The birds of the District of Columbia have been more closely studied than any other group of vertebrates, and the present total comprises about 300 species and subspecies. The earliest list of the birds of the District of Columbia, consisting of 322 species, was published by David Baillie Warden in 1816. There are, however, scattered through the writings of earlier authors, many references to the birds of this region. A partial bibliography mentions the more important papers on the avifauna.

Of mammals there are now 41 species known from the vicinity of Washington, of which 3 were originally described from material collected here. It is of more than passing interest to note that within historic times the buffalo, elk, white-tailed deer and puma all lived about Washington.

A brief account of the history of early man in the District shows that the North American Indians inhabiting this region were of Algonquian stock, but all departed about the year 1700.

The most important part of this bulletin, at least from the standpoint of general biology, is the discussion under the "Distribution of Life in the District of Columbia Region," and particularly that relating to the piedmont plateau and coastal plain as faunal and floral provinces. The characteristics of the piedmont plateau and the coastal plain are explained, as is also the geological significance of the fall line separating them. The text-figure map showing the fall line and also the islands of coastal plain deposits within the piedmont plateau area is an illuminating addition to this discussion. The conclusion reached is that the fall line acts as a more or less definite faunal barrier, most so in the case of plants and insects. The substantiation of this statement, so far as the plants are concerned, is furnished in long lists of species restricted respectively to the piedmont plateau and to the coastal plain.

Fully as interesting from an ecological point of view is the discussion of the magnolia bogs about Washington in their relation to the pine barrens of New Jersey. The author seems conclusively to show that a large percentage of characteristic pine barren plants are present in these magnolia bogs (so called because the swamp magnolia [*Magnolia virginiana*] is the one plant never absent from them), and to reach the apparently sound conclusion that the absence of pine barrens in the District of Columbia region is due solely to the absence of extensive areas of suitable soil deposits. These magnolia bogs, by furnishing a habitat where the typical pine barren plants are relieved from competition with the ordinary vegetation of the district, serve to preserve the survivors of the plant waves that accompanied the successive depressions of the Atlantic Coast region.

An account is given also of the other types of collecting ground about Washington, with mention of localities where such are to be found, together with some of the more desirable plants and animals to be obtained at each.

A decidedly useful feature of this bulletin is a map of the District of Columbia and vicinity in four sheets, on which, by means of close cross index lines, the old collecting spots, archeological sites, and minor topographical details have been indicated, so far as it has been possible to ascertain them. An index of 23 pages furnishes a ready means of reference. The map and its index have apparently been prepared with exceedingly great care, and will prove a boon to any one who has occasion to work on the local natural history.

Mr. McAtee has brought together an astonishing amount of important, not to say interesting, information concerning the biota of the District of Columbia, and not only will his bulletin prove a mine of riches for the local student, but will, as well, be of value to all ecological investigators.

HARRY C. OBERHOLSER

SPECIAL ARTICLES

THE AMPHIBIOIDEI, A GROUP OF FISHES PROPOSED TO INCLUDE THE CROSSOPTERYGII AND THE DIPNEUSTI

THE typical fishes or Teleostomi (Osteichthyes) obviously form a monophyletic group,

being distinguished from the Elasmobranchii (Selachii) by: the development of true scales and of two related structures—articulated fin rays and membrane bones, the latter including an opercle covering the branchial clefts; the reduction of the interbranchial septa; the presence of a developed air-bladder or lung, of two external nostrils on each side; the lack of pelvic claspers (mixipterygia), etc. The Teleostomi, as Mr. C. Tate Regan[1] has recently stated, "may be arranged in two series: in the Actinopterygian series (Chondrostei and Teleostei) the duct of the air-bladder opens dorsally or dorsolaterally into the alimentary canal, the branchiostegals retain their primitive serial arrangement, and the supports of the paired fins are either in the form of a series of parallel pterygiophores each of which is segmented into a basal and a radial portion or are modified from this plan by a simple process of concentration and reduction; in the Crossopterygian series (Crossopterygii and Dipneusti) the opening of the pneumatic duct is ventral, the branchiostegals are replaced by a pair of gular plates, and the paired fins are more or less lobate, with their supports tending to the biserial arrangement with axial basalia." The first of these two series, the primary subdivisions of the Teleostomi, is known as the Actinopterygii or Actinopteri; the second series apparently has received no definite name. As both morphological and paleontological[2] evidence indicate the monophyletic naturalness of this group, it should receive a distinctive designation; to indicate its similarity and relationship with the primitive Amphibia, this group, comprising the Crossopterygii and the Dipneusti (Dipnoa), may be termed Amphibioidei.

The taxonomic rank to which the Amphibioidei may be assigned is largely a matter of personal opinion. The writer would classify the group in serial arrangement among other chordates as follows, leaving out of consideration several groups wholly extinct and of doubtful affinities (of these the Arthrodira or Arthrognathi have often been regarded as related to the Dipneusti or the Crossopterygii):

Subphylum Euchorda.
  Superclass Pisces.
    Class Marsipobranchii.
    Class Elasmobranchii.
    Class Teleostomi.
      Subclass Actinopterygii.
        Superorder Chondrostei.
        Superorder Holostei.
        Superorder Teleostei.
      Subclass Amphibioidei.
        Superorder Crossopterygii.
        Superorder Dipneusti.
  Superclass Tetrapoda.
    Class Amphibia, etc.

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[1] *Ann. Mag. Nat. Hist.* (8), 3, 1909, p. 76.
[2] Dollo, *Bull. Soc. Belg. Géol.*, 9, 1895, p. 79.

THE BUFFALO MEETING OF THE AMERICAN CHEMICAL SOCIETY

The Buffalo meeting of the society, known as the "Victory" meeting, was held April 7 to 11 and was attended by approximately 1,100 chemists, and was one of the most enthusiastic meetings the American Chemical Society has ever held. Professor Giacomo Ciamician was elected an honorary member of the society as Italy's leading organic chemist. Publication of compendia of chemical literature and monographs was undertaken by the society and committees appointed to carry the plan into effect. The society also joined with the National Research Council in approving the formation of an International Research Council and an International Chemical Council in which all neutral nations were to be allowed to participate on the same basis as the allies. The society again took a strong stand against the free importation of chemicals and chemical apparatus for educational institutions, believing that such a privilege not only retarded the production of such materials in this country, but it also created a false impression as to the superiority of foreign-made materials. The society voted that at the Philadelphia meeting which is to be held from September 2–6, inclusive, a Dye Section of the society should hold meetings with Charles L. Reese, as chairman. The opening meeting on Tuesday, April 8, was made especially interesting by the three following addresses, which have been published in full in the May issue of the *Journal of Industrial and Engineering Chemistry:*