

base rather more produced. The lower jaw has the three deciduous grinders and the six cutting-teeth all well developed, the two middle ones being much the longest. The canines are, as in the smaller skull, slender and curved; the lower jaw is much more developed, extended in front, and broader and much more expanded below, approximating it more closely to the shape of the jaw of the adult animal.

I give these particulars, as I think they show the order in which the teeth are developed, more especially as attention has lately been called to this subject.

It appears probable that having cutting-teeth in the upper and lower jaws is the normal condition of the dentition; but, as is well shown in M. de Blainville's plates in his 'Ostéographie,' the upper cutting-teeth vary considerably in form and size, sometimes being broad and transverse, and at others circular, and often falling out entirely; and this is more likely to be the case as the same kind of variation occurs in the cutting-teeth of the lower jaw: sometimes it is the middle tooth, sometimes the intermediate, and at others the outer that is the broadest; and in other specimens all the teeth are either very small or entirely wanting, especially in the animals which have approached the adult state. The series of jaws in the Museum exhibit the same variations in the size and absence of these teeth.

The size, form, and hairiness of the ear, which has been supposed a specific character for the Abyssinian specimens, I have no doubt depends on the age of the animal examined, more especially as Wolf's admirable figures of two specimens, said to have been fifteen months old, living in the Gardens, from Natal, represent them as having small oval hairy ears (see P. Z. S. 1850, p. 78, tab. xvii.).

*Development of Spirorbis nautiloides, Lam.*

By Dr. R. VON WILLIMÖES-SUHM.

*Spirorbis nautiloides* occurs in the Bay of Kiel and in the Sound in very great abundance, especially on *Fucus vesiculosus*, which it frequently covers closely in association with *Membranipora*. Like its allies *S. Pagenstecheri*, Quatref., and *S. spirillum*, Gould, it is an hermaphrodite, the yellowish-red ova lying in the anterior, and the seminal filaments (which are furnished with a knob) in the posterior part of the body. The process of development of the young within the pedicle of the operculum described by Pagenstecher\* as occurring in a Mediterranean species, does not take place in *S. spirillum*. In this, according to A. Agassiz, the ova, imbedded in gelatinous cords, are deposited in the shell of the parent, and there undergo their development. This is the case also in *S. nautiloides*, the beautifully coloured ova of which may be found, at the beginning of June, in a biserial gelatinous cord within the calcareous shell with the parent animal.

\* Zeitschr. für wiss. Zool. Bd. xii, p. 486, pls. 38 & 39; l. c. p. 318, pl. 7.  
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Segmentation takes place here in the manner stated by Claparède and Mecznikoff: the smaller spherules of segmentation grow round the larger ones; and after complete segmentation an embryo is developed *within the egg-membrane*, bearing a ciliary girdle, and in its anterior part two eye-spots. The posterior end shows a delicate coat of cilia. It now rotates in its capsule like the embryo of a mollusk, until its egg-membrane is absorbed and it can move more freely in the gelatinous envelope. The animal is still quite opaque, when we observe on each side of it two lanceolate setæ, and a pad which projects like a handle at the sides and surrounds the animal; this is the rudiment of the neck-frill. At the formation of the third pair a subulate seta associates itself with the other setæ, the neck-pad becomes elongated with the animal, and a more distinct separation between the fore and hind body appears. At the extremity of the latter we still observe a band of cilia striking downwards; and at the cephalic extremity, on which tentacles are now sprouting, we see a small tuft of cilia, which soon falls off. In other respects I may refer for the further development to Agassiz's description of the process in *S. spirillum*, as any thing I could say would be only an unnecessary repetition of what he has said.—*Zeitschr. für wiss. Zool.* Bd. xxi. p. 394.

*On presumed American Specimens of Pelomedusa.*

By Dr. J. E. GRAY, F.R.S. &c.

The British Museum lately received, along with a collection of fish in spirits, from Dr. Wucherer, from Bahia, a very large specimen of *Pelomedusa subrufa*, which is a common South-, East-, and West-African species. Is this another instance of an African tortoise having colonized, like *Kinixys* in South America? It is considerably larger than any other specimen we have received, but I cannot see that it differs in any other respect.

Cornalia described a species of *Pelomedusa*, which is entirely an African genus, under the name of *Pentonyx americana*; and his description will fit young specimens of this species. He says that it comes from New York. Can that have been from an introduced specimen of *P. subrufa* brought by the negroes from Africa, as *Kinixys* is also supposed to have been?

*Note on Trimerella acuminata.* By E. BILLINGS.

The genus *Trimerella* was founded by me on two species (*T. grandis* and *T. acuminata*); but of the latter I had only the rostral half of the ventral valve of a small specimen. I therefore named it provisionally, and stated that it differed "from *T. grandis* in having the spiral extremity much more pointed, and the longitudinal septa running all the way to the beak." (The septa here alluded to are the walls between the tubes mentioned below.) Within the last few days, Mr. T. C. Weston, of our Survey, discovered several new speci-



Willemoes-Suhm, Rudolf von. 1871. "Development of Spirorbis nautiloides, Lam." *The Annals and magazine of natural history; zoology, botany, and geology* 8, 139–140. <https://doi.org/10.1080/00222937108696451>.

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