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Article XVI.— THE TYPES OF THE NORTH AMERICAN GENERA OF BIRDS.

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I. INTRODUCTORY.

Up to within the last year or two there has been very general agreement as to the method of fixing the types of genera in Zoölogy in cases where the founder omitted to specify the type, and the genus originally contained more than one species. This has been a process commonly known as the method of elimination; it has not only been incorporated in all codes of zoölogical nomenclature down to the latest, the International Code of 1905, but has for more than half a century received the sanction of general usage. It is simply the application of the rule of priority to the dismemberment of polytypic genera. All agree that a generic name proposed for a heterogeneous group of species must be conserved for one of its original components. If, in the course of its dismemberment, all of the species have been removed to other genera, either as types of new genera or as congeneric with such types, the name of the original genus is to be restored to the last component of the group which was thus removed. If a part of the original species have been thus taken out and others left, the author who has occasion to revise the genus can select anyone of the remaining species as its type which in his judgment seems best, and such assignment, by the ruling of all codes, is not subject to subsequent modification. In case none of the original species have been removed the first reviser has the right, under the same rules, to designate any of the original species as the type of the genus.

Ordinarily the determination of types by elimination is not difficult; in the case of very large genera, made up of many heterogeneous elements, considerable labor may be involved, as the nomenclatural history of each species must be traced out before the type can be determined. But the difficulties and uncertainty of result have of late been greatly magnified, and to simplify an imaginary difficulty it has recently been proposed that the first species shall be taken as the type in all this class of cases, regardless of consequences,[1] owing to the simplicity of the method and the facility of its application. Yet so evidently disastrous would be its unrestricted application that the advocates of the 'first species rule' urge the removal

[1] *Cf.*, Stone, Witmer, The Relative Merits of the 'Elimination' and 'First Species' Method in fixing the Types of Genera — with Special Reference to Ornithology. Science, N. S., Vol. XXIV, No. 618, November 2, 1906, pp. 560–565.

of all the Linnæan genera from its scope, on the ground that, in ornithology at least, there is practical unanimity of opinion as to what species are to be regarded as their types. In order to test the comparative merits of the two methods — elimination and the first species rule — in respect to the necessary changes involved in their application, the genera of North American birds are here taken for a trial test. Besides this, it has seemed desirable to have a clear statement of how the types of these genera have been determined, since in most cases we have merely the affirmation that a certain species *is* the type of a given genus, without any intimation as to how many species the genus originally contained or how the type was determined.

There are four conditions, any one of which, when present, determines the type of a genus beyond appeal, under current usage:

1. A genus that is monotypic when founded necessarily takes its only species as the type.

2. When the type is designated by its author at the time of founding the genus.

3. When the name of the genus is the same as that of one of its species, or like that of a synonym of one of its species, or is based upon such a name — in other words, by the rule of tautonomy.[1]

4. When some subsequent author has selected one of its species as its type.

The rule of tautonomy is perfectly rational and satisfactory and helps often to decide otherwise complicated cases. Nearly all of the Brissonian genera come within its scope, as do many others that would otherwise give trouble. In fact, it is included in substance in the original B. A. Code, though not given in the form of a canon. It is, however, evident that many authors have heretofore been guided by it in selecting the types of genera.

The second edition of the A. O. U. Check-List of North American Birds and its subsequent Supplements contain 415 genera and subgenera, the types of which, and the manner of their selection, are set forth in the following pages. As will be seen, a surprisingly large number were monotypic when originally founded, many more are determinable by the principle of tautonomy, and a considerable number have had their types designated by the founder of the genus. A large proportion of those containing two or more species have the first species as the type, although, as will be shown later, many were so determined without any conscious adherence to a 'first species' rule. The types of many genera which originally contained more than one species are types by what may be conceded as practically unanimous

[1] This rule has only recently come into use, but has been found to give such satisfactory results that it has been incorporated into the Code of the International Committee on Zoölogical Nomenclature, published in 1905, and has also recently been adopted by the American Ornithologists' Union.

consent, whether they came to be types by the process of elimination or by the designation of a subsequent author.

Before proceeding to the main subject, a few words seem desirable in respect to one or two collateral questions, namely, that submythical personage, the 'first reviser,' and the importance of the continued acceptance of Brissonian genera.

The First Reviser.

In the past much has been said regarding the decisions of a 'first reviser' in fixing the types of genera. Canon XXI of the A. O. U. Code declares: "When no type is clearly indicated, the author who first subdivides a genus may restrict the original name to such part of it as he may judge advisable, and such assignment shall not be subject to subsequent modification." This is in substance the ruling on this point by the B. A. Code, promulgated in 1842, and reiterated in most subsequent codes down to the International Code of 1905. The reasonableness and utility of this provision has rarely been questioned, and it has consequently been almost universally respected for three quarters of a century. It has, however, happened that in the restriction of comprehensive genera one species after another has been taken out, usually by different authors, without any type being designated for the original genus. In other words, the restriction of the original genus to some one or more of its original components has often been a fortuitous or haphazard process, so that the final determination of the type can be made only through the so-called process of elimination. On the other hand, in not a few cases, the founder or some subsequent author has designated a type species for the original genus when removing its noncongeneric components. In this case, such an author is in a true sense the first reviser. The action in such instances is essentially different from the chance method of removing species at random until all may have been removed without any definite restriction of the original genus. The first reviser, in any true sense, is, therefore, the author who first formally and with definite intent designates a type species for a genus originally proposed without specification of a type, provided that he conforms also to the rule that the type must be one of the originally included species.

Before the promulgation of the B. A. Code, various authors had begun to realize the necessity of definitely designated generic types, and not only specified the type species of their own genera when founding them, but also, in many cases, designated types for genera founded by other authors without specification of a type. As this, however, was before the existence of even the earliest of the modern codes, each author was a law unto him-

self in such matters. Hence the process varied from a definite designation of a type to the mention merely of one or more (often several) "typical species," which, in the latter case, were usually non-congeneric from the modern standpoint. Besides this, some authors formerly freely accepted genera from pre-Linnæan authors, as Moehring, Ray, Klein, and Gesner, and also felt under no restriction to confine their selection of types to the original elements of a genus. They placed their own interpretations upon the genera of preceding authors, with sometimes little regard for their original constituency, and selected the types for them entirely from their own sense of their fitness. Their action cannot therefore be considered as final in cases where it contravenes universally accepted modern canons of nomenclature. Among such writers in ornithology are Illiger, Vieillot, Vigors, Swainson, Bonaparte, G. R. Gray, and others. At this period of nomenclatural chaos (1800–1842) authors felt free to cancel genera, even their own as well as those of their predecessors and contemporaries, or to transpose them to wholly different groups from those for which they were originally proposed. Although they were in a literal sense 'first revisers,' their revisions can be accepted only in so far as they conform to modern rules of nomenclature. To illustrate by a specific case, G. R. Gray published a 'List of the Genera of Birds' in 1840, in which, naturally, he listed the genera in accordance with his own ideas of their scope and significance, placing in synonymy, or partial synonymy, such as he considered not entitled to recognition. He claimed to be guided rigidly by the rule of priority, and designated a type for each genus he considered entitled to a place in systematic nomenclature. As, however, he took many generic names from Ray, and utilized also those of Moehring, and attributed many to Brisson which Brisson did not use in a generic sense, and took Linnæan genera founded prior to 1758 from 1735–1746), and changed also such as had been previously used in botany, it is impossible to adopt the 'List' *en bloc* as the work of an authoritative first reviser. Yet it is here that many names proposed by Lesson, Boie, Kaup, and Bonaparte, are given definite standing by having species referred to them or by having their types designated. Thus in dealing with Gray's (1840) 'List of Genera,' it is necessary to treat each case on its merits as tested by modern rules of nomenclature. His pre-Linnæan and wrongly attributed Brissonian names must be rejected, his elimination of names on the basis of prior use in botany ignored, and the necessary rectifications substituted where he designated species as types of genera which were not originally included in them. On the other hand, generic names (as some of Lesson's) proposed under vernacular designations, or first published as *nomina nuda* (as some of Bonaparte's), or without definite designation of type (as many of Lesson's,

Swainson's Bonaparte's, etc.), are here first given definite significance, and here find their first proper introduction into nomenclature, on the basis of the work of a 'first reviser.'

The ideal first reviser is the author who, in revising a heterotypic genus, subdivides it into minor groups (genera or subgenera as the case may be), explicitly designates one of the original species as the type of the restricted original genus, and also gives types for each of its subdivisions. Such revision must not only be respected as permanent, but renders the work of any further revision of the groups in question that may prove necessary free from nomenclatural complications.

Unfortunately such clear-cut methods have been rare in systematic zoölogy, and almost wholly wanting prior to about 1840. Before this period other and looser methods prevailed, and it is unusual to find a first reviser whose work can be taken in the sense of a final decision. Yet where, in restricting groups and in designating types, any work stands the test of rules now practically universally accepted[1] it should be taken as final.

Gray's 1840 'List of Genera of Birds' was the beginning of a new era in the matter of types of genera in ornithology. New editions of this work followed in 1841 and 1842, and a much more important edition appeared in 1855[2] in which many of the faults of the 1840 and earlier editions were eliminated. In this edition, he records all of the generic and subgeneric names previously published, so far as they were known to him (very few were omitted), of which 2403 were formally adopted and a type for each designated. Making allowance for the difference in point of view of 1855 as compared with that of fifty years later, it is surprising to find how large a proportion of his type designations have been respected and have become, what are sometimes termed, 'types by general consent.' In most cases of 'types by general consent' they prove to be the types designated by Gray in 1855, many of them running back to Gray's 'List' of 1840, as will be shown in the following pages.

Brissonian Genera.

A few modern systematists protest against the acceptance of Brisson's genera, but on what seem very inadequate grounds. In the first place, Brisson's genera have received almost universal approval for nearly one

[1] That is, excluding the few temperamental kickers who will ignore any rule that is contrary to their personal tastes or preferences.

[2] Catalogue of the Genera and Subgenera of Birds contained in the British Museum. London: Printed by order of the Trustees, 1855. 12 mo. pp. 192.

hundred and fifty years, and having thus become thoroughly assimilated as a part of the modern nomenclature of both mammals and birds, it seems hardly worth while to attempt to eradicate them at the expense of otherwise needless confusion. His great work on birds, in six large quarto volumes, exceptionally well illustrated for the period of publication, bears date 1760, and thus all appeared only two years after the publication of the 10th edition of Linnæus's 'Systema Naturæ,' which was thus not accessible to Brisson during the preparation of his own work. He cites the earlier editions of Linnæus throughout his six volumes, but only begins to cite the 10th edition in the fifth volume, the others doubtless having already been printed.[1] This was of course too late for Brisson to change radically his system of nomenclature, as his great work was written and partly printed before the inauguration of the binomial system. The chief criticism of Brisson's work is the absence of binomiality in his nomenclature, the reason for which is evident.

As an ornithologist and mammalogist Brisson's knowledge was greatly superior to that of his renowned contemporary, Linnæus, or to that of any other author of his time. His treatment of these classes, particularly of the birds, is by far the most elaborate and thorough of any author of that period. His scheme of classification was original, rigidly systematic, and avoided many of the incongruities of grouping so conspicuous in the 'Systema Naturæ,' which work, in point of classification and nomenclature, is superior to Brisson's only in point of binomiality. As a rule, there is less trouble in identifying Brisson's species than those of Linnæus. Brisson had a clear conception of the generic idea, and in many cases his generic groups are far more natural and better limited than those of Linnæus. As evidence of the excellent character of his work, it may be recalled that the British Association Committee in adopting the twelfth edition of the 'Systema Naturæ' (1766) as the starting point for binomial nomenclature made an exception in favor of Brisson's genera, published in 1760, and they have since, as before, been almost universally accepted.

Brisson's genera have one special feature in their favor, under the rule of tautonomy, inasmuch as the first species almost invariably bears the same name as its genus. It is doubtless owing to the recognition of this, until recently, uncodified principle of tautonomy, that the first species, in the case of Brissonian genera, has been recognized as the type.

Brisson's 'Ornithologie' comprises 112 genera, or nearly twice the number (64) given by Linnæus in 1758. He recognized over 1300 species (1316), besides many varieties. In many cases phases of plumage were

[1] Indeed, Brisson states (Supplément, p. 4) that the 10th edition did not reach him till long after the printing of his own work had begun.

mistaken for distinct species, but in this respect he was a no greater sinner than Linnæus, who did the same thing on much the same scale, or than Gmelin, who in 1788 gave names to nearly all of Brisson's species that had not been previously named, as did also Latham. In separating the birds into nearly twice as many genera as did Linnæus, his groups are to this extent the more natural, and avoid many of the grotesque associations of species adopted by Linnæus.

Some of Brisson's genera are preoccupied by the genera of the 1758 edition of the 'Systema Naturæ'; many others are the same, being the same as the Linnæan genera of 1748; of the large number of additional genera nearly all have been adopted by subsequent authors, and to-day are, in a restricted sense, a part of modern nomenclature. A few of these same groups were renamed by Linnæus in 1766; in fact, nearly all of the new genera added by Linnæus in 1766 are Brisson's, with essentially the same limits.

Unfortunately many of Brisson's species names have been attributed to Brisson as generic names, and much of the criticism of Brisson's generic names is due to this misuse of his nomenclature. If only such names as Brisson himself designated as generic are considered as entitled to such recognition, much of the aversion to Brissonian genera becomes groundless.

II. TYPES OF NORTH AMERICAN BIRD GENERA.

In the following pages the genera and subgenera of the present (second) edition of the A. O. U. Check-List of North American Birds and its several Supplements are taken up in the systematic sequence of the Check-List, for the purpose of showing how the types, as now currently accepted, came to be so recognized. The number of the originally contained species is stated, and generally a list of them is given, and in cases where the type was determined by elimination, an attempt is made to show each step of the process. The original place of publication of each genus has been consulted in each case, with five exceptions, noted by placing the citation in marks of quotation. In nearly all of these five the type is obviously fixed by tautonomy.

It having been stated that in a number of instances the types have been erroneously determined, and that consequently a considerable number of the names for generic groups must be changed; and also that in such a revision practically the same number of changes would be required under the 'first species rule' as under 'elimination,' the results are shown for both methods in all cases where the determination of the type is not pro-

vided for by other rules.[1] Generalizations from the data recorded in this systematic statement are deferred until after the facts are presented, and will constitute the closing section of the paper.

In preparing the present paper on the types of North American bird genera, the work was done *de novo*, without reference to the designation of types in the Check-List. It was thus a surprise, on comparing my work, after it was finished, with the Check-List, to find in how few cases different results were reached. In only four cases, (*Cyclorrhynchus, Phaleris, Procellaria, Ceophlœus*) are the current designations of genera changed, and, the genera affected being mostly monotypic, only four species are involved. In some four or five other instances, the type is changed by the action of the rule of tautonomy, or it falls on a different but strictly congeneric species, so that in no case is a change of nomenclature necessary.

In the course of the work, I naturally made frequent use of G. R. Gray's several 'Catalogues' of genera and subgenera, and finally became impressed with the great frequency with which the types of genera and subgenera as designated by him in 1840 to 1855 are still the currently accepted types. The agreement was of such striking frequency that finally after my manuscript was typewritten and revised for publication, I compared my results with Gray's designations and interpolated, as an afterthought, "type as designated by Gray," on the basis of his 1855 'Catalogue,' as it now appears in the following pages, partly as information of general interest, and partly to show what an influence Gray has evidently had, as a 'first reviser,' in fixing genotypes in ornithology, and partly as an offset to the recent demand that all such work must be ignored in order that free license may be accorded to a proposed 'first species rule.'

Of the genera published prior to 1855, the types, as now recognized, are the same for about 90 per cent. of the genera as those indicated as the types by Gray in 1855; in about half of the remaining cases Gray took as types species not originally included in the genus. The discrepancy in the other cases is due to Gray's point of departure for generic names, since in twenty instances he took genera (in the case of those here alone concerned) from Moehring (1752) or from Linnæus prior to 1758 (1735–1748). It is hence surprising that so small a percentage of difference in type designation results.

It is further of interest to note that Gray consistently employed the principle of tautonomy in designating types. In other cases it was obviously

[1] In this connection it may be explained that 'monotypic,' as used in the following pages, is applied to all genera or subgenera which had, at the time of founding, only one species referred to them, and includes, besides actually monotypic groups, a great many others to which many additional species were later referred.

It should also be here stated that the types of the exotic genera cited in the tables of elimination are taken in large part from such standard authorities as the British Museum 'Catalogue of Birds' and Ridgway's 'Birds of North and Middle America,' but many have been verified by reference to the place of original publication.

his rule to take the first species of a generic or subgeneric group as its type, but he refrained from doing this when the first species had already been made the type of some other genus. In other words, he respected the work of his predecessors and exercised his preference for a first species type only when the field was clear for such choice. In case other species in addition to the first species had also been made types of genera, he selected his type from those remaining.

Three evident facts are to be noted in reference to Gray's work as a reviser: (1) the respect shown by later authors for his designated types; (2) his respect for the work of his predecessors in their work of dismembering heterogeneous genera; and (3) his recognition of tautonomy as a proper guide to an author's intentions in founding genera.

We have here also an obvious explanation of how it happens that the type species by elimination, or by action of the priority rule, is so often the first species. We can also derive, from the foregoing, an object lesson applicable to the present agitation for a rigid first species rule, open only to the exception of Linnæan genera. Where the field is clear, or where no species has been designated as the type, it is perfectly proper, and produces no confusion, to take the first species as the type; where, however, a type other than the first species has been designated as the type and is currently recognized as such, it is not only a needless but ruthless innovation to bring in a new rule — a first species rule or any other — the enforcement of which will necessitate the overturning of long-established and universally accepted names.

Family PODICIPETIDÆ.

Genus **Æchmophorus.**

Æchmophorus COUES, Proc. Acad. Nat. Sci. Phila., April, 1862, 229.
2 species, 1 of doubtful status.
1. *occidentalis.*
2. *clarkii*, probably ♀ of No. 1.

Virtually monotypic, with *Podiceps occidentalis* Lawr. as type by designation.

Genus **Colymbus.**

Colymbus LINNÆUS, Syst. Nat., ed. 10, 1758, 135; part, including 3 of the 4 species. See also *Gavia.*
Colymbus BRISSON. Orn., VI, 1760, 33.

Colymbus Linn. contained 4 species, representing 3 genera and 2 orders, as follows:

1. *arcticus*, a species of *Mergus* Briss. (not Linn. = *Gavia* Forster, 1788).
2. *cristatus*.
3. *auritus*.
4. *podiceps*, type of *Podilymbus* Less. 1831.

Nos. 1 and 4 are noncongeneric with each other and with Nos. 2 and 3 which two are congeneric. No. 3 is the type of subgenus *Dytes* Kaup, 1829, leaving No. 2, *cristatus*, as type of the genus (and subgenus) *Colymbus* Linn. as restricted by Brisson.

Colymbus Brisson contained 11 nominal species, representing 6 valid species, all congeneric from the standpoint of the Check-List, except one, as follows:

1, 2, 4 = *cristatus* Linn.
3, 5, 7 = *auritus* Linn.
6 = *nigricollis* Brehm.
8, 10 = *podiceps* Linn., type of *Podilymbus* Less. 1831.
9 = *fluviatilis* Tunst. = *ruficollis* Pallas.
11 = *dominicus* Linn.[1]

Colymbus Brisson contained only Grebes, including Linnæus's three species and three others. Type, by tautonomy, [*Colymbus*] *colymbus* Brisson, the first species = *Colymbus cristatus* Linn.

With the removal of *podiceps*, the remaining five species are congeneric, on the basis of the Check-List and by general usage, but four of them have been made the types of groups commonly ranked as subgenera, but which Sharpe in his 'Hand-List' (Vol. I, 1899, pp. 113–115) treats as full genera. They became types in the following order:

auritus, type of *Dytes* Kaup, 1829 (p. 41).
nigricollis, type of *Proctopus* Kaup, 1829 (p. 49).
cristatus, type of *Lophiathya* Kaup, 1829 (p. 72); was already type of *Colymbus* Briss. 1760.
fluviatilis, type of *Tachybaptus* Reich. 1849.
dominicus, not separable even subgenerically from *fluviatilis*.

In 1760 Brisson removed the Loons from the genus *Colymbus* to a new genus *Mergus* (preoccupied for a genus of Ducks) and retained the Grebes in *Colymbus*, thus separating for the first time these two widely distinct groups. This distinction was recognized by the subsequent early authors, several new names being proposed successively for the Loons, while the Grebes were retained in *Colymbus*. For the Loons, *Mergus* being untenable, Forster proposed *Gavia* in 1788, Lacépède proposed *Urinator* in 1799, and in 1811 Illiger proposed *Eudytes* as a substitute name for *Urinator*. In 1872, Sundevall, in his 'Tentamen' (p. 138), also employed *Eudytes* for

[1] These identifications of Brisson's species are as given by Ogilvy-Grant in Brit. Mus. Cat. Bds., XXVI, 1898, where each is duly synonymized.

the Loons and *Colymbus* for the Grebes, and treated *Podiceps* Latham as a synonym of the restricted (Brissonian) genus *Colymbus*.[1] Pallas, in 1811 (Zoog. Rosso-As., II), again restricted *Colymbus* to the Grebes, while the Loons formed a section, "*A. Cepphi tetradactyli*," of his genus *Cepphus*.

Certain naturalists, more especially the English, have, however, persistently employed *Colymbus* for the Loons and other names for the Grebes, clearly without good reason, possibly following Latham, who, in 1787, proposed *Podiceps* for the Grebes, and adopted *Colymbus* (Latham, *nec* Linn.) for the Loons. German and Scandinavian ornithologists have commonly employed, down to the year 1906, either *Eudytes* or *Urinator* for the Loons, and *Colymbus* for the Grebes. *Colymbus* auct. plur., down to about 1830 or later, = Grebes.

Subgenus **Dytes**.

Dytes KAUP, Skizz. Entw.-Gesch. u. Nat. Syst. Eur. Thierw.,[2] 1829, 41.
2 nominal species, "*Pod. cornutus et arcticus*" = *Colymbus auritus* Linn.

Monotypic, with *Colymbus auritus* Linn. as type.

Subgenus **Podiceps**.

Podiceps LATHAM, Suppl. Gen. Synop., 1787, 294.
7 species, of which only 4 are valid.

1. *cristatus* Linn., type of *Colymbus* Briss. 1760, and of subgenus *Lophaithya* Kaup, 1829 (p. 72).
2. *urinator* Linn., same as No. 1.
3. *auritus* Linn., type of subgenus *Dytes* Kaup, 1829 (p. 41).
4. *nigricans* Scop., same as No. 3.
5. *ruficollis* = *griseigena* Bodd., type of subgenus *Pedetaithya* Kaup, 1829 (p. 44); strictly congeneric with No. 1.
6. *minutus* = *fluviatilis* Tunst. = *ruficollis* Pall., type of subgenus *Tachybaptus* Reich. 1849.
7. *hebridalis*, same as No. 6.

Type, by elimination, *Podiceps minutus* Lath. (1787) = *Colymbus fluviatilis* Tunstall (1771) = *Colymbus ruficollis* Pallas (1764). As *Podiceps* is untenable for the group so designated in the Check-List, *Tachybaptus* (Reichenbach, 1852, with same type) may be substituted. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 190.)

In the Check-List *Podiceps* was taken from Latham at 1790, instead of from its first place of publication at 1787. In 1790 the genus included 13 species instead of 7 as in 1787, of which 7 are valid. By elimination the

[1] Among other things he says: "Le nom *Colymbus* doit être restitué dans son sens originaire, comme il le fut déjà par Brisson, 1760, et depuis par Illiger, Nitsch, Naumann, Gloger et pl., et les faux Colymbi, de Latham, pourront être nomnés *Eudytes* Ill."— *Sundevall*, Tentamen, 1872, p. LXIV.

[2] This work is often cited as Kaup, 'Natürl. Syst.,' 1829.

type is still *Colymbus minutus* Lath. = *fluviatilis* Tunst., as given in the Check-List.

Latham's "Genus LXXIX, *Podiceps* (*Colymbus* Linn.)" is a substitute name for *Colymbus* Linnæus, and consists of what was left of that group after the Loons were removed from it by *Brisson*. It is therefore an exact synonym of the restricted genus *Colymbus* Brisson of the Check-List. From the modern point of view, Latham had no right to reintroduce, on a later page, the name *Colymbus* ("Genus LXXXVI, *Colymbus*" Latham) as a new genus for the Loons, after making it a synonym of his own genus *Podiceps*, to say nothing of Brisson's having separated the Loons from the Grebes as a distinct genus in 1760, or twenty-seven years before. According to modern usage, in other similar cases, *Podiceps* has no standing, being a pure synonym of an earlier genus.

Genus **Podilymbus**.

Podilymbus LESSON, Traité d'Orn., 1831, 595.

Monotypic, with *Colymbus podiceps* Linn. as type.

Family GAVIIDÆ.

Genus **Gavia**.

Colymbus LINNÆUS, Syst. Nat., ed. 10, 1758, 135; part, 1 only of the 4 species.
Mergus BRISSON, Orn. VI, 1760, 104; preoccupied.
Gavia FORSTER, Enchirid. Hist. Nat., 1788, 38.

Type, as fixed by the A. O. U. Check-List Committee in 1886, *Colymbus imber* Gunn.

Forster's genera in the 'Enchiridion' rest on diagnoses alone, no species being cited as belonging to them. In the case of the Loons and Grebes, the diagnoses place the Grebes in the genus *Colymbus* and the Loons in a new genus *Gavia*, the first tenable generic name for the group (in place of *Mergus* Briss. 1760).

Gavia has been objected to on the ground that no species were referred to it; the diagnosis, however, excludes all species but the Loons, and the several species of Loons are all congeneric. Forster makes three genera for diving birds, one for the Grebes (*Colymbus*), one for the Auks, as then known (*Uria*), and one for the Loons (*Gavia*), the diagnoses of which are unequivocal and definitive, as follows:[1]

"74. *Colymbus*, rostrum subulatum lateribus compressiusculum. Pedes *lobati*, Tibiæ *postice carinato-serratæ*.

[1] In this transcript the contrasting features of the three groups are italicised.

"75. *Uria,* rostrum subulatum, compressum. Pedes *palmati, tridactyli,* tibiis *postice muticis* [truncated or rounded, in contrast with the posteriorly strongly carinate tarsi in the other two groups].

"76. *Gavia,* rostrum subulatum, compressum. Pedes *palmati, tetradactyli.*"

Gavia appears to have been again first used in a generic sense by Goldfuss in 1820 (Handb. der Zool., I, p. 208) for a group of Gulls (*Larus marinus* Linn. and *L. nævius* Linn.) and in this sense is a synonym of the restricted genus *Larus* Linn. In order to provide for the determination of the type in the case of genera resting solely on a diagnosis, the revised (as yet unpublished) A. O. U. Code has a ruling to the effect that the type in such cases is to be determined by applying the usual rules "to the genus as adopted by the first subsequent author who referred species to it," to which evidently should be added: *provided it was not used for species that do not conform to the diagnosis. The name is preoccupied for later use for species which are obviously not pertinent to the original diagnosis.* Thus *Gavia* Goldfuss is a new genus, having nothing whatever to do with *Gavia* Forster, the species referred to it not belonging to even the same order of birds. It is therefore merely a new genus under a preoccupied name.

Family ALCIDÆ.

Genus **Lunda.**

Lunda PALLAS, Zoog. Rosso-As., II, 1811, 363.

3 noncongeneric species.

1. *cirrhata.*
2. *arctica,* type of *Fratercula* Briss. 1760.
3. *psittacula,* type of *Phaleris* Less. 1820, and of *Cyclorrhynchus* Kaup, 1829.

Type, as designated by Gray (1840) and by elimination, *Alca cirrhata* Pallas, 1769, the first species.

Genus **Fratercula.**

Fratercula BRISSON, Orn., VI, 1760, 81.

Monotypic, with [*Fratercula*] *fratercula* Briss. = *Alca arctica* Linn. as type; also tautonymic.

Genus **Cerorhinca.**

Cerorhinca BONAPARTE, Ann. N. Y. Lyc. Nat. Hist., 1828, 427.

Monotypic, with *C. occidentalis* Bonap. = *Alca monocerata* Pall. as type.

Genus **Ptychoramphus.**

Ptychoramphus BRANDT, Bull. Acad. St. Pétersb., II, 1837, 347.

Monotypic, with *Uria aleutica* Pall. as type.

Genus **Cyclorrhynchus.**

Cyclorrhynchus KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829. 155, 195.

Monotypic, with *Alca psittacula* Pall. as type.

Consequently *Cyclorrhynchus* is a synonym of *Phaleris* Temm., 1820, q. v.

Genus **Simorhynchus.**

Simorhynchus MERREM, Ersch. and Gruber's Encycl., Section I, Vol. II, 1819, 405.
2 noncongeneric species.

1. *cristatus.*
2. *psittacula,* type of *Phaleris* Temm. 1820.

Type, as designated by Gray (1855) and by elimination, *Simorhynchus cristatus* = *Alca cristatella* Pall. It is hence a synonym of "*Æthia* ou *Æthya* Dumont," 1816 (Dict. des Sci. nat., I, 1816, suppl., 71), based exclusively on the same two species (*Cf.* Stone, Auk, XXIV, April, 1907, p. 190). *Æthia* will thus replace *Simorhynchus* in the Check-List.

Subgenus **Phaleris.**

Phaleris TEMMINCK, Man. Orn., I, 1820, p. cxii.

"Esp. (*Alca psittacula* adulte, et *tetracula,* jeune) — (*Cristatella* adulte, et *pygmea,* jeune), les deux espèces connues du genre." Hence:

1. *psittacula* + *tetracula* juv. = *Alca psittacula* Pall.
2. *cristatella*? = *cristatella* Pallas, type of *Æthia* Dumont, 1816, and of *Simorhynchus* Merrem, 1819.
3. *pygmea*? = *Alca pygmæa* Gmel., congeneric with No. 2.

Type, as designated by Gray (1840) and by elimination, *Alca psittacula* Pallas, the first species. (Not *Alca pygmæa* Gmel., as given in the A. O. U. Check-List, which species requires a new generic name, which is supplied by Mr. Stone as *Alcella.* (*Cf.* Stone, Auk, XXIV, April, 1907, p. 197).

Subgenus **Ciceronia.**

Ciceronia REICHENBACH, Syst. Av., 1852, p. iii.

Monotypic, with *Phaleris nodirostris* Bonap. = *Uria pusilla* Pall. as type.

Genus **Synthlyboramphus.**

Synthlyboramphus BRANDT, Bull. Acad. St. Pétersb., II, 1837, 347.
2 congeneric species.

1. *antiquus.*
2. *temminckii* = *Uria wumizusume* Temm.

Type, as designated by Gray (1840) and by general consent, *Alca antiqua* Gmel., the first species.

Genus **Brachyramphus.**

Brachyramphus BRANDT, Bull. Acad. St. Pétersb., II, 1837, 346.
4 species, representing two modern genera.

1. *marmoratus.*
2. *wrangeli*, same as No. 1.
3. *brachyptera* = *Alca antiqua* Gmel., a species of *Simorhynchus* Brandt, described one page later in same paper.
4. *kittlitzii* = *brevirostris* Vigors, 1828, congeneric with No. 1.

Type, as designated by Gray (1840) and by general consent, *Colymbus marmoratus* Gmel., the first species.

Genus **Cepphus.**

Cepphus PALLAS, Spic. Zool., V, 1769, 33.

Monotypic, with *Cepphus lacteolus* Pall. sp. nov. = *Alca grylle* Linn. 1766, as type.

Genus **Uria.**

Uria BRISSON, Orn., VI, 1760, 70.

Type, by tautonomy, [*Uria*] *uria* Briss. = *Colymbus troile* Linn., the first species.

Genus **Alca.**

Alca LINNÆUS, Syst. Nat., ed. 10, I, 1758, 130.
6 species, representing 4 modern genera.

1. *torda.*
2. *impennis*, type of *Plautus* Brünn. 1772.
3. *arctica*, type of *Fratercula* Briss. 1760.
4. *lomvia*, a species of *Uria* Briss. 1760.
5. *grylle*, a species of *Uria* Briss. 1760.
6. *alle*, type of *Alle* Link, 1806.

Type, by elimination, *Alca torda* Linn., the first species.

Genus **Plautus.**

Plautus BRÜNNICH, Zool. Fund., 1772, 78.

Monotypic, with the Brillefuglen = *Alca impennis* Linn. as type. *Plautus* is based on an unmistakable diagnosis, with the addition, in the Danish translation on the opposite page, of the Danish vernacular name for the Garefowl or Great Auk.

Genus **Alle.**

"*Alle* LINK, Beschr. Nat. Samml. Univ. Rostock, I, 1806, 17." [Not seen.]

Type, by tautonomy, *Alca alle* Linn.

Family STERCORARIIDÆ.

Genus **Megalestris.**

Megalestris BONAPARTE, Cat. Coll. Parzudarki, 1856, 11.

Monotypic, with *Megalestris catarrhactes* = *Catharacta skua* Brünn. as type.

Genus **Stercorarius.**

Stercorarius BRISSON, Orn. VI, 1760, 149.

Type, by tautonomy, [*Stercorarius*] *stercorarius* Briss. = *Larus parasiticus* Linn. The group (3 species) consisted only of the Jaeger Gulls.

Family LARIDÆ.

Genus **Pagophila.**

Pagophila KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 69, 196.

Monotypic, with *Larus eburneus* Phipps = *L. albus* Gunn. as type. Replaces *Gavia* Boie, 1822 (twice preoccupied), formerly employed in the Check-List.

Genus **Rissa.**

Rissa STEPHENS, Gen. Zool., XIII, i, 1825, 180.

Monotypic, with *Rissa brunnichii* = *Larus tridactylus* Linn. 1758 (= *L. rissa* et *tridactylus* Linn. 1766) as type; also autonymic.

Genus **Larus.**

Larus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 136.

6 species, representing 3 (or 4) modern genera.

1. *tridactylus*, type of *Rissa* Stephens, 1825.
2. *canus*.
3. *marinus*, type of *Gavia* Goldfuss, 1820, of *Leucus* Kaup, 1829, and of *Dominicanus* Bruch, 1853.
4. *fuscus*, type of *Clupeilarus* Bonap. 1857.
5. *atricilla*, type of *Chroicocephalus* Eyton, 1837, and of some half-dozen other later "genera" or subgenera.
6. *parasiticus*, type of *Stercorarius* Briss. 1760.

Type, as designated by Gray (1855), by elimination, and by general consent, *Larus canus* Linn., the second species.

Some 25 to 30 or more generic or subgeneric names have been based on species now currently referred to *Larus*; *canus* is the only one of the original six species that has not been made the basis of a generic or a subgeneric name, some of them several times. Species 2, 3, 4, and 5 are currently treated as congeneric; 3 and 4 (congeneric with 2) having been

made types (as also has the later described and strictly congeneric *L. argentatus* Brünn.), should take out *canus* with them. So that, strictly considered nothing has been left in the original genus *Larus*. The fact remains, however, that all of these 30 or more genera are now currently treated as synonyms of *Larus*, which would leave *canus* available as the type of *Larus*, as commonly recognized.

Genus **Rhodostethia**.

Rhodostethia MACGILLIVRAY, Man. Brit. Orn., II, 1842, 252.

Monotypic, with *Larus rosea* Macgill. as type.

Genus **Xema**.

Xema LEACH, Ross's First Voy. Disc., App., 1819, p. lvii.

Monotypic, with *Larus sabinii* Leach as type.

Genus **Creagrus**.

Creagrus BONAPARTE, Naumannia, 1854, 211, 214.

Monotypic, and type designated (p. 214) as "*fuscatus* [sic] Neboux, nec Lesson" = *Larus furcatus* Neboux.

Genus **Gelochelidon**.

Gelochelidon BREHM, Isis, 1830, 994.
3 nominal species, = 1 valid species.

1. *G. balthica* Brehm = *Sterna nilotica* Hasselq. 1762 = *Sterna anglica* Montag. 1813.
2. *G. agraria* Brehm, same as No. 1.
3. *G. meridionalis* Brehm, same as No. 1.

Monotypic, with *Gelochelidon balthica* Brehm = *Sterna nilotica* Hasselq. as type.

Genus **Thalasseus**.

Thalasseus BOIE, Isis, 1822, 563.
3 noncongeneric species.

1. *caspia*.
2. *cantiaca*, type of *Actochelidon* Kaup, 1829.
2. *anglica*, type of *Gelochelidon* Brehm, 1830.

Type, as designated by Gray (1840) and by elimination, *Sterna caspia* Pall., the first species.

Genus **Actochelidon**.

Actochelidon Kaup, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 31.

Monotypic, with *Sterna cantiaca* Gmelin as type.

Genus **Sterna**.

Sterna LINNÆUS, Syst. Nat., ed. 10, I, 1758, 137.
3 noncongeneric species.
1. *stolida*, type of *Anous* Stephens, 1826.
2. *hirundo*.
3. *nigra*, type of *Hydrochelidon* Boie, 1822.

Type, by elimination, *Sterna hirundo* Linn., the second species, as designated by Gray (1840) and as since commonly recognized.

Subgenus **Sternula**.

Sternula BOIE, Isis, 1822, 563.

Monotypic, with *Sterna minuta* Linn. as type.

Genus **Onychoprion**.

Onychoprion WAGLER, Isis, 1832, 277.

Monotypic, with *Sterna serrata* Wagler = *Sterna fuliginosa* Gmel. as type.

Haliplana Wagler, Isis, 1832, 1224, is a synonym, being monotypic, with *Haliplana fuliginosa* (= *Sterna fuliginosa* Gmel.) as type.

Genus **Hydrochelidon**.

Hydrochelidon BOIE, Isis, 1822, 563.
2 congeneric species.
1. *nigra*; 2, *leucoptera*.

Type, *Sterna nigra* Linn., the first species, as designated by Gray (1855) and by general consent.

Genus **Anous**.

Anous STEPHENS, Gen. Zool., XIII, i, 1826, 139.
4 nominal species, two of them phases of plumage of the same species.
1. *niger* = *Sterna stolida* Linn.
2. *fuscatus* = *Sterna fuscata* Linn. = *stolida* Linn.
3. *plumbea* Wils. a species of *Hydrochelidon* Boie, 1822.
4. ?*spadicea*, based on a young bird of doubtful identity.

Type, as designated by Gray (1840) and by elimination, *Anous niger* = *Sterna stolida* Linn., the first species.

Family RHYNCHOPIDÆ.

Genus **Rhynchops**.

Rhynchops LINNÆUS, Syst. Nat., ed. 10, I, 1758, 138.
2 species, *nigra* and *fulva*, the latter not identifiable but supposed to be the same as *nigra*.

Type, *R. nigra* Linn. Virtually monotypic.

Family DIOMEDEIDÆ.

Genus **Diomedea.**

Diomedea LINNÆUS, Syst. Nat., ed. 10, I, 1758, 132.
2 species, belonging to different orders.
1. *exulans.*
2. *demersus*, type of *Spheniscus* Briss. 1760.

Type, as designated by Gray (1840) and by elimination, *Diomedea exulans* Linn., the first species.

Genus **Thalassogeron.**

Thalassogeron RIDGWAY, Bd., Br. and Ridgw., Water Birds N. Am., II, 1884, 357.

Monotypic, with *Diomedea culminata* Gould as type by designation; to replace *Thalassarche* Reich. 1852 (preoccupied), with same type.

Genus **Phœbetria.**

Phœbetria REICHENBACH, Syst. Av., 1852, p. v.

Monotypic, with *Diomedea fuliginosa* Gmel. as type.

Family PROCELLARIIDÆ.

Genus **Ossifraga.**

Ossifraga HOMBRON & JACQUINOT, Comp. Rend., XVIII, 1844, 356.

Monotypic, with *Procellaria gigantea* Gmel. as type by designation.

Preoccupied by *Ossifraga* Wood, 1835, and to be replaced by *Macronectes* Richmond, 1905. (*Cf.* Richmond, Proc. Biol. Soc. Wash., XVIII, 1905, p. 76.)

Genus **Daption.**

Daption STEPHENS, Gen. Zool., XIII, i, 1825, 239.
8 species, representing 7 modern genera.
1. *capensis.*
2. *antarcticum*, type of *Thalassœca* Reich. 1852.
3. *niveum*, type of *Pagodroma* Bonap. 1855.
4. *desolatum*, type of *Pseudoprion* Coues, 1866.
5. *gelidum*, not certainly identifiable.
6. *griseum*, a species of *Puffinus* Briss. 1760.
7. *album*, a species of *Æstrelata* Bonap. 1855.
8. *fuliginosum*, a species of *Oceanodroma* Reich. 1852.

Type, as designated by Gray (1840) and by elimination, *Procellaria capensis* Linn., the first species.

Genus **Fulmarus.**

Fulmarus STEPHENS, Gen. Zool., XIII, i, 1826, 233.

3 species, representing 3 genera.

1. *glacialis.*
2. *antarcticus,* type of *Thalassœca* Reich. 1852.
3. *giganteus,* type of *Ossifraga* Hombr. & Jacq. 1844.

Type, as designated by Gray (1855) and by elimination, *Procellaria glacialis* Linn., the first species.

Genus **Priocella.**

Priocella HOMBRON & JACQUINOT, Comp. Rend., XVIII, 1844, 357.

Monotypic, with *Priocella garnotii* sp. nov. as type = *Procellaria glacialoides* Smith.

Genus **Puffinus.**

Puffinus BRISSON, Orn., VI, 1760, 131.

Type, by tautonomy, [*Puffinus*] *puffinus* Briss. = *Procellaria puffinus* Brünn. 1764, and Linn. 1766 = *Procellaria* (*Nectris*) *anglorum* Kuhl, 1820, and of recent authors.

Genus **Priofinus.**

Priofinus HOMBRON & JACQUINOT, Comp. Rend., XVIII, 1844, 355.

2 noncongeneric species.

1. *cinerea.*
2. *œquinoctialis,* type of *Majaqueus* Reich. 1852.

Type, as designated by Gray (1855) and by elimination, *Procellaria cinerea* Gmel. the first species.

Genus **Æstrelata.**

Æstrelata BONAPARTE, Consp. Av., 1856, 188.

4 congeneric species.

1. *diabolica* (l'Herm.) = *hasitata* Kuhl.
2. *desolata* (Gm.), a species of *Prion* Lacép. 1799.
3. *inexpectata* (Forst.), congeneric with No. 1.
4. *leucocephala* (Forst.) = *lessoni* Garnot, congeneric with No. 1.

Type, as designated by Coues (1866) and by general consent, *Procellaria hasitata* Kuhl, the first species.

Genus **Bulweria.**

Bulweria BONAPARTE, Cat. Metod. Ucc. Eur., 1842, 81.

Monotypic, with *Procellaria bulweri* Jard. & Selby as type; hence also tautonymic.

Genus **Halocyptena.**

Halocyptena COUES, Proc. Acad. Nat. Sci. Phila., March, 1864, 78.

Monotypic, with *Halocyptena microsoma* Coues, sp. nov. as type.

Genus **Procellaria.**

Procellaria LINNÆUS, Syst. Nat., ed. 10, I, 1758, 131.
3 species, representing 3 genera.
1. *pelagica*, type of *Thalassidroma* Vigors, 1825.
2. *æquinoctialis*, type of *Majaqueus* Reich. 1852.
3. *capensis*, type of *Daption* Steph. 1826.

Type, as designated by Gray (1840, not 1855) and by elimination, *Procellaria æquinoctialis* Linn., the second species; not *P. pelagica* Linn. as given in the Check-List.

Thalassidroma (monotypic) will thus replace *Procellaria* of the Check-List, and *Procellaria will replace Majaqueus.*

Genus **Oceanodroma.**

Oceanodroma REICHENBACH, Syst. Av., 1852, p. iv.

Monotypic, with *Procellaria furcata* Gmel. as type.

Genus **Oceanites.**

Oceanites KEYSERLING & BLASIUS, Wirb. Eur., I, 1840, xciii, 131, 238.

Type, by tautonomy, "*O. wilsoni* Bonap." = *Procellaria oceanica* Kuhl.

Genus **Fregetta.**

Fregetta BONAPARTE, Compt. Rend., XLI, 1855, 1113.

Type, by designation, *Thalassidroma leucogastra* Gould = *Procellaria grallaria* Vieill.

Genus **Pelagodroma.**

Pelagodroma REICHENBACH, Syst. Av., 1852, p. iv.

Monotypic, with *Procellaria marina* "Forst." (= Lath.) as type.

Family PHAËTHONTIDÆ.

Genus **Phaëthon.**

Phaëthon LINNÆUS, Syst. Nat., ed. 10, I, 1758, 134.
2 species, belonging to two widely different orders.
1. *æthereus.*
2. *demersus*, type of *Catarractes* Briss. 1760.

Type, as designated by Gray (1840) and by elimination, *Phaëthon æthereus* Linn.

Family SULIDÆ.

Genus **Sula.**

Sula BRISSON, Orn. VI, 1760, 495.
7 species (only 4 of them valid), representing 2 modern genera (*Sula* and *Fregata*).

Type, by tautonomy, [*Sula*] *sula* Briss. = *Pelecanus sula* Linn., the first species.

Subgenus **Dysporus.**

Dysporus ILLIGER, Prodr., 1811, 279.
2 congeneric species, representing two modern subgenera.
1. *Pelecanus sula* Linn., type of *Sula* Briss. 1760.
2. *Pelecanus bassanus* Linn.

Type, by elimination, *Pelecanus bassanus* Linn.

By the first species rule *Dysporus* is a synonym of *Sula*, having the same first species. If necessary to separate *Pelecanus bassanus* from the *P. sula* group, respecting which usage differs, *Dysporus* is tenable, under elimination, as a subgeneric name for *P. bassanus*. *Morus* Vieill. 1816, recently brought forward to replace *Dysporus* (*cf.* Stone, Auk, XXIV, April, 1907, p. 194), is purely a substitute name for *Sula*, as shown by Vieillot's use of it a few months later in another connection (Nouv. Dict. d'Hist. Nat., nouv. éd., XII, 1817, pp. 35–41), where he included under it all the Gannets then known.

Family ANHINGIDÆ.

Genus **Anhinga.**

Anhinga BRISSON, Orn., VI, 1760, 476.

Monotypic, with [*Anhinga*] *anhinga* Briss. (ex *Anhinga* Marcgrave) = *Plotus anhinga* Linn. as type; also tautonymic.

Family PHALACROCORACIDÆ.

Genus **Phalacrocorax.**

Phalacrocorax BRISSON, Orn., VI, 1760, 511.
2 congeneric species.

Type, by tautonomy, [*Phalacrocorax*] *phalacrocorax* Briss. = *Pelecanus carbo* Linn.

Subgenus **Compsohalieus.**

Compsohalieus RIDGWAY, Bd., Br. & Ridgw., Water Bds. N. Am., II, 1884, 145.

Monotypic, with *Carbo penicillatus* Brandt as type.

Subgenus **Urile.**

Urile BONAPARTE, Consp. Av., II, 1855, 175.
3 species, 2 noncongeneric, 1 not identifiable.
1. *bicristatus.*
2. *penicillatus*, type of *Compsohalieus* Ridgw. 1884.
3. *egretta*, not identifiable.

Type, by elimination, *Phalacrocorax bicristatus* Pall. = *Pelecanus urile* Gmel. (part); also tautonymic.

Family PELECANIDÆ.

Genus **Pelecanus.**

Pelecanus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 132.

5 species, representing 4 modern genera.

1. *onocrotalus*, type of *Onocrotalus* Brisson, 1760.
2. *aquila*, type of *Fregata* Cuv. 1799.
3. *carbo*, type of *Phalacrocorax* Briss. 1760.
4. *bassanus*, a species of *Sula* Briss. 1760, and type (by elimination) of subgenus *Dysporus* Ill. 1811.
5. *piscator*, a species of *Sula* Briss. 1760, and type of *Piscatrix* Reich. 1850.

Pelecanus of Linnæus comprised four distinct groups: (1) Pelicans; (2) Frigate Birds; (3) Cormorants; (4) Gannets. Brisson gave generic names to three of them, in the following order: (1) *Sula*, in which was included the Frigate Bird under the name [*Sula*] *fregata*; (2) *Phalacrocorax*, for the Cormorants; (3) *Onocrotalus*, for the Pelicans. *Onocrotalus*, being the last of the three groups in the order of treatment, may be construed as a synonym of *Pelecanus* Linn. the type of which is obviously the only species given by Linnæus of the modern genus *Pelecanus*, namely, *Pelecanus onocrotalus* Linn., as designated by Gray (1840–1855). Otherwise the type of *Pelecanus* would be *P. aquila*, as *Fregata* is tenable as a generic name only from Cuvier (or Lacépède), 1799.

Subgenus **Cyrtopelicanus.**

Cyrtopelicanus REICHENBACH, Syst. Av., 1852, p. vii.

Monotypic, with *Pelecanus trachyrhynchus* Lath. = *P. erythrorhynchus* Gmel. as type.

Subgenus **Leptopelicanus.**

Leptopelicanus REICHENBACH, Syst. Av., 1852, p. vii.

Monotypic, with *Pelecanus fuscus* Gmel. = *P. onocrotalus β occidentalis* Linn. as type.

Family FREGATIDÆ.

Genus **Fregata.**

Fregata CUVIER, Leç. d' Anat. Comp., I, 1799, tab. ii.

Monotypic, with the "Frégate" = *Pelecanus aquilus* Linn. as type.

In the second edition of the A. O. U. Check-List the genus is wrongly taken from Brisson who did not use it in a generic sense, but only as a species name for species 6 of his genus *Sula* namely [*Sula*] *fregata*. The genus was properly accredited to Cuvier in the first edition of the Check-List. *Fregata* has the same basis from Lacépède (1799) and Duméril (1806).

Family ANATIDÆ.

Genus **Merganser**.

Merganser BRISSON, Orn. VI, 1760, 230.

An exact synonym of *Mergus* Linn. 1758, containing the same four species and nothing else.

Genus **Lophodytes**.

Lophodytes REICHENBACH, Syst. Av., 1852, p. ix.

Monotypic, with *Mergus cucullatus* Linn. as type.

Genus **Mergus**.

Mergus LINNÆUS, Syst. Nat., ed. 10, 1758, 129.

5 species, representing 3 modern genera.

1. *cucullatus*, type of *Lophodytes* Reich. 1852.
2. *merganser*, congeneric with No. 3.
3. *serrator*, type of *Serrator* Sprüngli, 1784 (*cf.* Richmond, *l. c.*).
4. *albellus*, type of *Mergellus* Selby, 1840.
5. *minutus*, the same as No. 4.

Type, by virtual tautonomy, *Mergus merganser* Linn., the second species. Dr. Richmond has proposed (Proc. U. S. Nat. Mus., XXIV, 1902, p. 715) to replace *Mergus* Linn. with *Serrator* Sprüngli, 1784. The name *merganser* (= *mergus* + *anser*) is sufficiently tautonymic to warrant taking this species as the type of *Mergus*, thus avoiding otherwise necessary changes. Both by elimination and the first species rule *cucullatus* would be the type.

Genus **Anas**.

Anas LINNÆUS, Syst. Nat., ed. 10, 1758, 122.

39 species (of which 7 are invalid), representing about 25 modern genera.

1. *cygnus*, type of *Cygnus* Bechst. 1803.
2. *cygnoides*, type of *Cygnopsis* Brandt, 1836.
3. *tadorna*, type of *Tadorna* Flem. 1822.
4. *spectabilis*, often considered congeneric with No. 12, type of subgenus *Erionetta* Coues, 1884.
5. *fusca*, type of subgenus *Melanitta* Boie, 1822.
6. *nigra*, type of *Oidemia* Fleming, 1822.
7. *anser*, type of *Anser* Briss. 1760.
8. *erythropus*, a species of *Anser* Briss. 1760.
9. *canadensis*, congeneric with No. 11.
10. *cærulescens*, a species of *Chen* Boie, 1822.
11. *bernicla*, type of *Branta* Scop. 1769.
12. *mollissima*, type of *Somateria* Leach, 1819.
13. *moschata*, type of *Cairina* Flem. 1822.
14. *bahamensis*, type of *Pœcilonetta* Eyton, 1838.
15. *albeola*, type of *Bucephala* Baird, 1858 (preoccupied) = *Charitonetta* Stejn. 1885.

16. *clypeata*, type of *Spatula* Boie, 1822.
17. *platyrhynchos*, same as No. 16.
18. *strepera*, type of *Chaulelasmus* Bonap. 1838.
19. *bucephala*, same as No. 15, ♂.
20. *clangula*, type of *Clangula* Oken, 1817 (*cf.* Stone, Auk, 1907, p. 191).
21. *rustica*, same as No. 15, ♀.
22. *perspicillata*, type of *Pelionetta* Kaup, 1829.
23. *glaucion*, same as No. 20, ♀.
24. *penelope*, type of *Penelope* Steph. 1824.
25. *acuta*, type of *Dafila* Steph. 1824.
26. *hyemalis*, type of *Harelda* Steph. 1824.
27. *ferina*, a species of *Nyroca* Flem. 1822.
28. *querquedula*, type of *Querquedula* Steph. 1824.
29. *crecca*, type of *Nettion* Kaup, 1829.
30. *histrionica*, type of *Histrionicus* Less. 1828.
31. *minuta*, same as No. 30.
32. *circia*, same as No. 28.
33. *autumnalis*, a species of *Dendrocygna* Swains. 1837.
34. *boschas*, type of *Boschas* Swains. 1831.
35. *adunca*, same as No. 34, domesticated.
36. *galericulata*, type of *Dendronessa* Swains. 1831.
37. *sponsa*, type of *Aix* Boie, 1828.
38. *arborea*, a species of *Dendrocygna* Swains. 1837.
39. *fuligula*, type of *Fuligula* Steph. 1824 = *Marila* Oken, 1817 (apud Stone, *l. c.*).

Type, as designated by Gray (1840) and also by general consent for nearly a century, *Anas boschas* Linn., the thirty-fourth species.

The genus *Anas* Linn. 1758, affords an excellent illustration of the difficulties that may sometimes arise in determining types by the so-called elimination method where a genus originally contained a large number of species. *Anas* had originally 39 species, of which 7 were duplications, leaving 32 actual species, every one of which, in the course of the next hundred years, became the type of or congeneric with the type of some other genus or subgenus, or in some cases of more than one. In 1831, Swainson (Faun. Bor.-Am., II, 1831, pp. 442–444) proposed a "subgenus" *Boschas* for a group of heterogeneous species, including *Anas domestica* (= *boschas* Linn.), which, by the rule of tautonomy, would be the type; at the same time (p. 439) Swainson restricted *Anas* Linn. to *Anas clypeata*, already the type of *Spatula* Boie, 1822. Subsequently four now currently recognized genera, and a number of subgenera, were based on other species of the original genus *Anas* remaining in it after *Anas boschas* was removed. To take either of these as type would transfer *Anas* to most unfamiliar and unwelcome associations, inasmuch as *Anas boschas* and its immediate affines have been for nearly a century considered by ornithologists in general as constituting the restricted genus *Anas*. Repeatedly, prior to 1831,

boschas was definitively assigned as the type of *Anas*, a fact that must be considered in dealing with Swainson's subgenus *Boschas*. In other words, it is proper to consider *Boschas* as a pure synonym of the restricted genus *Anas*, thus freeing the case of complications.

(By the first species rule the type of *Anas* would be *Anas cygnus* Linn., the Common Swan.)

Genus **Chaulelasmus**.

Chaulelasmus BONAPARTE, Geogr. and Comp. List, 1838, 56.

Monotypic, with *Anas strepera* Linn. as type. To replace *Chauliodus* Swains., 1831, preoccupied, with same type.

Genus **Mareca**.

Mareca STEPHENS, Gen. Zool., XII, ii, 1824, 130.

8 species, representing 4 modern genera.

1. *fistularis* = *Anas penelope* Linn.
2. *melanura*, of doubtful identification; commonly referred, with a ?, to No. 1.
3. *pœcilorhyncha*, a species of *Anas, sens. stric.*
4. *americana*, congeneric with No. 1.
5. *bahamensis*, type of *Pœcilonetta* Eyton, 1838.
6. *brasiliensis*, a species of *Nettion* Kaup, 1829.
7. *capensis*, a species of *Nettion* Kaup, 1829.
8. *glocitans*, a hybrid, probably of Widgeon and Teal.

Type, as designated by Gray (1840) and by elimination, *Mareca fistularis* Steph. = *Anas penelope* Linn., the first species; also figured as the typical representative of the genus.

Genus **Nettion**.

Nettion KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 95, 196.

Monotypic, with *Anas crecca* Linn. as type.

Genus **Querquedula**.

Querquedula STEPHENS, Gen. Zool., XII, ii, 1824, 142.

8 species (3 of doubtful identification), representing 2 or 3 modern genera.

1. *circia* (Linn. 1758, No. 28 = *Anas querquedula* Linn. 1758, No. 32).
2. *crecca*, type of *Nettion* Kaup, 1829.
3. *carolinensis*, a species of *Nettion* Kaup, 1829.
4. *discors*, congeneric with No. 1.
5. *formosa*, a species of *Nettion* Kaup, 1829.
6. *hina*, indeterminable; variously identified.
7. *manillensis*, doubtfully referred by Salvadori (Cat. Bds. Brit. Mus., XXVII, 1895, 147) to *Dendrocygna viduata* (Linn.).
8. *novæ-hispaniæ*, doubtfully referred to No. 4.

Type, by elimination, *Anas circia* Linn., which is figured as the typical representative of the genus; also type by tautonomy.

According to Mr. Stone (Auk, XXIV, April, 1907, p. 191), *Querquedula* will date from S. G. Gmelin, 1770 (Reise durch Russland, I, 1770, p. 70), with the same type. An examination of Gmelin's work shows that *Querquedula* is not used by Gmelin in either a taxonomic or in a proper nomenclatural sense. "Querquedula prima" and "Querquedula secunda" are simply Willughby's names for these ducks, taken from Linnæus's 'Fauna Suecica,' coupled with the Linnæan diagnoses, in place of citing, as he often does in other cases, only a Linnæan diagnosis in place of a Linnæan binomial. It is a case perfectly parallel with that of *Gavia*, in the same work, discussed by me in 'The Auk' for 1901 (XVIII, p. 270). Both before and after the use of "Querquedula" on p. 70, Gmelin uniformly employs *Anas* as the generic name of all the ducks he has occasion to mention. Gmelin's technical names, throughout his 'Reise,' lack consistency, being in part diagnoses from the 'Fauna Suecica,' in part Linnæan binomials, and in part names from Brisson, Willughby, and Gesner.

Genus **Casarca.**

Casarca BONAPARTE, Geogr. and Comp. List, 1838, 56.

Monotypic, with *Anas rutila* Pall. as type.

Genus **Spatula.**

Spatula BOIE, Isis, 1822, 564.

Monotypic, with *Anas clypeata* Linn. as type.

Genus **Dafila.**

Dafila STEPHENS, Gen. Zool., XII, ii, 1824, 126.

Monotypic, with *Dafila caudacuta* Steph. = *Anas acuta* Linn. as type.

Genus **Aix.**

Aix BOIE, Isis, 1828, 329.

3 species, first and third sometimes regarded by recent authorities as congeneric (*cf.* Salvadori, Cat. Bds. Brit. Mus., XXVII, 1895, 73), or all as noncongeneric (*cf.* Sharp, Hand-list, I, 1899, pp. 209, 218).

1. *galericulata*, type of *Dendronessa* Swains. 1831.
2. *falcaria* (Pall. 1776, *falcata* Georgi, 1775), type of *Eunetta* Bonap. 1856.
3. *sponsa*.

Type, as designated by Gray (1840) and by elimination, *Anas sponsa* Linn., the last species.

[In this connection must be considered *Dendronessa* Swains. 1831, and *Lampronessa* Wagler, 1832.

Dendronessa SWAINSON, Faun. Bor. Amer., II, 1831, 446, 497.
2 species.
1. *sponsa*, p. 466; declared to be "aberrant" on p. 497.
2. *galericulata*, designated as the type, p. 497.

Lampronessa WAGLER, Isis, 1832, Heft 3, 282.
2 species.
"Species: *Anas sponsa* Linn.— *Anas galericulata* Linn."

Lampronessa is a synonym of *Dendronessa* Swains. 1831, containing the same species, in the same order, and no others. *Dendronessa* does not come under the 'first species' rule, the type having been designated by the founder; but by the application of the first species rule to *Aix*, *Dendronessa* becomes a synonym of *Aix*, and a new name would be required for the Wood Duck (*Anas sponsa* Linn.) by those who do not consider it congeneric with the Mandarin Duck (*Anas galericulata* Linn.), for which *Dendronessa* Swains. would be otherwise available.]

Genus **Netta**.

Netta KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 102, 196.

Monotypic, with *Anas rufina* Pallas as type.

Genus **Nyroca**.

Nyroca FLEMING, Philos. Zool., II, 1822, 260.
4 species, 3 of which are congeneric.
"*Anas ferina, Marila* [,] *nyroca, fuligula.*"

Type, by tautonomy, *Anas nyroca* Güldenst. 1769, the third species.

Nyroca replaces *Aythya* (Boie, 1822) of the Check-List, the latter being preoccupied by *Æthia* (or *Æthya*) Dumont, 1816. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 190.) *Aythya* of Boie has the same four species, and placed in the same order, as Fleming's *Nyroca*, with a fifth (additional) species *Anas mersa* Pall., a species of *Erismatura* Bonap. 1832.

Subgenus **Aristonetta**.

Aristonetta BAIRD, Bds. N. Amer., 1858, 793 (in text).

Tentatively proposed, "for the canvas-back"; hence monotypic, with *Anas vallisneria* Wils. as the type.

Subgenus **Fuligula**.

Fuligula STEPHENS, Gen. Zool., XII, ii, 1824, 189.
14 species, representing about 7 modern genera.

1. *cristata* = *Anas fuligula* Linn.
2. *islandica*,
3. *ferina*,
4. *vallisneria*,
5. *marila*,
6. *nyroca*,
7. *dominica*,
8. *fulva*,
9. *ferruginea*,
10. *dispar*,
11. *caryophyllacea*,
12. *bicolor*,
13. *gmelini*,
14. *novæ-zelandiæ*.

Type, by tautonomy, as designated by Gray (1840), and also by the first species rule, *Fuligula cristata* Steph. = *Anas fuligula* Linn., the species figured to illustrate the genus. (According to Mr. Stone (Auk, XXIV, April, 1907, p. 191), *Fuligula* must be replaced by *Marila* Oken, 1817.)

Genus **Clangula.**

Clangula LEACH, Ross's First Voy. Disc., 1819, App. II, p. xlviii.
"Genus *Clangula*, Gesner (Garrot)."

The only species mentioned, and the only one that called for notice in this connection, is "*Clangula glacialis* (Northern Garrot)." Salvadori (Cat. Bds. Brit. Mus., XXVII, 1895, p. 376, footnote) is doubtless quite right in saying: "Although Leach mentions *Clangula glacialis* only, the type of the genus is obviously *Anas clangula* Linn. In fact Leach has *Clangula*, from Gesner's *Clangula*, French 'Garrot,' which is *A. clangula* Linn."

The type, by tautonomy, is evidently *Anas clangula* Linn.

[Genus **Glaucionetta.**

Glaucionetta STEJNEGER, Proc. U. S. Nat. Mus., 1885, 409.

Type, by designation, *Anas clangula* Linn. To replace *Clangula* Leach 1819, and so employed in the A. O. U. Check-List down to 1897. (See Eighth Suppl., Auk, XIV, Jan. 1897, p. 124.)]

Genus **Charitonetta.**

Charitonetta STEJNEGER, Orn. Expl. Kamtsch., 1885, 163.

Monotypic, with type, by designation, *Anas albeola* Linn., a species commonly treated as congeneric with *A. clangula* Linn.

Genus **Harelda.**

Harelda STEPHENS, Gen. Zool., XII, ii, 1824, 174.

Monotypic, with *Harelda glacialis* = *Anas hyemalis* + *glacialis* Linn., as type.

Genus **Histrionicus.**

Histrionicus LESSON, Man. d'Orn., II, 1828, 415.

Monotypic, with *Anas histrionica* Linn. as type.

Genus **Camptolaimus.**

Camptolaimus GRAY, List Gen. Bds., 1841, 95.

Monotypic, with *Anas labradoria* Gmel. as type by designation. Ante-

dated by *Kamptorhynchus* Eyton (Mon. Anat., 1838, p. 57) with same type. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 191.)

Genus **Polysticta**.

Polysticta EYTON, Cat. Brit. Bds., 1836, 58.

Monotypic, with *P. stelleri* = *Anas stelleri* Pall. as type. (Has slight priority over *Polysticta* Smith, 1836. *Cf.* Richmond, Proc. Biol. Soc. Wash., XVI, 1903, 128.)

Genus **Arctonetta**.

Arctonetta GRAY, Proc. Zool. Soc. London, 1855 (Feb. 1856), 212.

Monotypic, with *Fuligula fisheri* Brandt as type. To replace *Lampronetta* Brandt, 1847, because "*Lampronetta* is so near *Lampronessa* of Wagler," 1832.

Genus **Somateria**.

Somateria LEACH, Ross's First Voy. Disc., 1819, App. II, p. xlviii.

2 congeneric species.

1. *Somateria spectabilis*, type of subgenus *Erionetta* Coues, 1884.
2. "*Somateria* (Cuthbert's Eider), commonly named the Eider Duck" = Eider or Cuthbert Duck, Pennant (1776) and Latham (1785) = *Anas cuthberti* Pallas (part) = *Somateria St. cuthberti* Eyton = *Somateria mollissima borealis* Brehm.

Type, as designated by Gray (1840) and by elimination, *Anas mollissima* Linn.; type by the first species rule, *Anas spectabilis* Linn.[1]

Subgenus **Erionetta**.

Erionetta COUES, Key N. Amer. Bds., ed. 2, 1884, 709.

Monotypic, with *Anas spectabilis* Linn. as type by designation.

Genus **Oidemia**.

Oidemia FLEMING, Philos. Zool., II, 1822, 260.

2 noncongeneric species.

1. *nigra*.
2. *fusca*, type of subgenus *Melanitta* Boie, 1822.

Type, as designated by Gray (1840) and by elimination, *Anas nigra* Linn., the first species.

Subgenus **Melanitta**.

Melanitta BOIE, Isis, 1822, 564.

3 noncongeneric species.

[1] Since this paper was sent to the printer Mr. Stone has called my attention to the use of the name *Somateria* by Dr. Leach in possibly an earlier connection (Thompson's Annals of Philosophy, Vol. XIII, Jan. 1819, p. 60), where we have the following: "23. *Somateria Mollissima* (Cuthbert's Eider). Baffin's Bay, Spitzbergen." As here used, *Somateria* is monotypic.

1. *nigra*, type of *Oidemia* Fleming, 1822.
2. *fusca*.
3. *perspicillata*, type of *Pelionetta* Kaup, 1829.

Type, as designated by Gray (1840) and by elimination, *Anas fusca* Linn., the second species.

By the first species rule *Melanitta* is a synonym of *Oidemia* Flem. 1822, both having the same first species. For this reason Mr. Stone has proposed *Phœonetta*, with same type, to replace *Melanitta*. (*Cf.* Auk, XXIV, April, 1907, p. 198.)

Subgenus **Pelionetta.**

Pelionetta KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 107, 196.

Monotypic, with *Anas perspicillata* Linn. as type.

Genus **Erismatura.**

Erismatura BONAPARTE, Saggio Dist. Meth. Anim. Vertebr. a sangue fredo, 1832, 85.

Monotypic, to replace *Oxyura* Bonap. 1827 (not *Oxyurus* Swains.) with the same type, = *Fuligula rubida* Bonap. = *Anas rubida* Wilson = *Anas jamaicensis* Gmel.

Genus **Nomonyx.**

Nomonyx RIDGWAY, Proc. U. S. Nat. Mus., 1880, 15.

Monotypic, with *Anas dominica* Linn. as type.

Genus **Chen.**

Chen BOIE, Isis, 1822, 563.

Monotypic, with *Anser hyperboreus* Pallas as type.

Subgenus **Exanthemops.**

Exanthemops ELLIOT, Ill. Bds. N. Am., II, pt. ix, 1868, pl. xliv.

Monotypic, with *Anser rossii* Cass. (ex Baird MSS.) as type.

Genus **Anser.**

Anser BRISSON, Orn. VI, 1760, 261.
16 species (nominally); includes only Geese and Swans.

Type, by tautonomy, *Anser domesticus* Gesner = *Anas anser* Linn.

Genus **Branta.**

Branta SCOPOLI, Ann. I, Hist. Nat., 1769, 67.
4 noncongeneric species.

1. "*Branta bernicla* Linn."
2. "*Branta moschata* Linn.," type of *Cairina* Fleming, 1822.
3. "*Branta torrida* sp. nov.," a hybrid, probably of Muscovy and Mallard.
4. "*Branta albifrons* sp. nov.," a species of *Anser* Briss. 1760.

Type by elimination, *Anas bernicla* Linn., the first species.

Genus **Philacte**.

Philacte BANNISTER, Proc. Acad. Nat. Sci. Phila., 1870, 131.

Monotypic, for *Anas canagica* Sevast.

Genus **Dendrocygna**.

Dendrocygna SWAINSON, Class. Bds., II, 1837, 365.
2 congeneric species, *arcuata* and *arborea*.

Type, as designated by Gray (1840) and by general consent, *Anas arcuata* Horsf. (ex Cuv. MSS.), the first species.

Genus **Olor**.

Olor WAGLER, Isis, 1832, 1234.
3 congeneric species. (1) *musicus*, (2) *bewickii*, (3) *buccinator*.

Type, by inference, as designated by Gray (1840), and general usage, *Olor musicus* = *Cygnus musicus* Bechst. = *Anas cygnus* Linn. (part), the first species.

Cygnus was here restricted by Wagler to *Cygnus gibbus* Bechst. = *Anas olor* Gmel., the two genera, *Olor* and *Cygnus*, being separated on the basis of important anatomical differences. Under the rule of tautonomy, the names of the two groups should have been transposed, *Cygnus* taking the place of *Olor*, and *vice versa*, but the enforcement of the rule is now obviously not permissible.

Family PHŒNICOPTERIDÆ.

Genus **Phœnicopterus**.

Phœnicopterus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 139.

Monotypic, with *Phœnicopterus ruber* Linn. as type.

Family PLATALEIDÆ.

Genus **Ajaia**.

Ajaia REICHENBACH, Syst. Av., 1852, p. xvi.

Monotypic, with "*Ardea rosea* Barr." = *Platalea ajaja* Linn. as type; also tautonymic.

Family IBIDIDÆ.

Genus **Guara**.

Guara REICHENBACH, Syst. Av., 1852, p. xiv.

Monotypic, with *Tantalus ruber* Linn. 1766 = *Scolopax ruber* 1758, as type.

Genus **Plegadis**.

Plegadis KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 82.

Monotypic, with *Tantalus falcinellus* Linn. = *Tringa autumnalis* Hasselq. as type.

Family CICONIIDÆ.

Genus **Tantalus**.

Tantalus LINNÆUS, Syst. Nat., ed. 10, 1758, 140.

Monotypic, with *Tantalus loculator* Linn. as type.

Genus **Mycteria**.

Mycteria LINNÆUS, Syst. Nat., ed. 10, 1758, 140.

Monotypic, with *Mycteria americana* Linn., as type.

Family ARDEIDÆ.

Genus **Botaurus**.

Botaurus STEPHENS, Gen. Zool., XI, ii, 1819, 592.

7 species, representing 5 modern genera.

1. *stellaris*.
2. *lentiginosus*, congeneric with No. 1.
3. *undulatus* = *pumila* Bodd., type of *Zebrilus* Bonap. 1855.
4. *brasiliensis*, type of *Tigrisoma* Swains. 1827.
5. *flavus*, same as No. 4.
6. *senegalensis* = *ralloides* Scop., type of *Ardeola* Boie, 1822.
7. *virescens*, a species of *Butorides* Blyth, 1849.

Type, as designated by Gray (1840) and by general consent, *Ardea stellaris* Linn., the first species.

The genus *Botaurus* has been wrongly ascribed to Brisson, who used the term merely as a species name for the twenty-fourth species of his genus *Ardea*. It has also been ascribed to Hermann, 1783, but Hermann used it merely in the text, *passim*, in a Latin work, and in a way that renders very doubtful the propriety of taking the name as a generic term from this source.

Genus **Ardetta.**

Ardetta GRAY, List Gen. Bds., 1842, App., 13.

Type, by designation, *Ardea minuta* Linn.; also monotypic. According to Mr. Stone (Auk, XXIV, April, 1907, p. 192) *Ardetta* is to be replaced by *Ixobrychus* Billberg, 1828.

Genus **Ardea.**

Ardea LINNÆUS, Syst. Nat., ed. 10, 1758, 141.

19 species, representing 14 modern genera, 2 orders, and 3 families.

* *Cristatæ*: rostro vix capite longiore.

1. *pavonina*, type of *Balearica* Briss. 1760.
2. *virgo*, type of *Anthropoides* Vieill. 1816.

** *Grues*: capite calvo.

3. *canadensis*, congeneric with No. 4.
4. *grus*, type of *Grus* Pall. 1767.
5. *americanus*, type of subgenus *Limnogeranus* Sharpe, 1893.
6. *antigone*, type of *Antigone* Reich. 1852.

*** *Ciconiæ*.

7. *ciconia*, type of *Ciconia* Briss. 1760.
8. *nigra*, congeneric with No. 7.

**** *Ardeæ*.

9. *nycticorax*, type of *Nycticorax* Steph. 1819.
10. *cinerea*.
11. *herodias*, congeneric with No. 10.
12. *violacea*, type of *Nyctanassa* Stejn. 1887.
13. *cærulea*, type of *Florida* Baird, 1858.
14. *striata*, congeneric with No. 15.
15. *virescens*, congeneric with type of *Butorides* Blyth. 1849.
16. *stellaris*, type of *Botaurus* Steph. 1819.
17. *alba*, a species of *Herodias* Boie, 1822.
18. *ibis* = *bubulcus* Audouin, type of *Bubulcus* Bonap. 1854.
19. *æquinoctialis*, doubtfully identifiable with *Ardea rufa* Bodd., the type of *Dichromanassa* Ridgw. 1878.

Type, as designated by Gray (1840) and by elimination, *Ardea cinerea* Linn., the tenth species, and the only species which has not been taken as the type of some other genus or is not congeneric with species which have been taken as the types of other genera. By general consent, *A. cinerea* has been the type of *Ardea* for nearly a century.

Genus **Herodias.**

Herodias BOIE, Isis, 1822, 559.

2 noncongeneric species.

1. *egretta*.
2. *garzetta*, type of *Egretta* Forster, 1817.

Type, as designated by Gray (1840) and by elimination, *Ardea egretta* Gmel., the first species.

Genus **Egretta.**

Egretta FORSTER, Syst. Cat. Brit. Bds., 1817, 59.

Monotypic, with *Ardea garzetta* Linn. as type.

Genus **Dichromanassa.**

Dichromanassa RIDGWAY, Bull. U. S. Geol. and Geogr. Survey Terr. (Hayden) IV, 1878, 246.

Monotypic, with *Ardea rufa* Linn. as type.

Genus **Hydranassa.**

Hydranassa BAIRD, Bds. N. Amer., 1858, 660 (in text).

Tentatively proposed for *Ardea ludoviciana* Wilson = *Hydranassa tricolor ruficollis* (Gosse).

Genus **Florida.**

Florida BAIRD, Bds. N. Amer., 1858, 671.

Monotypic, with *Ardea cærulea* Linn. as type.

Genus **Butorides.**

Butorides BLYTH, Cat. Bds. As. Soc., 1849, 281.

Monotypic, with *Ardea javanica* Horsf. as type.

Genus **Nycticorax.**

Nycticorax STEPHENS, Gen. Zool., XI, ii, 1819, 608.
4 species (2 of them nominal), representing 2 modern genera.

Type, by tautonomy, *Nycticorax europeus* Steph. = *Ardea nycticorax* Linn., which is also the first species, and is figured to illustrate the genus.

Genus **Nyctanassa.**

Nyctanassa STEJNEGER, Proc. U. S. Nat. Mus., 1887, 295.

Monotypic, with *Ardea violacea* Linn. as type.

Family GRUIDÆ.

Genus **Grus.**

Grus PALLAS, Misc. Zool., 1766, 66; Spicel. Zool., fasc. iv, 1767.

Grus was proposed by Pallas for a miscellaneous group of birds, the diagnosis of which ("....*Capite* gaudent plumosiore, quam Ardeæ atque sæpe vario ornatu insigni; ....") apparently excludes the Cranes with bare heads referred by modern writers to the genus *Grus*. The only species mentioned by Pallas under *Grus* is *Psophia crepitans* Linn.

By general consent, *Grus* has been accredited to Pallas by subsequent authors, with *Ardea grus* Linn. (as designated by Gray, 1840) as type. Duméril in 1806 (Zool. Analyt., p. 62) first restricted the genus to the group of Cranes with bare heads now alone included in *Grus*.

Family ARAMIDÆ.

Genus **Aramus**.

Aramus VIEILLOT, Analyse, 1816, 58.

Monotypic, with "Courliri, Buff." = *Ardea scolopacea* Linn. as type.

Family RALLIDÆ.

Genus **Rallus**.

Rallus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 153.

5 species, representing 5 genera, 3 families, and 3 orders.

1. *crex*, the type of *Crex* Bechst. 1802.
2. *aquaticus*.
3. *lariformis* = *Sterna nigra* Linn., *l. c.* p. 137, type of *Hydrochelidon* Boie, 1822.
4. *benghalensis* = *Scolopax capensis* Linn. 1766, type of *Rostratulus* Vieill. 1816.
5. *carolinus*, a species of *Porzana* Vieill. 1816.

Type, by elimination, and as designated by Gray (1840), *Rallus aquaticus* Linn., the second species. This was the only species included in *Rallus* by Bechstein in 1802 (Orn. Taschenb. Deutchl., 1802, p. 335).

Genus **Porzana**.

Porzana VIEILLOT, Analyse, 1816, 61.

Monotypic, with the "Marouette, Buff." = *Rallus porzana* Linn., as type; hence also tautonymic.

Genus **Coturnicops**.

Coturnicops BONAPARTE, Compt. Rend., XLIII, 1856, 569.

Monotypic, with *Fulica noveboracensis* Gmel. as type.

Genus **Creciscus**.

Creciscus CABANIS, Journ. f. Orn., 1856, 428.

Monotypic, with *Rallus jamaicensis* Gmel. as type.

Genus **Crex**.

Crex BECHSTEIN, Orn. Taschenb. Deutschl., 1802, 336.

Type, by tautonomy, *Rallus crex* Linn.; also monotypic.

Genus **Ionornis.**

Ionornis REICHENBACH, Syst. Av., 1850, p. xxi.

Monotypic, with *Fulica martinica* Linn. as type.

Genus **Gallinula.**

Gallinula BRISSON, Orn. VI, 1760, 2.

Type, by tautonomy, [*Gallinula*] *gallinula* Briss. = *Fulica chloropus* Linn., the first species.

Genus **Fulica.**

Fulica LINNÆUS, Syst. Nat., ed. 10, I, 1758, 152.

4 species, representing 4 modern genera and 2 families.

1. *atra.*
2. *chloropus*, type of *Gallinula* Briss., 1760.
3. *porphyrio*, type of *Porphyrio* Briss., 1760.
4. *spinosa* = *Parra variabilis* Linn. 1766 (part), type of subgenus *Asarcia* Sharpe, 1896.

Type, as designated by Gray (1840) and by elimination, *Fulica atra* Linn., the first species.

Family PHALAROPODIDÆ.

Genus **Crymophilus.**

Crymophilus VIEILLOT, Analyse, 1816, 62.

Monotypic, with "Phalarope à festons dentelés, Buff." = *Tringa fulicaria* Linn. as type. *Crymophilus* is hence a synonym of *Phalaropus* Brisson, which has, by tautonomy, the same type. (*Cf.* Stone, Auk, XXIV, April, 1907, 196.)

Genus **Phalaropus.**

Phalaropus BRISSON, Orn. VI, 1760, 12.

Type, by tautonomy, [*Phalaropus*] *phalaropus* Briss. = *Tringa fulicaria* Linn., the first species. *Phalaropus* of the Check-List will be replaced by *Lobipes* Cuvier, 1817, with the same type.

Genus **Steganopus.**

Steganopus VIEILLOT, Nouv. Dict. d'Hist. Nat., XXXII, 1819, 136.

Monotypic, with *S. tricolor* Vieill. sp. nov., as type.[1]

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[1] Through the above changes in generic names, the Phalaropes will stand as follows (the Check-List equivalents in parentheses):

222. *Phalaropus fulicarius* (= *Crymophilus fulicarius*).
223. *Lobipes lobatus* (= *Phalaropus lobatus*).
224. *Steganopus tricolor* (= *Steganopus tricolor*).

Family RECURVIROSTRIDÆ.

Genus **Recurvirostra.**

Recurvirostra LINNÆUS, Syst. Nat., ed. 10, I, 1758, 151.

Monotypic, with *R. avocetta* Linn. as type.

Genus **Himantopus.**

Himantopus BRISSON, Orn. V, 1760, 33.
2 congeneric species.

Type, by tautonomy, [*Himantopus*] *himantopus* Briss. = *Charadrius himantopus* Linn.

Family SCOLOPACIDÆ.

Genus **Scolopax.**

Scolopax LINNÆUS, Syst. Nat., ed. 10, I, 1758, 145.
14 species, representing 6 modern genera.

1. *rubra*, type of *Guara* Reich. 1852.
2. *alba*, congeneric with No. 1.
3. *fusca*, young of No. 2.
4. *totanus*, type of *Totanus* Bechst. 1803.
5. *arquata*, type of *Numenius* Briss. 1760.
6. *phæopus*, congeneric with No. 5; type of *Phæopus* Cuv. 1817.
7. *rusticola*, type of *Rusticola* Vieill. 1816 = *Scolopax* Koch, 1816.
8. *fedoa*, congeneric with No. 10.
9. *glottis*, not positively determinable.
10. *limosa*, type of *Limosa* Briss. 1760.
11. *gallinago*, type of *Gallinago* Koch, 1816.
12. *lapponica*, congeneric with No. 10.
13. *ægocephala*, congeneric with No. 10.
14. *hæmastica*, congeneric with No. 10.

Type, by restriction, as designated by Gray (1840), and by general usage, *Scolopax rusticola* Linn., the seventh species.

Scolopax Linn. was restricted by Koch (Syst. Baier. Zool., I, 1816, p. 310) to *Scolopax rusticola* Linn. only.

Genus **Philohela.**

Philohela GRAY, List Gen. Bds., 1841, 90.

Monotypic, with *Scolopax minor* Gmel., as type; also type by designation.

Genus **Gallinago.**

Gallinago KOCH, Baier. Zool., I, 1816, 312.
3 congeneric species, *major*, *media*, *minor*.

Type, by tautonomy, *Gallinago media* = *Scolopax gallinago* Linn., the second species.

Genus **Macrorhamphus.**

Macrorhamphus FORSTER, Syst. Cat. Brit. Bds., 1817, 57.

Monotypic, with *Scolopax griseus* Gmel. as type.

Genus **Micropalama.**

Micropalama BAIRD, N. Am. Bds., 1858, 726.

Monotypic, with *Tringa himantopus* Bonap. as type.

Genus **Tringa.**

Tringa LINNÆUS, Syst. Nat., ed. 10, I, 1758, 148.
13 species, representing 11 modern genera, and 3 families.

1. *pugnax*, type of *Pavoncella* Forster, 1817.
2. *vanellus*, type of *Vanellus* Briss. 1760.
3. *gambetta*, not satisfactorily identifiable.
4. *interpres*, type of *Arenaria* Briss. 1760.
5. *lobata*, type of *Lobipes* Cuv. 1817.
6. *fulicaria*, type of *Phalaropus* Briss. 1760.
7. *alpina*, type of *Pelidna* Cuv. 1817.
8. *ochropus*, type of *Helodromas* Kaup, 1829.
9. *hypoleucos*, type of *Actitis* Ill. 1811.
10. *canutus*, type of *Calidris* Cuv. 1817 (nec Illiger, 1811) and of *Canutus* Brehm, 1831.
11. *glareola*, type of *Rhyacophilus* Kaup, 1829.
12. *littorea*, same as No. 1.
13. *squatarola*, type of *Squatarola* Cuv. 1817.

Type, as designated by Gray (1840) and by elimination, *Tringa canutus* Linn., the tenth species. By all authors except Cuvier and Brehm, *canutus* has been retained in the restricted genus *Tringa*, and regarded as its type.

Genus **Arquatella.**

Arquatella BAIRD, Bds. N. Am., 1858, 714, 717.

Monotypic, with *Tringa maritima* Brünn., as type.

Genus **Actodromas.**

Actodromas KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 55.

Monotypic, with *Tringa minuta* Leisler as type.

Genus **Pelidna.**

Pelidna CUVIER, Règne Anim., I, 1817, 490.
2 noncongeneric species.

1. *cinclus*.
2. *subarquata*, type of *Anucylocheilus* Kaup, 1829.

Type, by elimination, *Totanus cinclus* Linn. 1766 = *T. alpina* Linn., 1758, the first species.

Genus **Erolia.**

Erolia VIEILLOT, Analyse, 1816, 55, 69; Nouv. Dict. d'Hist. Nat., nouv. éd., X, 1817, 409; Gal. des Ois., II, 1825, 88.

Monotypic, with *Erolia variegata* sp. nov. = *Tringa subarquata* Temm. = *Tringa ferruginea* Brünn. as type.

In the 10th Supplement to the Check-List (Auk, XX, 1903, p. 337), *Erolia* was substituted for *Ancylocheilus* Kaup, 1829, on the ground that *Erolia variegata* Vieill. = *Tringa ferruginea* Brünn., 1764, "although described and figured by Vieillot as a three-toed species." The genus *Erolia* has been rejected by Gray and nearly all other authors, in some cases on the ground that it was based on an *avis fic.*, or on an artifact.

Genus **Eurynorhynchus.**

Eurynorhynchus NILSSON, Orn. Suec., II, 1824, 29.

Monotypic, with *Eurynorhynchus griseus* Nilsson = *Platalea pygmæa* Linn. as type.

Genus **Ereunetes.**

Ereunetes ILLIGER, Prodr., 1811, 262.

Monotypic, with *E. petrificatus* Ill. = *Tringa pusilla* Linn. 1766, as type.

Genus **Calidris.**

Calidris ILLIGER, Prodr., 1811, 449.

Monotypic, with "*Charadrius calidris* Linn." 1766, p. 255 = *Tringa arenaria* Linn. 1766, p. 251, as type; hence also tautonymic.

In the Check-List *Calidris* is taken from Cuvier, 1799, where, however, it is a *nomen nudum*; as first defined by Cuvier in 1817 (Règn. Anim., I, 1817, p. 489) it is based on *Tringa canutus* Linn., but at this date the name was preoccupied by *Calidris* Ill. 1811.

Genus **Limosa.**

Limosa BRISSON, Orn., V, 1760, 261.

8 species (7 valid), representing 3 modern genera; includes 4 of the 5 species of the modern genus *Limosa*.

Type, by tautonomy, [*Limosa*] *limosa* Briss. = *Scolopax limosa* Linn.

Genus **Totanus.**

Totanus BECHSTEIN, Orn. Tashenb. Deutschl., 1803, 282.

11 species, including 4 modern genera.

Type, by tautonomy, *Scolopax totanus* Linn.

Genus **Glottis.**

Glottis KOCH, Baier. Zool., I, 1816, 304.

2 noncongeneric species.

1. *natans* = *Totanus glottis* Bechst. = *Scolopax nebularius* Gunn. 1767 (= nec *Scolopax glottis* Linn. 1758).
2. *stagnalis*, a species of *Totanus* Bechst. 1803.

Type, by tautonomy, and also by elimination, *Scolopax nebularius* Gunn., the first species.

Genus **Helodromas.**

Helodromas KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 144, 195.

Monotypic, with *Tringa ochropus* Linn. as type.

Genus **Symphemia.**

Symphemia RAFINESQUE, Journ. de Phys., LXXXVIII, 1819, 418.

"Type, *T. semi-palmata* que je nomme *S. atlantica*" = *Tringa semipalmata* Wils., type of *Ereunetes* Ill. 1811 (*teste* Richmond).

Symphemia is thus a synonym of *Ereunetes*. For *Symphemia* of the A. O. U. Check-List *Catoptrophorus* Bonap. is available. (*Cf.* Richmond, Proc. Biol. Soc. Wash., XVIII, 1905, 75.)

[Genus **Catoptrophorus.**

Catoptrophorus BONAPARTE, Ann. Lyc. Nat. Hist. New York, II, 1827, 323.

Monotypic, with *Totanus semipalmatus* Temm. = *Scolopax semipalmata* Gmel. as type.]

Genus **Heteractitis.**

Heteractitis STEJNEGER, Auk, I, July, 1884, 236.

Monotypic, with *Scolopax incanus* Gmel. as type; to replace *Heteroscelus* Baird, 1858, p. 734, preoccupied, with the same type.

Genus **Pavoncella.**

Pavoncella LEACH, Syst. Cat. Mamm. and Bds. Br. Mus., 1816, 29.

Monotypic, with *Tringa pugnax* Linn., as type. There can be no doubt whatever that Leach's "*Pavoncella pugnax*, Fighting Ruff," is the same bird as Cuvier's (Règne Anim., I, 1817, p. 490) "les Combattans, *machetes*" although in the latter case the name is associated with "*Tringa pugnax* Linn.," and in the former case there is lack of this additional identification. But the specific name *pugnax* has never been associated with any other species of Sandpiper. If all of Leach's genera in this work (*l. c.*)

are treated as *nomina nuda*, then *Machetes* Cuvier, 1817, with same type, will replace *Pavoncella*. (*Cf.* Stone, Auk, XXIV, April, 1907, 195.)

Genus **Bartramia**.

Bartramia LESSON, Traité d'Orn., 1831, 553.

Monotypic, with *B. laticauda* Less. = *Tringa bartramia* Wils. = *Tringa longicauda* Bechst. as type; also tautonymic.

Genus **Tryngites**.

Tryngites CABANIS, Journ. f. Orn., 1856, 418.

Monotypic, with *Tringa rufescens* Vieill. = *T. subruficollis* Vieill. as type.

Genus **Actitis**.

Actitis ILLIGER, Prodr., 1811, 262.
4 species, representing 4 modern genera.

1. *Scolopax limosa* Linn., type of *Limosa* Briss. 1760.
2. " *totanus* Linn., type of *Totanus* Bechst. 1803.
3. *Tringa pugnax* Linn., type of *Pavoncella* Leach, 1816.
4. " *hypoleucos* Linn.

Type, by elimination, *Tringa hypoleucos* Linn., the last species. (*Actitis* Boie, 1822 (Isis von Oken, p. 560), contained only the single species *Tringa hypoleucos* Linn.)

By first species rule the type would be *Scolopax limosa* Linn., rendering *Actitis* a synonym of *Limosa* Brisson, 1760, although ten of the twelve species contained in the two genera are different, and are now currently referred to five different genera.

Genus **Numenius**.

Numenius BRISSON, Orn., V, 1760, 311.

Type, by tautonomy, [*Numenius*] *numenius* Briss. = *Scolopax arquata* Linn.

Family CHARADRIIDÆ.

Genus **Vanellus**.

Vanellus BRISSON, Orn. V, 1760, 94.

Type, by tautonomy, [*Vanellus*] *vanellus* Briss. = *Tringa vanellus* Linn.

Genus **Eudromias**.

Eudromias BREHM, Vog. Deutschl., 1831, 544.
3 nominal species = *Charadrius morinellus* Linn.

Monotypic, with *Charadrius morinellus* Linn., as type.

Genus **Squatarola.**

Squatarola CUVIER, Règn. Anim., I, 1817, 467.

Type, by tautonomy, *Tringa squatarola* Linn.; also monotypic.

Genus **Charadrius.**

Charadrius LINNÆUS, Syst. Nat., ed. 10, I, 1758, 150.
11 species, representing 8 modern genera and 4 families.

1. *cristatus* = *vanellus* Linn. 1766, type of *Vanellus* Briss. 1760.
2. *hiaticula*, type of *Ægialitis* Boie, 1822.
3. *alexandrinus*, congeneric with No. 2.
4. *vociferus*, type of *Oxyechus* Reich. 1853.
5. *ægyptius*, type of *Pluvianus* Vieill. 1816.
6. *morinellus*, type of *Eudromias* Brehm, 1831.
7. *apricarius*.
8. *pluvialis*, same as No. 7.
9. *œdicnemus*, type of *Œdicnemus* Temm. 1815.
10. *himantopus*, type of *Himantopus* Briss. 1760.
11. *spinosus*, type of *Hoplopterus* Bonap. 1831.

Type, by elimination, as designated by Gray (1840), and by general usage, *C. apricarius* Linn. (= *pluvialis* Linn.), the seventh species.

Genus **Oxyechus.**

Oxyechus REICHENBACH, Syst. Av., 1852, p. xviii.

Monotypic, with *Charadrius vociferus* Linn. as type.

Genus **Ægialitis.**

Ægialitis BOIE, Isis, 1822, 558.
3 congeneric species.

1. *hiaticula*.
2. *cantianus*, congeneric with No. 1.
3. *minor*, congeneric with No. 1.

Type, as designated by Gray (1855), and by general consent, *Charadrius hiaticula* Linn.

Genus **Ochthodromus.**

Ochthodromus REICHENBACH, Syst. Av., 1852, p. xviii.

Monotypic, with *Charadrius wilsonius* Ord as type.

Genus **Podasocys.**

Podasocys COUES, Proc. Acad. Nat. Sci. Phila., 1866, 96.

Monotypic, with *Charadrius montanus* Towns. as type.

Family APHRIZIDÆ.

Genus **Aphriza**.

Aphriza AUDUBON, Orn. Biog., V, 1839, 249, 251 (in text).

Monotypic, with *A. townsendi* Aud. = *Tringa virgata* Gmel. as type.

Genus **Arenaria**.

Arenaria BRISSON, Orn., V, 1760, 132.

Monotypic, with [*Arenaria*] *arenaria* Briss. = *Tringa interpres* Linn. as type; also tautonymic.

Family HÆMATOPODIDÆ.

Genus **Hæmatopus**.

Hæmatopus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 152.

Monotypic, with *H. ostralegus* Linn. as type.

Family JACANIDÆ.

Genus **Jacana**.

Jacana BRISSON, Orn., V, 1760, 121.

Type, by tautonomy, [*Jacana*] *jacana* + *Jacana armata fusca* Briss. = *Parra jacana* Linn. (Not *Fulica spinosa* Linn., as formerly given in the Check-List.)

Subgenus **Asarcia**.

Asarcia SHARPE, Cat. Bds. Brit. Mus., XXIV, 1896, 86.

Monotypic, with *Parra variabilis* Linn. 1766 = *Fulica spinosa* Linn. 1758, as type.

Family TETRAONIDÆ.

Genus **Colinus**.

Colinus GOLDFUSS, Handb. Zool., II, 1820, 220.

Monotypic, with "*P*[*erdix*] *mexicana*. Caille de la Louisiana. Pl. Enl. 149, Frisch, t. 113" = *Tetrao virginianus* Linn. as type.

Genus **Oreortyx**.

Oreortyx BAIRD, Bds. N. Am., 1858, 642.

Monotypic, with *Ortyx pictus* Douglas as type.

Genus **Callipepla**.

Callipepla WAGLER, Isis, 1832, 277.

Monotypic, with *C. strenua* Wagler = *Ortyx squamatus* Vig. as type.

Genus **Lophortyx.**

Lophortyx BONAPARTE, Geogr. and Comp. List, 1838, 42.
2 congeneric species, *Tetrao californicus* Shaw, and *Ortyx douglasi* Vigors.

Type, as designated by Gray (1840) and by general consent, *Tetrao californicus* Shaw, the first species.

Genus **Cyrtonyx.**

Cyrtonyx GOULD, Mon. Odontoph., pll. vii, and viii, 1844, and Introd., 1850, 14.
2 congeneric species, *Ortyx massena* Less. = *O. montezumæ* Vig., and *O. ocellatus* Gould.

Type, as designated by Gray (1855) and by general consent, *O. montezumæ* Vig., the first species.

Genus **Dendragopus.**

Dendragopus ELLIOT, Proc. Acad. Nat. Sci. Phila., 1864, 23.

Monotypic, with *Tetrao obscurus* Say as type.

Genus **Canachites.**

Canachites STEJNEGER, Proc. U. S. Nat. Mus., 1885, 410.

To replace *Canace* Reich. 1852, preoccupied, with type by designation, *Tetrao canadensis* Linn.

Genus **Bonasa.**

Bonasa STEPHENS, Gen. Zool., XI, ii, 1819, 298.
2 noncongeneric species.
1. *Tetrao cupido* Linn., type of *Tympanuchus* Gloger, 1842.
2. " *umbellus* Linn.

Type, as designated by Gray (1840) and by elimination, *Tetrao umbellus* Linn.; type by first species rule *T. cupido* Linn., rendering *Tympanuchus* a synonym and a new name necessary for the group in the A. O. U. Check-List now universally recognized as *Bonasa.* (Mr. Stone has proposed, Auk, XXIV, April, 1907, 198, to replace it with *Hylobrontes* nom. nov.)

Genus **Lagopus.**

Lagopus BRISSON, Orn., I, 1760, 181.

Type, by tautonomy, [*Lagopus*] *lagopus* Briss. = *Tetrao lagopus* Linn., the twelfth and last species of the genus.

Genus **Tympanuchus.**

Tympanuchus Gloger, Gemein. Hand. und Hilfsbuch Naturg., 1842, 396.

Monotypic, with *Tympanuchus cupido* Gloger ("Cupidohuhn") = *Tetrao cupido* Linn. as type.

Genus **Pediœcetes.**

Pediœcetes BAIRD, Bds. N. Am., 1858, 625.

Monotypic, with *Tetrao phasianellus* Linn. as type.

Genus **Centrocercus.**

Centrocercus SWAINSON, Faun. Bor.-Am., II, 1831 (1832), xxviii, xxxiv, 358, 361, 496.

2 noncongeneric species.

1. *Tetrao urophasianus* Bonap.
2. *Tetrao phasianellus* Linn.

Type, as designated by the founder, *Tetrao urophasianus* Linn., the first species.

[Genus **Tetrao.**

Tetrao LINNÆUS, Syst. Nat., ed. 10, I, 1758, 159.

13 species, representing 12 modern genera.

1. *urogallus*, type of *Urogallus* Scopoli, 1777, and of Fleming, 1822.
2. *tetrix*, type of *Lyrurus* Swains. 1832.
3. *canadensis*, type of *Canace* Reich. 1852.
4. *lagopus*, type of *Lagopus* Briss. 1760.
5. *phasianellus*, type of *Pediœcetes* Bd. 1858.
6. *cupido*, type of *Tympanuchus* Glog. 1842.
7. *bonasia*, type of *Tetrastes* Keys. & Blas. 1840.
8. *rufus*, congeneric with *Caccabis* Kaup, 1829.
9. *perdix*, type of *Perdix* Briss. 1760.
10. *virginianus*, type of *Colinus* Goldfuss, 1820.
11. *marilandicus*, same as No. 10.
12. *orientalis*, type of *Pterocles* Temm. 1815.
13. *coturnix*, type of *Coturnix* Bonn. 1791.

Type, by tautonomy, *Tetrao tetrix* Linn., *tetrix* being the Greek equivalent of the Latin *tetrao*.]

Family PHASIANIDÆ.

Genus **Meleagris.**

Meleagris LINNÆUS, Syst. Nat., ed. 10, I, 1758, 156.

3 noncongeneric species.

1. *gallopavo*.
2. *cristata*, a species of *Penelope* Merrem, 1786.
3. *satyra*, type of *Tragopan* Cuvier, 1829.

Type, as designated by Gray (1840) and by elimination, *M. gallopavo* Linn., the first species. (By tautonomy *Gallopavo* Brisson, 1760, is a synonym of *Meleagris*; its two species are also among the original constituents of *Meleagris*.)

Family CRACIDÆ.

Genus **Ortalis**.

"*Ortalis* Merrem, Av. Rar. Icon. et Descrip., II, 1786, 40."

Not seen. In the German edition of the same date, 'Beyträge zur besonderen Geschichte der Vögel,' II, 1786, *Penelope* only is used.

Type, as designated by Gray (1840) and by general consent, *Phasianus motmot* Linn.

Family COLUMBIDÆ.

Genus **Columba**.

Columba LINNÆUS, Syst. Nat., ed. 10, I, 1758, 162.

22 species, representing 11 modern genera, with 8 species apparently unidentifiable.

1. *œnas, œnas β domestica*, composite; not *œnas* Linn. 1761 = *C. livia* Bonnat. 1790.
2. *gutturosa*, not identifiable.
3. *cucullata*, not identifiable.
4. *turbita*, not identifiable.
5. *tremula*, not identifiable = *laticauda* Linn. 1766.
6. *tabellaria*, not identifiable.
7. *montana*, a species of *Geotrygon* Gosse, 1847.
8. *asiatica*, not identifiable.
9. *guinea*, congeneric with No. 1.
10. *hispanica*, not identifiable.
11. *palumbus*, congeneric with No. 1; also type of *Palumbus* Kaup, 1829.
12. *cyanocephala*, type of *Starnœnas* Bonap. 1838.
13. *leucocephala*, congeneric with No. 1; also type of *Patagiœnas* Reich. 1852.
14. *leucoptera*, type of *Melopelia* Bonap. 1854.
15. *nicobarica*, type of *Calœnas* Gray, 1840.
16. *macroura*, composite, containing types of both *Ectopistes* Swains. 1827, and *Zenaidura* Bonap. 1854.
17. *sinica* = *striata* Linn. 1766, type of *Geopelia* Swains. 1837.
18. *indica*, type of *Chalcophaps* Gould, 1843.
19. *hispida*, not identifiable.
20. *turtur*, type of *Turtur* Selby, 1835.
21. *risoria*, type of *Streptopelia* Bonap. 1854.
22. *passerina*, type of *Columbigallina* Boie, 1826 (not of Oken, 1817) and of *Chamœpelia* Swains. 1827.

Type, by elimination, as designated by Gray (1855), and by general consent, *Columba livia* Bonnat. 1790 = *C. œnas* L. in part (= *C. œnas β domestica* L.).

Genus **Ectopistes.**

Ectopistes SWAINSON, Zool. Journ., III, Aug.-Nov., 1827, 362; Class. Bds., II, 1837, 348.

2 species, as follows: "Types, *Col. speciosa* ? Temm. 2. *Col. migratoria* Linn." Later (1837) the author restricted the genus by eliminating *Col. speciosa*, and retaining only "*E. migratoria*, Wilson, pl. 44, f. 1."

Hence: Type, as designated by Gray (1840), and by restriction and subsequent (1837) designation by the original author, No. 2, *Columba migratoria* Linn.

By the first species rule, *Ectopistes* would be a synonym of *Columba* Linn., *speciosa* being a species of the restricted genus *Columba*, and a new name would be required for the group universally recognized for more than half a century as *Ectopistes*. Although a ? follows the name *speciosa*, the diagnosis, "tail rounded or cuneated," implies that a species of the *speciosa* type was intended to be included in the genus when it was originally proposed. (*Cf.* Salvadori, Cat. Bds. Brit. Mus., XXI, p. 369, footnote.)

Genus **Zenaidura.**

Zenaidura BONAPARTE, Consp. Av., II, Dec. 1854, 84.

Monotypic (2 spp. but the second is a synonym of the other), with *Columba carolinensis* Linn. as type.

Genus **Zenaida.**

Zenaidura BONAPARTE, Geogr. and Comp. List, 1838, 41.

2 noncongeneric species.

1. *Zenaida amabalis* Bonap.= *Columba zenaida* Bonap.
2. *Zenaida montana* (Linn.), a species of *Geotrygon* Gosse, 1847.

Type, by tautonomy, and also by elimination, *Columba zenaida* Bonap., the first species.

Genus **Leptotila.**

Leptotila SWAINSON, Class. Bds., II, 1837, 349.

Monotypic, with *P[eristera] rufaxilla* Selby as type.

Genus **Melopelia.**

Melopelia BONAPARTE, Consp. Av., Dec. 1854, 81.

2 congeneric species, *Columba leucoptera* Linn. and *C. meloda* Tsch.

Type, by general usage, *Columba leucoptera* Linn., the first species. (Gray, in 1855, designated as the type the second species, *Columba meloda* Tsch.)

Genus **Chæmepelia.**

Chæmepelia SWAINSON, Zool. Journ., III, Aug.-Nov., 1827, 361.
2 species, *Columba passerina* Linn. and *C. squamosa* Temm.

Type, as designated by Gray (1855) and by elimination, *Columba passerina* Linn., the first species, *C. squamosa* being the type of *Scardafella* Bonap. 1854.

To replace "*Columbigallina* Vaill." Boie, Isis, 1826, p. 977 (not of Oken, 1817), of the Check-List, with the same type. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 192.)

Genus **Scardafella.**

Scardafella BONAPARTE, Consp. Av., II, Dec. 1854, 85.
2 congeneric species, *Columba squamosa* Temm. and *Chamæpelia inca* Less.

Type, as designated by Gray (1855) and by general usage, *Columba squamosa* Temm., the first species.

Genus **Geotrygon.**

Geotrygon GOSSE, Bds. Jamaica, 1847, 316.
2 congeneric species.
1. *Geotrygon sylvatica* Gosse = *Columba cristata* Temm. & Knip.
2. *Columba montana* Linn.

Type, by implication, as designated by Gray in 1855, and by general usage, *Geotrygon sylvatica* Gosse = *Columba cristata* Temm. & Knip (not *Columba cristata* Gmel. 1788 = *Phasianus roulroul* Scop. 1786).

The proper name of *Geotrygon cristata* is apparently *G. versicolor* (Lafr.) = *Columba versicolor* Lafr., Rev. Zool., 1846, p. 321.

Genus **Starnœnas.**

Starnœnas BONAPARTE, Geogr. and Comp. List, 1838, 41.

Monotypic, with *Columba cyanocephala* Linn. as type.

Family CATHARTIDÆ.

Genus **Gymnogyps.**

"*Gymnogyps* LESSON, Echo du Monde savant, ser. 2, VI, 1842, 1037." (Not seen; *cf.* Richmond, Condor, III, 1901, 49.)

Monotypic, with *Vultur californianus* Shaw as type.

Genus **Cathartes.**

Cathartes ILLIGER, Prodr., 1811, 236.
2 noncongeneric species.
1. *Vultur papa* Linn., type of *Gypagus* Vieill. 1816.
2. " *aura* Linn.

Type, as designated by Vigors (1825) and by elimination, *Vultur aura* Linn., the second species.

By the first species rule, *papa* is the type of *Cathartes* and some other generic designation must be employed for *aura*. (Mr. Stone revives *Rhinogryphus* Ridgw. 1874, to replace *Cathartes* of the Check-List. *Cf.* Auk, XXIV, April, 1907, 198.)

Genus **Catharista**.

Catharista VIEILLOT, Analyse, 1816, 21.

2 species, and two sections.

1. *Vautour urubu* = *Vultur urubu* Vieill. 1807.
2. *Aura*, Sonnini, édit. de Buffon = *Vultur aura* Linn., type of *Cathartes* Ill. 1811.

Type, by elimination, *Vultur urubu* Vieill. 1807 = *Catharista urubu* Vieill. 1817, the first species.

Genus **Gypagus**.

Gypagus VIEILLOT, Analyse, 1816, 21.

2 species, 2 sections: (1) "Roi des Vautours, Buff." = *Vultur papa* Linn.; (2) "*Vultur gryffus* Lath." = *gryphus* Linn., type of *Gryphus* Bonap. 1854.

Type, by elimination, *Vultur papa* Linn., the first species.

By the first species rule, *Gypagus* is a synonym of *Sarcorhamphus* Dum. 1806, and of *Cathartes* Ill. 1811, each having the same first species.

Family FALCONIDÆ.

Genus **Elanoides**.

Elanoides VIEILLOT, Nouv. Dict. d'Hist. Nat., XXIV, 1818, 101.

Monotypic, with "Les Milans de la Caroline et du Paraguay" = *Falco furcatus* Linn. 1766 = *Falco forficatus* Linn. 1758, as type.

Genus **Elanus**.

"*Elanus* SAVIGNY, Descr. de l'Égypte, Ois., 1809, 97"; Ois. de l'Égypte et de la Syrie, 1810, 9, 37. (The 1809 work not seen by me.)

Monotypic, with *Elanus cæsius* Savig. = *Falco melanopterus* Daudin at type.

Genus **Ictinia**.

Ictinia VIEILLOT, Analyse, 1816, 24.

Monotypic, with "Milan-Cresserell, Vieill. Oiseaux de l'Amér. sept.," I, 1807, 38, pl. 10 *bis* = *Milvus cenchris* Vieill., *l. c.* = *Falco plumbeus* Gmel. as type. (Not *Falco mississippiensis* Wilson, as designated by Gray

(1855) and as given in the Check-List. In 1840 Gray gave *plumbeus* as the type.)

Genus **Rostrhamus.**

Rostrhamus LESSON, Traité d'Orn., 1831, 55.

Monotypic, with *R. niger* Less. = *Herpetotheres sociabilis* Vieill. 1817, as type. (*Falco hamatus* Illiger, given as the type in the Check-List is a later name for the same species.)

Genus **Circus.**

Circus LACÉPÈDE, Mem. de l'Inst., III, 1801, 506.

Based on a diagnosis only, with no species referred to the group. Diagnosis not definitely distinctive, indicating merely long-winged hawks with a long slender tarsus, which denote the modern genus *Circus*. Type, as designated by Gray (1855) and by general usage, *Falco cyaneus* Linn.

Genus **Accipiter.**

Accipiter BRISSON, Orn., I, 1760, 310.

Type, by tautonomy, [*Accipiter*] *accipiter* Briss. = *Falco nisus* Linn., the first species.

Genus **Astur.**

Astur LACÉPÈDE, Mem. de l'Inst., III, 1801, 505.

Based on a diagnosis only, with no species referred to the group. In effect, short-winged hawks with the bill "crochu à l'extrémité." Type, as designated by Vigors (1824) and Gray (1855) and by general consent for three fourths of a century, *Falco palumbarius* Linn.

Genus **Parabuteo.**

Parabuteo RIDGWAY, in Bd., Brew. & Ridgw., Hist. N. Am. Birds, III, Jan. 1874, 250.

Monotypic, with *Falco harrisi* Aud. as type.

Genus **Buteo.**

Buteo CUVIER, Leç. d'Anat. Comp., I, tabl. ii, 1799.

Proposed for the "Buses." In the same author's Tabl. élément. de l'Hist. nat., 1798, p. 194, of the preceding year, his section "Buses proprement dites," of *Falco*, consists of only *Falco buteo* Linn., which, by tautonomy as well as by general consent for a century, is to be taken as the type of *Buteo*.

Subgenus **Tachytriorchis.**

Tachytriorchis KAUP, Class. Säug. u. Vogel., 1844, 123.

Monotypic, with *Falco pterocles* Temm. = *Buteo albicaudatus* Vieillot as type.

Subgenus **Buteola.**

Buteola BONAPARTE, Comp. Rend., XLI, 1855, 651.

"*Buteo brachyurus*, Vieill., est le type du genre buteonien *Buteola*, Dubus." It is thus apparently *Buteola* Bonap. ex Dubus MS.

Monotypic, with *Buteo brachyurus* Vieill. as type.

Genus **Urubitinga.**

Urubitinga LESSON, Rev. Zool., 1839, 132.

Here a *nomen nudum*, but it is also cited as from "Lesson, Compl. d. Buffon, VII, 1836, 36," which work I have not been able to consult.

Type, as designated by Gray (1855), by tautonomy, and by general usage, *Falco urubitinga* Gmel. Stone, on the authority of Dr. Richmond (Auk, XXIV, April, 1907, 195), gives the founder of *Urubitinga* as Lafresnaye, 1843, with type as above indicated.

Genus **Asturina.**

Asturina VIEILLOT, Analyse, 1816, 24, 68.

Monotypic, with "Esp. nouv. b" = "Asturie cendrée, *Asturia* [sic] *cinerea*" (p. 68) = *Falco nitidus* Gmel. as type.

Genus **Archibuteo.**

Archibuteo BREHM, Isis, Dec. 1828, 1269.

2 nominal species.

1. Der plattköpfige Rauchfussbussard, *Archibuteo planiceps* Brehm = *Falco lagopus* Gmel.
2. Der hochköpfige Rauchfussbussard, *Archibuteo alticeps* Brehm = *Falco lagopus* Gmel.

Monotypic, with *Falco lagopus* Gmel. as type.

Subgenus **Brewsteria.**

Brewsteria MAYNARD, Bds. East. N. Am., pt. 40, [1896], 691.

Monotypic, with *Falco ferrugineus* Licht. as type.

Genus **Aquila.**

Aquila BRISSON, Orn., I, 1760, 419.

Type, by tautonomy, [*Aquila*] *aquila* Briss. = *Falco chrysaëtos* Linn., the first species.

Genus **Thrassaëtos.**

Thrassaëtos GRAY, Proc. Zool. Soc. London, 1837 (June, 1838), 108.

Monotypic, with *Thrassaëtos harpyia* = *Vultur harpyia* Linn. as type.

Genus **Haliæetus.**

"*Haliæetus* SAVIGNY, Desc. de l'Égypte, Ois., 1809, 35"; Ois. de l'Égypte et de la Syrie, 1810, 8, 25. (The first not seen by me.)

Monotypic, with *Haliæetus nisus* Savign. = *Falco albicilla* Linn. as type.

Genus **Falco.**

Falco LINNÆUS, Syst. Nat., ed. 10, 1758, 88.

26 species, of which 6 are synonyms of others of the list, leaving 20 valid species, representing about 13 modern genera.

1. *melanætus*, same as No. 2.
2. *chrysaëtos*, type of *Aquila* Briss. 1760.
3. *fulvus*, same as No. 2.
4. *canadensis*, same as No. 2.
5. *rusticolus*, a species of *Hierofalco* Cuv. 1817.
6. *barbarus*, a species of restricted *Falco* Linn.
7. *cærulescens*, a species of *Hierax* Vigors, 1824, preoccupied, vice *Microhierax* Sharpe, 1874.
8. *albicilla*, type of *Haliæetus* Savigny, 1809.
9. *pygargus*, a species of *Circus* Lacép. 1799.
10. *milvus*, type of *Milvus* Lacép. 1799.
11. *forficatus*, type of *Elanoides* Vieill. 1818.
12. *gentilis*, same as No. 25.
13. *subbuteo*, type of *Hypotriorchis* Boie, 1826.
14. *buteo*, type of *Buteo* Cuv. 1799.
15. *tinnunculus*, type of *Ægypius* Kaup, 1829, preoccupied, vice *Falcula* Hodgs. 1837.
16. *sufflator*, of doubtful identification; probably same as No. 17.
17. *cachinnans*, type of *Herpetotheres* Vieill. 1817.
18. *sparverius*, type of *Pœcilornis* Kaup, 1844.
19. *columbarius*, type of *Tinnunculus* Vieill., 1807.
20. *lanarius* = *Falco gyrfalco* Linn. 1766.
21. *haliœetus*, type of *Pandion* Savigny, 1809.
22. *gyrfalco*, species of *Hierofalco* Cuv. 1817.
23. *apivorus*, type of *Pernis* Cuv. 1817.
24. *æruginosus*, a species of *Circus* Lacép. 1806.
25. *palumbarius*, type of *Astur* Lacép. 1801.
26. *nisus*, type of *Accipiter* Briss. 1760.

Eighteen of the 26 species were made types of now universally recognized genera prior to 1825, or are synonyms of such types, or are congeneric with them; the remaining 8 have been always referred to *Falco* sens. stric., or to groups now currently referred to it, either as synonyms or as subgenera, according to the views of different authors. Three of these fall into the genus (or subgenus) *Hierofalco* Cuv. 1817; two others come under *Cerch-*

neis Boie, 1826, while of the remaining three, *barbarus, subbuteo* and *columbarius,* the latter is the type of *Tinnunculus* Vieill., 1807, recognized in the A. O. U. Check-List as a subgenus of *Falco;* another, *subbuteo,* is the type by tautonomy of *Hypotriorchis* Boie, 1826, a group synonymized by current consent with the restricted group *Falco; barbarus* has been sometimes referred to *Gennaia* Kaup, 1847, which group is now not recognized as even a subgenus. Gray (1840), Kaup in (1842), and various subsequent authors, have taken *Falco peregrinus* Latham as the type of the restricted group *Falco,* but as this species was not described till long after *Falco* Linn. was founded it is not eligible as its type.

The A. O. U. Committee, in 1886, in preparing the first edition of the Check-List of North American Birds, designated *Falco subbuteo* Linn. as the type of the restricted genus *Falco,* and there is apparently no reason for rejecting this designation of the type.

Subgenus **Hierofalco.**

Hierofalco CUVIER, Règne Anim., I, 1817, 312.

Type, "le Gerfault" of Brisson = *Falco candicans* Gmel. 1788 = *Falco islandus* Brünn. 1764.

Subgenus **Rhynchodon.**

Rhynchodon NITZSCH, Observ. Av. art. car. com., 1829, 20.

4 noncongeneric species.

1. *peregrinus.*
2. *subbuteo,* type of *Hypotriorchis* Boie, 1826.
3. *æsalon,* type of *Æsalon* Kaup, 1829.
4. *tinnunculus,* type of *Ægypius* Kaup, 1829 (preoccupied) = *Falcula* Hodgs. 1837.

Type, by elimination, *Falco peregrinus* Latham, the first species.

Subgenus **Tinnunculus.**

Tinnunculus VIEILLOT, Ois. Am. Sept., 1807, 39.

2 species, *columbarius* Linn. and *sparverius* Linn. The second species is congeneric with the type of *Cerchneis* Boie, 1826.

Type, by elimination, *Tinnunculus columbarius* Vieill. = *Falco columbarius* Linn., the first species. (Not *Falco tinnunculus* Linn. as designated by Gray, this being not one of the original species, except by inference.)

Subgenus **Rhynchofalco.**

Rhynchofalco RIDGWAY, Proc. Boston Soc. Nat. Hist., 1873, 46.

Monotypic, with *Falco femoralis* Temm. as type = *Falco fusco-cœrulescens* Vieill.

Subgenus **Cerchneis.**

Cerchneis BOIE, Isis, Oct. 1826, 970.

Monotypic, with *Falco rupicola* Licht. as type.

Genus **Polyborus.**

Polyborus VIEILLOT, Analyse, 1816, 22.

Monotypic, with "Esp. Caracara, Buff." = *Falco tharus* Mol. as type.

Genus **Pandion.**

"*Pandion* SAVIGNY, Descr. de l'Égypte, Ois., 1809, 95"; Ois. de l'Égypte et de la Syrie, 1810, 9, 35. (The first not seen by me.)

Monotypic, with *Falco haliaëtus* Linn. as type.

Family STRIGIDÆ.

Genus **Strix.**

Strix LINNÆUS, Syst. Nat., ed. 10, I, 1758, 92.

11 species, representing 7 modern genera.

Auriculatæ.

1. *bubo*, type of *Bubo* Duméril, 1806.
2. *scandiaca*, same as No. 1.
3. *asio*, type of *Scops* Savign. 1809 (preoccupied), and of *Megascops* Kaup, 1829 (also preoccupied); congeneric with type of *Otus* Pennant, 1769.
4. *otus*, type of *Asio* Brisson, 1760.
5. *scops*, congeneric with No. 3.

Inauriculatæ.

6. *aluco* = *flammea* Linn. 766; not *aluco* Linn. 1766.
7. *funerea*, type of *Surnia* Duméril, 1806.
8. *nyctea*, type of *Nyctea* Steph. 1826.
9. *stridula*, same as *aluco* Linn. 1766, type of *Syrnium* Savig. 1809.
10. *ulula*, same as No. 7.
11. *passerina*, type of *Glaucidium* Boie, 1826.

Type, as restricted by Savigny (1809), as designated by Gray (1840), and by elimination, *Strix aluco* Linn. 1758 = *S. flammea* Linn. 1766.

Genus **Asio.**

Asio BRISSON, Orn., I, 1760, 477.

Type, by tautonomy, [*Asio*] *asio* Briss. = *Strix otus* Linn., the fourth species.

Genus **Syrnium.**

"*Syrnium* Savigny, Descr. de l'Égypte, Ois., 1809, 298"; Ois. de la Égypte et de la Syrie, 1810, 10, 51. (First work not seen.)

Monotypic, with *Syrnium ululans* Savign. = *aluco* Linn. 1766 (not *aluco* Linn. 1758.)

Genus **Scotiaptex.**

Scotiaptex SWAINSON, Class. Bds., II, 1837, 217.

2 noncongeneric species, *Strix cinerea* Gmel. and *Strix uralensis* Pall., the latter a species of *Syrnium* Savigny, 1809.

Type, by elimination, *Strix cinerea* Gmel., the first species.

Genus **Cryptoglaux.**

Cryptoglaux RICHMOND, Auk, XVIII, 1901, 193.

Type, by designation, *Strix tengmalmi* Gmel. To replace *Nyctala* Brehm, 1828, and *Ægolius* Kaup, 1829 (both with same type), preoccupied.

Genus **Otus.**

"*Otus* PENNANT, Ind. Zool., 1790, 297," also in an earlier (1769) edition. (Not seen. Accepted on Mr. Stone's authority.)

Monotypic, with *Otus bakkamœna* sp. nov. as the only species. (*Cf.* Stone, Auk, XX, 1903, pp. 273–275.)

Genus **Bubo.**

Bubo DUMÉRIL, Zool. Anal., 1806, 34.

"Le ducs (*bubo*) sont les espèces de chouettes à oreilles de Linné." Hence, 5 species, as follows:

1. *bubo.*
2. *scandiaca*, same as No. 1.
3. *asio*, type of *Scops* Savigny, 1809, and of *Megascops* Kaup, 1829, both preoccupied; congeneric with type of *Otus* Latham, 1769.
4. *otus*, type of *Asio* Briss. 1760.
5. *scops*, congeneric No. 3.

Type, as designated by Gray (1840) and Sharpe (1875), by elimination, and by tautonomy, *Strix bubo* Linn.

The genus *Bubo*, as currently employed, has been often considered as = *Otus* Cuvier, 1799 (Leç. d'Anat. Comp., I, tab. ii) where the genus *Strix* Linn. is divided into two groups, (1) "Hibous, *Otus*"; (2) "Chouettes, *Strix*," which groups may be assumed to correspond with the two Linnæan divisions of *Strix*, "Auriculatæ" and "Inauriculatæ" (see *antea*, p. 333), and that on the principle of tautonomy the type of *Otus* would be *Strix otus* Linn. It appears, however, that the name *Otus* was previously used by Pennant in 1769 for one of the small eared owls congeneric with *Strix scops* Linn. (*Cf.* Stone, Auk, XX, 1903, pp. 272–276.)

Genus **Nyctea.**

Nyctea STEPHENS, Gen. Zool., XIII, ii, 1826, 62.

2 species, the second a synonym of the first. Hence:

Monotypic, with *Nyctea erminea* Shaw = *Strix nyctea* Linn. as type; hence also tautonymic.

Genus **Surnia.**

Surnia DUMÉRIL, Zool. Anal., 1806, 34.

"Le genre surnie (*surnia*) comprend les chouettes à longue queue ou éperviers, la funèbre, la sibérienne, et plusieurs autres." = Hawk Owls.

Essentially monotypic, with *Strix funerea* Linn. (= *ulula* Linn.) as the type.

Genus **Speotyto.**

Speotyto GLOGER, Handb. u. Hilfsb. Naturg., 1842, 226.

Monotypic, a provisional generic name for *Strix cunicularia* Molina.

Genus **Glaucidium.**

Glaucidium BOIE, Isis, 1826, 970.

2 congeneric species.

1. *Strix nana* "Temm." = King.
2. *Strix passerina* Linn., type of *Noctua* Savigny, 1809 (preoccupied) and of *Athene* Boie, 1822 (preoccupied).

Type, as designated by Gray (1840, not 1855) and by general consent, *Strix passerina* Linn., the second species.

Genus **Micropallas.**

Micropallas COUES, Auk, VI, Jan. 1889, 71.

Monotypic, with *Athene whitneyi* Cooper as type. To replace *Micrathene* Coues, 1866 (preoccupied), with the same type.

Family PSITTACIDÆ.

Genus **Conurus.**

Conurus KUHL, Consp. Psitt., 1820, 4.

82 species, representing 26 currently accepted modern genera, distributed in 2 families and 4 subfamilies.

Type, by elimination, and as designated by the A. O. U. Committee in the first edition of the Check-List (1886), *Psittacus ludovicianus* Kuhl (ex Gmelin) = *Psittacus carolinensis* Linn.; type by first species rule, *Psittacus guianensis* Kuhl (part) = *Psittacus leucophthalmus* Müll.

In 1891, Salvadori (Cat. Bds. Brit. Mus., XX, p. 203) made *Psittacus carolinensis* Linn. the type of a new genus *Conuropsis*, to which was referred only this species. In November, 1892, the A. O. U. Committee on

Nomenclature referred the case of *Conuropsis* vs. *Conurus* for the Carolina Paroquet to a subcommittee consisting of Dr. Stejneger and the present writer. On careful and independent study of the matter by the two members of the subcommittee they reported (November, 1893) that the type of *Conurus* was, by elimination, *Psittacus carolinensis* Linn., as originally determined by the A. O. U. Committee. This decision was adopted by the Committee (*cf.* Auk, XI, Jan. 1894, p. 49). In the present connection I have gone over the case again with the greatest care and reach the same conclusion.

After reviewing the case at length, the subcommittee closed its report with the following statement: "Salvadori's creation of *Conuropsis* is consequently entirely indefensible under our code. How he came to make it is quite plain, however. He has simply followed Gray in selecting the first species mentioned by Kuhl as the type. Salvadori's genus *Conurus* should therefore under the A. O. U. Code stand as *Psittacara* Vig. and *Conuropsis* as *Conurus* Kuhl (nec Salvadori)."

The leading points of the case are as follows: Kuhl in 1820 (*l. c.*) placed all of the Parrots in the Linnæan genus *Psittacus*, which he divided into sections I–VI, to which he gave names, his restricted group *Psittacus* forming his "Sectio IV." His first section is *Ara* (Cuvier, 1899), in which he placed the Macaws. The second section, which alone concerns us here, he called *Conurus* ("Sectio II, CONURUS. *Perruche* Vaill."). In this section he placed his species No. 11 to No. 92, arranging them in four "subdivisions" under Le Vaillant's French vernacular names. He placed the species in geographical sequence as "A. Americani"; "B. Africani"; "C. Asiatici"; "D. Australes." Owing to the geographical arrangement, the species placed in subdivisions I, III and IV do not follow each other in continuous sequence. His subdivision "II. *Perruche a queue en fleche* Vaill.," contains species 34–40, "Asiatici"; his subdivision "III. *Perruche proprement dit* Vaill.", contains species 17–28 and 30 (American), and 41–92 (Asiatic and Australian), the latter divided into (*a*) Platuri, (*b*) Pezopori, (*c*) Perruche ordinaire.

In 1824, Spix (Av. Bras., I, pp. 29–37) placed 17 species of South American Conures in his new genus *Aratinga*, about half of which belong to the modern genera *Pyrrhura* and *Brotogeris*. In 1825 Vigors (Zool. Journ., II, Oct. 1825, p. 388) proposed a genus *Psittacara*, designating *Psittacus guianensis* "Linn." (= Gmel.) as the type, to which he referred 6 species, including all of those in Kuhl's "Subdivisio I," to which it is exactly equivalent, with the first species of Kuhl's *Conurus* as the designated type. Three months later (*l. c.*, Jan. 1826, p. 519) he had discovered that Spix's genus included some of the same species as his *Psittacara*, and he then restricted

his *Psittacara* to those species having the orbits and a greater or less extent of the cheeks naked, and restricted *Aratinga* to the species having the cheeks and orbits feathered. As thus restricted *Psittacara* and *Aratinga* are both tenable with the type of *Aratinga*, as designated by Bonaparte in 1854 (Rev. et Mag., de Zool., 1854, p. 150) *A. cyanogularis* Spix = *Psittacus cruentatus* Wied, this being the only species positively referred to it by Bonaparte. It thus supercedes Bonaparte's genus *Pyrrhula* of 1856 (Naumannia, 1856, Beilage No. 1, genus 14), which includes 15 species and contains not only *Psittacus cruentatus* Wied, previously assigned by him as the type of *Aratinga*, but five other of Spix's species of this group. Bonaparte here restricted *Aratinga* to *Psittacus guarouba* Gmel., which was already the type and only species of *Guarouba* Less. 1831!

To shorten a long story, it may be sufficient to say that prior to 1885 all the identifiable species placed by Kuhl in *Conurus* had been made the types, or were currently recognized as congeneric with the types, of other genera, except his No. 19, *Psittacus* (*Conurus*) *ludovicianus* Kuhl = *Psittacus carolinensis* Linn., which the A. O. U. Committee was justified in taking as the type, by elimination, of the restricted genus *Conurus*.

Conurus may be briefly considered from still another basis. The first author, after Kuhl, to recognize *Conurus* in either a generic or subgeneric sense was Lesson (Man. Orn., II, 1828, p. 148), who, in 1828, made it his fifth subgenus of *Psittacus*, with type, by designation, "le sincialo, *psittacus rufirostris* L. enl. 550," which is the female of *Palæornis torquata* (Bodd.). *Conurus* Less. 1828, is thus a strict synonym of *Palæornis* Vigors, 1825. Three years later (Traité d'Orn., 1831, p. 211) Lesson made "*Conurus* Kuhl" his seventeenth subgenus of *Psittacus*, which he separated into two "divisions"; the first division comprised his species 95–105, all American, as he understood them[1]; the second (spp. 106–110) included only species of *Palæornis*, which genus he cites as a synonym of his second division of *Conurus*. He indicated no type for either group, but the first species of his first division is *Conurus carolinensis* (Linn.).

Vigors (1825–26), in giving names to the various subdivisions of Kuhl's "section" *Conurus*, evidently did not look upon *Conurus* as anything more than a name for one of Kuhl's six "grand divisions" or "subfamilies" of the family *Psittacidæ* (*cf.* Zool. Journ., II, p. 48, second footnote and p. 58), and not as a name necessarily to be taken as that of a genus or subgenus. Spix treated it in the same way; Wagler, in 1832 (Monographia Psittacorum) evidently held the same view, as he proposed the genus *Sittace* for all the American Conures and allied forms.

[1] Including his "*Conurus rufirostris* (*Psittacus rufirostris*, Gm.; Buff., Enl 550; Levaill. pl. 42"), with "Habite le Brésil" = *Palæornis torquata* (Bodd.).

It was not till 1837 that *Conurus* again figured in nomenclature, when Swainson (Class. Bds., p. 300) used it for three species now placed in as many different genera. His first species is "*C. vittatus* Spix, i, pl. 21," of which apparently the head is figured. In 1840, G. R. Gray (List Gen. and Subgen. Birds, p. 51) again employed it in a broad sense for the American Conures, with *Conurus vittatus* (Shaw) *as the designated type,* which species later became also the type of *Pyrrhura* Bonap. 1856. *Conurus* of Gray comprised the second section of *Macrocercus* Vieill. 1816, *Aratinga* Spix, 1824, *Psittacara* Vigors, 1825, and the greater part of *Sittace* Wagler, 1832. In 1845 Gray (Gen. Bds. II, p. 413, footnote), speaking of "*Conurus* Kuhl," says: "It includes *Aratinga* of Spix (1824), *Psittacara* of Vigors (1825), and *Sittace* of Wagler (1830 [sic])." Bonaparte, in 1850 (Consp. Av., I, p. 1), employed "*Conurus* Kuhl" in a generic sense, with the same synonymy as given by Gray in 1840, but he cited under it only two species, *Psittacus carolinensis* Linn. and *Conurus xanthogenius* sp. nov. (= *Psittacus pertinax* Linn.).

In 1855, Gray (Cat. Gen. and Subg. Bds., p. 37) divided *Conurus* into 12 subgenera, two of which he left unnamed. Of the restricted group *Conurus* he designated "*Psittacus guianensis* Linn." as the type; as Linnæus had no "*Psittacus guianensis,*" presumably *Psittacus gujanensis* Gmelin is meant = *P. leucophthalmus* Müll. *Psittacara* Vigors, 1825, *with the same type by designation of the author,* is given as a synonym, while *Aratinga* Spix is recognized as a subgenus, with *Psittacus luteus* Bodd. as type. Gray has here done just what Vigors proposed to do in 1826 (Zool. Journ., II, Jan. 1826, p. 519) — given recognition to both of the two groups *Psittacara* and *Aratinga,* but he had no right to designate as the type of his restricted subgenus *Conurus* the type designated by the author of *Psittacara* as its type thirty years before; especially as he had himself designated, fifteen years before, as the type of *Conurus* a species for which he left an unnamed subgenus (No. 1475), which Bonaparte a few years later named *Pyrrhula.* Four years later (Cat. Psittacidæ, 1859, pp. 31–47), Gray recognized these same 12 subgenera and two others, adopting Bonaparte's *Pyrrhula* of 1856 for the subgenus containing, as one of its components, the species designated by him in 1840 as the type of *Conurus!* An author however, has no more right to change his designation of a type than he has to transfer a generic name, his own or otherwise, to a group generically different from that for which it was orignally proposed.

Salvadori's 'Catalogue of the Psittaci, or Parrots' is a most admirable piece of work from all points of view except one — that of nomenclature. The tendency since its publication, a decade and a half ago, has been steadily away from the nomenclatural standpoint shared by Salvadori in 1891

with so many others. His nomenclatural starting point was not only 1766 instead of 1758, but he discarded names erroneously constructed, or of barbarous origin, or of false signification,[1] thus adopting many names untenable under the rule of priority, as well as under other rules of present day codes of nomenclature. The nomenclature of the Psittaci, as adopted by Salvadori and as still to a large extent current, is much in need of revision, wholly aside from the question of whether the types of genera are to be decided by a first species rule or the priority method. Already *Amazona*, rejected by Salvadori for the later *Chryotis*, is in nearly universal use. *Psittacara* Vigors (1825) was carefully defined, with a type by designation of the author; the only reason for rejecting it is that the name is a 'vox hybrida,' which under present nomenclature rules is no reason at all.

Genus **Rhynchopsitta.**

Rhynchopsitta BONAPARTE, Rev. et Mag. Zool., VI, 1854, 149.

Monotypic, with *Macrocercus pachyrhynchus* Swains. as type.

Family CUCULIDÆ.

Genus **Crotophaga.**

Crotophaga LINNÆUS, Syst. Nat., ed. 10, I, 1758, 105.

Monotypic, with *Crotophaga ani* Linn. as type.

Genus **Geococcyx.**

Geococcyx WAGLER, Isis, 1831, 524.

Monotypic, with *Geococcyx variegata* sp. nov. = *Saurothera californiana* Less. as type.

Genus **Coccyzus.**

Coccyzus VIEILLOT, Analyse, 1816, 28.

Monotypic, with "Coucou de la Caroline, Buff." = *Cuculus americanus* Linn. as type.

Genus **Cuculus.**

Cuculus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 110.

8 species, representing 7 modern genera and 3 families.

1. *canorus.*
2. *persa*, a species of *Turacus* Cuv. 1799.
3. *vetula*, type of *Saurothera* Vieill. 1816.
4. *glandarius*, type of *Coccystes* Gloger, 1842.
5. *scolopaceus* = *C. honoratus* Linn. 1766, type of *Eudynamys* V. & H., 1826.

[1] *Cf.* Auk. IX, July 1892, pp. 277–279.

6. *niger*, same as No. 5.
7. *americanus*, type of *Coccyzus* Vieill. 1816.
8. *auratus* = *Picus auratus* Linn. 1766, type of *Colaptes* Swains. 1827.

Type, as designated by Gray (1840), by general consent, and by elimination, *Cuculus canorus* Linn., the first species.

Family TROGONIDÆ.

Genus **Trogon.**

Trogon Brisson, Orn., IV, 1860, 164.

6 species, all belonging to the modern genus *Trogon*, and representing only one identifiable valid species. One of the few non-tautonymic genera of this author.

1. *Trogon cayanensis cinereus* = *Trogon strigilatus* Linn.
2. *Trogon cayanensis viridis* = *Trogon viridis* Linn.
3. *Trogon cayanensis viridis ventre candido* = *Trogon viridis* Linn.
4. *Trogon brasiliensis viridis* = *Trogon curucui* Linn. ? = *T. collaris* Vieill.
5. *Trogon mexicanus*, not identifiable.
6. *Trogon mexicanus varius*, not identifiable.

Trogon Linn., 1766, is based on *Trogon* Brisson, 1760. Linnæus's three species (two of which are based on Brisson, wholly, and the other in part) are reducible to one valid species, commonly known as *Trogon viridis* Linn. = *strigilatus* Linn. (which comes first on the same page), the type of the genus, which is in reality monotypic.

Family ALCEDINIDÆ.

Genus **Ceryle.**

Ceryle Boie, Isis, 1828, 316.

5 congeneric species, separated into several modern subgenera.

1. *rudis*.
2. *amazona*, a species of *Chloroceryle* Kaup, 1848.
3. *americana*, a species of *Chloroceryle*.
4. *alcyon*, a species of *Megaceryle* Kaup, 1848.
5. *bicolor* = *inda* Linn., a species of *Chloroceryle*.

Type, as designated by Gray (1840) and by elimination, *Alcedo rudis* Linn., the first species. In 1848, Kaup removed three of the species to his *Chloroceryle* and one to his *Megaceryle*, leaving only the first species in *Ceryle*.

[Genus **Alcedo.**

Alcedo Linnæus, Syst. Nat., ed. 10, 1758, I, 115.

7 species (1 not determinable), representing 5 modern genera.

1. *ispida*, type of *Ispida* Briss. 1760.
2. *erithaca*, not determinable.
3. *alcyon*, congeneric with No. 6.

4. *todus*, type of *Todus* Briss. 1760.
5. *smyrnensis*, a species of *Halcyon* Swains. 1820.
6. *rudis*, type of *Ceryle* Boie, 1828.
7. *dea*, type of *Tanysipterus* Vigors, 1825.

Type, by elimination, *Alcedo rudis* Linn., the sixth species.

Brisson's genus *Ispida* (Orn., IV, 1760, p. 471) appears to have been overlooked or ignored by subsequent writers, as have several other of his properly proposed genera, as *Buphagus, Trogon, Todus, Anhima, Cochlearius, Raphus,* and *Muscicapa,* which all have the same standing as the many others that have been almost universally adopted, but in some cases wrongly attributed to Linnæus (1766). Brisson's genus *Ispida* contained only Kingfishers; Linnæus's genus *Alcedo* contained, at 1758, both Kingfishers and Todies; at 1766 the Todies were removed and the Jacamars added, so that *Alcedo,* 1758 = *Ispida* + *Todus* Brisson, and in 1766 = *Ispida* + *Galbula* Brisson.

The genus *Ispida* contained originally 26 species, including all of the six species of Kingfisher placed by Linnæus in *Alcedo,* besides seven described by Linnæus in 1766, and six others named later by Gmelin in 1788, all on the basis of Brisson and his citations; some of the remaining seven were made the basis of 'varieties,' or were considered duplications of those to which Linnæus and Gmelin, respectively, gave names.

Applying the rule of tautonomy and elimination to these genera, *Alcedo ispida* Linn., becomes the type of *Ispida* Brisson, and *Alcedo todus* Linn., becomes the type of *Todus* Brisson. Of the four remaining valid species, the last one to be removed was *Alcedo rudis* Linn., which became the type of *Ceryle* Boie in 1828. Therefore *Alcedo* should replace *Ceryle,* with the result that two of the six original Linnæan species would still remain in *Alcedo,* and *Alcedo* would replace *Ceryle* in the Check-List.]

Subgenus **Streptoceryle.**

Streptoceryle BONAPARTE, Consp. Vol. Anisod., 1854, 10.
2 congeneric species, *torquata* Linn. and *alcyon* Linn.

Type, as designated by Gray (1855) and by Sharpe (Jan. 1871 and 1892), *Alcedo torquata* Linn., the first species.

Subgenus **Chloroceryle.**

Chloroceryle KAUP, Fam. Eisv., 1848, 8.
5 (4 valid) species, all currently considered as subcongeneric.
1. *superciliosa.* 2. *americana.* 3. *inda.*
4. *amazona,* type of *Amazonis* Reich. 1851 (not *Amazona* Less. 1831).
5. *bicolor,* same as No. 3.

Type, as designated by Sharpe (1871 and 1892), *Alcedo superciliosa*

Linn., the first species; as designated by Gray (1855), *Alcedo amazona* Lath., the fourth species.

Family PICIDÆ.

Genus **Campephilus.**

Campephilus GRAY, List Gen. Bds., 1840, 54.

Monotypic, with *Picus principalis* Linn. as type.

Genus **Dryobates.**

Dryobates BOIE, Isis, 1826, 977.

Monotypic, with *Picus pubescens* Linn. as type.

Genus **Xenopicus.**

Xenopicus BAIRD, Bds. N. Am., 1858, 83.

Monotypic, with *Leuconerpes albolarvatus* Cass. as type.

Genus **Picoides.**

Picoides LACÉPÈDE, Mem. de l'Inst., III, 1801, 509.

Based on a diagnosis, indicating Woodpeckers with only three toes on each foot. As the northern three-toed Woodpeckers are the only tridactyle Woodpeckers then known, the type is obviously *Picus tridactylus* Linn., as designated by Gray (1840), and the genus monotypic.

Genus **Sphyrapicus.**

Sphyrapicus BAIRD, Bds. N. Am., 1858, 101.

Type, by designation (*l. c.*, p. 102), *Picus varius* Linn.

Genus **Ceophlœus.**

Ceophlœus CABANIS, Journ. f. Orn., 1862, 176.

4 species, 3 of them congeneric. Ostensibly to replace *Hylatomus* Baird, 1858, preoccupied.

Type, by designation, *Picus lineatus* (Linn.), while the type of *Hylatomus* is *Picus pileatus*, which the next year (Mus. Hein., pt. IV, 1863, p. 102) Cabanis made the type and only species of his genus *Phlœotomus*, which is thus available in place of *Ceophlœus*.

In the British Museum Catalogue of Birds (XVIII, 1890, p. 514) *Dryotomus* Swainson (Faun. Bor.-Am., II, 1831, 1832) is employed for *Picus pileatus* alone, but as the type of *Dryotomus* was designated by the author as *Picus martius* Linn., a species noncongeneric with *P. pileatus*, *Dryotomus* is obviously not available in this connection.

Genus **Melanerpes.**

Melanerpes SWAINSON, Faun. Bor.-Am., II, 1831 (1832), 300, 316.

Monotypic, with type by designation (p. 316), *Melanerpes erythrocephalus* Swains. = *Picus erythrocephalus* Linn.

Genus **Asyndesmus.**

Asyndesmus COUES, Proc. Acad. Nat. Sci. Phila., 1866, 55.

Monotypic, with *Picus torquatus* Wils. as type.

Genus **Centurus.**

Centurus SWAINSON, Class. Bds., II, 1837, 310.

2 species, *C. carolinensis* Wils. and *C. brachypterus*, sp. nov., the latter a *nomen nudum*.

Monotypic, with *Picus carolinus* Linn. as type.

Genus **Colaptes.**

Colaptes SWAINSON, Phil. Mag. (2), I, June, 1827, 440, only species *Colaptes mexicanus* sp. nov. with a reference to "*Swains. Zool. Journ.* No. 10"; Zool. Journ. III, Aug.–Nov. 1827, 353, where the type is designated as "*Picus auratus*, Wilson, I, pl. 2, fig. 1" = *Cuculus auratus* Linn.

Type, by designation, *Cuculus auratus* Linn.

Family CAPRIMULGIDÆ.

Genus **Antrostomus.**

"*Antrostomus* Gould" BONAPARTE, Geogr. and Comp. List Bds. Eur. and N. Amer., 1838, 8.

2 congeneric species.

1. *carolinensis*; 2, *vociferus*.

Type, as designated by Gray (List Gen. Bds., 1840, p. 7), *Caprimulgus carolinensis* Gmel., the first species. The reference in the Check-List to "Gould, Icones Avium, 1838" is erroneous, as neither the genus nor any of its species occur there. In the 'British Museum Catalogue' the genus is wrongly ascribed to Nuttall, 1840.

Genus **Phalænopterus.**

Phalænopterus RIDGWAY, Proc. U. S. Nat. Mus., III, 1880, 5.

Monotypic, with *Caprimulgus nuttalli* Aud. as type.

Genus **Nyctidromus.**

Nyctidromus GOULD, Icones Avium, II, 1838, pl. ii.

Monotypic, with *Nyctidromus derbyanus* sp. nov. = *Caprimulgus albicollis* Gmel. as type, and the only species explicitly mentioned. He adds: "There are at least ten species of this peculiar form," all confined to South America, but no others are cited.

Genus **Chordeiles.**

Chordeiles SWAINSON, Faun. Bor.-Am., II, 1831, 337, 496.

Monotypic, with *Chordeiles virginianus* = *Caprimulgus virginianus* Gmel. as type.

Family MICROPODIDÆ.

Genus **Cypseloides.**

Cypseloides STREUBEL, Isis, 1848, 366.
2 congeneric species.

1. *Hemiprocne fumigata* = *Cypselus fumigatus* Natterer MS.
2. *Cypselus senex* Temm.

Type, as designated by Sclater (P. Z. S., 1865, p. 614), and by general consent, *Hemiprocne fumigata* Streubel, the first species.

Genus **Chætura.**

Chætura STEPHENS, Gen. Zool., XIII, pt. ii, 1825, 76.
6 species, 5 of them congeneric.

1. *pelasgia* = *pelagica* Linn.
2. *martinicana* = *acuta* Gm.
3. *pacifica*, a species of *Micropus* Meyer & Wolf, 1810.
4. *australis* = *caudacuta* Lath.
5. *fusca* = *caudacuta* Lath.
6. *collaris* = *zonaris* Shaw.

Nos. 2, 4, 5, and 6 are congeneric with No. 1.

Type, by current usage, *Hirundo pelagica* Linn., the first species. (The type designated by Gray (1855) is not one of the original species, as it was not described till fourteen years after the genus was founded.)

Genus **Aëronautes.**

Aëronautes HARTERT, Cat. Bds. Br. Mus., XVI, 1892, 459.

Monotypic, with *Cypselus melanoleucus* Baird as type.

Family TROCHILIDÆ.

Genus **Eugenes.**

Eugenes GOULD, Mon. Troch., pt. xii, 1856, pl. 59.

Monotypic, with *Trochilus fulgens* Swains. as type.

Genus **Cœligena.**

Cœligena LESSON, Ind. and Synop. gen. Trochil., 1832, p. xviii.
3 noncongeneric species.

1. *clemenciæ*, type of *Cyanolæma* Stone, 1907.
2. *cœligena.*
3. *rivoli* = *T. fulgens* Swains. 1827, type of *Eugenes* Gould, 1856.

Type, by tautonomy, and as designated by Bonaparte in 1850 (Synop. Av., p. 73), *Ornismya* (*Cœligena*) *cœligena* Lesson. Usually *O. clemenciæ* Less., the first species, has been taken as the type, as designated by Gray. This species being noncongeneric with the proper type of *Cœligena*, and not being referable elsewhere becomes the type of *Cyanolæma* Stone, 1907, (*cf.* Stone, Auk, XXIV, April, 1907, p. 196).

Genus **Trochilus.**

Trochilus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 119.
18 species, nearly all noncongeneric, and nearly one-half of them unidentifiable.

Type, as designated by Gray (1855) and by general consent, *Trochilus colubris* Linn., the sixth species.

Strict elimination would apparently make the type *Trochilus mellivorus* Linn., the type of *Florisuga* Bonap. 1850; by the first species rule, the genus *Trochilus* would be cancelled, the first species being unidentifiable.

Genus **Calypte.**

Calypte GOULD, Mon. Troch., III, 1856, 134.
3 species, representing 2 genera.

1. *costæ.*
2. *annæ*, type of *Atthis* Reich. 1853.
3. *helenæ*, congeneric with No. 1.

Type, as designated by Elliot (1879) and by general consent, *Ornismya costæ* Bourc., the first species.

Genus **Selasphorus.**

Selasphorus SWAINSON, Faun. Bor.-Am., II, 1831 (Feb. 1832), 324 (first mentioned), 496 (diagnosis).
4 species, representing 2 genera.

1. *rufus.*
2. *chalybeus*, congeneric with No. 3.
3. *ornatus*, type of *Lophornis* Lesson, 1829.
4. *platycercus*, congeneric with No. 1.

Type, *Trochilus rufus* Gmel., as designated by Gray (1855), the first species, it best agreeing with the diagnosis ("feathers of the neck [= throat]

elongated"), a feature present in *rufus* and absent in *platycercus*. Furthermore, a reference to the index of the volume shows that *rufus* was intended as the type, as we there find *Selasphorus rufus* only, no other species of *Selasphorus* being indexed.

Genus **Atthis**.

Atthis REICHENBACH, Aufz. der Colib. (Journ. f. Orn., 1853, Extraheft) 1853, 12.
3 species, representing 2 genera.

1. *heloisa* Less. & Delatt.
2. *costæ* Bourc., type of *Calypte* Gould, 1861.
3. *annæ* Less., congeneric with No. 2.

Type, as designated by Gray (1855) and by general consent, *Ornismya heloisæ* Less. & Delatt., the first species.

Genus **Stellula**.

Stellula GOULD, Introd. Troch., 1861, 90.

Monotypic, with *Calothorax calliope* Gould as type.

Genus **Calothorax**.

Calothorax GRAY, List Gen. Bds., 1840, 13.

Monotypic, with *Ornismya cyanopogon* Less. = *Trochilus lucifer* Swains. 1827, as type.

Genus **Amizilis**.

Amizilis GRAY, List Gen. Bds., 1840, 14.
2 noncongeneric species.

1. *Cynanthus latirostris* Swains., type of *Cynanthus* Swains. 1827, and of *Circe* Gould, 1857 (preoccupied) = *Iache* Elliot, 1879.
2. *Orthorhynchus amazili* Less.

Type, as designated by the author in 1855 (not 1840), by tautonomy, and by elimination, *Ornismya amizili* Less. By the first species rule, *Amizilis* Gray is a synonym of *Cynanthus* Swains. 1827 (Phil. Mag. (2), I, June, 1827, p. 441).

Amazilis has sometimes been incorrectly attributed to Lesson, 1832, but Lesson used the tern only in a vernacular sense for a group of four congeneric species which he termed "Les Amazilis," based on the name of the first species of the group, *Ornismya amazili* Less. *Amazilia* Reichenbach, 1849, is a substitute or emended name for the same group. By the first species rule, however, *Amazilia* Reich. is a synonym of *Cynanthus* Swains., both genera having the same first species.

Genus **Cynanthus**.

Cynanthus SWAINSON, Phil. Journ. (2), June, 1827, 441.
4 noncongeneric species.

1. *latirostris*, sp. nov., type of *Circe* Gould, 1857 (preoccupied), and of *Iache* Elliot, 1879.
2. *bifurcatus* = *nuna* Less., type of *Lesbia* Less. 1832.
3. *minimus* sp. nov.[1] ? = *T. minimus* Linn., type of *Melissuga* Briss. 1760.
4. *lucifer* sp. nov., type of *Calothorax* Gray, 1840.

Type, by elimination, *Cynanthus latirostris* Swains., the first species.

If "*Cyanomyia* ? *sordida* Gould" is congeneric with *Cynanthus latirostris* Swains., as several recent authorities consider it to be, then *Phæoptila* Gould, 1861, is also, as well as *Iache*, a synonym of *Cynanthus*.

Cynanthus as now, and for a long time past, currently used in ornithology is taken from Swainson, 1837 (Class. Bds., II, 1837, p. 330) instead of from Swainson 1827; at the later date it was monotypic and based on a species ("*C. forficatus auct.*") which was not one of its original constituents.

Genus **Basilinna**.

Basilinna Boie, Isis, 1831, 546.
6 species, representing 5 genera.

1. *leucotis*.
2. *albicollis*, type of *Leucochloris* Reich. 1854.
3. *mellivorus*, type of *Florisuga* Bonap. 1850.
4. *tephrocephalus*, a species of *Agyrtria* Reich. 1854.
5. *leucogaster*, congeneric with No. 4.
6. *albus*, a species of *Lampornis* Swains. 1827.

Type, by elimination, and as designated by Gray (1855), *Trochilus leucotis* Vieill.

Genus **Iache**.

Iache Elliot, Class. and Synop. Troch., March 1879, 234.
4 congeneric species.

Type, by designation, *Cynanthus latirostris* Swains., to replace *Circe* Gould, 1857 (preoccupied), with same type.

Both by first species rule and by elimination *Iache* is a synonym of *Cynanthus* Swainson, June, 1827, which has thirty years priority even over *Circe* Gould. Consequently *Cynanthus* must replace *Iache* in the A. O. U. Check-List.

Family COTINGIDÆ.

Genus **Platypsaris**.

Platypsaris Sclater, Proc. Zool. Soc. Lond., 1857, 72 (*ex* Bonaparte, Ann. Sci. Nat., 1854, 134 = *nomen nudum*).

7 species, of which 2 are nominal and 2 belong to other genera, as now treated.

[1] "Table land" of Mexico, but locality apparently wrong, as the description indicates a young male of *Melissuga minima* (Linn.). I can find no subsequent reference to *Cynanthus minimus* Swains.

Type, as provisionally fixed by Gray (1855) and adopted by Sclater (*l. c.*), *Pachyrhamphus latirostris* Bonap. = *Pachyrhynchus aglaiæ* Lafr., the sixth species. (*Hadrostomus* Cabanis, 1859, is practically a substitute name for *Platypsaris*.)

Family TYRANNIDÆ.

Genus **Muscivora**.

"*Muscivora* LACÉPÈDE, Discours d'Hist. Nat., 1799, 5." (Not seen.)

At this point "*Muscivora* Lacépède" has no standing. As pointed out to me by Mr. Stone, it can be taken from G. Fischer (Zoognosia, ed. 3, I, 1813, p. 54), where, with a brief diagnosis, "*M*[*uscicapa*] *forficata*" is designated as the type.

Genus **Tyrannus**.

Tyrannus CUVIER, Leç. d'Anat. Comp., I, 1799, tab. ii.

Proposed for the "Tyrans" as distinguished from the "Moucherolles" (*Muscipeta* Cuv.) and the "Gobe-mouche" (*Muscicapa* Cuv. *ex* Linn.). (*Cf.* Cuvier, Tabl. élément. de l'Hist. nat des Anim., 1797, p. 201.)

The genus appears to have been first employed, after 1799, by Vieillot (Ois. Am. Sept., I, 1807 [1808], pp. 72–79) in 1808, who included in it 7 species, representing 5 modern genera, of which the second was *Tyrannus pipirri* Vieill. = *Lanius tyrannus* Linn. Cuvier, in 1817 (Règne Anim., I, 1817, p. 344), also referred to it 7 species, representing 5 modern genera, of which *Lanius tyrannus* Linn. was the third species.

Type, by tautonomy, as designated by Gray (1840), and also by general consent, *Lanius tyrannus* Linn.

Genus **Pitangus**.

Pitangus SWAINSON, Zool. Journ., III, April–July, 1827, 165.

Monotypic, with *Tyrannus sulphuratus* Vieill. as type by designation.

Genus **Myiozetetes**.

Myiozetetes SCLATER, Proc. Zool. Soc. Lond., 1852, 46 (ex *Myiozeta* Bonap., Ann. Sci. Nat., IV, 1854, 134 = *nomen nudum*).

Type, as fixed by Sclater (*l. c.*) *Elainia cayennensis* auct. = *Muscicapa cayennensis* Linn.

Genus **Myiodynastes**.

Myiodynastes BONAPARTE, Compt. Rend., XXXVIII, 1854, 657, *nomen nudum*; "Bull. Soc. Linn. Normandie, II, 1857, 35."

Type, as designated by Sclater (P. Z. S., 1859, p. 42), and by general consent, *Tyrannus audax* Gmel.

Genus **Myiarchus**.

Myiarchus CABANIS, Wiegm. Arch. f. Naturg., 1844, I, 272.

6 species, representing 5 modern genera.

1. *ferox*.
2. *rufiventris*, type of *Myiotheretes* Reich. 1850 (*fide* Sclater).
3. *nigricans*, type of *Sayornis* Bonap. 1854, and of *Aulanax* Cab. 1856.
4. *ferrugineus*, a species of *Hirundinea* D'Orb. & Lafr. 1837.
5. *coronatus*, a species of *Pyrocephalus* Gould, 1841.
6. *atropurpureus*, congeneric with No. 5.

Type, by elimination, as designated by Gray (1855), and as currently accepted, *Muscicapa ferox* Linn., the first species.

Genus **Sayornis**.

Sayornis BONAPARTE, Ann. Sc. Nat. (4), I, 1854, 133 (*nomen nudum*); Coll. Delattre, 1854, 87, where it is given as "*Sayornis nigricans* Bp.," with nothing additional.

Monotypic, with *Tyrannula nigricans* Swains. as type. There is apparently no reasonable doubt as to the signification of "*Sayornis nigricans* Bp."; if there is, *Sayornis* can be taken from Gray, 1855 (Cat. Gen. and Subgen. Bds., 1855, p. 146) with *Tyrannula saya* Bonap., a congeneric species, as type both by designation and by tautonomy.

Genus **Nuttallornis**.

Nuttallornis RIDGWAY, Man. N. Am. Bds., 1887, 337.

Monotypic, with *Tyrannus borealis* Swain. as type.

Genus **Horizopus**.

Horizopus OBERHOLSER, Auk, XVI, 1899, 311.

Type, by designation, *Muscicapa virens* Linn. (To replace *Contopus*, preoccupied, with same type.)

Genus **Empidonax**.

Empidonax CABANIS, Journ. f. Orn., 1855, 480.

Monotypic, with *Tyrannula pusilla* Swains. as type.

Genus **Pyrocephalus**.

Pyrocephalus GOULD, Zool. Voy. Beagle, II, Birds, 1841, 44.

2 congeneric species, (1) *parvirostris* Gld., described and figured, and (2) *Muscicapa coronata* auct.

The type should obviously be *Pyrocephalus parvirostris* Gould, the species figured; type as fixed by Gray (1840) and by general usage, *M. coronata*, the second species.

Genus **Ornithion.**

Ornithion CABANIS, Journ. f. Orn., 1853, 35.

Monotypic, with *Ornithion inerme* sp. nov. as type.

Family ALAUDIDÆ.

Genus **Alauda.**

Alauda LINNÆUS, Syst. Nat., I, ed. 10, 1758, 165.
9 species, representing 6 modern genera.

1. *arvensis.*
2. *pratensis*, congeneric with No. 5.
3. *arborea*, type of *Lullula* Kaup, 1829.
4. *campestris*, type of *Agrodoma* Swains. 1837; congeneric with No. 5.
5. *trivialis* (= *arboreus* Bechst.), type of *Anthus* Bechst. 1807.
6. *cristata*, type of *Galerida* Boie, 1828.
7. *spinoletta*, congeneric with No. 5.
8. *alpestris*, type of *Otocoris* Bonap. 1838.
9. *magna*, type of *Sturnella* Vieill. 1816.

Nos. 2, 4, and 7 are congeneric with No. 5, the type of *Anthus* Bechst.

Type, by elimination, as designated by Gray (1840), and by universal consent, *Alauda arvensis* Linn., the first species.

Genus **Otocoris.**

Otocoris BONAPARTE, Nouvi Ann. Sci. Bologna, II, 1838, 407.

Monotypic, with *Phileremos cornutus* Bonap. (= *Alauda chrysolæma* ? Wagler) as type, a subspecies of *Alauda alpestris* Linn., given as the type in the Check-List.

Family CORVIDÆ.

Genus **Pica.**

Pica BRISSON, Orn., II, 1760, 35.

Type, by tautonomy, [*Pica*] *pica* Briss. = *Corvus pica* Linn., the first species.

Genus **Cyanocitta.**

Cyanocitta STRICKLAND, Ann. and Mag. Nat. Hist., XV, 1845, 261.
5 species referred to it.

Type, as designated by the author, *Corvus cristatus* Linn.

By the first species rule *Cyanocitta* would be a synonym of *Cyanurus* Swains., 1831, except that *Corvus cristatus* Linn., the first species, is said to be not typical.

Cyanurus Swainson, included, as originally founded (Faun. Bor.-Am., II, 1831, 495), 10 species, as follows:

1. *cristatus*, type of *Cyanocitta* Strickl. 1845.
2. *stelleri*, congeneric with No. 1.
3. *sordidus* Swains. = *sieberi* Wagler, 1827, currently referred to *Aphelocoma* Cab. 1851.
4. *floridanus* Bonap. = *cyanea* Vieill., currently referred to *Aphelocoma*.
5. *coronatus* Swains., subspecies of No. 2.
6. *cyanopogon* Wied, currently considered as congeneric with *Cyanocorax* Boie, 1826.
7. *pileatus* Temm., type of *Cyanocorax* Boie, 1826.
8. *azureus* Vieill., referred by Strickland to his *Cyanocitta*, but considered by later authors as aberrant.
9. *formosus* Swain. (= *Pica bullocki* Gray), type of *Callocitta* Gray, 1841.
10. *cristatellus* Temm., type of *Uroleuca* Bonap. 1850, as restricted by Cabanis in 1851.

Cyanurus Swains. is treated by most authors as a synonym of *Cyanocorax*. Boie, 1826. According to Sharpe (*cf.* Brit. Mus. Cat. Bds., III, 1877, p. 119, footnote), if used at all, it is available only for *azureus*, usually regarded as doubtfully congeneric with *Cyanocorax*.

As already said, by the first species rule it would replace *Cyanocitta* of the A. O. U. Check-List for the large group of species and subspecies so long known under the latter name. It is objected that in this case the first species cannot be taken as the type, because the author stated that "the three first species are aberrant"; then by the first species rule the type is the fourth species, and hence *Cyanurus* must replace *Aphelocoma*.

Genus **Aphelocoma.**

Aphelocoma CABANIS, Mus. Hein., I, 1851, 221.

4 congeneric species, as follows:

1. *californica*,
2. *sieberi*,
3. *ultramarina*,
4. *floridana*.

Type, as determined by Sharpe (Br. Mus. Cat. Bds., III, 1877, p. 112), and as since currently recognized, *Garrulus californicus* Vigors, the first species. (Gray, 1855, made *Aphelocoma* a synonym of *Cyanocitta*, with *Garrulus californicus* Vigors as the type of *Cyanocitta*, a species inferentially excluded from the group by the original author, who, besides, explicitly designated a different species as the type.)

Genus **Xanthoura.**

Xanthoura BONAPARTE, Consp. Av., I, 1850, 380.

3 species, all currently recognized as congeneric, namely: (1) *peruanus*, (2) *luxuosus*, (3) *guatemalensis*.

Type, as fixed by Gray (1855), and by general consent, *Corvus peruanus* Gmel. = *C. yncas* Bodd., the first species.

Genus **Perisoreus.**

Perisoreus BONAPARTE, Saggio Dist. Metod. Anim. Vertebr., 1831, 43.

3 species, 2 of them congeneric and 1 undescribed, as follows: (1) *infaustus*, (2) *canadensis*, (3) "sp. nov." undesc.

Type, by general consent, *Corvus infaustus* Linn.; type designated by Gray (1840, also 1855), *Corvus canadensis* Linn.

Genus **Corvus.**

Corvus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 105.

12 species, representing 10 modern genera.

1. *corax.*
2. *corone*, type of *Corone* Kaup, 1829.
3. *frugilegus*, type of *Trypancorax* Kaup, 1854.
4. *cornix*, congeneric with No. 1.
5. *monedula*, type of *Coleus* Kaup, 1829.
6. *benghalensis* = *Coracias bengalensis* Linn. 1766.
7. *glandarius*, type of *Garrulus* Briss. 1760.
8. *cristatus*, type of *Cyanocitta* Strickl. 1845.
9. *caryocatactes*, type of *Nucifraga* Briss. 1760.
10. *pica*, type of *Pica* Briss. 1760.
11. *paradisi*, type of *Terpsiphone* Gloger, 1827.
12. *infaustus*, type of *Perisoreus* Bonap. 1838.

Nos. 2 and 4 are commonly considered as congeneric with No. 1.

Type, as designated by Gray (1840), by elimination, and by common consent, *Corvus corax* Linn., the first species.

Genus **Nucifraga.**

Nucifraga BRISSON, Orn., II, 1760, 58.

Monotypic, with [*Nucifraga*] *nucifraga* Brisson = *Corvus caryocatactes* Linn. as type; also tautonymic.

Genus **Picicorvus.**

Picicorvus BONAPARTE, Consp. Av., I, 1850, 384.

Monotypic, with *Corvus columbianus* Wils. as type.

Genus **Cyanocephalus.**

Cyanocephalus BONAPARTE, Oss. Stat. Zool. Europ. Vert., 1842, 17.

Monotypic, with *Gymnorhinus cyanocephalus* Wied as type; hence tautonymic.

Family STURNIDÆ.

Genus **Sturnus.**

Sturnus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 167.
4 species, representing 3 genera and 2 families.

1. *vulgaris.*
2. *luteolus*, not identifiable.
3. *contra*, type of *Sturnopastor* Hodgs. 1844.
4. *cinclus*, type of *Cinclus* Bechst. 1802.

Type, as designated by Gray (1840), by elimination, and by general usage, *Sturnus vulgaris* Linn., the first species.

Family ICTERIDÆ.

Genus **Dolichonyx.**

Dolichonyx SWAINSON, Phil. Mag. (2), I, June, 1827, 435; with a reference to "*Swains. Zool. Journ.*, No. 10." One species, "*Emberiza oryzivora* Wils."

Dolichonyx SWAINSON, Zool. Journ., III, Aug.–Nov. 1827, 351. Diagnosis, and type designated as *Emberiza oryzivora* Wils. = *Fringilla oryzivora* Linn.

Monotypic, with type by designation, *Fringilla oryzivora* Linn.

Genus **Molothrus.**

Molothrus SWAINSON, Faun. Bor.-Am., II, 1831 (Feb. 1832), 277 (first mentioned), 494 (diagnosis, and type designated).

Monotypic, with *Fringilla pecoris* Gmel. = *Oriolus ater* Bodd. as type by designation.

Genus **Tangavius.**

Tangavius LESSON, Rev. Zool., Feb. 1839, 41.

Type and only species *Tangavius* (= *Callothrus* Cass., 1866) *involucratus* sp. nov. = *Molothrus æneus robustus* Cab. 1851.

Replaces *Callothrus* Cass. 1866, by priority. (*Cf.* Nelson, Proc. Biol. Soc. Wash., XVIII, 1905, p. 125.)

Genus **Xanthocephalus.**

Xanthocephalus BONAPARTE, Consp. Av., I, 1850, 431.

Monotypic, with *X. perspicillatus* (Licht.) = *Icterus xanthocephalus* Bonap. as type; hence tautonymic.

Genus **Agelaius.**

Agelaius VIEILLOT, Analyse, 1816, 33.
3 species = "3 sections."

1. "Troupiale commandeur, Buff." = *Oriolus phœniceus* L.
2. "—— de cayenne, Buff." = *Oriolus guianensis* L., type of *Leistes* Swains. 1826.
3. "—— de cap. More, Buff." = *Oriolus cucullatus* P. L. S. Müll., type of *Hyphantornis* Gray, 1849.

Type, as designated by Gray (1840) and by elimination, *Oriolus phœniceus* Linn., the first species, = the first 'section' of the genus.

Genus **Sturnella.**

Sturnella VIEILLOT, Analyse, 1816, 34.

Monotypic, with "Stourne, ou Merle à fer-à-cheval, Buff." = *Alauda magna* Linn., 1758, as type.

Genus **Icterus.**

Icterus BRISSON, Orn., II, 1760, 85.

Type, by tautonomy and as designated by Gray (1840), [*Icterus*] *icterus* Briss. = *Oriolus icterus* Linn.

Subgenus **Pendulinus.**

Pendulinus VIEILLOT, Analyse, 1816, 33.

2 noncongeneric species.

1. "*Oriolus spurius* (*femina*)."
2. "——*ferrugineus* Gm.," type of *Scolecophagus* Swains. 1831 (1832); preoccupied = *Euphagus* Cass. 1866.

Used in the same year, in another connection (Nouv. Dict. d'Hist. Nat., nouv. éd., V, 1816, pp. 315–322), in a much broader sense.

Type, by elimination, *Oriolus spurius* Linn., the first species. (Not *Oriolus banana* Linn., as given by Gray, 1855.)

Subgenus **Yphantes.**

Yphantes VIEILLOT, Analyse, 1816, 33; Nouv. Dict. d'Hist. Nat., nouv. éd., III, 1816, pp. 214–216.

2 species.

1. "Baltimore franc, Buff." = *Oriolus baltimore* Linn.
2. "*Spurius* (mas.), Gm. Lath." = *Oriolus spurius* Linn., type of *Pendulinus* Vieill. (in next paragraph above on same page).

In the second place of publication, these same two species, and no others, are included.

Type, as designated by Gray (1855) and by elimination, *Oriolus baltimore* Linn. 1766 = *Coracias galbula* Linn. 1758, the first species.

Genus **Euphagus.**

Euphagus CASSIN, Proc. Acad. Nat. Sci. Phila., 1866, 413.

Monotypic, with *Psarocolius cyanocephalus* Wagler as type.

Genus **Quiscalus.**

Quiscalus VIEILLOT, Analyse, 1816, 36.
2 noncongeneric species.
"*Gracula quiscala* et *Corvus mexicanus*, Lin. Gm. Lath.," the latter a species of true *Corvus* Linn. 1758.

Type, by tautonomy, as designated by Gray (1840), and by elimination, *Gracula quiscala* Linn., the first species.

Genus **Megaquiscalus.**

Megaquiscalus CASSIN, Proc. Acad. Nat. Sci. Phila., 1866, 409.
6 nominal species, all congeneric, four of them being subspecies of the first species.

1. *major,*
2. *assimilis,*
3. *macrourus,*
4. *tenuirostris,*
5. *palustris,*
6. *peruvianus.*

Nos. 2, 3, 5, and 6 are subspecies of No. 1.

Type, as designated by Sclater (1886) and by common consent, *Quiscalus major* Vieill., the first species.

Family FRINGILLIDÆ.

Genus **Hesperiphona.**

Hesperiphona BONAPARTE, Comp. Rend., XXXI, 1850, 424.

Monotypic; "pour la *Fringilla vespertina* de l' Amérique septentrionale" = *Fringilla vespertina* Cooper.

Genus **Pinicola.**

Pinicola VIEILLOT, Ois. d'Amér. Sept. I, 1807, p. iv, pl. i, fig. 13.

Monotypic, with *Pinicola rubra* Vieill. = *Loxia enucleator* Linn. as type.

Genus **Pyrrhula.**

Pyrrhula BRISSON, Orn., III, 1760, 308.

Type, by tautonomy, [*Pyrrhula*] *pyrrhula* Briss. = *Fringilla pyrrhula* Linn.

Genus **Carpodacus.**

Carpodacus KAUP, Skizz. Entw.-Gesch. Eur. Thierw., 1829, 161.
2 congeneric species, *erythrina* and *roseus.*

Type, as designated by Gray (1855) and by general consent, *Loxia erythrina* Linn. (*Erythrina* Brehm, of one year earlier date, and containing the same two species, is preoccupied.)

Genus **Passer**.

Passer BRISSON, Orn., III, 1760, 71.

Type, as designated by Gray (1840) and by common consent, [*Passer*] *passer domesticus* Briss. = *Fringilla domesticus* Linn.

The genus originally contained 67 species (some of them nominal, others not identifiable), which was later restricted by various early authors to *F. domestica*, *F. montana*, and other members of this well-defined group, the only synonym of which is *Pyrgita* Cuvier, 1817, founded for *F. domestica* and *F. montana*, but to which various other (mostly noncongeneric) species were referred in a footnote.

Genus **Loxia**.

Loxia LINNÆUS, Syst. Nat., ed. 10, I, 1758, 171.

32 species, representing 22 or more modern genera, and including 6 species currently considered as unidentifiable.

Type, by restriction, *Loxia curvirostra*, the first species, and the only species of *Loxia* of Brisson, 1760, of Illiger (ex Linn.) 1811, of Vieillot, 1816, of Cuvier, 1817, of Gray, 1840, and of various subsequent writers. By general consent the Crossbills thus constitute the restricted genus *Loxia*, with *L. curvirostra* Linn. as type.

Genus **Leucosticte**.

Leucosticte SWAINSON, Faun. Bor.-Am., II, 1831 (Feb. 1832), 267 (first mention), 493 (diagnosis, and type designated).

Monotypic, with *Linaria* (*Leucosticte*) *tephrocotis* sp. nov., as type.

Genus **Acanthis**.

Acanthis BECHSTEIN, Orn. Tachenb. Deutschl., 1802, 125.

4 species, representing 3 modern genera.

1. *carduelis*, type of *Carduelis* Brisson, 1760.
2. *spinus*, type of *Spinus* Koch, 1816.
3. *linaria*.
4. *flammea* — same as No. 3.

Type, by elimination, *Fringilla linaria* Linn.

By the first species rule *Acanthis* is a synonym of *Carduelis* Brisson, and another name would be required for the group now called *Acanthis* in the A. O. U. Check-List. *Ægiothus* Cabanis, Mus. Hein., I, 1851, 161, would be available. The type of *Linota* Bonaparte,1838 (*Fringilla cannabina* Linn.) is not congeneric, from the standpoint of the Check-List, with *Fringilla linaria* Linn., and *Linota* is therefore not available in place of *Acanthis*. The same holds true for *Linaria* Bechstein, 1802. (*Cf.* Stone,

Auk, XXIV, April, 1907, p. 199. Stone attributes the genus *Acanthis* to Borkhausen, Deutschl. Fauna, I, 1797, 248, which work I have been unable to see.)

Genus **Astragalinus**.

Astragalinus CABANIS, Mus. Hein., I, 1851, 159.
3 species, all congeneric.
1. *tristis*.
2. *mexicanus* (= *psaltria* Say), type of *Pseudomitris* Cassin, 1865.
3. *columbianus*, subspecies of No. 2.

Type, by elimination, as designated by Gray (1855), and by common consent, *Fringilla tristis* Linn., the first species.

Genus **Spinus**.

Spinus KOCH, Bayer. Zool., 1816, xxxviii, 233.
4 species.
1. *carduelis*, type of *Carduelis* Briss. 1760.
2. *linaria*, type of *Acanthis* Bechst. 1803.
3. *citrinella*, type of *Citrinella* Bonap. 1838.
4. *viridis* = *Fringilla spinus* Linn.

Type, by both tautonomy and by elimination, *Fringilla spinus* Linn., the last species.

Genus **Carduelis**.

Carduelis BRISSON, Orn., III, 1760, 53.

Type, by tautonomy, [*Carduelis*] *carduelis* Briss. = *Fringilla carduelis* Linn. (North American only as an introduced species.)

Genus **Passerina**.

Passerina VIEILLOT, Analyse, 1816, 30.
3 noncongeneric species:
1. "Ministre" = *Tanagra cyanea* Linn., type of *Cyanospiza* Baird, 1858.
2. "Ortolan de riz" = *Fringilla oryzivora* Linn., type of *Dolichonyx* Swainson, 1827.
3. "—— de neige" = *Emberiza nivalis* Linn., type of *Plectrophenax* Stejneger, 1882.

Type, by elimination, *Emberiza nivalis* Linn., the last species.

By the first species rule *Cyanospiza* Baird would become a synonym of *Passerina*.

The error Dr. Stejneger made (Proc. U. S. Nat. Mus., 1882, 33) in proposing *Plectrophenax* for the Snowflakes instead of adopting *Passerina* for this group was in throwing out *Passerina* altogether because preoccupied in botany, in accordance with then current usage. It was not till four years later that the A. O. U. Code first established the ruling that "Zoö-

logical nomenclature has no necessary connection with botanical nomenclature, and....use of a name in Botany, therefore, does not prevent its subsequent use in Zoölogy."

Genus **Calcarius.**

Calcarius BECHSTEIN, Tachenb. Vog. Deutschl., 1802, 130.

Monotypic, with *Fringilla lapponica* Linn. as type.

Genus **Rhynchophanes.**

Rhynchophanes BAIRD, Bds. N. Amer., 1858, 432 (in text).

Monotypic, with *Plectrophanes mccownii* Lawr. as type.

Genus **Poœcetes.**

Poœcetes BAIRD, Bds. N. Amer., 1858, 447.

Monotypic, with *Fringilla graminea* Gmel. as type.

By the first species rule *Poœcetes* is a synonym of *Zonotrichia* Swains., 1831 (see below under *Zonotrichia*).

Genus **Ammodramus.**

Ammodramus SWAINSON, Phil. Mag. (2), I, June, 1827, 435; here incidentally mentioned in describing a new species, with a reference to "*Swains. Zool. Journ.* No. 10," where, a few months later, the genus was formally described and the type designated as *Fringilla caudacuta* Wilson = *Oriolus caudacutus* Gmelin.

Ammodramus SWAINSON, Zool. Journ., III, Aug.–Nov., 1827, 348. Formal diagnosis and type indicated.

Type, as designated by the author, and also by general usage, *Oriolus caudacutus* Gmel.

Type, by first species rule, *Ammodramus bimaculatus* (= *Coturniculus savannarum bimaculatus* auct.), a bird of a different genus. *Coturniculus* of the A. O. U. Check-List would thus become a synonym of *Ammodramus*, and a new name would be required for the present *Ammodramus* group. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 193, who proposes to replace *Ammodramus* with *Passerherbulus* Maynard, 1895.)

Genus **Passerculus.**

Passerculus BONAPARTE, Geogr. and Comp. List, 1838, 33.

3 species, belonging to 2 genera.

1. *savanna.*
2. *palustris*, a species of *Melospiza* Baird, 1858.
3. *lincolni*, congeneric with No. 2.

Type, as designated by Gray (1840) and by Baird (1858), *Fringilla savanna* Wilson.

Subgenus **Centronyx**.

Centronyx BAIRD, Bds. N. Amer., 1858, 440.

Monotypic, with *Emberiza bairdii* Aud. as type.

Genus **Coturniculus**.

Coturniculus BONAPARTE, Geogr. and Comp. List, 1838, 32.

2 congeneric species, generally considered as doubtfully separable from *Ammodramus*.

1. *passerina*, 2. *henslowii*.

Type, as designated by Gray (1840), and by general consent, *Fringilla passerina* Wilson.

Genus **Chondestes**.

Chondestes SWAINSON, Phil. Mag. (2), I, June, 1827, 435.

Monotypic, with *Chondestes strigatus* sp. nov. (= *C. gramacus strigatus*) as type.

Genus **Zonotrichia**.

Zonotrichia SWAINSON, Faun. Bor.-Am., II, 1831 (Feb. 1832), 254 (first mentioned), 493 (diagnosis and mention of "types").

4 species, only 2 of which are congeneric.

1. *graminea* (pp. xxiv, xxxv 254), type of *Poœcetes* Baird, 1858.
2. *leucophrys*.
3. *pennsylvanica* = *albicollis* Gmel.
4. *melodia*, type of *Melospiza* Baird, 1858.

Nos. 2 and 3 are congeneric; No. 2, *Emberiza leucophrys* Forster, is currently accepted as the type (designated as such by Gray in 1840), although Bonaparte in 1832 (Saggio Distr. Metod. Anim. Vertebr. a sangue fredo, 1832, p. 83) designated the type as *Fringilla pensylvanica* Lath., as follows: "*Zonitrichia*, Sw. (typ. *Fr. pensylvanica*, Lath.)."

By the first species rule *graminea* might be the type, as the author failed to definitely designate a type, in which case a new name would be necessary for the group now known as *Zonotrichia* in the A. O. U. Check-List, and *Poœcetes* would become a synonym. The case, however, is somewhat peculiar. While *graminea* stands as the first species in three places where the species of *Zonotrichia* are given (pp. xxiv, xxxv, 254–257) it is not included as one of the 'types' (p. 493), where *melodia* is included, while *melodia*, on p. 252, is mentioned as a connectant between *Emberiza* and *Zonotrichia*, and in such a way as to imply its reference to the former.

[In this connection, my attention has been called by Mr. Stone to the genus *Hortulanus* Vieillot, proposed by Vieillot, with a number of others,

in 1807 (Ois. Am. Sept., I, 1807, pp. iii and iv, and pl. i), several of which are in current use. They are each illustrated by figures of the bill and front part of the head of one or more species, and are accompanied by brief and sometimes very inadequate diagnoses; they each have, however, one or more species referred to them.

Genus **Hortulanus**.

Hortulanus VIEILLOT, Ois. Am. Sept., I, 1807, pp. iii and iv and pl. i.

3 noncongeneric species.

1. "No. 3 [referring to the plate]. Bec d'un Ortolan touit, *Hortulanus erythrophtalmus*" (sic), type of *Pipilo* Vieill. 1816.
2. "No. 6. Bec de l'Ortolan à gorge blanche, *Hortulanus albicollis* .... *Fringilla albicollis* Linn. Gm.," a species of *Zonotrichia* Swains. 1831 (Feb. 1832).
3. "No. 14. Bec de l'Ortolan à cou noir, *Hortulanus nigricollis* .... *Fringilla flavicollis*, et d'*Emberiza Americana*" Gmel., type of *Spiza* Bonap. 1824.

Type, by elimination, *Fringilla albicollis* Gmel., the second species; type by first species rule, *Fringilla erythrophthalmus* Linn.

The figure of the bill of *Hortulanus erythrophtalmus* is poor, but not worse than that of several of the other species figured, as *Hortulanus albicollis* and *H. nigricollis*. In these two cases the names cited in the accompanying text ("Explication des figures de la planche première") leave no doubt as to the species intended. In the case of *Hortulanus erythrophtalmus*, the Linnæan equivalent name is not given, but there can be no doubt that *Fringilla erythrophthalma* Linn. is meant, this being the only red-eyed American Fringilline then known. The name 'touit' is definitive, being not only onomatopœic, but Vieillot's vernacular name for his genus *Pipilo* in 1816[1] and 1819[2]; where, in the first case, he cites as type "Pinson aux yeux rouges, Buff.," and in the second case, "*Emberiza erithrophtalma* Lath.," and also Catesby's and Wilson's figures of this species.

That Vieillot did not, apparently, later make use of the name *Hortulanus*, but adopted *Pipilo* for the first of these three species and *Passerina* for the others, is only one of many similar cases in the writings of not only Vieillot, but of Bonaparte, Swainson, and many other authors of the first half of the nineteenth century. It has the same kind of basis as have *Pinicola*, *Piranga*, and just as good a basis as many other names that have long been in current use and universally accepted.

By elimination *Hortulanus* replaces *Zonotrichia*; by the first species rule *Hortulanus* replaces *Pipilo*.[3]

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[1] Analyse, 1816, p. 32.
[2] Nouv. Dict. d'Hist. Nat., nouv. éd., XXXIV, 1819, p. 291.
[3] Gray (1855) in part referred *Hortulanus* Vieill. to *Pipilo* Vieill. and in part to *Euspiza* Bonap.

Genus **Spizella**.

Spizella BONAPARTE, Saggio Distr. Met. An. Vert., 1832, 82.

Type, *Fringilla pusilla* Wilson, the only species mentioned.

Genus **Junco**.

Junco WAGLER, Isis, 1831, 526.

Monotypic, with *Junco phæonotus* sp. nov. (= *Fringilla cinerea* Swains. 1827, not of Gmelin, 1788) as type.

Genus **Amphispiza**.

Amphispiza COUES, Bds. Northwest, 1874, 234.
2 congeneric species, *bilineata* and *belli*.

Type, as designated by founder, *Emberiza bilineata* Cass.

Genus **Peucæa**.

Peucæa AUDUBON, Synop., 1839, 112.
2 noncongeneric species.
1. *bachmani*.
2. *lincolni*, a species of *Melospiza* Baird, 1858.

Type, as designated by Gray (1855) and by elimination, *Fringilla bachmani* Aud. (= *P. æstivalis bachmani*), the first species.

Genus **Aimophila**.

Aimophila SWAINSON, Class. Bds., II, 1837, 287.
2 species.
1. *rufescens*.
2. *superciliosa*, type of *Plagiospiza* Ridgway, 1898.

Type, by elimination, *Pipilo rufescens* Swains., the first species. (Gray (1855) designated the second species as the type.)

Genus **Melospiza**.

Melospiza BAIRD, Bds. N. Am., 1858, 478.
7 congeneric species.
1. *melodia*,
2. *heermanni*,
3. *gouldi*,
4. *rufina*,
5. *fallax*,
6. *lincolni*,
7. *palustris*, type of subgenus *Helospiza* Baird, 1868.

Nos. 2–5 are subspecies of No. 1.

Type, as designated by author, *Fringilla melodia* Wilson, the first species.

Genus **Passerella**.

Passerella SWAINSON, Class. Bds., II, 1837, 288.

Monotypic, with *Fringilla iliaca* Merrem as type.

Genus **Arremonops.**

Arremonops RIDGWAY, Man. N. Am. Bds., 2d ed., 1896, 434, 605.

Monotypic, with *Emberiza rufivirgata* Lawr. as type.

Genus **Oreospiza.**

Oreospiza RIDGWAY, Man. N. Am. Bds., 2d ed., 1896, 439.

Monotypic, with *Fringilla chlorura* Aud. as type.

Genus **Pipilo.**

Pipilo VIEILLOT, Analyse, 1816, 32.

Monotypic; type "Pinson aux yeux rouges, Buff." = *Fringilla erythrophthalma* Linn.

By the first species rule *Pipilo* is a synonym of *Hortulanus* Vieillot, 1807, the first species of which is unquestionably *Fringilla erythrophthalma* Linn. (See above, under *Hortulanus*, p. 360.)

Genus **Cardinalis.**

Cardinalis BONAPARTE, Proc. Zool. Soc. Lond., 1837, 111.
3 species, 2 congeneric.
1. *virginianus*, 2. *phœniceus*.
3. *sinuatus*, type of *Pyrrhuloxia* Bonap., 1850.

Type, by tautonomy, *Cardinalis virginianus* Bonap. = *Loxia cardinalis* Linn., the first species.

Genus **Pyrrhuloxia.**

Pyrrhuloxia BONAPARTE, Consp. Av., 1850, 500.

Monotypic, with *Cardinalis sinuatus* Bonap. as type.

Genus **Zamelodia.**

Zamelodia COUES, Bull. Nutt. Orn. Club, V, 1880, 98.
2 congeneric species: (1) *ludoviciana*, (2) *melanocephala*.

Proposed to replace *Hedymeles* Cab., 1851, with the same species, in the same order (preoccupied = *Habia* Reich., 1850, also preoccupied). As the type of *Habia* Reich. was *melanocephala*, the type of *Zamelodia* should be the same species, *Guiraca melanocephala* Swains.

Genus **Guiraca.**

Guiraca SWAINSON, Phil. Mag. (2), I, June, 1827, 438; incidental mention in describing a new species, with the reference, "*Swains. Zool. Journ.* No. 10."

Guiraca SWAINSON, Zool. Journ., III, Aug.–Dec., 1827, 350, formal diagnosis and designation of "typical species," as follows:

1. *cærulea.*
2. *melanocephala,* type of *Habia* Reich. 1850.
3. *ludoviciana,* congeneric with No. 2.

Type, as designated by Gray (1840) and by elimination, *Loxia cærulea* Linn., the first species.

Genus **Cyanospiza.**

Cyanospiza BAIRD, Bds. N. Amer., 1858, 500.

5 congeneric species.

1. *parellina,*
2. *versicolor,*
3. *ciris,*
4. *cyanea,*
5. *amœna.*

Type, as designated by the author, *Tanagra cyanea* Linn., the fourth species; also tautonymic.

By the first species rule *Cyanospiza* is a synonym of *Passerina* Vieill. 1816. (See above under *Passerina,* p. 357.)

Genus **Sporophila.**

Sporophila CABANIS, Wiegm. Arch. f. Naturg., 1844, i, 291; Tschudi's Fauna Peruana, Aves, 1844–46, 211.

3 congeneric species.

1, *luctuosa*; 2, *telasco* (Less.); 3, *alaudina* (d'Orb. & Lafr.).

Proposed as a substitute for *Spermophila* Swains. (preoccupied), with: "Types, *Pyrrhula falcirostris, cinereola* Temm. pl. col. p. 11"; the first is not positively identifiable, and the second = *hypoleuca* Licht.

Type, either (and preferably) *Fringilla hypoleuca* Licht. (type of *Spermophila*), or *Spermophila luctuosa* Lafr. (type of *Sporophila* by general consent). In the Check-List no type is given.

Genus **Euetheia.**

Euetheia REICHENBACH, Av. Syst. Nat., 1850, pl. 79.

Monotypic, with *Fringilla lepida* Linn. as type.

Genus **Tiaris.**

Tiaris SWAINSON, Phil. Mag. (2), I, June, 1827, 438. Incidental mention in a faunal paper in describing a new species with a cross-reference to "*Swains. in Zool. Journ.* No. 10," for the diagnosis and type of the genus.

Tiaris SWAINSON, Zool. Journ., III, Aug.–Nov., 1827, 351. Diagnosis and designation of type.

Type, by designation, *Fringilla ornata* Wied. Type, by priority of association, *Tiaris pusillus* Swains. sp. nov.

The type as twice designated by the author (*cf.* Class. Bds., II, 1837, p. 280), and as universally recognized till 1902, is *Fringilla ornata* Wied. In 1902 (*cf.* Richmond, Auk, XIX, Oct. 1905, p. 87), *Tiaris* was brought

forward to replace *Euetheia* Cab. 1850, on the ground of priority. It would seem, however, that the cross-reference (*cf.* Allen, Auk, XXII, Oct. 1905, pp. 400–407) given in the 'Philosophical Magazine' to the 'Zoological Journal' for the diagnosis and the type should be held to establish as the type of *Tiaris* the species designated by the author in a paper previously sent to the 'Zoological Journal,' but sufficiently delayed in publication to give the 'Philosophical Magazine' paper six months' priority.

Any ruling on the case of *Tiaris* is equally applicable to three other genera first published in these two papers, where we have by a chance association with a new generic name a species that is noncongeneric, from the modern point of view, with the type of the genus as designated by the author. These genera are *Xiphorhynchus, Vermivora, Tiaris* and *Ammodramus,* with which is involved the status of three other genera, *Helminthophila, Coturniculus* and *Dendrornis,* or seven in all, affecting the names of about 60 species and subspecies, one half of which are constituents of the A. O. U. Check-List. Up to 1905 (*cf.* Oberholser, Smiths. Misc. Coll., Quart. Issue, III, pp. 59–68, May 13, 1905) these genera (except *Vermivora,* a synonym of *Helmitheros* Raf. 1819) were all supposed to rest on an unassailable basis, having been universally current since they were founded, fifty to seventy-five years ago, the type in each case having been accepted as designated by the author.

In the recently revised (but as yet unpublished) A. O. U. Code, it is provided that the type of a genus may be designated by the founder in any part of the work or paper where the genus is first published. As it has heretofore been customary to consult the intent of the author, and to accept his types even if only inferentially indicated, and always when designated in connection with a formal diagnosis, it would obviously facilitate stability in nomenclature if to the A. O. U. rule — good as far as it goes — the following reasonable additions were made, namely: "*or by the founder at some later date than the first publication, provided that the species selected as the type is one of the originally included species, and has not in the meantime been made the type of any other genus; and, provided further, that in the meantime a type for the original genus has not been designated in due form by some other author.*" That such a provision would work easily and give satisfactory results is capable of demonstration, the case of the above Swainsonian genera being in point, and also the case of *Spiza,* next following, whereby a very serious overturn of long-established names would be prevented. (See also, *antea, Ectopistes,* p. 326, and *Amizilis,* p. 346.)

Genus **Spiza.**

Spiza BONAPARTE, Journ. Acad. Nat. Sci. Phila., IV, i, 1824, 45, 46, 56.

7 species, all noncongeneric from the modern standpoint.

1. *americana*, designated by the author, in 1827, as the type of *Spiza*; also as type of *Euspiza* Bonap. 1832.
2. *savanna*, type of *Passerculus* Bonap. 1838.
3. *socialis*, congeneric with type of *Spizella* Bonap. 1832.
4. *passerina*, type of *Coturniculus* Bonap. 1832.
5. *ciris*, congeneric with No. 6.
6. *cyanea*, type of *Cyanospiza* Baird, 1858.
7. *leucophrys*, usually accepted as type of *Zonotrichia* Swains. 1831.

Before any of the species were transferred to other genera the type was fixed by the author as *Emberiza americana* Gmel. (*cf.* Bonaparte, Specchio Comp. della Orn. di Roma e di Filadelfia, 1827, p. 47, footnote; Ridgway, Proc. U. S. Nat. Mus., III, 1880, pp. 3, 4). Hence:

Type, by designation of founder, *Emberiza americana* Gmel., the first species. Later the same species was made by the founder (Saggio Distr. Metod. Anim. Vertebr. a sangue fredo, 1832, p. 83) the type of a new genus *Euspiza*, and *Spiza* was transferred to his group "Spizæ Tanagroideæ!"

Genus **Calamospiza**.

Calamospiza BONAPARTE, Geogr. and Comp. List, 1838, 30.

Monotypic, with *Fringilla bicolor* Townsend (not of Linn.) = *C. melanocorys* Stejn. 1885) as type.

Family TANAGRIDÆ.

Genus **Euphonia**.

Euphonia DESMAREST, Hist. Nat. Tang., 1805, pl. xix, and accompanying text.
5 species, usually regarded as congeneric.

1. Euphone organiste = *Pipra musica* Gm.
2. " teite = *Fringilla violacea* Linn.
3. " chlorotique = *Tanagra chlorotica* Linn.
4. " negre = *Tanagra cayennensis* Linn.
5. " olive = *Euphonia olivacea* sp. nov.

In 1840, G. R. Gray (List Gen. Bds., 1840, p. 44) designated *Pipra musica* Gmel. as the type of *Euphonia* (= *Euphone* Gray), and this designation was affirmed by Cabanis in 1860 (Journ. f. Orn., 1860, 333), who referred *Cyanophonia* Bonap. (Rev. et Mag. de Zool., 1851, p. 158) to it as a synonym, *Cyanophonia* originally including only *Pipra musica* Gmel. and *Euphonia nigricollis* Vieill., it having been proposed for the blue-headed Euphonias only.

Genus **Piranga**.

Piranga VIEILLOT, Ois. Am. Sept., I, 1807, p. iv.

Monotypic, with *Piranga rubra* = *Muscicapa rubra* Linn. 1766 = *Fringilla rubra* Linn., 1758, as type.

Family HIRUNDINIDÆ.

Genus **Hirundo**.

Hirundo LINNÆUS, Syst. Nat., ed. 10, 1758, 191.
8 species, nearly all noncongeneric.

1. *rustica.*
2. *esculenta,* type of *Callocalia* Gray, 1840.
3. *urbica,* type of *Chelidon* Boie, 1822.
4. *riparia,* type of *Riparia* Forster, 1817.
5. *apus,* type of *Micropus* Mayer & Wolf, 1810.
6. *subis,* type of *Progne* Boie, 1826.
7. *pelagica,* type of *Chætura* Stephens, 1825.
8. *melba,* congeneric with No. 5.

Type, as designated by Gray (1840) and by elimination, *Hirundo rustica* Linn.

Genus **Progne**.

Progne BOIE, Isis, 1826, 972.

Monotypic, with *Hirundo purpurea* Wilson = *Hirundo subis* Linn. as type.

Genus **Petrochelidon**.

Petrochelidon CABANIS, Mus. Hein., I, 1850, 47.
5 species, now referred to two genera.

1. *melanogastra* Swains.
2. *nigricans* Vieill., type of *Hylochelidon* Gould, 1865; retained in *Petrochelidon* by Sharpe.
3. *leucoptera* Gm. = *albiventris* Bodd., currently referred to *Tachycineta.*
4. *leucorhoa* Vieill., currently referred to *Tachycineta.*
5. *leucopyga* Meyer (nec Licht.) = *meyeni* Cab., currently referred to *Tachycineta.*

Type, as designated by Gray (1855) and by elimination, *Hirundo melanogaster* Swains.

Genus **Tachycineta**.

Tachycineta CABANIS, Mus. Hein., I, 1850, 48.
2 species.

1. *thalassina.*
2. *bicolor,* type of *Iridoprocne* Coues, 1878.

Evidently *Hirundo thalassina* Swains., the only species given in the text (*bicolor* is mentioned in a footnote) was intended as the type, as designated by Gray (1855), and as it is by elimination.

Genus **Iridoprocne**.

Iridoprocne COUES, Bds. Col. Vall., 1878, 412.
5 species mentioned as referable to it.

Type, as designated by the author, *Hirundo bicolor* Vieill.

Genus **Callichelidon.**

Callichelidon BAIRD, Rev. Am. Bds., 1865, 271, 294, 303.
2 congeneric species.

Type, as designated by the author, *Hirundo cyaneoviridis* Bryant.

Genus **Riparia.**

Riparia FORSTER, Synop. Cat. Brit. Bds., 1817, 17.

Monotypic, with *Riparia europæa* Forst. = *Hirundo riparia* Linn. as type; also tautonymic.

Genus **Stelgidopteryx.**

Stelgidopteryx BAIRD, Bds. N. Am., 1858, 312.

Monotypic, with *Hirundo serripennis* Aud. as type.

Family AMPELIDÆ.

Genus **Ampelis.**

Ampelis LINNÆUS, Syst. Nat., ed. 12, I, 1766, 297.
7 species, mostly noncongeneric.

1. *garrulus.*
2. *pompadora,* type of *Xipholema* Gloger, 1842.
3. *carnifex,* type of *Phœnicercus* Swains. 1831.
4. *cotinga,* type of *Cotinga* Brisson, 1760.
5. *maynana,* congeneric with No. 4.
6. *cayana,* congeneric with No. 4.
7. *tersa,* type of *Procnias* Illiger, 1811.

Type, as designated by Gray (1855, not 1840) and by elimination, *Lanius garrulus* Linn., the first species.

Family PTILIOGONATIDÆ.

Genus **Phainopepla.**

Phainopepla SCLATER, Proc. Zool. Soc. Lond., 1858 (Jan. 1859), 543.

Monotypic, with *Ptilogonys nitens* Swains. as type.

Family LANIIDÆ.

Genus **Lanius.**

Lanius LINNÆUS, Syst. Nat., ed. 10, 1758, 93.
10 species, belonging to 6 genera.

1. *cristatus,* type of *Otomela* Bonap. 1854.

2. *excubitor.*
3. *collurio,* type of *Enneoctonus* Boie, 1826.
4. *tyrannus,* type of *Tyrannus* Cuvier, 1799.
5. *carnifex,* type of *Phœnicercus* Swains. 1831.
6. *schach,* congeneric with No. 2.
7. *senator,* congeneric with No. 2.
8. *cœrulescens* = *Buchanga cœrulescens* auct.
9. *jocosus,* a species of *Otocompsa* Cab. 1850.
10. *garrulus,* type of *Ampelis* Linn. 1766.

Nos. 1, 3, and 6 are, by common consent, congeneric with No. 2.

Type, by elimination, as designated by Gray (1840), and by general usage, *Lanius excubitor* Linn., the second species.

Family VIREONIDÆ.

Genus **Vireo.**

Vireo VIEILLOT, Ois. Am. Sept., I, 1807 (1808), 83.
3 noncongeneric species.

1. *musicus* = *noveboracensis* Gmel.
2. *virescens* = *olivaceus* Linn., type of *Vireosylvia* Baird, 1866, ex Bonap. 1838.
3. *flavifrons,* type of *Lanivireo* Baird, 1866.

Type, as designated by Gray (1840), by elimination, and by general consent, *Muscicapa noveboracensis* Gmel., the first species.

Genus **Vireosylva.**

Vireosylva BONAPARTE, Geogr. and Comp. List, 1838, 26.
2 congeneric species, *olivacea* and *bartrami* Sw. = *agilis* Licht.

Type, as designated by Gray (1840), and later by Baird (1866), *Muscicapa olivacea* Linn.

Genus **Lanivireo.**

Lanivireo BAIRD, Rev. Am. Bds., May, 1866, 345.
4 congeneric species.

Type, as designated by the author, *Vireo flavifrons* Vieill.

Family CŒREBIDÆ.

Genus **Cœreba.**

Cœreba VIEILLOT, Ois. Am. Sept., I, 1807 (1808), 80.

Monotypic, with *Certhiola flaveola* Linn. as type.

Family MNIOTILTIDÆ.

Genus **Mniotilta.**

Mniotilta VIEILLOT, Analyse, 1816, 45.

Monotypic, with "Figuier varia, Buff." = *Motacilla varia* Linn., as type.

Genus **Protonotaria.**

Protonotaria BAIRD, Bds. N. Am., 1858, 239.

Monotypic, with *Motacilla citrea* Bodd. 1783 = *Motacilla protonotaria* Gmel. 1788; hence also tautonymic.

Genus **Helinaia.**

Helinaia AUDUBON, Synop., 1839, 66.

10 species, representing 4 modern genera.

1. *swainsonii.*
2. *vermivora,* type of *Helmitheros* Rafin. 1819, and of *Vermivora* Swains. 1827.
3. *protonotarius,* type of *Protonotaria* Baird, 1858.
4. *chrysoptera,* congeneric with No. 10.
5. *bachmanii,* " " " "
6. *carbonata* — indeterminable.
7. *peregrina,* congeneric with No. 10.
8. *solitaria,* " " " "
9. *celata,* " " " "
10. *rubricapilla,* type of *Helminthophaga* Cab. 1850.

Nos. 4, 5, 7, 8 and 9 are congeneric with No. 10, *rubricapilla,* the type of *Helminthophaga* Cabanis, 1850.

Type, as designated by Coues (Bds. Col. Vall., 1878, p. 212) and by elimination, *Sylvia swainsonii* Aud., the first species.

Genus **Helmitheros.**

Helmitheros RAFINESQUE, Journ. de Phys., LXXXVIII, June, 1819, 418.

"Le type de ce genre est la Fauvette vermivore de Wilson, que je nomme *H. migratorius*" = *Sylvia vermivora* Wilson = *Motacilla vermivora* Gmel. Monotypic.

Genus **Helminthophila.**

Helminthophila RIDGWAY, Bull. Nutt. Orn. Club, VII, Jan. 1882, 53.

8 species, all congeneric, as follows:

1. *bachmanii,*
2. *chrysoptera,*
3. *pinus* L. = *solitaria* Wils.,
4. *ruficapilla,*
5. *virginiæ,*
6. *celata,*
7. *peregrina,*
8. *luciæ.*

Proposed to replace *Helminthophaga* Cabanis, 1850, with *Sylvia rubricapilla* Wilson as type, which thus becomes the type of *Helminthophila.*

[In this connection it is necessary to consider the case of *Vermivora* Swains. (*cf.* Oberholser, Smiths. Misc. Coll., Quart. Issue, III. pt. 1, May 13, 1905, pp. 66, 67).

Vermivora SWAINSON, Phil. Mag. (2), June, 1827, 434, an incidental use of the name with a cross-reference to "*Swains. Zool. Journ.* No. 10."

Vermivora SWAINSON, Zool. Journ., III, Aug.–Nov., 1827, 170; diagnosis and type designated.

Type of *Vermivora*, as designated by the author and by tautonomy, *Sylvia vermivora* Wilson, which renders *Vermivora* a synonym of *Helmitheros* Rafinesque, 1819.]

Genus **Compsothlypis**.

Compsothlypis CABANIS, Mus. Hein., I, 1850, 20.

3 species, 2 of them congeneric.

1. *americana*; 2, *pitiayuma*; 3, *mexicana*.

Nos. 1 and 2 are congeneric; No. 3 was removed by Ridgway in 1884 to his genus *Oreothlypis*.

Type, as indicated by Gray (1855) and by common consent, *Parus americanus* Linn., the first species.

Genus **Peucedramus**.

Peucedramus COUES, Zool. Wheeler's Expl. W. 100th Merid., 1876, 201.

Monotypic, with *Sylvia olivacea* Giraud as type.

Genus **Dendroica**.

Dendroica GRAY, List. Gen. Bds., 1842, App., 8.

Type, as designated by the author, *Sylvia coronata* Lath.; also monotypic.

Genus **Seiurus**.

Seiurus SWAINSON, Phil. Mag. (2), I, May, 1827, 369.

2 species, *aurocapillus* and *tenuirostris*, the latter not satisfactorily identifiable.

Type, by elimination, and also by designation (Swains., Zool. Journ., III, Apr.–July, 1827, 171), *Motacilla aurocapillus* Linn.

Genus **Oporornis**.

Oporornis BAIRD, Bds. N. Am., 1858, 246.

2 species, *agilis* and *formosa*.

"The typical species is quite similar in color to *Geothlypis philadelphia*." Hence, type by indirect designation, *Sylvia agilis* Wils., *formosa* being very differently colored from *G. philadelphia*.

Genus **Geothlypis**.

Geothlypis CABANIS, Wiegm. Arch. f. Naturg., 1847, i, 316.

To replace "*Trichas* Sws. nec Gloger."

Trichas SWAINSON, Zool. Journ., III, Apr.–July, 1827, 167.

Type of *Trichas*, by designation and tautonomy, *Trichas personatus* Swains. = *Turdus trichas* Linn. Hence the type of *Geothlypis* should be *Turdus trichas* Linn.

Subgenus **Chamæthlypis**.

Chamæthlypis RIDGWAY, Man. N. Am. Bds., 1887, 525.

Type, as designated by the author, *Geothlypis poliocephala* Baird.

Genus **Icteria**.

Icteria VIEILLOT, Ois. Am. Sept., I, 1807, iv, 85.

Monotypic, with *Icteria dumicola* Vieill. = *Turdus virens* Linn. as type.

Genus **Wilsonia**.

~~*Wilsonia*~~ BONAPARTE, Geogr. and Comp. List, 1838, 23.

4 species: 3 congeneric, 1 indeterminable.

1. *mitrata.*
2. *bonapartei* = *Musicapa canadensis* Linn., congeneric with No. 1.
3. *minuta*, indeterminable.
4. *pusilla*, congeneric with No. 1.

Type, as designated by A. O. U. Committee in 1899 (Auk, XVI, p. 123), *Motacilla mitrata* Gmel., the first species.

Genus **Setophaga**.

Setophaga SWAINSON, Phil. Mag. (2), May, 1827, 368, with cross-reference to "*Swains. Zool. Journ.* No. 10." (= Zool. Journ., III, July–Nov., 1827, 368), where diagnosis is first given and type designated.

Monotypic, with type designated as *Muscicapa ruticilla* Linn.

In the original place of publication (Phil. Journ., *l. c.*) *Setophaga* contained 3 species, as follows:

1. *ruticilla.*
2. *miniata*, removed by Baird, 1865, to his genus *Myioborus.*
3. *rubra*, type of *Ergaticus* Baird, 1865.

The type, by elimination, is also *Motacilla ruticilla* Linn., the first species.

Genus **Cardellina**.

"*Cardellina* DU BUS, Esq. Orn., 1850, pl. 25." (Not seen.)

Monotypic, with *Cardellina amicta* Du Bus = *Muscicapa rubrifrons* Giraud.

Genus **Ergaticus**.

Ergaticus BAIRD, Rev. Am. Bds., 1865, 237, 264.

Monotypic, with *Setophaga rubra* Swains. as type.

Genus **Basileuterus.**

Basileuterus CABANIS, Schomburgk's Reise in Guiana, III, 1848, 666.

Monotypic, with *B. vermivorus* (Cab.) = *Sylvia vermivora* Vieill. as type.

Family MOTACILLIDÆ.

Genus **Motacilla.**

Motacilla LINNÆUS, Syst. Nat., ed. 10, 1758, 184.
34 species, representing numerous modern genera.

Type, as designated by Gray (1840) and by universal consent, *M. alba* Linn., the tenth species.

The type by an unrestricted first species rule would be *M. lucinia* Linn. = *Ædon luscinia* auct., or more properly *Luscinia luscinia*, and the very large group now known as *Motacilla* would require a new name.

Genus **Budytes.**

Budytes CUVIER, Règne Anim., I, 1817, 371.

Monotypic, with *Motacilla flava* Linn. as type.

Genus **Anthus.**

Anthus BECHSTEIN, Gem. Naturg. Deutschl., III, 1807, 704.
4 congeneric species, forming two unnamed "families" or subgenera.

1st fam.

1. "*Anthus arboreus* mihi = *Alauda trivialis* Gm. L.," type of *Spipola* Leach, 1816, and of *Pipastes* Kaup, 1829.
2. "*Anthus campestris* mihi = *Alauda pratensis* = *campestris* ? Gm. L. No. 4," type of *Agrodoma* Swains. 1837.

2d fam.

3. "*Anthus pratensis* mihi = *Alauda pratensis* Gm. L. No. 2," type of *Leimoniptila* Kaup, 1829.
4. "*Anthus aquaticus* mihi = *Alauda spinoletta* L. 12 ed. p. 288."

Type, as designated by Gray in 1840, and by general consent, *Anthus arboreus* Bechst. = *Alauda trivialis* Linn., the first species; type by elimination, and as given in the Check-List, *Anthus aquaticus* Bechst. = *Alauda spinoletta* Linn., the fourth species. As the four original species of *Anthus* are now universally treated as congeneric, there seems to be no objection to taking as the type the species designated by Gray in 1840.

Family CINCLIDÆ.

Genus **Cinclus.**

"*Cinclus* BORCKHAUSEN, Deutchl. Fauna, I, 1797, 300." (Not seen.)

Type, by tautonomy, *Sturnus cinclus* Linn.

Family MIMIDÆ.

Genus **Oroscoptes.**

Oroscoptes BAIRD, Bds. N. Am., 1858, 346.

Monotypic, with *Orpheus montanus* Townsend as type.

Genus **Mimus.**

Mimus BOIE, Isis, 1826, 972.

Monotypic, with *Turdus polyglottos* Linn. as type.

Genus **Galeoscoptes.**

Galeoscoptes CABANIS, Mus. Hein., I, 1850, 82.

Monotypic (in the text, two other species referred to it in a footnote), with *Muscicapa carolinensis* Linn. as type. Antedated by *Spodesilaura* Reichenbach, 1850, with same type. Mr. Stone (*cf.* Auk, XXIV, April, 1907, p. 193) claims a still earlier name with which to replace *Galeoscoptes*, namely, *Dumetella* "S. D. W." 1837 (an unknown author), based on the "Cat Thrush of Latham" = ? Cat Thrush of Wilson.

Genus **Toxostoma.**

Toxostoma WAGLER, Isis, 1831, 528.

Monotypic, with *T. vetula* Wagler = *Orpheus curvirostris* Swains. as type.

Subgenus **Harporhynchus.**

Harporhynchus CABANIS, Wiegm. Arch. f. Naturg., 1848, i, 98.

Type, as designated by author, *Harpes rediviva* Gambel. To replace *Harpes*, preoccupied in carcinology (Goldfuss, 1839).

Family TROGLODYTIDÆ.

Genus **Heleodytes.**

Heleodytes CABANIS, Mus. Hein., I, 1850, 80.
2 congeneric species, *grisea* Swains., and *minor* sp. nov.

Type, as designated by Gray (1855) and by common consent, *Furnarius griseus* Swains.

Genus **Salpinctes.**

Salpinctes CABANIS, Wiegm. Arch. f. Naturg., 1847, i, 323.
2 species, *obsoletus* Say and *mexicanus* Swains.

The latter became the type of *Catherpes* Baird, 1858, leaving *Troglodytes obsoletus* Say as type of *Salpinctes*, as designated by Gray (1855).

Genus **Catherpes**.

Catherpes BAIRD, Bds. N. Am., 1858, 356.

Monotypic, with *Thryothorus mexicanus* Swains. as type.

Genus **Thryothorus**.

Thryothorus VIEILLOT, Analyse, 1816, 45, 70.

Monotypic, with "Troglodyte des roseaux, Vieill. Ois. Am. Sept." = *Troglodytes arundinaceus* Vieill., *l. c.*, a composite species.

Type, as first correctly determined by Baird (1858), *Sylvia ludoviciana* Latham.

Troglodytes arundinaceus Vieill. is composite, the plate and description (both poor) evidently indicating the Carolina Wren (*Sylvia ludoviciana* Lath.) while the very full account of the bird's haunts, habits, and particularly the manner of nesting, belong exclusively to the Long-billed Marsh Wren = *Certhia palustris* Wilson, as later stated by Vieillot himself (Nouv. Dict. d'Hist. Nat., nouv. éd., XXXIV, 1819, p. 58), who says the bird figured in his 'Oiseaux de l'Amérique septentrionale' is the Carolina Wren, while the whole account of its habits belongs to the Marsh Wren.

Genus **Thryomanes**.

Thryomanes SCLATER, Cat. Am. Bds., 1862, 22.

Monotypic, with *Troglodytes bewickii* Aud. as type.

Genus **Troglodytes**.

Troglodytes VIEILLOT, Ois. Am. Sept., II, 1807 (1808 or later), 52.

2 noncongeneric species.

1. *aëdon.*
2. *arundinacea,* type of *Thryothorus* Vieill. 1816.

Type, by elimination, *Troglodytes aëdon* Vieill., the first species.

Evidently Vieillot's name is tautonymic, from *Motacilla troglodytes* Linn., but as originally founded it contained only the two species above mentioned. Later, in 1816 (Analyse, p. 44), he stated that it contained "2 sections" and gave, "*Esp.* Troglodyte, Buff. — *Trog. ædon* Vieill. Ois. de l'Am." The first species (= first section) is, of course, the *Motacilla troglodytes* Linn. At this time he eliminated the second species, *Troglodytes arundinaceus* (composite), included in it in 1808, making it the only species of his new genus *Thryothorus.* In 1819 (Nouv. Dict. d'Hist. Nat., nouv. éd., XXXIV, pp. 505–575) he maintained this separation, but added to *Troglodytes* the Winter Wren, various species of South American wrens allied to the House Wren, and also the European Wren. As, however,

the type of the genus *Troglodytes* must be one of its originally included species, the type is necessarily *Troglodytes aëdon* Vieill.

Genus **Olbiorchilus.**

Olbiorchilus OBERHOLSER, Auk, XIX, 1902, 177.

Type, by designation, *Motacilla troglodytes* Linn. Proposed to replace *Anorthura* auct., not of Rennie, which, as given by Rennie, is merely a substitute name for *Troglodytes* Vieill. *Olbiorchilus*, however, it is claimed, must be replaced by the much earlier, but only recently discovered genus *Nannus* Bilberg, 1828, with the same type, given to replace *Troglodites* Cuvier, 1817, not of Vieillot, 1808. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 194.)

Genus **Cistothorus.**

Cistothorus CABANIS, Mus. Hein., I, 1850, 17.

Monotypic, with *C. stellaris* = *Troglodytes stellaris* Licht. as type.

Genus **Telmatodytes.**

Telmatodytes CABANIS, Mus. Hein., pt. i, 1850, 78.
2 noncongeneric species.
1. *arundinaceus* (= "*Thryoth. arundinaceus* Vieill., *Certhia palustris* Wils.").
2. *bewickii* (= *Troglodytes bewicki* Aud.), type of *Thryomanes* Sclat. 1861.

Type, by elimination, *Certhia palustris* Wils., the first species.

Thryothorus arundinaceus Vieill. being composite, as already explained, the type is necessarily *Certhia palustris* Wils., cited by Cabanis as a synonym of Vieillot's species, and thus indicating the species really intended.

Family CERTHIIDÆ.

Genus **Certhia.**

Certhia LINNÆUS, Syst. Nat., ed. 10, 1758, 118.
5 species, of which 2 are unidentifiable.
1. *familiaris.*
2. *pusilla*, not identifiable.
3. *cærulea*, a species of *Cyanerpes* Oberholser, 1899 = *Cæreba* auct., not Vieillot.
4. *cruentata*, not identifiable.
5. *flaveola*, type of *Cæreba* Vieill. 1807 = *Certhiola* Sundevall, 1835.

Type, as designated by Gray (1840) and by elimination, *Certhia familiaris* Linn., the first species.

Family SITTIDÆ.

Genus **Sitta.**

Sitta LINNÆUS, Syst. Nat., ed. 10, 1758, 115.

Monotypic, with *Sitta europæa* Linn. as type.

Family PARIDÆ.

Genus **Bæolophus.**

Bœolophus CABANIS, Mus. Hein., 1850, 91.

Monotypic, with *Parus bicolor* Linn. as type.

Genus **Parus.**

Parus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 189.
12 species, representing 8 modern genera and 2 families.

1. *cristatus*, type of *Lophophanes* Kaup, 1829.
2. *major*.
3. *americanus*, type of *Compsothlypis* Cab. 1850.
4. *cæruleus*, type of *Cyanistes* Kaup, 1829.
5. *ater*, type of *Pœcile* Kaup, 1829.
6. *palustris*, congeneric with No. 5.
7. *caudatus*, type of *Acredula* Koch, 1816.
8. *biarmicus*, type of *Panurus* Koch, 1816.
9. *pipra* = *Pipra leucocilla* Linn., 1766, type of *Pipra* Linn. 1766, by tautonomy.
10. *erythrocephalus* = *Pipra erythrocephala* Linn. 1766, congeneric with No. 9.
11. *aureola* = *Pipra aureola* Linn. 1766, congeneric with No. 9.
12. *cela* = *Oriolus persicus* Linn. 1766, a species of *Cacicus* (*cf.* Hartert, Nov. Zool., XIII, 1906, p. 20).

Type, as designated by Gray (1840) and by elimination, *Parus major* Linn., the second species. By the first species rule *Lophophanes* becomes *Parus* and a new name would be required for the group currently designated as *Parus*.

[By a recent but as yet unpublished ruling of the A. O. U. Committee *Penthestes* takes the place of *Parus* in the A. O. U. Check-List; hence:

Genus **Penthestes.**

Penthestes REICHENBACH, Av. Syst. Nat. Trepid., 1850, pl. 62.

Monotypic, with *Parus lugubris* Temm., as type, with which the American species referred to *Parus* in the A. O. U. Check-List are congeneric.]

Genus **Psaltriparus**.

Psaltriparus BONAPARTE, Compt. Rend., XXXI, 1850, 478.

Monotypic, with *Psaltriparus personatus* sp. nov. = *Parus melanotis* Hartlaub, 1844, as type.

Genus **Auriparus**.

Auriparus BAIRD, Rev. Am. Bds., 1864, 85.

Monotypic, with *Ægithalus flaviceps* Sund. as type.

Family CHAMÆIDÆ.

Genus **Chamæa**.

Chamœa GAMBEL, Proc. Acad. Nat. Sci. Phila., 1847, 154.

Monotypic, with *Parus fasciatus* Gamb. as type.

Family SYLVIIDÆ.

Genus **Acanthopneuste**.

Acanthopneuste BLASIUS, Naumannia, 1858, 313.

Type, by implication, *Phyllopneuste* [*Acanthopneuste*] *borealis* sp. nov. Includes also *Phyllopneuste javanica* (Horsfield), which is congeneric.

Genus **Regulus**.

Regulus CUVIER, Leç. d'Anat. comp., I, 1799, tab. ii.

Monotypic, with the "Roitelet" = *Motacilla regulus* Linn. as type; hence also tautonymic.

Genus **Polioptila**.

Polioptila SCLATER, Proc. Zool. Soc. Lond., 1855, 11.
4 species, all congeneric.

Type, by implication, and as designated by Gray (1855), and also by universal consent, *Motacilla cœrulea* Linn.

Family TURDIDÆ.

Genus **Myadestes**.

Myadestes SWAINSON, Jardine's Nat. Libr., XIII, Flycatchers, 1838, 132.
Monotypic, with *Myadestes* [sic] *genibarbis* sp. nov. as type.

Genus **Hylocichla**.

Hylocichla BAIRD, Rev. Am. Bds., 1864, 12.

Type, by designation, *Turdus mustelinus* Gmel.

Genus **Turdus**.

Turdus LINNÆUS, Syst. Nat., ed. 10, I, 1758, 168.

16 species, representing 13 modern genera or subgenera.

1. *viscivorus*.
2. *pilaris*, type of *Arceuthornis* Kaup, 1829.
3. *iliacus*, type of *Iliacus* Des Murs, 1860.
4. *musicus*, congeneric with No. 1.
5. *canorus*, type of *Crateropus* Swains. 1831.
6. *rufus*, a species of *Toxostoma* Wagler, 1831.
7. *polyglottus*, type of *Mimus* Boie, 1826.
8. *orpheus*, congeneric with No. 7.
9. *plumbeus*, type of *Mimocichla* Scl. 1859.
10. *crinitus* = *Muscicapa crinita* Linn. 1776, a species of *Myiarchus* Cab. 1845.
11. *roseus*, type of *Merula* Koch, 1816.
12. *merula*, type of *Merula* Leach, 1816, not of Koch, 1816.
13. *torquatus*, type of *Copsichus* Kaup, 1829; congeneric with No. 1.
14. *solitarius* = *Turdus cyanus* Linn. 1766, a species of *Monticola* Boie, 1822; also type of *Cyanocincla* Hume, 1873.
15. *arundinaceus*, type of *Acrocephalus* Naum. 1811.
16. *virens*, type of *Icteria* Vieill. 1807.

Nos. 1, 4, and 13 are commonly regarded as congeneric.

Type, as designated by Gray (1840), and by general consent, *Turdus viscivorus* Linn., the first species.

Genus **Planesticus**.

Planesticus BONAPARTE, Compt. Rend., XXXVIII, Jan. 1854, 3.

6 species.

Turdus lereboulleti sp. nov. = *Turdus jamaicensis* Gmel.

1. *Planesticus albiventer* Bp.
2. *Turdus amaurochalinus* Cab.
3. " *phæopygus* Cab.
4. " *assimilis* Cab.
5. " *tristis* Cab.

Various other species are mentioned as belonging to it.

Type, as selected by Baird (1864) and since generally accepted, *Turdus jamaicensis* Gmel.

To replace *Merula* Leach, recently discovered to be preoccupied by *Merula* Koch (1816), with *Turdus roseus* Linn. as type and only species. (*Cf.* Stone, Auk, XXIV, April, 1907, p. 194.)

Genus **Ixoreus**.

Ixoreus BONAPARTE, Compt. Rend., XXXVIII, Jan. 1854, 3 (footnote).

Monotypic, with type by designation, *Turdus nævius* Gmel.

Genus **Cyanecula**.

Cyanecula BREHM, Isis, Dec., 1828, 1280.
5 congeneric species, only 2 valid.

1. *Cyanecula suecica* Brehm = *cærulecula* Pall.
2. " *orientalis* Brehm, same as No. 1.
3. " *wolfi* Brehm = *cyanecula* Wolf.
4. " *obscura* Brehm, same as No. 3.
5. " *leucocyanea* Brehm, same as No. 3.

Type, by tautonomy, *Sylvia cyanecula* Wolf.

Cyanecula is preoccupied by *Cyanosylvia* Brehm on an earlier page in the same paper, and based exclusively on *Sylvia suecica* (Linn.). (*Cf.* Stone, Auk, XXIV, April, 1907, 193.)

Genus **Saxicola**.

Saxicola BECHSTEIN, Orn. Tachenb., 1803, 216.
3 species, representing 2 genera.

1. *Saxicola œnanthe* = *Motacilla œnanthe* Linn.
2. *Saxicola rubetra* = *M. rubetra* Linn., type of *Pratincola* Koch, 1816.
3. *Saxicola rubicola* = *M. rubicola* Linn., congeneric with No. 2.

Type, as designated by Gray (1840) and by elimination, *Motacilla œnanthe* Linn., the first species.

Genus **Sialia**.

Sialia SWAINSON, Phil. Mag. (2), I, May, 1827, 369, incidentally employed, with cross-reference to "*Swains. in Zool. Journ*, No. 10."

Sialia SWAINSON, Zool. Journ., III, July–Nov., 1827, 173, where the genus was first characterized and the type designated as *Motacilla sialis* Linn.

The species first referred to *Sialia* (in Phil. Mag., *l. c.*) is *Sialia azurea*, a *nomen nudum* and of doubtful application.

Type, by designation, *Motacilla sialis* Linn.; also tautonymic.

III. GENERAL SUMMARY.

1. STATISTICAL RÉSUMÉ.

The Check-List, with its Supplements, comprises 375 genera and 40 subgenera, or a total of 415 generic and subgeneric groups. In addition to these, about 15 other genera are collaterally treated in the foregoing pages. They may be classified as

Monotypic	212
Polytypic	218
	430

The polytypic genera, or those containing two or more species when founded, may be further classified, on the basis of the manner of type determination, as follows:

Type by designation of the author[1]	32
Type by tautonomy[2]	57
Type by elimination (including work of 'first reviser')	124
Type by general consent	5
	218

Of the 124 genera the types of which have been determined by elimination, 34 consisted originally of only congeneric species, and the type has been designated by a 'first reviser' — usually by G. R. Gray, but sometimes, as in the case of genera proposed since 1855, by some later author. The so-called class of 'types by consensus of opinion,' rests either upon elimination — even those of the Linnæan genera — or upon the initiative of some first reviser.

Now that the foregoing pages are in type and can be more readily analysed than when in manuscript, it seems worth while to amplify the remarks on an earlier page (p. 286) in reference to G. R. Gray's work in designating types, and also on the frequency of the first species being the type (as now currently recognized) under the combined operation of the first reviser and elimination, as these two agencies have worked in unison and are inseparable. Of the 124 genera classified above as 'type by elimination,' Gray (1840–1855) indicated types for 90 of them, the first species being the type in 65 cases, and some other than the first species in the other 25, although in 9 of these latter the first species was available as the type at the time he assigned a type. Of the 65 genera for which he took the first species as the type, the first species was the only one available for a type in 30 cases, all the other original species having previously been made the types of other genera, or were strictly congeneric with such types; in 24 other cases either all of the original species were congeneric, or all of those left in the genus at the time he selected a type were congeneric, giving him free rein to select the first species as type without in any way doing violence to the original author's intentions.[3]

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[1] In other words, genera *depending* for their types on designation by the author, but not including all of the genera having types so designated. For convenience of classification, all monotypic genera are placed together as one group, although, as a matter of fact, the type in many cases was also designated by the author, while in 12 cases monotypic genera are also tautonymic, and in a few cases a genus with the type designated by the author is both tautonymic and monotypic.

[2] That is, the type depends entirely on tautonomy; genera that are both tautonymic and monotypic are placed under 'monotypic', as explained in the preceding footnote.

[3] In a few instances, by inadvertence or otherwise, Gray designated as types species not originally included in the genus, and in such cases his designations are necessarily here ignored.

2. Changes Necessary from the Standpoint of Elimination.

Changes in the present Check-List names of genera and subgenera due to the recent discovery of overlooked or preoccupied or otherwise invalid names, or to the rule of tautonomy, are rigidly excluded from consideration in the present comparative résumé.

1. *Cyclorrhynchus*; becomes *Phaleris*.
2. *Phaleris*; becomes *Alcella*.
3. *Procellaria*; becomes *Thalassidroma*.
4. *Ceophlœus*; becomes *Phlœotomus*.

These changes involve only 5 species of North American birds, and result from three errors of elimination. In one case the error was due, apparently, to a mistake in the identification of a species; in the case of *Ceophlœus* the determination of the type was correct from one point of view, but not from a strict consideration of the entire case.

In this connection it would be unpardonable not to call attention to the excellent work of the subcommittee, Mr. Ridgway and Dr. Stejneger, of the original A. O. U. Committee on Nomenclature, who are wholly resposible for the nomenclature of the original edition of the Check-List, prepared for publication twenty-one years ago, on the basis of the then recently adopted A. O. U. Code. That the work was most thoroughly and intelligently done admits of no question.

At this point a word of comment is pertinent relative to the oft-made assertion [1] that elimination is not only difficult, but can be done in so many ways that no two eliminators agree in their results. As said above, I took up this task of elimination as though it had never been done before, wholly independently of the Check-List, and of any results by previous workers. Yet not only do my results agree almost perfectly with the type determinations of the Check-List, but equally close with those of the various authors concerned in the preparation of the British Museum 'Catalogue of Birds,' so far as the genera are strictly comparable. The coincidence of types by elimination with the type designations of Gray, made half a century ago, has already been noted. In other words, Gray's selection of types must have been, in a great many cases, due to careful elimination, in order to determine which of the original components of a genus were available as the type.

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[1] *Cf.* Science, N. S., Vol. XXIV, 1906, pp. 560–565; Vol. XXV, 1907, pp. 147–151.

3. Changes necessary by strict application of the First Species Rule.

a. Genera.

1. *Aix*; in case *Aix sponsa* is considered noncongeneric with *A. galericulata*, as in Sharpe's 'Hand-List of Birds'; requires a new name.
2. *Actitis*; reduced to synonymy and replaced by *Tringoides*.
3. *Bonasa*; reduced to synonymy and a new name required.
4. *Tympanuchus*; replaced by *Bonasa*.
5. *Cathartes*; replaced by *Rhinogryphus*.
6. *Gypagus*; reduced to synonymy and replaced by *Cathartes*.
7. *Aphelocoma*; reduced to synonymy and replaced by *Cyanurus*.
8. *Acanthis*; reduced to synonymy and replaced by *Ægiothus*.
9. *Passerina*; replaced by *Plectrophenax*.
10. *Cyanospiza*; reduced to synonymy and replaced by *Passerina*.
11. *Poœcetes*; reduced to synonymy and replaced by *Zonotrichia*.
12. *Zonotrichia* (of the Check-List), rendered nameless. (On the *Poœcetes–Zonotrichia* case see *antea*, p. 359.)

b. Subgenera.

13. *Podiceps*; reduced to synonymy and replaced by a new name. (If my view of the case of *Podiceps*, *antea*, p. 290, be accepted, the name is in any case untenable.)
14. *Dysporus*; reduced to synonymy and rendered nameless (see *antea*, p. 300).
15. *Melanitta*; reduced to synonymy and rendered nameless.

These changes affect the names of 27 species and 15 subspecies; none of these changes is necessary under the rule of elimination. The fortunate rule of tautonomy shifts the burden of change in the cases of a number of other genera from the first species rule to tautonomy; the enforcement of the rule of tautonomy makes them obligatory in any case; without it they would be changed by the first species rule but would remain unchanged by the rule of elimination.

4. Other easily avoidable Changes in the A. O. U. Check-List Names.

Four impending disastrous changes in generic names of North American birds are avoidable by adherence to common sense methods in respect to types by designation of the founder of the genus. As already stated (*antea*, p. 364), four generic names of North American birds were casually associated in their first publication with species not intended as the types of these genera, the paper in which they were intended to have their first publication, with diagnoses and designated types, having been delayed in publication by circumstances beyond the control of the author. These genera are the Swainsonian genera *Ammodramus*, *Coturniculus*, *Tiaris*, and *Vermivora*, which are all liable to be transferred, on a trivial technicality, to associations entirely different from their accepted relations for three-fourths of a century, on the basis of the types as designated by the founder, and hitherto universally accepted. The details having already been given at length in this paper (see *antea*, pp. 358, 363, 364), and a remedy suggested (p. 364), they need not be here repeated. By this proposed overturn:

(1) *Ammodramus* takes the place of *Coturniculus*.

(2) *Coturniculus* is relegated to synonymy and is replaced by a new name.

(3) *Tiaris* takes the place of *Euetheia*, which is reduced to synonymy, and a new name takes the place of the original *Tiaris*.

(4) *Helminthophila* is replaced by *Vermivora*, which is properly a synonym of *Helmitheros*.

This is essentially due to the first species rule, in spirit if not in form, since the first species rule necessarily ignores the function of the first reviser, so influential for stability of nomenclature in the past, even when the first reviser is the founder of the genus. Acceptance of the suggestion already made on p. 364 will prevent such a regrettable overturn of names, involving the nomenclature of 19 species and 12 subspecies of the Check-List and, through the transposition of *Xiphorhynchus* (proposed in the same paper with the other genera mentioned above) and *Dendrornis*, 25 or more exotic species.

As pointedly said by Dr. Stiles[1]: "As a matter of fact, the status of no generic name is satisfactorily established, from the modern point of view, until the type is designated. But when this type is once designated, by any method whatsoever, so long as the species selected was an original species,

[1] Science, N. S., Vol. XXV, 1907, p. 147.

valid from the original author's point of view, and unreservedly classified in his genus, why reopen the question?"

In conclusion, I wish to express my thanks to Mr. Witmer Stone, Curator of Ornithology in the Academy of Natural Sciences of Philadelphia, for his kindness in greatly facilitating my work in the library of the Academy, and for many valued suggestions in connection with the preparation of the present paper; to the library authorities of Columbia University for the loan of books, and to Dr. G. M. Allen, Secretary of the Boston Society of Natural History, for similar courtesies.