COMMENTS
by Readers

Beginning in 1926 the Prussian Academy of Sciences, Berlin, began publishing its *Nomenclator Animalium Generum et Subgenerum*, edited during its various stages by F. E. Schulze, W. Kükenthal, K. Heider, and R. Hesse. The work appeared by fascicles and continued well into Volume 5; the last part to come to the Smithsonian Library was dated January 27, 1940, and was received May 12, 1941. This part was labeled "Fünfundzwanzigste Lieferung" and took the catalogue through page 3692, ending with the genus *Zaphleges*. This would indicate that there was one more forthcoming part (Lief. 26), perhaps including addenda, to finish the work through the rest of the letter Z. The war may have prevented the publication of this final Lieferung, but I have been unable to ascertain whether or not it ever appeared. Although the *Nomenclator Zoologicus* of the Zoological Society of London, edited by S. A. Neave, appeared complete in four volumes in 1939–40 and partially supplants the German work, there are certain features of the latter that are very useful to taxonomists and editors of zoological publications in checking the availability of generic names and in running down the literature. Any information which *Science* readers, at home or abroad, can furnish regarding the availability of the final part of this publication will be appreciated. (PAUL H. OEHSER, *editor, U. S. National Museum, Smithsonian Institution, Washington, D. C.*)

Biochemical genetics is fast reaching its place alongside firmly established branches of the biological sciences. Spiegelman and Kamen (*Science*, December 20, 1946) add much in confirming the validity of this opinion. Their attack is not the first on the tradition-bound gene theory. In their article they credit several others with similar views, especially Sewall Wright, of the University of Chicago.

They make no mention, however, of an author whose works I wish to point out, if for no other reason than to create an awareness of their existence. In a book published in 1939 by Blakiston, entitled *The biology of the cell surface*, the late Ernest E. Just, of Howard University, attacked the gene theory on the basis that ". . . ectoplasmic behavior determines the cytoplasmic reactions that lie at the basis of nuclear activity in both normal and abnormal mitosis." This book contains a large amount of data and much evidence for his theory, and much of what Just says substantiates and supports the Spiegelman-Kamen theory. Many other similarities exist in Dr. Just's complete works. (JAMES H. M. HENDERSON, *The George Washington Carver Foundation, Tuskegee Institute, Alabama.*)

During the course of a routine examination of littoral Octopoda from the western Atlantic in the collections of the British Museum, the undersigned discovered an animal that is apparently hermaphroditic. This specimen was referred to *"Polypus occidentalis* (Steenstrup M. S. Hoyle)" by A. L. Massy (*Zoology*, 1916, **2**, 141–175) and to *"Octopus (Octopus) rugosus* Bosc" by C. G. Robson (*A monograph of the Recent Cephalopoda*. Pt. I: *Octopodinae*. London: 1929). Both authors regarded it as a female. There can be little doubt that it is a small specimen of *Octopus vulgaris* Lamarck, in accordance with the discovery that neither *"occidentalis"* nor *"rugosus"* from the western Atlantic can be regarded as distinct species (G. E. Pickford. *Trans. Com. Acad. Arts Sci.*, 1945, **36**, 701–777). The specimen, which bears the museum number B.M. 1919. 12.30.40, was taken between tide marks on the shore of the Island of South Trinidad by the "Terra Nova" Expedition. It has a mantle length of 31 mm. A summary of its taxonomic characters is included in a report, now being prepared, on littoral Octopoda from the central and western Atlantic in the collections of the British Museum. Time did not permit as thorough an examination as might be desired, although it is hoped that this may be attempted at some later date. In the meantime the following note is offered in view of the special interest of the specimen. The writer is not aware that hermaphroditism has been observed previously in the Cephalopoda although, of course, it is well known among other groups of mollusks. Moreover, in *Sepia*, according to G. Montalenti and G. Vitagliano (*Publ. Staz. Zool. Napoli*, 1946, **20**, 1–18), the development of the hectocotylus is apparently concomitant with the onset of spermatogenesis, although there is no evidence of hormonal control (H. G. Callan. *Publ. Staz. Zool. Napoli*, 1939, **18**, 15–19).

In the specimen under investigation there is absolutely no evidence of hectocotylization. All arms, with the exception of the second right, which is perfect, have been damaged at their very extreme tips but had already healed before the time of capture, and in two cases, the right first and fourth, minute regenerates are developing. It is hardly likely that damage to the extreme tip of the third left arm could have completely obscured all evidence of hectocotylization; one would suppose that the spermatophoral groove would remain, even if the ligula were lost.

Because of the absence of a hectocotylus, Massy regarded the specimen as a female. However, dissection of the mantle chamber, in an attempt to determine the size of the ovarian eggs, revealed the presence of spermatophore glands. There is no penis, but left and right oviducts are present on either side of the rectum; their connections with the male system were not examined. The male internal genitalia appear to be otherwise quite normal, and the remains of two small spermatophores in Needham's organ prove that the spermatophore glands are functional. The gonad was not examined histologically to determine whether it contained ovarian as well as testicular tissue.

The observations recorded above appear to indicate that the secondary sexual characters of Cephalopoda are not subject to hormonal control.

The writer would appreciate receiving information regarding the possible occurrence of other hermaphroditic specimens. (GRACE E. PICKFORD, *Osborn Zoological Laboratory* and *Bingham Oceanographic Laboratory, Yale University.*)