

**INTERNATIONAL CODE OF
ZOOLOGICAL NOMENCLATURE**

CODE
INTERNATIONAL
de
NOMENCLATURE
ZOOLOGIQUE
adopté par le
XVe CONGRÈS
INTERNATIONAL
de
ZOOLOGIE

INTERNATIONAL
CODE
of
ZOOLOGICAL
NOMENCLATURE
adopted by the
XV INTERNATIONAL
CONGRESS
of
ZOOLOGY

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PUBLISHED FOR
THE INTERNATIONAL COMMISSION
ON ZOOLOGICAL NOMENCLATURE
BY THE
INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE
LONDON 1961

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PREFACE

"Nomenclature being thought so difficult, its mastery has been the object of comparatively a few." W. Arnold Lewis, 1872

Like all language, zoological nomenclature reflects the history of those who have produced it, and is the result of varying and conflicting practices. Some of our nomenclatural usage has been the result of ignorance, of vanity, obstinate insistence on following individual predilections, much, like that of language in general, of national customs, prides, and prejudices.

Ordinary languages grow spontaneously in innumerable directions; but biological nomenclature has to be an exact tool that will convey a precise meaning to all persons in all generations.

Linnaeus originated our modern concept of biological nomenclature, but in that period there existed no premonition of the millions of substantives and substantive couplets that it would contribute to Neolatin within the two ensuing centuries. Men recognized no compelling principles to guide them in the application of names. Perhaps the earliest difficulties arose from efforts to improve upon names that had already been given, for even acknowledgment of the rights of priority was a principle that was at first bitterly contested or half-heartedly applied.

The British Association for the Advancement of Science perceived that zoologists must control the growth and application of animal nomenclature by a code of laws centrally agreed upon. In 1842 they adopted what has come to be known as the "Stricklandian Code", product of a committee of which such great zoologists as Darwin, Shuckard, Waterhouse, Westwood, and Henslow were members. This was a simple code that laid down only broad principles, and has been the general basis of all subsequent codes. It was widely accepted, translated into French, and an Italian translation was given general approval by the Padua Scientific Congress in 1843.

The present International Code derives its status from enactments of the International Congresses of Zoology, but its real authority lies in the extent to which it interprets and expresses the will of zoologists in whose consciences its enforcement lies.

While based on principles, the Code recognizes none as paramount to its fundamental aim, which is to provide the maximum universality and continuity in zoological nomenclature compatible with freedom in taxonomic practice. It seeks to provide the name which

every zoologist, now and hereafter, under whatever circumstances may be imposed by his personal taxonomic judgment, shall apply to any given taxon. It especially seeks to provide that, under the same circumstances, that name shall remain permanently the same.

The Code refrains from infringing upon taxonomic judgment, which must not be made subject to regulation or restraint. Harmony with taxonomy, however the latter fluctuates, is secured by the device of types: each name is conceived to be based on a type (individual specimen or taxon) which for nomenclatural purposes defines it objectively. Thus the meaning of each name available for a species, whether valid, or a homonym, or a junior synonym, is defined by the characters of an individual specimen—its type, that of a genus by those of its type-species, that of a family by those of its type-genus. From the viewpoint of nomenclature each taxon consists of its type plus all the other individuals, species, or genera that any given taxonomist holds to belong to it. The limits of each are a question of taxonomy, ignored by nomenclature. The latter accepts as objective synonyms only those names that are based on the same type; but it is prepared to accept or to reject subjectively as synonyms names based on other types, in the sense that it provides the proper name for the zoologist to use, whichever taxonomic course his judgment prescribes.

Equally nomenclature does not determine the rank to be accorded to any group of animals, but it does provide the name that shall be applied to whatever rank any taxonomist may wish to assign it.

The failure of the Code to deal with names of higher rank than superfamily or of lower rank than subspecies arises from no failure to recognize the necessity of such names. It exists because the practice of zoologists in regard to them is not sufficiently uniform to permit the formulation of rules covering them at this time.

From these considerations it follows that the complete binominal name of a species can be stabilized only for the type-species of each nominal genus, and then only to the extent that such genus is and continues to be recognized as a valid taxonomic entity. The generic placement of all other specific names is a matter of potentially fluctuating taxonomic judgment.

Scarcely second to the law of priority is that of homonymy: that the same precise name may not continue to be applied to different taxa, for to do so would always be a potential source of misunderstanding.

Conceiving nomenclatural rules as tools useful only to the point where they provide the maximum stability compatible with taxonomic freedom, certain measures have been adopted to prevent them

from becoming tyrannical, and actually destructive of their own usefulness.

An International Code makes all these objectives possible.

* * *

It is doubtful that the zoological public will ever fully comprehend the full extent of the labours of the members of the Editorial Committee in bringing the present revision of the Code to completion. By way of illustration, after the Committee's carefully prepared draft was submitted to the Commission to be voted upon, in June 1960, 262 comments were received from Commissioners. These related to 63 of the 87 articles. Considering these suggestions, the Editorial Committee in turn interchanged 564 individual comments in resolving the questions raised and reaching editorial agreement.

On behalf of the Commission and of all zoologists I formally express our deep gratitude to the Editorial Committee of the Congress, and to its indefatigable Chairman, Commissioner Dr. Norman Rudolph Stoll.

Also I wish to express our gratitude to the International Union of Biological Sciences for the grant that made possible a week-long meeting of the Committee in London, and to the President of the Permanent Committee of the Congresses, Professor Jean G. Baer, who requested that the grant be made and suggested that the meeting be held. Without this meeting no such perfect a document could have been achieved.

Finally, in addition to the words in the Introduction about our former Honorary Secretary, Mr. Francis Hemming, C.M.G., C.B.E., speaking on behalf of the Commission and of all zoologists, it gives me deep pleasure to express our profound gratitude for his long years of arduous service, for his early perception of the need of reforming the Code, and for his wise and persistent measures taken to that end.

J. CHESTER BRADLEY

*President, The International Commission on
Zoological Nomenclature*

INTRODUCTION

What is "The Code"? It is the set of criteria to be met in giving to an animal, or to a taxonomic group of animals, a scientific name, with its proper reference of author and date; and to regulate *inter se* names that have been given in the past.

The assignment of a unique and distinct name in the modern meaning, by which to identify each kind of animal began in 1758. It was in that year the Swedish naturalist Carolus Linnaeus (who was ennobled in 1761 as Carl von Linné) brought out the 10th edition of his *Systema Naturae*. In this he extended as a uniform procedure for animals a system others had used for restricted groups and he had earlier established for plants, namely, to give each species a simplified name consisting of only one word plus the generic name. Thus, the dog became *Canis familiaris*, its generic name showing it had certain readily identifiable characters in common with, for instance, those of the wolf, *Canis lupus*, and the jackal, *Canis aureus*.

The system of using a binominal nomenclature turned out to have great convenience and acceptability, and taxonomy entered a flourishing period. There followed a century of expanding knowledge of an animal kingdom, the richness of which had not been fully realized. To it was added a second century when the more general acquisition of microscopes brought to view the great world of minute animal forms, and, of equal moment, brought to view finer criteria by which to differentiate, divide, and redefine many species already known. Names came into print in a scientific literature not all of which was widely disseminated or accessible, and at times in publications that were obscure or quasi-scientific. Inevitably problems arose as to just what was the correct name to be applied to a given form, especially in large groups. A hint of the widening frontier is the estimate given by Z. P. Metcalf for a group of insects, the Auchenorrhynchos Homoptera, covered by Linnaeus in a single genus containing 42 species, becoming by 1930 about 5000 genera with 30,000 species (*Science*, 1930, 72, 318).

Linnaeus himself never propounded a code of rules for the naming of animals although he had done so for botanical nomenclature. While nomenclature has the simple basic philosophy of priority for the oldest name, acceptable rules for imposing orderliness in zoological nomenclature underwent a long period of development. There were the excellent early codes of Strickland (1842) in Great Britain, and Dall (1877) in America, brought into being by the actions respectively of the British and American Associations for the

Advancement of Science; national codes were adopted by the Société Zoologique de France (1881), and by the Deutsche Zoologische Gesellschaft (1894); the Douvillé code for the naming of fossils was adopted by the International Geological Congress (1881), and the "A.O.U." code for the nomenclature of birds was prepared by the American Ornithologists' Union (1885).

By late in the nineteenth century it was apparent that international rules were needed to provide for an international zoology. The Secretary-General of the First International Congress of Zoology (Paris, 1889), Professor Raphael Blanchard, proposed a set of such rules that he had prepared. Not adopted then, they were adopted after further discussion at the II Congress (Moscow, 1892). At the III Congress (Leyden, 1895) the point was raised that the Paris-Moscow code was essentially a French product, and the proposal was made to appoint an international commission to study all existing rules in order to obtain a really international code. As a result, a commission of five men from as many countries was named to harmonize conflicting points of view. Its report to the IV Congress (Cambridge, England, 1898) failed to receive formal hearing because not unanimous, and was referred back to the Commission for further study; the Commission itself was made a permanent body, and its membership increased to fifteen.

At the V Congress (Berlin, 1901) "the Commission was permitted to present a brief report to the General Session, and the motion prevailed that the Congress approve those portions of the report on which the Commission was unanimous" (C. W. Stiles in *Science*, 1931, 73, 350). This action is regarded as the date of the adoption of the Règles. It was not, however, until after the VI Congress (Berne, 1904) that the "*Règles internationales de la Nomenclature zoologique*" were issued in Paris (1905) in French, with English and German translations, in a volume that contains a valuable historical introduction by Blanchard. The Règles have continued to be the basic code of zoological nomenclature to the present moment.

The *International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology, London, July 1958*, in English and French herewith, constitutes the only complete text officially to supersede the original Règles.

Systematic zoologists have not been without their difficulties in the interval, because of—irregular practice aside—modifications introduced into the application of the rules of nomenclature in the meantime. These have come from essentially two sources: additions and changes in the Règles by the International Congresses of Zoology, and Opinions and Declarations rendered by the International Commission on Zoological Nomenclature.

Amendments and additions to the Règles were made by the VII Congress (Boston, 1907), the VIII Congress (Graz, 1910), the IX Congress (Monaco, 1913), the X Congress (Budapest, 1927), and the XI Congress (Padua, 1930). The foregoing are summarized in *Bull. zool. Nomencl.*, 1958, 14, iii. More comprehensive changes made at the XIII Congress (Paris, 1948) take up all of the *Bulletin*, 1950, 4. Those made at the XIV Congress (Copenhagen, 1953) were separately published as *Copenhagen Decisions on Zoological Nomenclature*. An unofficial but useful summary and index to the decisions of the Paris and Copenhagen Congresses, showing their relationship to the Rules as they existed prior to that date, was prepared by W. I. Follett (1955).

Over the years, the International Commission on Zoological Nomenclature (see this Code, Chapter XVII) has studied numerous cases formally brought to its attention by systematists concerning specific problems related to application of the Règles. The Commission, usually after seeking the advice of interested specialists, has presented its interpretation of these problems by issuance of "Opinions". Occasionally an Opinion had implications beyond the case under study, and in some instances the pertinent clarification of a rule became part of the Opinion.

In the period July 1910 to October 1936 under Charles Wardell Stiles as Secretary of the Commission, there were 133 Opinions issued (Opinions 1-5 ratified at the Boston Congress, 1907, were originally published in *Science*, 1907, 26, 522, and republished July 1910). In the period 1939-48 there were 61 additional Opinions issued under Francis Hemming as Secretary of the Commission, and by May 1958 another 324. Following the Paris Congress the Commission began the issue of Declarations which had the force of amendments to the Code, for aspects of principle as distinct from decisions on specific cases, which had both been contained in Opinions issued before 1948. There were 41 such Declarations up to the time of the London Congress in 1958, of which the first 12 represented republication of resolutions adopted by the Commission in 1913, 1927, 1930, and 1935.

The present overall revisory undertaking of the Règles was authorized and begun at the Paris Congress in 1948 under Mr. Hemming. Interpretations contained in Opinions were incorporated into revised rules, and numerous amendments, additions, and clarifications were adopted. The result was freely debated in the period until the XIV Congress met at Copenhagen in 1953. At that time 51 zoologists from 13 countries participated in a Colloquium, held in the week preceding the Congress, for a thoroughgoing discussion of additions to, and modifications of, the Règles. The XIV Congress in due course approved a recommendation of its Colloquium that to

Professor J. Chester Bradley, President of the International Commission on Zoological Nomenclature, be assigned the task of preparing a tentative draft of a revised code. This draft was to take account of the conclusions reached at Copenhagen, of the amendments at previous Congresses, of the pertinent earlier Opinions, and of the substance of the Declarations.

Professor Bradley's comprehensive annotated draft (which in mimeographed form had benefited by suggestions from a number of zoologists), was published late in 1957 (*Bull. zool. Nomencl.*, 14, 1-285). A French text, based upon the English draft, was prepared by a Committee presided over by Professor Paul Vayssière, under the responsibility of the Société Zoologique de France, and was also published before the London Congress (*ibid.*, 14, 371-634). In the ensuing period before the XV Congress in London, 16-23 July, 1958, this tentative draft had the further benefit of nearly 300 critiques from interested taxonomists on 82 "cases" (made available to the zoological public in the *Bull. zool. Nomencl.*, 15, 1-1260), with some additional comments distributed in mimeographed form at London. There a Colloquium of 209 members from 31 countries convened for a week before the Congress and brought to bear a vigorous and substantive examination of the Bradley draft. Besides 96 members from the United Kingdom there were from 1 to 13 representing each of 29 countries, and 46 from the U.S.A.; among the key participants were 19 of the 25 members of the International Commission on Zoological Nomenclature.

The Colloquium, beginning 9 July 1958, met on seven consecutive days with long sessions and with an average attendance of over 100 members. It was able to consider in detail nearly all of the provisions of the mandatory Code. It decided that titles in the Code should not form part of the substantive text; that the Code should not undertake regulation of the names of taxa in categories above the family-group; that infrasubspecific names be regulated only when they are elevated into the subspecific or higher categories; that "parataxa" be not incorporated into the Code at this time; and, that zoological nomenclature does not apply to the names of hybrids as such.

The present Code reflects these actions.

The work of the Colloquium was notably assisted by the work of a number of Committees and Subcommittees, including that on the preamble (C. L. Hubbs, *La Jolla*; E. Mayr, *Cambridge, U.S.A.*; Ruth Turner, *Cambridge, U.S.A.*); on definitions of the terms "available" and "valid" (H. Boschma, *Leiden*; J. A. Peters, *Providence*; C. W. Wright, *London*); on meaning and use of the term "nominal" (R. A. Crowson, *Glasgow*; I. C. J. Galbraith, *London*;

G. W. Sinclair, *Ottawa*); on family-group names (J. Forest, *Paris*; D. Leston, *London*; R. L. Usinger, *Berkeley*); on infrasubspecific categories (P. A. Orkin, *Aberdeen*; Ethelwynn Trawavas, *London*; D. W. Tucker, *London*); on parataxa (R. C. Moore, *Lawrence, Kansas*; P. Oman, *Washington*; Jean Roger, *Paris*); on Articles 10, 11, and 28 of the Bradley draft (R. Ph. Dollfus, *Paris*; W. D. Hincks, *Manchester*; Myra Keen, *Stanford*; K. H. L. Key, *Canberra*); on neotypes (A. B. Klots, *New York*; D. Leston, *London*; E. G. Munroe, *Ottawa*; P. Viette, *Paris*); on Article 30 of the Bradley draft (H. Boschma, *Leiden*; E. G. Munroe, *Ottawa*; P. Viette, *Paris*); and on glossary (R. Ph. Dollfus, *Paris*; L. B. Holthuis, *Leiden*; E. Mayr, *Cambridge, U.S.A.*; J. A. Peters, *Providence*). These reported either to the Colloquium or to its Co-ordinating Committee (L. R. Cox, *London*; C. Dupuis, *Paris*; C. W. Sabrosky, *Washington*). Ex-officio assisting several of these, especially the last-named, was the Secretary of the Colloquium, R. V. Melville, *London*.

From this week of discussion, with decisions by vote on debated points and on individual provisions, there emerged a modified draft of the Code presented by the Co-ordinating Committee as its Report to the final, 8th, session of the Colloquium on Sunday, 20 July. While the Report was not available in its entirety in mimeographed form at the time, it received thorough discussion, was here and there amended, and approved by the Colloquium. It was then transmitted to and approved by the Commission at a special meeting, and in turn submitted by the Commission to the Section on Nomenclature of the Congress. The Section met on 21 July, under the chairmanship of T. C. S. Morrison-Scott, and with the now complete text before it in mimeographed form, considered and adopted the Report provision by provision with but slight revision, and referred it to the Plenary Session of the Congress. The action of the Congress was to approve the Report, and appoint an Editorial Committee of two French, two British, and two American zoologists, with R. V. Melville as Secretary, to proceed with the final preparation of a definitive text for submission to and ratification by the Commission, after which "The text when approved by the Commission shall be published as the official text of the Code approved by the XVth International Congress of Zoology" (*Proc. XV Congress of Zoology, 1958*).

The Editorial Committee that was appointed consisted of J. Forest (*Paris*) and R. Ph. Dollfus (*Paris*) (the latter in place of P. Vayssi re, who was unable to serve), Commissioner N. D. Riley (*London*) and C. W. Wright (*London*), C. W. Sabrosky (*Washington*), and Commissioner N. R. Stoll (*New York*), Chairman.

From the basic document of the Co-ordinating Committee Report, Mr. Melville and M. Forest produced during the autumn of 1958 a

text of the mandatory Code in English and in French. Similarly they developed the Appendices and Glossary. The former incorporated the Appendices of the Règles, and material from the Bradley draft Articles 10, 11, and 28 which had been the subject of review by a Subcommittee of the Colloquium under Commissioner K. H. L. Key, and the Glossary took into account the Glossary of the Bradley draft and the report of the Subcommittee under Commissioner L. B. Holthuis.

The Melville-Forest draft, with attached explanatory notes and with critiques by Mr. Riley and Mr. Wright, was sent to the American members in January 1959, just six months after the close of the Congress. Mr. Sabrosky and Dr. Stoll undertook a careful study of the draft and its source material. It turned out that the simplest way to consider suggestions arising from this study was to prepare a comparative draft incorporating their ideas. Copies of the Sabrosky-Stoll draft, covering the Code proper with comment, were sent to all members of the Editorial Committee preceding the London meeting of the Committee in May 1959.

It became apparent early that an around-the-table meeting of the Editorial Committee would be valuable. Through the forethought of President Jean G. Baer of the Permanent Committee of the International Congresses of Zoology, who presented the desirability of such a meeting to the International Union of Biological Sciences, a grant of 6000 Swiss francs was made available to help defray travel expenses of the French and American members to a London meeting. This was held daily 18-26 May 1959 in the rooms of the Royal Entomological Society of London, with all members of the Editorial Committee and Mr. Melville in attendance. Working almost literally around the clock, the Committee completed a then-agreed-upon text of the mandatory Code. Several additional days were devoted to a similar result for the Appendices and Glossary, with most of the Committee present.

Close scrutiny of the new text that became available in June, in the perspective of distance following the intensive work in London by the Editorial Committee, brought to the attention of all concerned many items of large and small import requiring further discussion and settlement. About one-third of the paragraphs in the Code, as well as parts of the Appendices and Glossary, became the subjects of re-examination and editorial revision by the Committee subsequent to its London meeting.

Additional clarification, especially in connection with the equivalence of the French and English texts, was assisted through the fortunate presence in the U.S.A. of M. Forest, and his conferences with Mr. Sabrosky and Dr. Stoll. Meetings on two successive week-

ends in early September in Princeton and Washington cleared up a large number of points that had arisen, and these were referred to the other members of the Editorial Committee, and Mr. Melville, for their examination in turn.

It is to be noted that the Editorial Committee functioned with full interchange of views between its members in Paris, London, Washington and New York. The requirement to be met was an acceptable instrument of the magnitude and complexity of a modern Code in its first definitive revision since the Règles adopted at the Berlin Congress, 1901. As an Editorial Committee it was concerned with the form, sequence, and wording of the provisions of the Code—to codify as clearly and briefly as possible the substantive provisions approved by the Congress. Concerning each provision, each clause (frequently down to single words), and their interrelationships with other parts of the Code, there occurred free and frank exchange of ideas before present statements were considered acceptable.

The wording of Article 30 on "Agreement in gender" had the benefit of assistance from Professor L. W. Grensted, Classical Adviser to the Commission. He not only gave valuable advice and co-operation on this provision but elsewhere in the Code and in the Appendices (notably Appendices B, C, and D).

At the end of October 1959, before resigning his post with the Commission, Mr. Melville was enabled to get the material to the printer. Additional items, still under discussion, were caught in galley-proof corrections before the Code, Appendices, and Glossary were circulated to the I.C.Z.N. on 14 June 1960 for vote under the Three Month Rule (*Bull. zool. Nomencl.*, 1959, 17, 65; 1960, 17, 257).

By vote, the Commission agreed that the submitted English and French texts fairly represented the decisions and views of the XV Congress. It also considered 31 specific items presented to it by the Editorial Committee as conflicting, untenable, or undesirable provisions among the decisions of the Congress, with which, as substantive, the Editorial Committee was powerless to deal. The Commission voted upon these for approval or disapproval as individual items, and authorized the Chairman of the Editorial Committee jointly with the Honorary Secretary of the I.C.Z.N. to decide concerning final form of any suggested textual changes, after consultation with members of the Editorial Committee. In the event, Commissioners commented upon a considerable number of points. These were studied in turn by the Editorial Committee, and for the most part found amenable to editorial decision. Three that seemed of sufficient substance to go beyond mere editorial choice were, after agreement by the Editorial Committee, circulated for approval to the I.C.Z.N. on 11 January 1961 to be voted upon under the One

Month Rule. Assimilation of the results of the vote was followed by publication.

In one respect the present Code sets a new standard of international co-operation. For the first time in the biological sciences, the parallel English and French texts "are equivalent in force, meaning and authority" (Art. 85). In many instances, changes to simplify or to make more direct the English wording have followed upon the preparation of the French text. It was frequently found that a direct translation from French into English, or from English into French, could not be made without producing divergence of meaning or of emphasis between the two. The process of arriving at an exact equivalent then required progressive modifications of both texts in order to avoid ambiguity while maintaining original meaning and emphasis.

The requirement of equivalence thus improved the clarity of both texts. Overall it has caused some delay in schedule. Such delay is more than counterbalanced by having at hand twin texts that will make easier the understanding of the real meaning of the provisions of the Code for zoological systematists who have greater familiarity with one of the two languages, and of the obviously increased facility of having two parallel texts available for translation into yet other languages. These portend a wider availability and usefulness of the Code in the zoological world.

No zoologist can have been—as has the writer—close to the actions involved in this revisory undertaking since 1948, have participated in the Colloquia, and in the Commission, and Section meetings of the Congress since then, and been party to the detailed paragraph-by-paragraph study of the provisions of the Code resulting in the text now presented to zoologists, without a feeling almost of awe.

Partly this is due to the degree to which emotion can be stirred up among scientists over essentially objective points. Partly it is due to the degree to which workers in different parts of the broad field of systematic zoology have occasionally tended to hug to their bosoms points of view in nomenclature that those in other taxonomic areas have considered unworkable. Partly it is due to recognition of the degree to which practice in nomenclature differs in different subject materials, as for instance in entomology, ornithology, paleontology, and parasitology. And partly it is due to the degree to which, when representatives of such differing points of view get the opportunity to discuss them together, as at a Colloquium, they can find a basis for resolving them in an essentially scientific spirit. But mostly it is due to the extraordinary complexity of the interrelationships existing between the different parts of a technical code of nomenclature that must serve, on the one hand, to solve problems arising from the less

satisfactory standards of description and publication of an older period, and, on the other, establish simple and clear pathways for the present and future; that must, again simultaneously, satisfy the meticulous standards of the professional taxonomist and act as a guide to the beginner.

It is, of course, too much to hope that the present Code will fulfil all the desiderata. That it will accomplish a vastly great deal is, however, a simple conviction arising from recognition of the unstinted efforts of the great number of people, including the members of the Commission, whom the writer has had the opportunity of watching at work on this task, and to whom zoology now owes so much.

Mention could properly be made by name of the many men and women whose time, energy, and professional points of view have contributed to the success of the present undertaking, as well as to the institutions of which they were members that permitted them the opportunity to do so. Only the Chairman can fully realize, and thus make record of the high sense of responsibility to zoology, the competence, and the diligence of the members of the Editorial Committee itself. Also, in the Chairman's opinion, six individuals to whom the international zoological public owes a special debt for transmuting the Règles into the present form of the Code, deserve to be singled out.

(i) FRANCIS HEMMING: his recognition concerning the Règles adopted in Berlin in 1901 "that although that instrument has rendered inestimable benefit to zoologists and paleontologists, it should now be in need of a thorough overhaul and review" (*Rept. Inte. Geol. Congr.*, 1948) initiated the steps in Paris in 1948 to secure such a result; and his capability and zeal in organizing and conducting the Paris discussions and the Copenhagen Colloquium, and in preparing for the London Colloquium, eventuated in the comprehensive exchange of ideas on zoological nomenclature that brought to culmination an instrument embodying the majority views of interested zoologists throughout the world.

(ii) J. CHESTER BRADLEY: the formidable task assigned to the President of the I.C.Z.N. by the Copenhagen Congress in 1953 "to build up an entirely new text", taking into account all pertinent material bearing on the Code as it then existed, was defined at its inception as requiring "a considerable number of months to the exclusion of all other work"; the scholarly draft that he synthesized from the numerous original sources, formed the indispensable basis for the work of the London Colloquium, whose members so testified at the final session by spontaneously tendering to Professor Bradley a vote of thanks by acclamation.

(iii) RICHARD V. MELVILLE: his development of a draft of Code, Appendices, and Glossary, following the London Congress, produced the necessary new synthesis imposed by the multitudinous decisions of large and small import made by the London Colloquium and Section, for which he had functioned as Secretary; as Secretary also of the Editorial Committee, before and after October 1959, he untiringly, and with proficiency in problems of nomenclature, has assisted in forging the present document, and monitoring it through successive typescripts and into print.

(iv) CURTIS W. SABROSKY: his leadership and energy in discussing questions of nomenclature and in seeking workable comparisons between differing viewpoints, promoted progress in the post-war inter-Congress periods, and at the Colloquia; and his persistent search for precise wording and his skill in co-ordinating interrelationships between the various provisions in the present text, attest his stature as an American student of the Code second only to Professor Bradley.

As a final labour he undertook the indexing of the Code in this book, itself a severe and complicated task.

(v) JACQUES FOREST: without subtracting from credit due the co-operation and assistance of his colleagues, equivalence of the final French text was made a reality by the meticulous and unremitting work of M. Forest; he developed with Mr. Melville in London in the fall of 1958 the initial post-Colloquium draft, and, with Professor Dollfus continued in his responsibility for the French text through to the present final statement. His standard of no compromise except "en français correct" was matched by his logical contributions to good phrasing in English as well, based on a thoroughly grounded competence in nomenclature.

(vi) NORMAN D. RILEY: as Honorary Secretary of the Commission, as member of the International Trust for Zoological Nomenclature (the publishing arm of the Commission), and as one of the Editorial Committee, Mr. Riley has met meticulously a three-fold responsibility in the details concerned with final publication. In this, as in the long period of the work of the Committee, zoologists have benefitted from the extensive editorial and professional experience of his productive career in entomology, during which he has rounded out a neat half-century with the British Museum (Natural History).

But the problem of developing a completely revised text of the Code, it should be added, involved more. Its production required in course the exchange of hundreds of airmail letters, the typing in multiple or mimeographing, and distributing, of seemingly endless pages of memoranda, as well as typescripts of working drafts of Code, Appendices, and Glossary. It will interest zoologists who use these

instruments to know that the contributions made on their behalf in terms of such assistance, plus postage, may be considered to represent the equivalent of a subvention to the Code in the total of several thousands of dollars. Institutions especially to be mentioned in this aspect include Cornell University, Ithaca (for Professor Bradley), the Muséum National d'Histoire Naturelle, Paris (for M. Forest), the British Museum (Natural History), London (for Mr. Riley), the Geology Survey of Great Britain (for Mr. Melville), the U.S. Department of Agriculture (for Mr. Sabrosky), and The Rockefeller Institute, New York (for the Chairman, Editorial Committee).

As it stands, the *International Code of Zoological Nomenclature*, London, 1958, will give zoologists improved means to approach the naming of the several million more animal species on the planet than the present approximately million and a quarter with which taxonomists today deal.

To that end, *Declaration 9* may be paraphrased and the suggestion made that at least every course of lectures in general zoology should contain a reference to the existence of the Code, and that advanced courses in systematic zoology should contain a discussion of the principles and practices of zoological nomenclature.

NORMAN R. STOLL

Chairman, Editorial Committee

*The Rockefeller Institute,
New York 21, New York
16 January 1961*