Founders of the Animal Behavior Society

Founders & Friends at the 1984 ABS Meeting in Cheney, WA

Donald A. Dewsbury
ABS Historian

Updated Jan 2023, Sue Margulis, ABS Historian
ABS Brief Chronology

- 1946 Establishment there of a Committee for the Study of Animal Societies under Natural Conditions
- 1956 Formal establishment of the Section of Animal Behavior and Sociobiology of the Ecological Society of America (ESA)
- 1958 Establishment of a Division of Animal Behavior of the American Society of Zoologists (ASZ) (now the Society for Integrative and Comparative Biology, SICB)
- 1964 Formal establishment of the Animal Behavior Society in December in Montreal as an outgrowth of the ESA section and the ASZ division
Definition of “Founder”

A founder is defined as a person active in the period prior to 1966 who held at least two administrative positions, elected or appointed, in ABS or the ESA Section on Animal Behavior and Sociobiology or the ASZ Division of Animal Behavior as recorded by the ABS Historian. In addition, 4 animal behaviorists honored as founders before this definition was adopted are included.
### 37 Founders of the Animal Behavior Society

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Honoring the Founders

- The following 37 slides honor the 37 founders of the Animal Behavior Society, as now defined.
- For each there is a photo, where available or an article or book where no photo was located; along with the date and place of birth; date of death if relevant and known; PhD school & date; primary affiliation during the formative years of ABS; research specialty; and ABS activities during the period of 1956-1965.

The last ABS founder passed away in 2017.
Stuart A. Altmann

- b: June 8, 1930, St. Louis, MO; d. Oct 13, 2016
- PhD: Harvard, 1960
- Affiliation: Alberta
- Research: Social communication and social behavior in primates
- ABS: Research facilities & Primatology Committees (Later Pres.)
Lester R. Aronson

- b: Apr. 9, 1911, New York, NY; d. Apr. 7, 1996
- PhD: NYU, 1945
- Affiliation: American Museum of Natural History
- Research: behavior, ecology, hormones, & physiology of vertebrates
- ABS: Chair; Editor; Nominating, Business, Independent ABS, Education, & Publications Committees
Arnold Bakken

- b: Apr. 9, 1911, Antelope, MT; d. Mar 2009
- PhD: Wisconsin, 1953
- Affiliation: Wisconsin, Eau Claire
- Research: Behavior of squirrels & lemmings
- ABS: Films & Scandinavian Literature Committees

Zoology
Edwin M. Banks

- b: Mar. 21, 1926, Chicago, IL; d. Mar. 26, 1985
- PhD: U. of Florida, 1955
- Affiliation: Illinois
- Research: Social behavior and organization of vertebrates
- ABS: Program Officer & Films Committee (Later Pres.)

Zoology
George W. Barlow

- b: June 15, 1929, Long Beach, CA; d. July 14, 2007
- PhD: UCLA, 1958
- Affiliation: Illinois
- Research: Social behavior of cichlid and reef fishes; patterned movements; social systems
- ABS: Program Officer; Constitution & Bylaws Committee (Later Pres.)

Zoology
George A. Bartholomew

- **b:** June 1, 1919, Independence, MO; **d:** Oct 2, 2006
- **PhD:** Harvard, 1947
- **Affiliation:** UCLA
- **Research:** Ecology & physiology of vertebrates
- **ABS:** Physiology & Mammalogy & Ornithology Committees

Zoology
Frank A. Beach

- PhD: PhD Chicago, 1940
- Affiliation: U. California, Berkeley
- Research: Hormones and behavior, species-specific behavior, nervous system

Comparative Psychology
THE DEVELOPMENT OF NESTING BEHAVIOUR IN THE SIAMESE FIGHTING FISH Betta splendens

By James C. Braddock and Zora J. Braddock
Department of Zoology, Michigan State University, East Lansing, Michigan

Introduction
Males of the Siamese Fighting Fish Betta splendens build bubble nests. A bubble of air is taken into the mouth, enclosed in mucus, and deposited on the surface of the water. This is repeated until an aggregation of mucous-covered bubbles is present. Mating follows, and the male catches the eggs in his mouth and deposits them in the nest where they remain until hatching and for some time thereafter. Eggs and young fish, which continually fall from the nest, are caught as they slowly sink and are returned to the bubble nest. The male also continually adds bubbles to the nest, replacing those that have burst and often materially increasing the size of the nest.

The literature concerning the reproductive behaviour of Betta splendens is surprisingly meagre when one considers that the species has long been known as a recreational oddity in Thailand and has been domesticated there for at least 100 years (Smith, 1945) and perhaps much longer (Forssellus, 1857) and has also been a popular aquarium fish in Europe and the United States for at least 30 years. Most of the so-called information is of the "popular" variety and much of it is entirely erroneous. The principal scholarly studies are those of Regan (1900) who identified the species, Liessmann (1932) who published significant information concerning its stimulus-response system but devoted very little space to reproductive behaviour, Smith (1937, 1945) who presented a good, general account of the behaviour and general ecology of the fish, and Forselli (1957) who published an exhaustive ethological study of the family Anabantidae including much information concerning the reproductive behaviour of a number of species. An outstanding characteristic of the above-cited literature is the lack of agreement among and even within, reports. For instance Smith (1945) stated that females Betta splendens do not build nests, while Forselli (1957) indicated that they do and have even been observed to care for young in them. He dismisses the "pseudo-male" behavior, however, which indicates that he does not consider such activity characteristic of the female. The reports also contain disagreement concerning the functions of the nest and with regard to the nurturing of the young as a release of adult behavioral patterns. Smith and Forselli (Op. Cit.) stated that females co-operate with the males in placing eggs in the nest. We have observed in excess of 150 matings and have never noted this action on the part of the females. The present work was undertaken, in part, in an attempt to clear up some of the existing confusion concerning the mating activity of the females.

Forselli (Op. Cit.) reported that neotenyism, as exhibited in the Anabantidae either acquires or occurs immediately after the appearance of secondary sexual characters both in anatomy and behaviour. Thus nesting behaviour should not be considered a sexual act in male. Also, fully adult males build only in the presence of a nest; in its absence they will not build a nest if one is forcibly placed in the tank, a fact observed by the present author.

Methods and Materials
The fish whose nesting activities are noted here were all bred in a small laboratory of the Department of Zoology at Michigan State University. A description of the physical arrangements of this room appears in an earlier paper (Braddock & Bradock, 1955). A total of 154 individuals was involved in these observations. Seventy-four were males, 80 were females. The uneven sex ratio occurred because the observations were begun when the fish were too young to be sexed. They were selected from five liters, all of different ages.

Zoology

- PhD: Chicago, 1942
- Affiliation: Michigan State
- Research: Social behavior of fishes; amphibians; freshwater limnology
- ABS: Treasurer, Newsletter Editor; Nominating, Glossary, Russian Literature, & Education Committees
John B. Calhoun

- PhD: Northwestern, 1943
- Affiliation: NIMH
- Research: Vertebrate ecology esp. Norway rats; activity rhythms; population & mental health; emotion & motivation
- ABS: Research facilities and Comparative & Experimental Psychology Committees
Charles C. Carpenter

- b: June 2, 1921, Denison, IA
- PhD: Michigan, 1951; d. Jan 10, 2016
- Affiliation: Oklahoma
- Research: Herpetology; Ecology, Behavior, Populations, & Spatial organization of vertebrates
- ABS: Nominating, Glossary, & Ichthyology/Herpetology Committees
C(arence) Ray Carpenter

- PhD: Stanford, 1932
- Affiliation: Penn State
- Research: Primatology, social behavior, technology in education
- ABS: Films committee

Comparative Psychology & Primatology
Nicholas E. & Elsie C. Collias

- **b:** July 19, 1914, Chicago Heights, IL & March 24, 1920, Tiffin, OH; **d:** Apr 18 2010 & Dec 17 2006

- **PhD:** Chicago, 1942 & Wisconsin, 1948

- **Affiliation:** UCLA

- **Research:** Animal sociology & ecology; Ornithology; Vocalization, Nest building, & Energetics

- **ABS:** Chair; Ethology, Education, Nominating, Policy, Independent Society, & Constitution & Bylaws Committees
Demorest Davenport

- b: Sep. 26, 1911, Utica, NY; d. Jan 5, 2004
- PhD: Harvard, 1937
- Affiliation: U. Calif., Santa Barbara
- Research: Insect taxonomy; Pharmacology of invertebrate hearts; Behavior in symbiosis
- ABS: Glossary, Ethology, & Marine invertebrate Committees

**SPECIFICITY AND BEHAVIOR IN SYMBIOTES**

By DEMOREST DAVENPORT

The University of California, Santa Barbara College

With illustrations by Campbell Grant

"And, being fed by us, you used us so
As that sanguine gull the cuckoo's bird
Useth the sparrow..."  *King Henry IV, Pt. I.*

**INTRODUCTION**

Since earliest times naturalists have been intrigued with the intimate and so often highly specific associations between species which we speak of as symbions.

They have asked: "What factors bring symbiotic organisms together?" and "How are they maintained in partnership?" Yet until recently few efforts to answer these questions have been made.

It has, of course, long been recognized that separate disciplines within a science progress historically in a remarkably parallel way. We are all familiar with the more or less orderly progression: "taxonomic-morphology-physiology-behavior" in the development of so many of the Life Sciences. The study of animal associations appears to be now in somewhat the same state as such a science an entomologist was at the beginning of this century.

At that time a great body of literature had appeared on the taxonomy and morphology of insects, while the study of behavior based on a knowledge of physiology was in its infancy. So far, as one might perhaps expect, our most noteworthy advances in the study of associations have been made in the investigation of truly social organisms. In our study of insect societies we have passed through the great, but in the main descriptive, work of such men as Faber, Forel, and William Morton Wheeler, to the dramatic experimental contributions of Karl von Frisch. As a result of these observations and the continuing work of such men as Faber, Forel, and L. H. M. Wheeler, to the dramatic experimental contributions of Karl von Frisch, we have today an extensive knowledge of the integrative factors, both physiological and behavioral, which knit together the "organ" and "cells" of the homoeopteran society. Likewise our understanding of the mechanisms controlling vertebrate social behavior is at present rapidly increasing as a result of the investigations of Konrad Lorenz, N. Tinbergen, and their colleagues in Europe. The same cannot be said of our understanding of symbions; we are at the present time in the formative years of the investigation of the mechanisms of control of these partnerships. As Maurice Cadle in his classic *Parasitism and Symbiosis* (1952) has so clearly seen: "The question is really one of analyzing by precise experiments the relations of the partners...and of careful comparison of their behavior in an isolated state and in association."

It is the primary aim of this review to point out the number of fascinating problems that confront us in the investigation of behavior in symbions, as well as to show that most of these problems, with the passage of time, can undoubtedly be solved by careful experimentation. As will be seen, one can often, by the use of relatively simple techniques, precisely identify in symbions those stimuli which control adaptive behavior serving to bring the partners together or to maintain them in partnership. Throughout, we shall direct our attention to that behavior of symbions which is directly related to their unique habitat; such behavior must be absent in their free-living relatives. In what is to follow, a number of very different types of associations will fall under discussion.

With no intention whatever of being all-inclusive, these have been selected primarily to illustrate how a careful analysis of the adaptive behavior of their members may further elucidate not only the
David E. Davis

- b: July 18, 1913, Chicago, IL; d. Oct. 31, 1994
- PhD: Harvard, 1939
- Affiliation: Penn State
- Research: Nesting of birds; Hormones and behavior; Rodent populations
- ABS: Editor; Nominating, Textbook, Mammalogy, & Independent society Committees

Ecology; Biology
Rollin H. Denniston, II

- PhD: Chicago, 1941
- Affiliation: Wyoming
- Research: Endocrinology, Ecology; Vertebrate behavior; Reproduction
- ABS: Nominating, Glossary, Comparative Psych., & Physiology Committees

Animal Behavior; Zoophysiology
William C. Dilger

- PhD: Cornell, 1955
- Affiliation: Cornell
- Research: Vertebrate ethology of birds & fishes; lovebirds
- ABS: Chair, Nominating, Mammalogy/Ornithology & Independent Society Committees

Vertebrate Zoology
John F. Eisenberg

- b: June 20, 1935, Everett, WA; d. July 6, 2003
- PhD: UC, Berkeley, 1962
- Affiliation: Univ. British Columbia
- Research: Mammalian social behavior
- ABS: Business Affairs Committee (later Pres.)
John T. Emlen, Jr.

- b: Dec. 8, 1908, Philadelphia, PA; d. Nov. 8, 1997
- PhD: Cornell, 1934
- Affiliation: Wisconsin
- Research: Population and behavioral studies of birds & mammals
- ABS: Chair, Nominating, Independent Society. Policy, & International Congress Committees

Zoology
William Etkin

- PhD: Chicago, 1934
- Affiliation: CCNY
- Research: Hormones in development & behavior; social behavior; Amphibian metamorphosis; Experimental morphology
- ABS: Education, Textbook, & Physiology Committees

Zoology
Hubert W. Frings

GUSTATORY THRESHOLDS FOR SUCROSE AND ELECTROLYTES FOR THE COCKROACH, PERIPLANETA AMERICANA (LINN.)

HUBERT FRINGS
Medical Research Laboratory, Edgewood Arsenal, Maryland

INTRODUCTION

In a previous study (Frings, '45), it was shown that caterpillars of the moth, Platysamia cecropia, reject solutions of certain electrolytes at concentrations which suggest a relationship between the mobilities of the ions involved and their stimulative powers. For these animals, thus, there might be no differentiation in salt, bitter and sour modalities. But this is not the only possible explanation, for human thresholds for these electrolytes may be in an order similar to that for the caterpillars.

While it is often stated that the salt taste is that of chlorides, this is not true. Anyone who has tasted KCl or NH₄Cl will agree that, though they are salts in a chemical sense, they do not have a salty taste, i.e., like that of NaCl. As a matter of fact, only NaCl and LiCl, of the electrolytes used in the study on the caterpillars, are salty in the usually accepted sense of the word. KCl and NH₄Cl are definitely bitter and CaCl₂ is salty-bitter. Hence, the fact that there is a relationship between ionic mobility and stimulative efficiency for cations for caterpillars cannot be interpreted as excluding the possibility of separate modalities for these animals.

These considerations raise some interesting questions. How general are these effects? Do the anions also have stimulative

1 It is a pleasure to express my appreciation to Dr. Leigh Chadbuck, Chief of the Division of Entomology, Medical Research Laboratory, Edgewood Arsenal, for his encouragement and assistance in every phase of the work.

2 Present address: Gustavus Adolphus College, St. Peter, Minn.

b: January 1, 1914, Philadelphia, PA; d. Sept 8, 2008

PhD: Minnesota, 1940

Affiliation: Penn State

Research: Chemical senses in insects; Effects of sound on animals; Comparative physiology

ABS: Invertebrate & Publication Committees
John L. Fuller

- b: July 22, 1910, Brandon, VT; d. June 8, 1992
- PhD: MIT, 1935
- Affiliation: Jackson Laboratory
- Research: Behavior Genetics, social behavior, development

Comparative Psychology, Biology
Alphaeus M. Guhl

- b: August 14, 1898, Cleveland, OH; d. Aug., 1977
- PhD: Chicago, 1934
- Affiliation: Kansas State
- Research: Social behavior in animals including fowl
- ABS: Chair; Program Chair; Glossary, Nominating, & Independent society committees

Zoology
Edgar Brewer Hale

- b: Feb. 13, 1917, Tulia, TX
- PhD: Chicago, 1950; d. Jan 1, 2011
- Affiliation: Penn State
- Research: Genetic, neural, endocrine, & stimulus effects on sexual & aggressive behavior; Rumen digestion
- ABS: President; Treasurer; Textbook, Liaison, Education; Independent Society, Conservation, Org. & bylaws, & Comparative psychology Committees

Animal Behavior
John A. King

- b: June 22, 1921, Detroit, MI
- d. Sep 22, 2014
- PhD: Michigan, 1951
- Affiliation: Michigan State
- Research: Sociobiology; Mammalian behavior; Early experience effects; Behavioral evolution
- ABS: Secretary, Membership, Business, Independent ABS, & Glossary Committees (Later Pres.)
Wesley E. Lanyon

- b: June 10, 1926, Norwalk, CT; d. June 7, 2017
- PhD: Wisconsin, 1955
- Affiliation: Am. Museum of Natural History
- Research: Comparative behavior & ecology of birds; systematics; vocalization
- ABS: Mammalogy & Ornithology & Publications Committees

Ornithology
Peter Marler

- PhD: Cambridge, 1954
- Affiliation: U. Cal., Berkeley
- Research: Function & evolution of animal communication systems, esp. in birds & primates,
- ABS: Ethology & Policy Committees (Later Pres.)

Zoology
Frank McKinney

- PhD: Bristol, 1953
- Affiliation: Delta Waterfowl Res. Station
- Research: Behavior of waterfowl
- ABS: Mammalogy & Ornithology Committee
Martin W. Schein

- PhD: Johns Hopkins, 1954
- Affiliation: Penn State
- Research: Sexual, social, & feeding behavior in domestic animals; Education in biology
- ABS: President, Secretary; Program Chair; Films, Russian Literature, Education, Independent Society, Business, Policy, & Publications Committees

Ethology
John Paul Scott

- b: Dec. 9, 1917, Kansas City, MO; d. Mar. 26, 2000
- PhD: Chicago, 1935
- Affiliation: Jackson Laboratory
- Research: Genetics & development in mammals
- ABS: 1st Chair; Nominating, Research facilities, Bylaws, Independent ABS, Liaison, Comp. & Exp. Psychology; & Policy Committees
Evelyn Shaw

- b. Jan 19, 1927, Jersey City, NJ
- d. May 19, 2003. PhD: NYU
- Affiliation: Am. Museum of Natural History
- Research: Ecology & physiology of vertebrates
- ABS: Ichthyology & Herpetology & Publications Committees

Biology; Animal Behavior
Charles H. Southwick

- PhD: Wisconsin, 1953
- Affiliation: Ohio U.
- Research: Vertebrate population dynamics, Stress physiology; Sociobiology; Primatology
- ABS: Glossary, Mammal, & Primate Committees (Later Pres.)

Zoology
Allen W. Stokes

- PhD: Wisconsin, 1952
- Affiliation: Utah State
- Research: Behavioral ecology
- ABS: Education, Nominating, Mammalogy & Ornithology, & Wildlife Committees (Later Pres.)

Animal Behavior; Wildlife Management
William N. Tavolga

- b: Feb. 9, 1922, New York, NY; d. Apr 28, 2017
- PhD: NYU, 1946
- Affiliation: CCNY
- Research: Behavior & bioacoustics of fishes; parasitology, embryology, & endocrinology
- ABS: Research facilities, Publications, & Ichthyology & Herpetology Committees

Animal Behavior; Embryology
Ethel Tobach

- b: Nov 7, 1921, Miaskovka, Russia
d: Aug 14, 2015
- PhD: NYU, 1957
- Affiliation: Am. Museum of Natural History
- Research: Development & evolution of behavior;
  Emotional behavior;
  Social behavior
- ABS: Assistant Editor;
  Comparative psychology Committee

Animal Behavior;
Comparative Psychology
William S. Verplanck

- PhD: Brown, 1941
- Affiliation: Maryland, Research: Behavior theory; Language; Thinking; Animal behavior
- ABS: Glossary, Comparative & Experimental Psychology, & Liaison Committees

Experimental Psychology
Howard E. Winn

- b: May 1, 1926, Winthrop, MA; d. Aug. 13, 1995
- PhD: Michigan, 1955
- Affiliation: Maryland
- Research: Biology of fishes; Sound & communication in animals; Whales
- ABS: President; Independent Society, Ichthyology & Herpetology, & Foreign literature Committees

Oceanography, Bioacoustics
William C. Young

- b: Sep. 8, 1899, Chicago, IL; d. Aug. 30, 1965
- PhD: Chicago, 1927
- Affiliation: Kansas
- Research: Physiology & Anatomy of Reproduction; Hormones & reproductive behavior
- ABS: Chair; Nominating, & Independent Society Committees

Anatomy