regular contact with anyone interested

Documents of the
Society for the Study of Speciation

second edition

Joe Cain
editor

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JOE CAIN is senior lecturer in history and philosophy of biology
at University College London.

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cover photo: "The Dobzhansky's beautiful new car, completely surrounded by big shots". Left to right: Kaufmann, Demerec, Dobzhansky, Fano. In Milislav Demerec Papers. Photobook titled, "Remembrance of things past in the summer of 1940" (U5-2.40.37). Reproduced with permission. American Philosophical Society Library.

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News Bulletin

Editorial notes for News Bulletin

Spelling in the *News Bulletin* follows the original. Italics here replace underlining in original. Information in [ ] brackets are editorial insertions by Cain. Information in ( ) parentheses are added by the *News Bulletin*'s editor, Emerson. Bracketed numbers mark page transitions in original – *e.g.* [3|4] marks transition between pages 3 and 4. By convention, generic and species names should be italicized; here, this occurs only when appearing in the original. The presence of paragraph starts at page transitions is not obvious in the original. Cain has interpreted these here. Names have been made as complete as possible following *American Men of Science* (see editorial notes for Address List).

In reproducing some of the correspondence in this *News Bulletin*, Emerson was not clear if he was providing verbatim transcriptions of correspondence or was giving readers summaries of his correspondence.

Objects of the Society for the Study of Speciation

The need is felt by many students of speciation for a greater degree of integration between the various fields. Those contributing to an understanding of the factors influencing speciation are often in fields and institutions which may have little direct contact with those attacking the problem from somewhat different angles and using different techniques. Bibliographies and workers are scattered.

The general object of the society is to institute an informal information service which will tend to correlate the various approaches.

Fields of Interest

The major field of interest is the dynamics of the origin of species. Obviously the analysis of the factors of speciation involve the study of divergence of populations classified as subgroups within the species. Therefore studies of the origin of local populations, races, and sub-species are necessary parts of the study of speciation. Also many factors may be studied and verified through analysis of the evolution and stability of the higher taxonomic categories. There should be no limitation on the inclusion of any phase of evolution that contributes to an understanding of the central problem of the origin of species.

The major factor complexes may be termed hereditary variation, isolation and selection. These may be subdivided into various types and mechanisms and numerous illustrative examples among plants and animals may be given. The recognized fields of Bacteriology, Botany, Zoology and Anthropology have long been interested in the species problem. The biological sciences which obviously are making contributions to speciation and general evolution include Morphology, Cytology, Genetics, Biogeography, Ecology, Paleontology, Physical Anthropology, Comparative Psychology, Comparative Physiology, Embryology, Population Biology and Taxonomy.

Organization

A group of scientists from various fields have joined an informal society called "The Society for the Study of Speciation." This society has a secretary and an executive committee. The secretary is responsible for the general organization of the group, and the publication of information for distribution. The various members will contribute this information. The publication program includes bibliographies, notes concerning original work, critical comments upon the work of others, and news items of interest to the group. Anyone interested in receiving the publications should join the society by sending in his name and filling out the questionnaire. Anyone wishing to contribute information for the booklets should send material to the secretary.

At the present time the following executive committee is functioning for the society:

- Edgar Anderson
- John M. Beal
- William Burrows [1|2]
- L[eon]. J[acob]. Cole
- L[ee]. R[aymond]. Dice
- Th. Dobzhansky
- Alfred Emerson (Secretary)
- A[lfred]. C[harles]. Kinsey
- W[ilton]. M[arion]. Krogman
- Karl P[atterson]. Schmidt
- George G[aylord]. Simpson
- Sewall Wright

When the permanence of this society is assured, a system of election by members will be instituted.

It is not desired that one more formal organization be added to the large number already in existence, but the need is felt for an informal cooperative group of scientists willing to pass information from one to the other.

Through an anonymous donation, the initial expenses of organization have been paid for. It is contemplated that the society will become self-sufficient soon after it is organized, and the first information booklets have been received. However, the expenses should be kept at a minimum to cover the small costs involved in the issuing and the mailing of the booklets. It is suggested that the simplest and least expensive form of publication will serve the needs of the members best.

The original suggestion for organizing such a society in the United States came from Julian Huxley who conferred with numerous individuals in this country. The need for such a society had been realized for some time and various local groups had already organized, as well as sections and committees of existing societies. It is hoped that this society can cooperate with these groups, and extend its range to include scientists and organizations in various countries as conditions permit.

The secretary will attempt to help in coordinating the various fields and individuals. Many suggestions have

already been received which deserve careful consideration, and a cross section of opinion is included in this booklet. A number of suggestions, although laudable, involve more time than the secretary can devote to this undertaking, or involve more of a financial structure than seems possible at the present time. Other suggestions are feasible but require more general expressions of opinion in order to be put in practice. The secretary, within the limits of his time, will attempt to bring the constructive suggestions before the society for consideration and democratic action.

Notes and Comments

Banta, A.M. [Arthur Mangun - AMS 7: 85]

G. L. Church has some significant material on polyploid races of grasses.

Bates, M. [Marston - AMS 7: 106]

I wish there were some way of establishing a more or less long range study of the "species problem" in some group somewhere in the tropics. It has always seemed to me that difficulties were greatly increased by the seasonal interruptions and comparatively slow tempo of the temperate zone, and work in the tropics has always been scattered and limited in time. [2|3]

Brower, A.E. [Auburn Edmond - AMS 7: 217]

This is a problem for research: A biochemical study of the basic factors involved in the great increase in the number of specimens of melanic *Acronicta*, *Catocala*, and other Lepidoptera taken near certain manufacturing centers, and if this type of melanism affects the offspring?

Doering, K. [Kathleen Clare - AMS 7: 459]

I suggest for consideration:

- Regulation as to the requirements of becoming a taxonomist so there won't be so many small, isolated papers by workers not well equipped with the family and generic groups.
- Standardization of family names by vote of *all outstanding taxonomic authorities* in an order. This would prohibit the splitting of well-known family names into several families which *are* accepted by some workers and *not* accepted by others.
- Urge the speeding up of Zoological Record if possible.

Fosberg, F.R. [Francis Raymond - AMS 7: 588]

The term "speciation" is not only redundant, but, so far as I have talked to its proponents, does not connote a new idea. It is only used by a few of the people who would have information to contribute. Most of the desirable data appears in papers in which the term "speciation" does not occur at all, in discussions of genera, etc. by people who merely bring it in as evidence in support of their other problems, and who would certainly be horrified at the idea of writing a paper on "speciation."

Gates, R.R. [Reginald Ruggles - AMS 7: 630]

I used the term *speciation* in a paper in *Amer. Nat.* about 1917 and have always wondered whether someone else had used it before me.

Granovsky, A.A. [Alexander Anastacievitch - AMS 7: 680]

It seems that the phylogeny of insects can be better determined by some modified precipitant tests.

Usinger, R.L. [Robert Leslie - AMS 7: 1824]

It would be desirable for the Assn. to actively select profitable lines of research of groups of animals or plants best suited to experimentation and then support or actively promote research along these lines.

Weatherwax, P. [Paul - AMS 7: 1885]

The Maize Genetics Cooperative, Cornell University, has been doing something of the kind in the past several years. They might have some suggestions as to organization and procedure.

Willey, A. [Arthur - AMS 5: 1211]

Moderate life membership fee or option of subscribing for a period of five years.

Woodson, Jr., R.E. [Robert Everard - AMS 7: 1978]

I hope that the new organization will not forget that professional taxonomists have something to offer the ecologist, geneticist, and cytologist, at least in the question of speciation. [16|17]

A Critical Review of *The New Systematics* Edited By Julian Huxley. 1940. Oxford. $6.00 By Alfred E. Emerson

This book is a highly important compilation of studies and viewpoints concerning speciation. Julian Huxley has given a balanced digest of the salient points in the book in his introductory chapter. W.B. Turrill gives an interesting account of recent experimental work with natural and artificial populations and reviews the concepts of "ecotype"[,] "ecospecies", "coenespecies" and "ecological clines". He shows that sound taxonomic, phylogenetic, and geographic conclusions must be based upon a synthesis of methods from various fields. N. W. Timofeeff-Ressovsky has written what the reviewer considers an outstanding summary of "Mutations and Geographical Variation." He gives numerous examples of the distribution of genetic characters in natural species, the distribution of populations in relation to ecological factors, survival experiments of natural populations in relation to ecological factors, various types of isolating mechanisms and a series of mature conclusions concerning important speciation principles. C.D. Darlington has reviewed the cytological and genetic attributes of taxonomic species and discusses the origin of sterility, genetic isolation and hybridity. He shows how complex the concept of the species is from a genetic and cytological aspect. Sewall Wright has summarized his theoretical work on "mutation-pressure", selection-pressure," "inbreeding," "population size," "migration-pressure," "isolation" and their mathematical relationships. He concludes that evolution has not proceeded similarly in all groups but that various factors, quantitatively different, produce various types of results in species evolution. H.J. Muller has written a long and excellent chapter on the relation of the study of Drosophila to systematics. An important phase of Muller's review is the conclusion that "a long period of non-mixing of two groups is inevitably attended by the origination of actual immiscibility, i.e. genetic isolation." Lancelot Hogben, in his chapter on "Problems of the Origin of Species," discusses the complexity of the subject, the role of different types of isolation and their relation to genetic and ecological data. E.B. Worthington deals with geographical distribution of fresh water fishes and gives very interesting data on speciation in relation to ecological factors. C. Diver reviews some cases of closely related species living in the same area and postulates the most probable general cause for the origin of such groups is through random differentiation in small partially isolated populations with little effect of speciation. E.J. Salisbury, writing on "Ecological Aspects of Plant Taxonomy" shows the relation of taxonomic species to ecological conditions and also shows how physiological and ecological characteristics are often of great importance in handling taxonomic problems. W.H. Thorpe, in his chapter on "Ecology and the Future of Systematics," reviews interesting cases where groups without easily detected morphological

Address List

Editorial notes for Address List

374 members are listed in the 1941 Address List. Cain has modified names to be as complete as possible. Biographical references [vol.: page] at the end of each entry are: **5**: *American Men of Science* volume 5 (1933); **7**: *AMS* vol. 7 (1944), **8**: *AMS* vol. 8 (1949); **Who**: *Who's Who 1897-1997*. The disciplinary affiliations are self-descriptions, found in these biographical references. Addresses are given as listed in the Address List. Cain's editorial insertions are in [ ]; [n/a] indicates information not available. For brevity, "Department of" has been abbreviated to "Dept." and "University of" to "U.".

Abbe, Ernst Cleveland	Dept. Botany, U. Minnesota, Minneapolis, MN botany [7: 1]
Aldrich, John Warren	Cleveland Museum of Natural History, 2717 Euclid Ave., Cleveland, OH ornithology [7: 17]
Alexander, Edward Gordon	Dept. Biology, U. Colorado, Boulder, CO biology [7: 18]
Allee, Warder Clyde	Dept. Zoology, U. Chicago, Chicago, IL zoology [7: 21]
Anderson, Edgar	Missouri Botanical Garden, St. Louis, MO botany, genetics [7: 34]
Atz, James Wade	New York Aquarium, Battery Park, New York, NY [n/a] [not listed]
Babcock, Ernest Brown	U. California, Berkeley, CA plant genetics [7: 63]
Baerg, William J.	U. Arkansas, Fayetteville, AK entomology [7: 67]
Baier, Jr., Joseph George	623 W. State Street, Milwaukee, WI zoology [7: 68]
Baily, Jr. Joshua Longstreth	4435 Ampudia Street, San Diego, CA biology [7: 72]
Baker, Horace Burrington	Zoological Laboratory, U. Pennsylvania, Philadelphia, PA zoology [7: 76]
Balduf, Walter Valentine	Dept. Entomology, U. Illinois, Urbana, IL entomology [7: 79]
Bamford, Ronald	Dept. Botany, U. Maryland, College Park, MD botany [7: 84]

Banta, Arthur Mangun	Dept. Biology, Brown University, Providence, RI zoology [7: 85]
Bartlett, Harley Harris	Dept. Botany, U. Michigan, Ann Arbor, MI botany [7: 100]
Bartsch, Paul	United States National Museum, Washington, DC biology [7: 102]
Bates, Marston	Rockefeller Foundation, 49 W. 49th Street, New York, NY zoology [7: 106]
Beal, John Mann	Dept. Botany, U. Chicago, Chicago, IL botany [7: 112]
Beasley, J. Otis	Texas Agricultural Experimental Station, College Station, TX cytogenetics [7: 115]
Benedict, Ralph Curtiss	Dept. Biology, Brooklyn, NY botany [7: 128]
Benson, Lyman David	U. Arizona, Tucson, AZ systematic botany [7: 132]
Benson, Seth Bertram	Museum of Vertebrate Zoology, Berkeley, CA vertebrate zoology [7: 133]
Bequaert, Joseph Charles	Harvard Medical School, 25 Shaltuck Street, Boston, MA zoology, botany [7: 134]
Bergner, Anna Dorothy	Carnegie Institution of Washington, Cold Spring Harbor, Long Island, NY genetics, cytology [7: 136]
Berner, Lewis	Dept. Biology, U. Florida, Gainesville, FL entomology [8: 191]
Blackwelder, Richard Eliot	American Museum of Natural History, New York, NY entomology [7: 157]
Blakeslee, Albert Francis	Carnegie Institution of Washington, Cold Spring Harbor, Long Island, NY botany [7: 159]
Blossom, Philip M.	Museum of Zoology, U. Michigan, Ann Arbor, MI zoology [7: 165]
Blum, Harold Francis	3000 39th Street, NW, Washington, DC physiology [7: 166]
Bole, Jr., Benjamin Patterson	Cleveland Museum of Natural History, 2717 Euclid Avenue, Cleveland, OH mammalogy, ecology [7: 172]
Boulton, Wolfrid Rudyerd	Field Museum Natural History, Burnham Park, Chicago, IL ornithology [7: 182]
Bowden, Wray Merrill	Blandy Experimental Farm, U. Virginia, Charlottesville, VA cytogenetics [7: 184]
Boyden, Alan Arthur	Rutgers University, New Brunswick, NJ zoology [7: 189]
Breland, Osmond Philip	Dept. Zoology, U. Texas, Austin, TX zoology, entomology [7: 203]
Brower, Auburn Edmond	5 Hospital Street, Augusta, ME entomology [7: 217]

Bibliography

Editorial notes for Bibliography

This bibliography was compiled by Emerson. It lists 1,250 items. Except for several items from 1938, all references are 1939 or 1940. This bibliography was not intended as a canonical set of readings; rather, the coverage aims for breadth and diversity. Not all articles focus only on speciation.

Emerson classified each citation according to his sense of its relevance for speciation studies. This classification took the form of codes placed at the end of each citation (e.g., IA, IIE). His "key" accompanies this bibliography (see page 103). Emerson also placed record numbers at the end of each citation. Some numbering is out of the citation's strict alphanumeric sequence; these errors are preserved here.

Editorial insertions by Cain are in [ ]. Citations were not verified against original sources. Some obvious misspellings have been corrected, and abbreviations have been expanded. Italicising of generic and species names has been introduced. Transcription was hampered in some cases by poor preservation of the original text available for study. Journal names have been verified against William Allan Smith and Frances Lawrence Kent (eds.). 1952. *World List of Scientific Periodicals Published in the Years 1900 to 1950* (London: Butterworths Scientific Publishers). Some journal titles not found in this reference could not be verified elsewhere. These may be mistakes in data entry by Emerson. The notation [?] reflects unreadable data or data missing in the original bibliography.

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