

applies it. If therefore we think it proper to drop Villars's name, the next in antiquity is *E. rosmarinifolium* given by Haenke in 1788. Mr. Borrer has pointed out to me that Dodoens does not deserve the honour of being commemorated in connexion with this plant, the figure of which in his work (Pempt. 85) is only a reprint of L'Obel's cut (Stirp. Hist. 226), and all that he says about it is contained in a single sentence which conveys no valuable information. It is probable that he never saw the plant. It cannot therefore be said that we are depriving him of any credit, justly due to him, when we neglect a name of only partial applicability to our plant and adopt another which belongs to it alone.

P.S.—The time which has elapsed since the communication of this paper to the Botanical Society has allowed plants raised from seeds of *E. Lamyi*, taken from the specimens sent by M. Lenormand, to develop their winter form. The seeds were sown in a pot in the early part of the summer of 1855; they flowered in the autumn, and the flowering stems are now (Feb. 22, 1856) quite dead. Around the base of the old stems there is now a dense mass of rosettes, exactly resembling in all respects those of *E. tetragonum*. The plants have not been defended from the frost, but nevertheless the rosettes are in a healthy condition. Dr. Schultz remarks of the rosettes, that “si la plante n'est pas garantie contre le froid dans une chambre chauffée” (Arch. ii. 53), they perish in the winter; but that if so defended they produce plants that flower, but do not develop any more rosettes. It remains to be seen if such will be the case with the plants in the Cambridge Botanic Garden.

Mr. Borrer informs me that “a plant of *E. Lamyi*, raised from seed sent by Schultz, is (Feb. 9, 1856) showing tufts of leaves as strong as, and (as far as I can see) scarcely distinguishable from, those of *E. tetragonum*, at this time in a north border in my garden, where it must have borne 24 degrees of frost [8° Fahr.].” These facts tend to the conclusion that *E. Lamyi* is not distinct from *E. tetragonum*.

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XXVI.—*Note on the Genus Scissurella.*

By J. GWYN JEFFREYS, Esq., F.R.S.

It would be a boon to science if Dr. Gray, or some other naturalist who is well versed in general conchology, would enlighten me and probably many more of your readers by assigning a proper position and resting-place to this singular genus. I am



by no means satisfied with the general opinion that it belongs to the *Trochidæ*; although I believe it is allied to that family in respect of both the shell and animal. Nearly half a century ago, Colonel Montagu supposed the *S. crispata* of British authors to be the fry of a *Trochus*; but since his time many other species have been discovered in various parts of the world, all of which exhibit the peculiar structure of *Scissurella*; and the recent description by Mr. Barrett of the external organs, as well as my own observation of the operculum in another (although probably not a congeneric) species, have afforded additional data for ascertaining the true relations of the genus. With respect to the presence or absence of an operculum, I may remark that even in the same genus (*Mangelia*) some of the species are operculated, while others are inoperculate. Ciliated appendages, simple filaments or cirrhi\* varying in disposition and number, and combined with opercula of different forms (which however are sometimes wanting), occur in *Macgillivrayia* and *Cheletropis* (pelagic mollusks), as well as in *Lacuna*, the *Fissurelladæ* and *Patella*, which are widely separated from the *Trochidæ* and from each other. I submit that the question ought not to be determined upon analogical considerations alone. The orifice in the mantle and shell of *Scissurella* indicates an affinity to *Emarginula* and *Fissurella*, the young of which are well known to be spiral. The slit in *S. striatula*, Ph., does not commence until the animal is half-grown. Its sides or walls are raised above the surface of the shell, and present a prominent ridge; a hollow groove being thus apparently formed for the reception and passage of the ex-current or anal canal. The foramen in which it terminates is oblongo-fusiform, being usually more pointed in front; and it projects like the groove, in this respect resembling an analogous process in the young of *Fissurella*. As Mr. Alder justly remarks, this conformation appears to exhibit the same relation between this species and *Scissurella* as *Puncturella* bears to *Emarginula*. The ribs generally cease when the slit begins to be developed; and it would seem as if that operation altered or interfered with the original secreting power of the mantle, which afterwards was applied as well to the filling-up of that part of the slit which became useless as to the construction of a series of close-set transverse striæ or steps between the sides of the groove. The foraminal termination of the slit I have only observed in this species (*S. striatula*), although a great number of the British species (*S. decussata* or *crispata*) have been examined

\* *Obs.* The use of these organs seems to be little known. In *Macgillivrayia* they are supposed to serve for prehension as well as natation; but in the majority of cases they probably perform the functions of supplemental tentacula.



by me. In the first-mentioned species, too, the spire is laterally compressed, as in *Stomatia*, and is not so trochiform as in the others; and if the family of *Scissurelladæ* (as proposed by Dr. Gray in his "List of the Genera of Recent Mollusca") is adopted, I venture to suggest that for the species in question and others which possess a similar organization and form, the generic name of *Schismope* (ab  $\sigma\chi\iota\sigma\mu\eta$ , *scissura*, et  $\acute{o}\pi\eta$ , *foramen*) would be appropriate\*. *Trochotoma*, *Pleurotomaria* (if indeed *Scissurella* differs from it), and other fossil genera, may then form part of the same family; as no system of classification can be complete in which what are usually termed "extinct" forms are not comprised. Sowerby, in his "Genera of Recent and Fossil Shells," took the characters of *Scissurella* from a species of the Calcaire grossier of Grignon, and not from any of the species described by D'Orbigny, who is not likely to have overlooked the remarkable structure of the scissural foramen. The position given to *Scissurella* by the late Professor Forbes in the 'British Mollusca' (viz. between *Adeorbis* and *Ianthina*), cannot, I think, be right; because the last-mentioned genera belong to very different families. These minor problems in natural history are very interesting; and I hope my friend Mr. Clark will be able next summer to obtain and describe the animal inhabitant of *Adeorbis subcarinata*, and thus increase his valuable stock of observations on the British Mollusca.

58 Montagu Square, St. David's Day, 1856.

P.S. Having submitted the above to Dr. Gray, I have been favoured with his remarks on the subject; which, with his permission, I will subjoin to my communication:—

"British Museum, 6th March 1856.

"MY DEAR SIR,

"I have read your note with much interest; and I have little doubt the genus *Scissurella* belongs to the great group which has been called Scutibranchia, Rhipidoglossa, or Trochoida, characterized by the structure of the gills, the lateral membrane and tentacles, the peculiar disposition of the teeth and organs of digestion, and by its generally forming a pearly shell.

"This group consists of the genera *Trochus*, *Rotella*, *Turbo*, *Halotis*, *Stomatia*, *Stomatella*, *Fissurella* and *Parmophorus* of Lamarck: and perhaps, according to the theories of some conchologists, especially such as study the productions of a small region only containing a very few representatives of each family,

\* The only recent species with which I am acquainted (*Sc. striatula*, Ph.) is littoral. All the species of *Scissurella* proper apparently inhabit deep water.



these might even be considered as a single natural genus. But to such as study the Mollusca of a larger and more prolific district, and especially the species now contained in collections brought from various climes, such a union of genera seems to me most undesirable, particularly as it prevents that accuracy of observation and discrimination which it is the great advantage of natural history as a branch of education to establish and teach.

"From the study of the animals, shells and opercula of these Lamarckian genera, I have been induced to form the group into the following families, viz. *Rotelladæ*, *Turbinidæ*, *Liotiadæ*, *Trochidæ*, *Stomatelladæ*, *Scissurelladæ*, *Haliotidæ* and *Fissurelladæ*. I believe that *Scissurella* is very distinct from *Trochus*, and intermediate between it and the *Haliotidæ*, but more nearly related to the latter than the former; and this view of its position has been strengthened by Mr. Barrett's description of the animal, as well as by what you say as to the operculum and structure of the shell.

"Though the family of *Scissurelladæ* only contains one, or as you have very properly proposed, two genera, yet they appear to be all that remain of a large number of fossil genera, containing together more than 300 well described and figured species.

"I never believed that *Scissurella* had any relation with *Ianthina*, and the figure and description of the animal distinctly prove that it has not any.

"*Adeorbis*, on the other hand, is clearly a genus belonging to the same great group above mentioned, and is referable, by the exquisite structure of its operculum, to the family *Liotiadæ*, characterized by its horny many-whorled operculum being ornamented with concentric spiral lines of a calcareous pearly substance.

"Ever yours sincerely,

"J. Gwyn Jeffreys, Esq."

"J. E. GRAY."

XXVII.—*On the House Ant of Madeira*. By Prof. O. HEER, of Zurich. Translated from the original by R. T. LOWE, M.A.

[Concluded from p. 224.]

## II. *Description of the House Ant.*

### ŒCOPHTHORA, Heer.

MANDIBLES very strong, in the females and soldiers with a sharp cutting edge, in the labourers toothed like a saw. Palpi of the tongue and maxillæ *very short and two-jointed*; the





Jeffreys, John Gwyn. 1856. "XXVI.—Note on the genus *Scissurella*." *The Annals and magazine of natural history; zoology, botany, and geology* 17, 319–322.  
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