To these, as well as to a multitude of other private and published sources I wish to express thanks for aid and assistance.

## CLASSIFICATION.

The first step in any science is that of classification. The present system of generic grouping of species was first advanced by Linnæus in his epoch-making "Systema Naturæ" and has since been followed consistently by zoologists. By this, species are grouped together in *genera* according to fundamental structural relationships and not accidental resemblances. The fact that upon the discovery of the laws of evolution these relationships were found to agree with lines of descent proved the logic of the system and gave it an added meaning. Thus the various specific members of a genus can be conceived as having descended from a common specific ancestor; the genera of a family from a common generic one, etc.

Dealing only with existing North American birds, they may be divided into a number of *Orders*, which are the largest groups with which the Canadian ornithologist has direct concern. Orders are divided into *Families*, Families into *Genera*, and Genera into *Species*. These divisions may be again subdivided into *Suborders*, *Subfamilies*, *Subgenera*, and *Subspecies* whose positions in the scheme are evident from their titles.

Though the limitations of book construction necessitate the presentation of the classification scheme as a linear succession of forms following one another in single file, it should be borne in mind that the system is not linear in conception. The component species instead of following a single line of relationship and sequence from the lowest to the highest present many parallel or divergent lines of equal or subordinate rank. The class *Aves* or Birds may be represented by a tree, the height of the tree representing time in geological ages from the earliest at the bottom to the present near the top. The trunk should be shown as double at the base; one stem would be a short dead stump and would represent the fossil toothed birds which became extinct before present geological time; the other, large and thrifty, would represent the modern untoothed forms. This in turn would divide into two main branches a short way from the base and would represent the two subclasses, the Raft-breasted and the Keel-breasted birds. The former would be represented by much the smaller branch, whereas the latter would divide and subdivide into branches representing first, orders; next, families; then, genera; and finally species.

The value of these divisions, that is, the amount of differentiation sufficient to raise a group of genera to a family, or a collection of families to an order, is a matter for experienced individual decision as there is no authoritative ruling upon the subject. However, there has gradually grown up an approximate agreement on this subject, though the constant tendency among specialists has been to make finer and finer distinctions and to multiply the number of the various groups.

The smallest division generally accepted is the *Species*. Though everyone has a more or less accurate conception as to what a species is, whether it be called by that name or another, no satisfactory definition has ever been constructed for it. It is what is commonly known as a