and stocking of the aquarium, and also on the feeding and care of its inmates. These portions of the book appear altogether too brief, however, and it would seem that Mr. Eggeling, with his long experience in these matters, might have given us more of the benefit of it. He has chosen instead to devote three fourths of the book (or to be exact, 280 of the 352 pages) to descriptions and figures of aquarium plants and animals.

The figures are generally excellent with only a few of the old stereotyped sort and nearly all of them are from good photographs. The descriptions apparently suffer from too great an attempt to popularize—at any rate they are loosely written and often fail to give enough diagnostic characters to distinguish a species from its relatives. The few sunfishes mentioned, for example, could hardly be identified among the many others which are found in our streams and ponds and which thrive equally well in aquaria. Such descriptions can have no particular use except to acquaint the reader with the general characters of the group rather than the individual kind.

The authors would have done well to submit their scientific names to the scrutiny of a specialist before publishing them, and thus have avoided the use of antiquated nomenclature. This is especially true of the fishes, where a cursory examination reveals nearly a score of scientific names no longer regarded as correct. A number of cases of mis-spelling occur among these names also—*e. g., Cotostomus* for *Catostomus, Rhinichtys* for *Rhinichthys, Amiurus* for *Ameiurus, Etheostoma cœrulea* for *E. cœruleum, Pomotis elongatis* for *P. elongatus.* The parasitic fungus *Saprolegnia* also appears as *Saprolegnies,* and the word "milt" as milk!

The invertebrates are very inadequately treated, only aquatic insects and snails receiving mention. The dragonflies are omitted entirely from the former, though they are among the most interesting of aquatic larvæ and are easily kept and reared. Neither is any mention made of the crayfishes or other fresh-water crustacea—an unfortunate omission.

To make amends for some of these deficiencies there is a considerable amount of interesting natural history matter on the habits of the various forms in the aquarium.

The publishers have seen fit to make the volume about twice as large and heavy as necessary by the use of thick glazed paper and wide margins. But in spite of its many faults the book will no doubt be of real service to many amateurs in this alluring field of study, and will be useful in creating interest in the home aquarium and its inhabitants.

R. C. O.

SCIENTIFIC JOURNALS AND ARTICLES

The *Journal of Experimental Zoology* for July contains the following articles: E. Newton Harvey, "The Mechanism of Membrane Formation and other Early Changes in Developing Sea-urchins' Eggs as bearing on the Problem of Artificial Parthenogenesis," with two figures; William M. Wheeler, "The Effects of Parasitic and other kinds of Castration in Insects," with eight figures; A. M. Banta, "A Comparison of the Reactions of a Species of Surface Isopod with those of a Subterranean Species," Part II.; A. H. Estabrook, "Effect of Chemicals on Growth in Paramecium," with one figure; G. H. Parker, "Olfactory Reactions in Fishes."

OPINIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE[1]

This comprises a history of the commission; method to be followed in submitting cases for opinion; list of cooperating committees on nomenclature; personnel of the commission; references to places of publication of the International Code; opinions 1–25. The first five are republished from Science.[2] Twenty of the opinions are here published for the first time. As the brochure will have a rather restricted distribution, a résumé of these opinions is here presented. The intro-

[1] Smithsonian Institution, Washington, Publication No. 1938, July, 1910, 8vo, pp. 61.

[2] Vol. XXVI., October 18, 1907, pp. 522, 523.

ductory portion has already appeared in SCIENCE (issue for September 2, 1910).

Opinion 6 is to the effect that where a genus contained originally only two species, and no type was specified, and a second author later removed one of the species as the monotype of a new genus, the remaining species became necessarily the type of the original genus.

Opinion 7 is to the effect that "the expression 'n.g., n.sp.' used in the publication of a new genus for which no other species is otherwise designated as genotype is to be accepted as designation under Art. 30*a*."

Opinion 8 relates to the retention of *ii* or *i* in specific patronymic names, and the ruling is to the effect that *ii* is to be retained when so originally employed, in accordance with Art. 19, which is: "The original orthography of a name is to be preserved unless an error of transcription, a *lapsus calami*, or a typographical error is evident." This is also the rule of the original A. O. U. Code (Canon XXXVII.), but in the revised edition of this code it is provided that masculine specific patronymics in the genitive singular are always to end in a single *i*, unless the name originally terminated with *i*, when another *i* is to be added. This amended rule has been followed in the new edition of the Check-List.

Opinion 9 deals with the use of the name of a composite genus for a component part of it requiring a name, the decision being that under some circumstances it may be so used, but not under certain other circumstances.

Opinion 10 relates to the designation of genotypes for genera with identical limits, proposed without designation of type. The ruling in this case is that "any subsequent author may designate the genotypes, and if the types designated are not specifically identical, the two generic names may (other things being equal) be used for restricted genera containing the types in question."

Opinion 11 deals with the designation of genotypes by Latreille, 1810, in his "Table des genres avec l'indication de l'espèce qui leur sert de type," and decides that "from the evidence submitted no reason is apparent why Latreille's type designations should not stand as such."

Opinion 12 relates to a case of preoccupation of names, generic and specific, and is decided on the principle of priority.

Opinon 13 relates to the use of a pre-Linnæan "specific" name, untenable under the law of priority, the case being one of Catesby's names (1743), reprinted later (1771) by Edwards but not adopted by him. Under Opinion 5, the 1771 reprint of Catesby does not render his names available.

Opinion 14 takes up the question of *Etheostoma* Rafinesque, 1819. At first view this seems a complicated case, but it is easily resolvable under Art. 30*a*. In its principal features the case is nearly parallel with that of *Ixoreus* Bonaparte, and upholds the decision of the A. O. U. Committee regarding the genotype of that genus.

Opinion 15 relates to *Craspedacusta sowerbii* Lancaster, and is settled by application of the law of priority, which clearly covers the case. The opinion reaffirms previous rules respecting what constitutes publication and the absence of any right on the part of an author over his published names "not common to other writers." This case gave opportunity for one of the commissioners to recommend the rule adopted by some botanists to establish an exempt class, *nomina conservanda*.

Opinion 16 considers the status of prebinomial specific names (published prior to 1758) under Art. 30*d*. The gist of this opinion is: "In deciding whether a case of absolute tautonymy is present (under Art. 30*d*), the citation of a clear prebinomial specific name in synonymy is to be construed as complying with the demands of Art. 30*d*. Examples: *Equus caballus* (*Equus* cited in synonymy in the sense of 'the horse'), *Alca torda* (*Alca* cited in synonymy in the sense of 'the alca')."

In connection with this opinion a singular error is to be noted on pp. 33 and 38, where the type of *Charadrius* Linn. is given as "*C.*

africanus," as determined by Allen. On page 38, it is said: "The species *C. africanus,* accepted as genotype by Allen, is not one of the original species of 1758." As a matter of fact Allen designated *C. apricarius,* one of the original species, as the genotype of *Charadrius* and made no reference whatever to *C. africanus.* Apparently this error could have originated only through a clerical error in transcription, *africanus* being written in place of *apricarius.*[3]

Opinion 17 is to the effect that the genera in Weber's "Nomenclator entomologicus," 1795, "are to be accepted, in so far as they individually comply with the conditions of the code."

Opinion 18 makes *Coluber hydrus* Pallas the type of *Hydrus* Schneider, under the principle of tautonymy, and is further an "adjudication" of Art. 30*d.*

Opinion 19 is on *Plesiops* Oken, 1817, ex "Les Plésiops" Cuvier, 1817, *vs. Pharopteryx* Rüppell, 1828, a case partly zoological, partly nomenclatorial, and the decision is provisional. The discussion of the case and the rulings have, however, important bearings. *Plesiops* had originally no other basis than a diagnosis. The author of *Pharopterus* later affirmed its identity with *Plesiops.*

Opinion 20 is on the question "Shall the genera of Gronow, 1793, be accepted?" Gronow's nomenclature is binary but not binomial. "His generic names, therefore, correspond to the provisions of the Code, and are to be accepted as available under the Code."

Opinion 21 is on the question "Shall the genera of Klein, 1744, reprinted by Walbaum, 1792, be accepted?" As Walbaum did not accept "the genera of Klein, 1744, he did not thereby give to Klein's genera any nomenclatorial status, and Klein's genera do not therefore gain availability under the present code by reason of being quoted by Walbaum." The case is also covered by Opinion 5, published in Science (*l. c.*) in 1907. This decision bears on other nearly parallel cases not here cited.

Opinion 22 relates to *Ceraticthys vs. Cliola. Ceratichthys* Baird and Girard, 1853, being a monotypic genus, the single species originally referred to it is its type, although the diagnosis was later modified and the type transferred to a later genus *Cliola.*

Opinion 23, on "*Aspro vs. Cheilodipterus,* or *Ambassis.*" *Aspro* was published by Lacépède in 1803 in inedited manuscript of Commerson; the name was not adopted by Lacépède, but his publication of it prevents the use of *Aspro* for a later genus (Cuv. and Val., 1828). By selecting as genotype the third of the five species named under it by Commerson (no genotype having been designated), *Aspro* would become a synonym of the earlier genus *Cheilodipterus.*

Opinion 24. "*Antennarius* Commerson, 1798, and Cuvier, 1817, *vs. Histrio* Fischer, 1813." *Antennarius* was published by Lacépède in the same way as *Aspro,* and is in common use from Cuvier, 1817, but unless *Antennarius* is tenable from Lacépède it would be superseded by *Histrio* Fischer, 1813. As *Antennarius* was given nomenclatorial status by its publication (though by another author), "it may therefore be accepted as a generic name dating from 1798."

Opinion 25. "*Damesiella* Tornquist, 1899, *vs. Damesella* Walcott, 1905." Both names are accepted under "Art. 36, Recommendations." It is stated in the "discussion": "The only paragraph now in the code under which the names *Damesiella* and *Damesella* can be judged is the one reading '8, [recommendation] *k.* Words formed by an arbitrary combination of letters.' Under this paragraph, *Damesiella* is not identical with *Damesella.*" The two names were both proposed in honor of the same man, Dr. W. Dames! They are thus identical in origin and construction, except that an *i* is added in *Damesiella,* presumably for euphony.

J. A. Allen

[3] Also on page 38, "*Cervus*" appears in the list of bird genera in place of *Corvus,* and elsewhere in this brochure are minor typographical errors, implying hasty proofreading, among them being errors of date, as 1802 for 1803 (p. 56), 1898 for 1798 (p. 57), etc.