early stage of shell-building which precedes the adult idiomorphology and may or may not be distinct from the proloculum. Such early or youthful stages are clearly defined in certain Peneroplidae and megalospheric orbitoids and are more or less distinct in the Fusulinidae, mentioning only some outstanding examples.

The term "embryonic apparatus" is moderately favored among some specialists on the orbitoids, but it is inappropriate and misleading for several reasons. The stage represented can hardly be considered embryonic, even if, by far-fetched and loose analogy, the term "embryonic" can be applied to any phase of protozoan life history. To call the shell or a part of the shell an "apparatus" strains a point in lexicography.

"Nucleoconch" is another name that has been used for this stage by a few writers during recent years. This term is rather awkward and lacks euphony. It is appropriate only in the singular sense that the "nucleoconch" is a sort of nucleus for the adult shell structure, but in other respects the term is misleading because its literal and obvious meaning (*i.e.,* shell for the nucleus) does not harmonize with the peculiar usage which has been defined for it. A further and important objection is that the term has not generally been accepted.

It seems opportune, therefore, to propose a new term. *Juvenarium* appears to fulfil our requirements. This word, of Latin origin, is composed of the stem JUVEN-, *youth,* plus the suffix -ARIUM, *place of* a thing. It is intended that the term shall have a general or broad application to a stage of shell-building rather than a specific or precise reference to a particular stage in the life history of the animal. This caution is prompted by the fact that the very little which is known about the life history of such foraminifers as the Fusulinidae and Orbitoididae is based on analogy with the inadequately understood life history of more or less distantly related, modern forms. Furthermore, it is not at all improbable that the stages of shell-building in different families bear different relationships to the events of individual growth; accordingly, analogies of this sort are precarious.

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SOME NOTES ON NORTH AMERICAN CRAYFISH

No information apparently exists regarding the depths to which crayfish may live in lakes. A recent collection has been turned over to the writer with some interesting data pertaining to this question. Two female crayfish of the species *Faxonius virilis* (Hagen) were obtained by Hilary J. Deason, of the U. S. Bureau of Fisheries, from nets set in Green Bay of Lake Michigan (Lat. 45° 34.2′ N.–Long. 87° 2.8′ W.). These nets were set in 18 fathoms (104 feet) and were lifted on May 21, 1932. Mr. Deason states that crayfish are frequently obtained in this region from nets set in deep water. From an economic standpoint the occurrence of crayfish at these depths is interesting. These animals are a potential food supply and doubtless could be reared or now occur over the entire bottoms of some of the Great Lakes.

In SCIENCE for August 30, 1929, a note appeared by Curtis L. Newcombe regarding a blue crayfish. The specimen referred to in this account was an immature, second form male, and was assigned to the species *Cambarus carolinus dubius* Faxon. I have examined this specimen, and it probably is referable to *Cambarus monongalensis* Ortmann, which is normally blue.

Several blue specimens of crayfish have come to the attention of the writer. Blue specimens have been seen of the normally brown or greenish *Faxonius immunis* (Hagen), *Faxonius propinquus* (Girard) and *Cambarus robustus* Girard. A specimen of *F. propinquus* kept alive in an aquarium underwent several moultings with the blue color persisting. Recently red specimens of *C. robustus* have been obtained from a rearing pond near Grand Rapids. These red specimens (one of each sex) are alive and attempts are now being made to mate them. Probably the red and blue crayfish represent mutations.

In the mountains of the Carolinas, West Virginia and Pennsylvania two closely related burrowing species of crayfish are found. One, *C. monongalensis* Ortmann, is blue, the other, *C. carolinus* Erichson, is red. From morphological characters alone it is practically impossible to distinguish the two species. The suggestion arises that these colored crayfish species may have had their origin by mutation. It appears to me that mutant color characters would be best perpetuated in burrowing species. Such species would have limited mating possibilities and color would have little effect regarding survival.

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THE EXISTENCE OF A MONTHLY SEX CYCLE IN THE HUMAN MALE

IN a study regarding the total daily urinary excretion of gonad-stimulating substances in normal individuals and in mental patients, two adult male subjects (one normal and one psychotic), included in this study, showed a sudden excretion of such substances