

LITERATURE REVIEWS

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TOWARD THE ORIGINAL CREATED KINDS

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TYPEN DES LEBENS. Scherer, Siegfried. 1993. Studium Integrale Biologie. Berlin: Pascal Verlag. 257 p.

This unique book is a creative contribution to the literature on speciation. Most chapters are written in German, with an English summary, and several key chapters are in English, with a German summary. The first section begins with a chapter by Scherer titled "Basic Types of Life." This chapter builds on the work of several researchers who have suggested that interspecific hybridization could be a useful taxonomic criterion. Frank Marsh (1941, *Fundamental Biology*) has suggested a taxonomic rank termed "basic type" or "baramin" which contains all individuals which are able to hybridize. Scherer further develops this concept, and suggests that the basic type is a systematic category, above the species level, that can be defined rather objectively. "Two organisms belong to the same basic type if (i) they are able to hybridize or (ii) they have hybridized with the same third organism." These two criteria are utilized in this and later chapters in an initial analysis of several plant and animal groups that seem to fit the definition of basic types.

Scherer also suggests that it may be possible to experimentally test the validity of a basic type by artificial insemination or pollination, but further work is needed to develop a precise definition of this experimental criterion.

Hybridization data available in the literature have been used by Scherer and the other authors in this book to describe 12-19 basic types, including both plants and animals. This is only a beginning, but it seems

to demonstrate that the “basic type” concept is a promising working hypothesis that may provide a basis for much additional productive research.

The basic types described at this time are at the subfamily or family level in birds and mammals, and at the tribe, subfamily, or family level in plants. Scherer submits the tentative suggestion that the term “micro-evolution” be applied to processes within a basic type [changes sufficient to be considered new species and genera]. He also suggests that within basic types, ancestral populations with a large hidden potential of variation have speciated into numerous specialized species with lower genetic potential than the ancestral population.

Chapter Two is a summary of models of speciation. It is emphasized that numerous speciation processes exist. The author suggests that a “largely disregarded model of speciation is diversification promoted by reduction of a high variation potential of the ancestral form.”

Chapter Three is a revealing analysis of the roots of the species concept for Darwin and his colleagues. Darwin claimed to have used true induction, collecting facts on a large scale, with no theory in mind. However, those who have studied his education and his notebooks conclude that early in his life, Darwin was inclined toward belief in evolution [transmutation], and rejection of the rigid fixity of species that he believed was the biblical position. Transmutation was the starting point for his research. In reality, fixity of species was a concept from Greek philosophy that was inappropriately imposed upon the biblical creation account. Thus, when Darwin became an evolutionist, what he really did was to switch from one scientific paradigm [static species, from Greek science] to another, “none of which had anything to do with the mosaic creation account.”

The Swedish systematist Linnaeus (1707-1778) has often been characterized as a supporter of fixity of species, but reality is quite different from that. Linnaeus at first believed in fixity of species, but as he studied his collections and struggled with the challenge of differentiating species and varieties he came to the conclusion that species were not the created kinds. His publications made this more and more clear as his career progressed. He concluded that new species, and even genera, seem to arise from hybridization of different species and genera. At one point he went so far as to suggest that God created as

many individuals as there were orders, and these were then mixed to form genera, species, and varieties.

The publications of Linnaeus that included his ideas on the origin of species and genera within created kinds were in Charles Darwin's library, but Darwin was unaware of these ideas until they were brought to his attention in 1867. There were many prominent scientists contemporary with Darwin who also recognized the probability of new species arising within created kinds. Darwin was unaware of the thinking of these more advanced contemporary colleagues, as he was not aware of the more mature ideas of Linnaeus on change in created kinds. Darwin's rigid, static creationist view of species was already old-fashioned in his own time, and when he rejected it he moved quickly to an insistence that all changes in life forms occurred by natural forces. In a 1915 article J.H.F. Kohlbragge accused Darwin of being unaware of the positions of his colleagues and incapable of mastering foreign languages.

The remaining chapters, in sections two and three, are analyses of the hybridization data for different groups of plants, birds, and mammals. The conclusion is reached that hybridization occurs widely within certain groups, and hybridization does not occur between these groups. These groups are at the tribe, subfamily, or family level, and the authors interpret them as basic types. If this is correct, microevolution has occurred within created types, sufficient for us to categorize the evolved forms as new species and genera. The following is a list of these basic types. Of course these available data are from only a small portion of the animal and plant groups, but it is a very interesting beginning. Those marked with an asterisk are considered to be tentative, probable basic types, but the others are based on more solid evidence.

Plants

Family Funariaceae (mosses)	5 genera	
*Family Aspleniaceae (ferns)	7-10 genera	700 species
Tribe Triticeae (grasses, family Poaceae)	36 genera	325 species
Tribe Geeae (family Rosaceae)	3 genera	67 species
Subfamily Maloideae (family Rosaceae)	15-30 genera	200-2000 species

Animals

Family Anatidae (ducks, geese, swans)	9 tribes	148 species
Family Phasianidae (quail, turkeys, pheasants)	70 genera	203 species
*Family Cracidae (in the Galliformes)	10 genera	43 species
*Family Megapodiidae (in the Galliformes)	7 genera	12 species
*Subfamily Aegypiinae (Old World Vultures)		
*Subfamilies Accipitrinae and Buteoninae (Hawks and Buzzards)		
*Family Falconidae (Falcons)		
*Family Cathartidae (New World Vultures)		
Family Estrildidae (Estrildid Finches)	49 genera	131 species
Subfamily Fringillinae (Fringillid Finches)		3 species
Subfamily Carduelinae (Carduelin Finches)	39 genera	125 species
Family Canidae (dogs, wolves, foxes, jackals)	15 genera	34 species
Family Equidae (horses, zebras, donkeys)	1 genus	6 species
Subfamily Cercopithecinae (Old World Monkeys)	9 genera	50-60 species

This book is a creative presentation of a fascinating line of evidence that has not previously received adequate attention. It introduces a working hypothesis for defining basic types. This method, using hybridization data, provides a basis for much additional research. If further study indicates that this method yields consistent results over a wider range of plants and animals, it may provide a method for proposing objective hypotheses for the boundaries of basic created types.