time to use your leisure to do original work. The next five years will settle what your scientific standing will be. See that you make good. I can not get for you an increase of salary, but I can get for you every facility for good work." I thought I had my man, but he came to me a couple days later saying he had decided to go, as his wife thought she could not live on $1,500 a year. As a second case I take that of a young man in another institution in whose work I became interested. When a book of his appeared, I wrote him that I was sorry he printed it. It did not fulfil the expectations I had of him, and I believed no man could afford to be the author of a useless book. He replied that he was glad others were not of my opinion and sent with the letter several laudatory clippings from papers and eulogistic letters from professors with reputation. This, of course, was a great victory and in a way I admit he was right; for the book brought him a call to a leading university. But a book of promise is yet to come. This, not starvation, is the road to ruin. Young men are not spoiled as fellows, but as assistant professors. A call means new responsibilities, the breaking up of old habits and a loss of self-discipline. The new president calls him a second Agassiz; the university press bureau spreads laudatory notices of him in the local press and the alumni take a hand in extension of the fame of the new genius.

Dr. Jordan tells us that he has been working for others the greater part of his life and that he is disappointed in the results. But for whom has he been working—for fellows or for assistant professors? There are no fellowships at Stanford University. If he would go over his cases, he would, in my opinion, find that he, like other college presidents, has been dragging into the lime light young men that it would have been better to have let alone. Each university should build up its faculty quietly from its fellows instead of running press bureaus to laud immature men. Scholars are not born, they are made by their environment.

No one is worth keeping who will not halt long enough on $1,500 a year to do good work. The assistant professorship is an unearned entrance to the halls of learning. If faculties would agree that no one should have the title of professor until it was fully earned, the increase of true learning would be possible. Scholarship is made by hard work, and comes only with gray hairs. If a man is wanted from another university take its best. Young men should be left alone until they are fully developed before transplanting them.

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TO THE EDITOR OF SCIENCE: In response to a recent friendly note from Dr. Edmund B. Wilson let me say: No money could be better spent than that used for the fellowship which enabled Wilson to walk and work with Brooks and Martin and Remsen. But too much such money is used to hire mediocrity to make diagrams for pedantry.

Our scholars must in some degree be descended from scholars. Relatively few of our teachers have the personality which befits the leader in an intellectual school. The scholar should be free to seek such leadership, and our present fellowship machinery tends, on the whole, to confuse rather than to help.

DAVID STARR JORDAN

THE ARIZONA PASSENGER PIGEONS

THE passenger pigeon is now generally believed to be extinct in a wild state, and of those formerly living in confinement only a single survivor, in the Zoological Garden at Cincinnati, remains. Under these circumstances reminiscences of its past history naturally find place in ornithological and other journals, based on the recollections of observers still living or gleaned from the published narratives of early travelers and explorers of the birds' former range, some fifty pages of such matter having appeared in the last two numbers of *The Auk* alone. Among recent contributions to passenger pigeon lore is Dr. McGee's "Notes on the Passenger Pigeon," published in a recent number of SCIENCE.[1]

[1] Vol. XXXII., pp. 958–964, December 30, 1910.

Dr. McGee's paper is divided into two parts, the first giving his recollections of the great abundance and habits of the passenger pigeon as seen by him in eastern Iowa nearly half a century ago, the other an account of birds supposed to be passenger pigeons seen in arid southwestern Arizona as recently as 1905. His account of the abundance of these birds during the spring migration in eastern Iowa "in the sixties and early seventies" of the last century is a fact of great interest and is in accord with what is known to have occurred in the eighteenth and the early part of the nineteenth centuries in states further to the eastward. But the habits of the Iowa pigeons, as here detailed, during the breeding season and until and during the fall migration, are wonderfully suggestive of the habits of the mourning dove, and depart considerably from the habits of the passenger pigeon as observed and repeatedly recorded at points further eastward; as, *e. g.*, their laying two white eggs, living in family groups during and after the breeding season, and in this manner taking their departure southward at the approach of winter.

The second or Arizona part of the paper is entirely contrary to our previous knowledge of the distribution of the species, and especially contrary to everything known of its breeding area. It has not heretofore been recorded as occurring west of the eastern border of the plains, while its known breeding area was the transition zone of the east. To enable a bird with these geographical and physiological restrictions to pass the hot season and rear its young in the subtropical Lower Sonoran zone of southwestern Arizona implies a most wonderful range of adaptability, and one quite unparalleled in our present knowledge of bird life. Not that some species of birds, the mourning dove among others, do not have breeding ranges that cover the greater part of North America, and seem equally at home, even in the breeding season, in regions as unlike as the humid wooded districts of the eastern states and the arid southwest; but there are others, like the passenger pigeon, which are restricted to a particular type of country, especially during the breeding season. From their known distribution, habits and food requirements, one would almost as soon expect to find a colony of ptarmigan, an alpine or semi-arctic bird, in Florida as passenger pigeons in the arid, almost forestless Lower Sonoran zone of southwestern Arizona. The passenger pigeon occupied the wooded districts of eastern North America, breeding from eastern Kansas, northern Mississippi, Tennessee, Pennsylvania and New York northward to western Mackenzie, central Keewatin, central Quebec and Nova Scotia, and usually in large colonies, it being at all times preeminently gregarious. If formerly found west of the great plains, it is very strange that none of the scores of ornithologists who have either lived for many years in the general region of Arizona and New Mexico or have during the last two or three decades thoroughly explored it in all parts, down to and along the Mexican border, have ever collected a specimen anywhere in this whole area that has been identified by a competent ornithologist as a passenger pigeon. Again, Dr. McGee's account of the nesting and other habits of the birds he took to be passenger pigeons at Tinajas Altas in Arizona are not incompatible with those of the mourning dove, its little brother, known to be of common occurrence in just the situations described. Furthermore, the bird there known as the "Sonora pigeon," and referred to by Dr. McGee as "seen singly and by twos and threes, either distant or in flight," and "noted as resembling the passenger pigeon," is the white-winged pigeon (*Melopelia asiatica*, formerly *M. leucoptera*). "The Sonora pigeon (at least the bird observed at Tinajas Altas) differs so widely as to be readily distinguishable from the mourning dove," and of course also from the passenger pigeon. It is extremely to be regretted that "unexpectedly hasty abandonment of the camp unfortunately prevented preservation of skins of the birds," for while no one will doubt the author's sincerity and conscientiousness in placing on record his recollections of these birds, it is certain that ornithologists will desire more

substantial evidence of so improbable an occurrence as the breeding of the passenger pigeon in arid southwestern Arizona before they will be willing to accept these observations as a part of the history of a now practically extinct species. If specimens of the birds in question had been obtained and identified by competent authority, it would doubtless have saved burdening the literature of the wild pigeon with another questionable record, and one that may prove extremely difficult to eliminate.

J. A. ALLEN

ON THE TRANSFERENCE OF NAMES IN ZOOLOGY

As the preparation of an official list of *nomina conservanda* is now under consideration by the International Commission on Zoological Nomenclature it may not be out of place to call attention to a point that seems to me of prime importance in this connection, although it has received little notice from recent writers on nomenclatorial reform.

It is simply this—while the rejection and replacement of familiar names for well-known animals is, of course, an inconvenience to zoologists, it is a trivial matter in comparison with the grave possibility of confusion that arises when the names are used in an altered sense. In the former case we merely multiply synonyms, and, unfortunately, they are so numerous already that a few more hardly matter; in the latter case there is a real and serious danger of ambiguity. Thus, at present, a writer who mentions *Trichechus* may be referring either to the Walrus or the Manatee, *Simia* may mean either the Orang or the Chimpanzee, *Cynocephalus* may be either a "flying Lemur" or a Baboon, and so on through all the great groups of the animal kingdom till we come to *Holothuria* which may refer either to a sea-cucumber or to a Portuguese man-of-war. Cases like these seem to me to be on an entirely different plane, as regards practical importance, from those in which an old name is simply rejected; even if the shore-crab is to be called *Carcinides* for the future we have only the additional burden of remembering that it was once called *Carcinus*.

A striking (if somewhat exceptional) instance of the pitfalls that are in preparation for future students is found in the section on Crustacea in Bronn's Thierreich (Bd. V., Abth. ii.). On p. 1056 there is an allusion to "*Astacus*" and on the following page to "*Astacus* (= Homarus)." In the bound volume (unless the part-wrappers have been kept in place) there is nothing to show that a change of authorship intervened between these two pages and that, while the second "*Astacus*" refers to the lobster, the first indicates the crayfish.

If the International Commission could be persuaded to consider first those names that are threatened with *transference,* before proceeding to deal with those that are merely in danger of *replacement,* they would, I believe, secure the support and cooperation of many zoologists who have doubts as to the practicability of the schemes lately put forward.

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SCIENTIFIC BOOKS

African Mimetic Butterflies. By H. ELTRINGHAM. Oxford, Clarendon Press. 1910.

The remarkable resemblances often observed between insects of different genera, families or even orders, have long attracted the attention of naturalists. In some, probably many, cases the explanation may be found in parallel variation, or similar conditions of life. Such explanations do not go far into the heart of the matter, but they are satisfying to those who like to give a "reason" for everything. Bates, who was so familiar with the insect-fauna of the Amazons, hit upon a more special "reason" for resemblances observed by him. This was, in short, that certain species which were edible simulated others which were distasteful and so gained protection. The subject was taken up by Wallace and other naturalists, and soon a large body of evidence was available, especially in relation to butterflies. It was proved to be a fact that certain