Chaired by Karl Koopman
- "Palatal Ridges in some middle-American Mollossus" (12 minutes)
Michael Bogan
- "Morphometrics, evolution, and cytotaxonomy of mainland bats of the genus Macrotus" (12 minutes)
Brent L. Davis* and Robert J. Baker
- "Comments on the African molossid bat Tadarida lobata" (12 minutes)
R.L. Peterson
- "Geographical variation in Eumops auripendulus" (12 minutes)
Judy L. Egar
- "A molecular approach to chiropteran phylogeny: albumin and transferrin evolution in bats" (18 minutes)
Vincent M. Sarich
- 10:30 Coffee Break
- 10:50 Session on Reproduction and Growth
Chaired by John Pagels
- "Seasonality in reproductive patterns of some Neotropical insectivorous bats: a progress report" (18 minutes)
Richard K. LaVal
- "Reproductive strategies in the family Phyllostomatidae" (18 minutes)
Don E. Wilson
- "Differentiation at the two-celled stage in mammals: crystalline structure in the leaf-nosed bat, Macrotus" (18 minutes)
William J. Bleier* and Robert J. Baker
- 12:00 Lunch
- 1:30 "Session on Anatomy and Physiology
Chaired by C. Stanley Reuk and Roy Horst

* (Presented by this author)

"Systematic implications of gastric morphology in the Stenoderminae (Phyllostomatidae)" (12 minutes)
C. Stanley Rouk

"Fine structure of the thyroid gland in the vampire bat, Desmodus rotundus" (12 minutes)
Patricia Krupp*, Ruth Frink, and Roy Horst

"Structure of the cheek pouches of Noctilio ssp and Molossus ater" (12 minutes)
Timothy Strickler* and Peter Murray

"Functional morphological differences in molossid bats based on multivariate analyses" (12 minutes)
Patricia W. Freeman

"Photography of bat skulls with scanning electron microscopy" (12 minutes)
Donald A. Smith* and Lewis E.D. Ling

"Immunofluorescent evidence of rabies virus in lung and urinary bladder epithelium of naturally infected Eptesicus fuscus" (12 minutes)
Charles V. Trimarchi

"Lack of L-gulonolactone oxidase in New World bats" (12 minutes)
Robert Jenness*, Elmer Birney and Kathy Ayaz

"The distribution of blood and the role of brown adipose tissue in the big brown bat during arousal from hibernation" (18 minutes)
Josefine C. Rauch

3:15 Coffee Break

3:45 Session on Conservation and Endangered Species
Chaired by Clyde Jones

"Organochlorine pesticide residues in Southwestern bat samples" (18 minutes)
Russell F. Reiding, Jr.

"Insecticide residues in free-tailed bats at Bracken Cave, Texas" (18 minutes)
Donald R. Clark

"Status of chiroptera of Blanchard Springs Caverns (Tennessee) and vicinity" (12 minutes)
Michael J. Harvey

"Infant mortality of Tadarida brasiliensis at Carlsbad Caverns in 1973" (12 minutes)
Kenneth N. Geluso*, J. Scott Altenbach and Don E. Wilson

"Comments on ecology and conservation of bats in Yucatan" (12 minutes)
John B. Bowles

"Report on bat conservation from the National Speleological Society"
(12 minutes)
Charles E. Mohr

"Status of conservation and endangered species - open discussion"
Clyde Jones

Announcements

No host cocktail hour

7:00 Dinner

8:30 No host cocktail party (etc.)

Saturday, November 24, 1973

9:00 Session on Ecology and Behavior
Chaired by Steve Humphrey

"Observations on the disk-winged bat, Thyroptera tricolor in Costa Rica" (18 minutes)
James Findley* and Don E. Wilson

"Phenetic packing in insectivorous bat communities: theoretical and practical limitations" (18 minutes)
Michael Schum

"Correlations between foraging and social organization in neotropical emballonurids" (18 minutes)
Jack W. Bradbury* and Sandra Vehrencamp

"Prey selection by the little brown bat, (Myotis lucifugus)"
(18 minutes)
Edward R. Buchler

10:15 Coffee Break

10:40 Session on Ecology and Behavior (Continued)
Chaired by Richard K. LaVal

"The relationship between hibernating bats and Peromyscus spp. (Rodentia: Cricetidae) in some Ontario caves and mines" (18 minutes)
Burleigh Trevor-Deutsch

"Ecological relationships between three species of glossophagine bats and two species of mimosaceous shrubs (*Calliandra*) in Chiapas, Mexico" (18 minutes)
John R. Winklemann* and Robert A. Schaper

"Food consumption and flight activity of *Myotis lucifugus*" (12 minutes)
Edythe L.P. Anthony* and Thomas H. Kunz

"A comparison of mist nets and ultra-sonic sensors as indicators of bat activity" (12 minutes)
Carol E. Brock* and Thomas H. Kunz

"The foraging behavior of the Jamaican fruit bat, *Artibeus jamaicensis*: a radio-tracking study" (12 minutes)
Doug Morrison* and Jack Barbury

"Bat and insect communities in desert-to-boreal habitats of southeastern Arizona: predator-prey and space relationships" (12 minutes)
Stephen Humphrey* and Albert O. Bush

12:15 Lunch

2:00 Session on Echolocation
Chaired by Donna Howell

"Body and brain temperature effects on the sonar curves in bats: (18 minutes)
Donna Howell

"Adaptive response of bat echolocation to acoustic interference" (18 minutes)
James A. Simmons*, W.A. Lavender and B.A. Lavender

"The importance of echolocation in bat behavior and ecology -with demonstration of portable apparatus for use in the field" (18 minutes; or more for demonstration)
Donald R. Griffin

"Coding of directional information by superior olive neurons in echolocating bats" (12 minutes)
Philip H.S. Jen* and Nobuo Suga

"The development of echolocating skills in the pallid bat" (18 minutes)
Patricia Brown

"The role of echolocation in the evolution of bats" (12 minutes)
M. Brock Fenton

Coffee

4:00

Business Meeting
Roy Horst, presiding

1. Financial Report
2. Do you wish to meet again next year?
3. If so, does any group wish to invite the symposium?
4. Reorganization plans, if any
5. New business

Close of meeting