THE NEW A. O. U. CHECK-LIST.¹

BY WITMER STONE.

THE writer recalls very vividly the arrival of the original edition of the 'A. O. U. Check-List,' for which he had subscribed shortly after joining the Union in 1885, and the tremendous impression that it made upon him. He looked with awe upon the names of the Committee responsible for the work and thought that the height of his ambition would be to see his name inscribed as a member of such a body.

Having now served upon the Committee for a period of thirty years and taken an active part in the preparation of two editions of the 'Check-List' and a revised edition of the 'Code of Nomenclature,' this ambition of his early years has been abundantly satisfied.

And now upon the appearance of the fourth edition it seems an opportune time to say a few words about the 'Check-List' and its preparation and if these involve some very elementary matter he would beg the tolerance of those versed in the technique of checklists on the plea that a large number of the readers of 'The Auk' know but little about the matter, and as some of these will doubtless constitute the personnel of future Committees, such information may be helpful. As to commenting upon a work for which the writer is himself partly responsible he claims as a precedent the reviews by the late Dr. J. A. Allen of the editions of the work prepared under *his* chairmanship—and after all who knows more about a book than one of the authors?

The main objects of the 'Check-List' as we understand it are (1) the establishment of a uniform nomenclature and (2) a statement of the range of each bird included in it. When the American Ornithologists' Union was founded there were three lists of North American birds in use—those of Baird, Coues and Ridgway, each differing more or less from the others in the number of species

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recognized, the names employed and the classification. Therefore the need of a single authoritative list was obvious in order that one writer might know what bird another was talking about, and so the 'A. O. U. Check-List' came into being.

Probably nine-tenths of the members of the Union, possibly more, are willing to abide by this standard list as they care more about the birds and their habits than about the technical names or the codes and rules governing their determination. There are others, however, who must of necessity deal with the latter problems and in some instances the problems, in spite of codes and rules, are open to different interpretations so that the names determined by a majority vote of the Committee which compiles the 'Check-List' do not accord with the personal opinions of some other ornithologist, and in such cases he may prefer to follow his own views. This is perfectly proper in technical papers or notes devoted wholly to some nomenclatural point, indeed it is such publications that furnish the groundwork for the Committee, when a new edition of the work is to be undertaken. We feel, however, that in general articles or notes published in 'The Auk,' in Federal, State and local publications, and in popular works, the 'Check-List' names should be used, as here uniformity of nomenclature is of vastly greater importance than the exploiting of personal opinion, since we have as readers persons interested in ornithology rather than in nomenclature. If anyone feels an urge to bring in some nomenclatural innovation in such connection let him remember Dr. Coues famous motto "Nomenclature is a means not an end of zoological science."

In this connection too, it should be understood that individual members of the Committee are, themselves, not personally satisfied with every name as set forth in the 'Check-List,' and every member has been in the minority on some of the votes. It would be impossible for it to be otherwise but it is a matter for congratulation that the cases involving serious difference of opinion have been few and where the vote has been a tie, or with a majority of but one, in the interest of stability no change has been made.

It has been argued that deciding nomenclatural and ornithological questions by a majority vote of a committee tends to make the results inconsistent and it has been suggested that a one man committee would be more satisfactory. There are many points in favor of such a method but one man's decisions, consistent as they may well be, will be extreme in one direction or the other and might, perhaps, be not so generally satisfactory as the "average" decisions of a committee.

After this brief consideration of the origin and object of the Check-List let us turn to the innovations presented by the fourth edition, which is really almost a new work.¹

The greatest change is in the adoption of a new classification based largely upon that of Gadow as presented in the preface to the last edition. This upsets the sequence of the orders, families, and species familiar to us for the last forty-five years. For example, citing the more striking changes: the Owls are removed from the birds of prey and placed close to the Goatsuckers; the Auks are taken from the vicinity of the Loons and Grebes and along with the Gulls and Terns are placed in close alliance with the Shore-birds and Plovers; the Hawks and their allies are placed farther down the scale, where they and the Gallinaceous birds come in between two groups of "water birds"; while the families of Passerine birds are entirely rearranged, the nine-primaried groups coming last and terminating with the Fringillidae. The classification as adopted was drawn up by Dr. Alexander Wetmore and Mr. W. DeW. Miller.²

Naturally we ask why such a change when the literature of so many years is based upon the old sequence? The answer is that even when adopted our former classification was a makeshift, and it is now quite out of line with well proven relationships which the present scheme clearly sets forth, and which are accepted in works dealing with the ornithology of other parts of the world. If we are not to revise our classification at reasonable intervals (and fortyfive years would seem reasonable!) in the light of scientific discoveries and research, just as we revise our names, ranges, etc., then why have any classification? Some of us remember the overthrow when the original 'A. O. U. Check-List' came out, with the Grebes heading the line instead of the Thrushes, but we speedily out-grew the shock and the present changes are really not nearly

¹Cf. also J. A. Allen's 'The A. O. U. Check-List,' Auk, 1903, pp. 1-9.

²Cf. Auk, July, 1926.

so drastic. Museum collections involving birds of the world have long since used a sequence entirely different from the old A. O. U. scheme and so have American publications dealing with foreign birds.

Another point in which the present edition differs from the last is in the abandonment of the binomial heading for each group of subspecies, i. e. Melospiza melodia at the head of the various Song Sparrows, all of which are regarded as subspecies because they intergrade one with another as we follow them from Alaska to California and eastward to the Atlantic. This binomial name introduced in the third edition proved to be more misleading than helpful as it was thought by many to indicate something different from any of the subspecies which followed it. The fact that melodia appears as the middle term of the trinomial name of each of the Song Sparrows should be evidence enough that they are a series of intergrading forms specifically separable as a group from the two other species, the Swamp and Lincoln's Sparrows. Our criterion between species and subspecies is intergradation and not degree of difference and as a matter of fact the great gray Song Sparrow of the Aleutians and the little rusty form of the Colorado Desert are so different that they would constitute distinct species were it not for the intergrading chain which connects them. It is claimed that it is inconsistent not to have a "specific" name for this series of intergrading forms, perhaps so, but nature herself is not consistent and it is difficult to interpret her work consistently. If anyone wishes to refer to Song Sparrows in general the name melodia is there to be used as a specific term if desired; the Check-List simply lists the "kinds of birds," species or subspecies as the case may be.

Changes have of course been made in the technical names where rendered necessary by the Code of Nomenclature, but in the great majority of cases these have been due to the subdivision or combination of old genera, or the subdivision of old species, involving a new trinomial name added to a familiar binomial. Relatively few changes are due to the operation of the law of priority which would seem to indicate that we have little more to discover in the field of "overlooked or unknown literature" involving the resurrection of long forgotten names. While a few changes have been made in the vernacular names every effort has been made to keep them stable. The changes that have been deemed necessary are in cases like "Robin" and "Western Robin," where the former has been altered to "Eastern Robin," on the ground that this form has no exclusive right to the name "Robin." It should be noted too, that the apostrophe "s" is still retained in the case of birds named after persons.

Other innovations in the new edition are:

(1) More exact references to places of publication; the part, number, signature, or other division of a work, being now quoted with both the ostensible and actual date of issue, as nearly as the latter can be determined, while the several pages upon which a new name appears are all given. The reader thus has all the data before him.

(2) The citation of the type locality of nearly every species and subspecies is given in the exact words and language of the author followed by a restricted or translated type locality.

(3) Vastly amplified statements of range are presented with an attempt to distinguish the former from the present range where a change has taken place.

(4) At the end of the range of a subspecies, or group of subspecies, one combined statement of the range of such extralimital subspecies as may have been described is given, so that if one does not recognize the division into subspecies the range of the species as a whole is available.

(5) In the case of species described from America by Linnaeus, Gmelin, and a few other early writers, from the accounts or plates of still earlier non-binomial authors, such as Catesby, Edwards, Pennant, Latham, Brisson etc., the references to the works of the latter are also given, showing the source of the information and frequently of the names themselves.

(6) In cases where a species is included wholly on the basis of accidental occurrences the locality and date of each such occurrence is given with foot-note reference to the place of its publication.

(7) Numerous other foot-notes are given referring to certain races not recognized by the Committee or to suggested changes in nomenclature not accepted. (8) The addition of a summary of changes in names with explanations, as well as lists of additions and eliminations as compared with the third edition. This is comparable to the Supplements previously published in 'The Auk,' but it was thought that this summary, covering so many years, would be of much greater service if incorporated in the 'Check-List' volume itself.

(9) The addition of a list of the numbers originally given to the species and subspecies and widely used as identification marks for eggs, etc. While these numbers are still retained at the end of the names the new classification has thrown them completely out of sequence, and this list with reference to the page upon which each will be found will be a convenience to oölogists. To renumber the species would cause serious trouble and confusion and render many identifications doubtful.

(10) The Hypothetical List has been enlarged to include all species at any time referred to it with their subsequent disposition, so that their record may not be entirely lost.

(11) The Fossil List has been amplified to include all recent birds which have also been found in a fossil state.

(12) The inclusion of naturalized species in the body of the List with distinguishing marks.

There are 1420 species and subspecies included in the present edition as compared with 1200 in the last, there having been 250 additions and 30 eliminations. Of the former, 50 are extralimital species now recorded from the territory of the 'Check-List,' 10 are introduced naturalized species (such forms not having been previously included), and 190 are newly described or revived races of which no less than 53 are from California and 40 from lower California. The number of genera recognized is 395 as against 382. Of these 12 were added through division of old genera while 12 were lost through the combining of old genera; 19 were added through occurrences of extralimital species in North America and 7 were lost through the transference of species to the Hypothetical List.

The question of the admission of additional subspecies will always be debatable. The Committee, following precedent, has only considered published proposals either for the recognition or rejection of named forms and of the many cases considered approximately as many were rejected as accepted. The matter is wholly one of personal opinion and the only way to achieve anything like consistent results would be to have several ornothologists study the same material in each genus and let the Committee compare their conclusions. Perhaps some such arrangement may be possible in the future and the sooner it can be begun the better. The large number of additions to the present edition of the 'Check-List' is due mainly to the enormous amount of material from hitherto unexplored territory, notably Lower California, which has been accumulated during the past twenty years.

The preparation of a 'Check-List' involves more work than the users of the volume realize. In preparing the present edition the following plan was followed. A systematic list was first drawn up based upon the several lists of proposed changes that appeared in 'The Auk' from time to time, and upon other data subsequently gathered together and published since 1910, which included all suggested changes in nomenclature, descriptions of new species and subspecies, revivals of old ones, and proposed eliminations of forms already in the 'Check-List.' This list comprised upwards of five hundred items which were submitted to the members of the Committee in installments for study and vote, involving extensive examination of specimens and of literature. The votes when returned were then tabulated and the accepted additions and changes drawn up in proper form and typed. Then, with cut up copies of the last edition of the 'Check-List,' they were arranged in the sequence of the new classification, which had meanwhile been prepared by a subcommittee, and pasted on sheets while a preliminary revision of the ranges was made, and the type localities and references checked and amplified. In order to ensure uniformity in citations and abbreviations of titles a card slip was made out for every book and journal on its first appearance in the 'List' and every subsequent reference compared with it, while great care was taken to quote references and titles exactly-as to spelling (or misspelling!), capitalization, diphthongs, etc., etc., as well as to secure as accurate data on the actual dates of publication as possible.

The manuscript was then submitted to several members of the

Committee in the principal ornithological centers for further amplification of the ranges and other corrections or suggestions. Following this it was put into type and the proofs submitted to all members of the Committee as well as to twenty-two other ornithologists of the United States and Canada who had kindly offered to revise the ranges for regions with which they were especially familiar, the data of the Biological Survey being also generously placed at the disposal of the Committee.

The incorporation of the material thus secured and the revision and often second, and third revision—of the proofs completed the main part of the work; after this the Hypothetical and Fossil Lists were compiled as well as the Summary of Changes and Additions and the Index, which contains over four thousand entries. One's respect for an index increases with the number which he has had to compile!

It may be interesting to know that the references in the 'Check-List,' numbering upwards of 2800, involved the examination of some 200 different works and ninety journals, published not only in America but in Great Britain, France, Germany, Italy, Russia, Sweden, Denmark, Holland, and Australia. Not a few of these are very rare and could only be consulted in the large scientific libraries, so that much correspondence was involved in securing detailed information from them.

The Committee feels that it has done the best that it could in the preparation of this new 'Check-List' and regrets the delay in its completion which was due to the fact that the members are all busy men with other duties occupying most of their time so that work on the 'Check-List' had to be done largely in their leisure moments.

The Committee consisted of Witmer Stone, *Chairman*, Jonathan Dwight,* Joseph Grinnell, Waldron DeWitt Miller,* Harry C. Oberholser, T. S. Palmer, James L. Peters,† Charles W. Richmond, Alexander Wetmore, and John T. Zimmer.†

The Chairman acted as editor and compiled the Hypothetical List, Summary of Changes, and Index, and made the provisional revision of the ranges and references. Dr. Wetmore compiled the Fossil List, Dr. Oberholser added data on ranges from the Biological Survey rendered available through the kindness of Mr. Paul G.

^{*} Deceased.

[†] Appointed to fill vacancy.

Reddington, Dr. Grinnell revised the ranges of the Californian species, Mr. Peters contributed important data gathered in connection with his forthcoming check-list of the birds of the world, Dr. Richmond furnished much invaluable information on dates of publication and references, the result of many years' research in these lines, Mr. Zimmer revised the punctuation and typography and Dr. Palmer checked much of the index and verified many references. All of the Committee rendered important service in reading the proof.

Others who read proof sheets, revised ranges or furnished other aid were Glover M. Allen, R. M. Anderson, Outram Bangs, Charles F. Batchelder, Arthur C. Bent, Louis B. Bishop, Allan Brooks, James P. Chapin, Frank M. Chapman, James H. Fleming, Ludlow Griscom, C. E. Hellmayr, Arthur H. Howell, J. Eugene Law, Harrison F. Lewis, W. L. McAtee, Robert C. Murphey, John T. Nichols, George M. Sutton, Harry S. Swarth, P. A. Taverner, A. J. van Rossem and George Willett. Mr. Batchelder also checked the accents.

As one turns the pages of the 'Check-List' he seems to read, between the lines the whole history of American ornithology. In the names of the birds and the authors appear almost all who have contributed to our science, while the type localities recall the itineraries of the early and later explorers. One sees in the 'Check-List,' too, a sort of epitome of the work of the A. O. U. and cannot but realize its tremendous influence in welding the Union into the coöperative organization that it is today, while it emphasizes that accuracy of detail which has always characterized the development of American ornithology.

Like all of man's creations it has its faults but these should only serve to stimulate future Committees to greater efforts toward perfection.

The writer recently came upon a long forgotten chapter in Bradford Torrey's "Field-Days in California," devoted entirely to the 'A. O. U. Check-List' which is well worth reading and shows what a layman can find in this volume. Although, as a co-author of the work, he may be unduly prejudiced he cannot but agree with the remark with which Mr. Torrey ends his chapter, that "there's a world of good reading in a Check-List." Let us hope that other members of the Union will agree.