

<i>Thyone</i>	8T + 2t.
<i>Pseudocucumis</i>	10T + 10t.
<i>Thyonidium</i>	10T + 10t.
<i>Amphicyclus</i>	14(T + T') + 10t.
<i>Actinocucumis</i>	16 to 18(T + T') + 2t.
<i>Orcula</i>	10 to 15(T + T') + 5t.
<i>Phyllophorus</i>	12 to 16(T + T') + 5 to 6t ¹ .

I have tried, in the phylogenetic table which I append, to combine with the approved mode of presenting hypotheses the objective method used so successfully by Prof. Huxley in some of his later communications to this Society.

At the side I mark the stages of 10T, 8T + 2t, and 10T + 10t; along the middle rise the stichopod forms, to the left those that are more or less heavily armed, and to the right the strictly sporadiform forms.

An inspection of this table shows that the forms are now seen to be too closely and intimately allied to allow of the sharp differentiation into three groups which was suggested by Prof. Semper.

If, however, we have lost an artificial scheme, we have perhaps got one step nearer to a clear perception of the genetic relationship of the genera of the Dendrochirotae; and, after all, it is better for us to recognize the tangled web and woof of the animal kingdom than, in these days, to be content with definitions overloaded with exceptions, or distinguishing marks that tell us nothing of the past, and give us but uncertain aid in the present. The day of linear classifications is gone.

3. An Account of the Land and Freshwater Mollusca collected during the Voyage of the 'Challenger' from December 1872 to May 1876. By EDGAR A. SMITH.

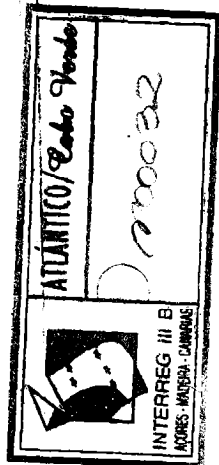
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(Plates XXII. & XXIII.)

The object of the voyage of the 'Challenger' having been "to investigate scientifically the physical conditions and natural history of the deep sea all over the world," it is not surprising that the number of terrestrial and fluviatile Mollusca brought home by the Expedition is comparatively small. Evidently no real attempt was made at collecting, but only such species appear to have been picked up as presented themselves to members of the scientific staff when on shore at the various localities. The whole collection comprises only 152 species, some of which, however, possess considerable interest, and several are new to science.

The following Report has been drawn up in as brief a manner as

¹ *Echinocucumis* would apparently have the formula of 8t + 2T, and is possibly a slightly degraded form; I have omitted it from the phylum.



CANARY ISLANDS.

Examples of the following species of Helicidæ were collected at Teneriffe:—1. *Vitrina lamarckii*, Férussac; 2. *Zonites cellaria*, Müller; 3. *Helix malleata*, Férussac; 4. *H. adansoni*, Webb & Berthelot; 5. *H. lactea*, Müller; 6. *H. apicina*, Lamarck; 7. *H. circumscissa*, Shuttleworth; 8. *H. lenticula*, Férussac; 9. *H. fortunata*, Shuttleworth; 10. *H. pavida*, Mousson; 11. *H. phalerata*, Webb & Berthelot; 12. *H. lancerottensis*, Webb & Berthelot; 13. *H. lineata*, Olivi; 14. *Bulimus tarnerianus* (junior?), Grasset.

Of the above species Nos. 2, 5, 6, 8, 12, 13 are not restricted to the Canaries, but range further north, either to North Africa or Europe. For a full account of these species and their distribution, reference should be made to the 'Testacea Atlantica' of Wollaston.

Besides the species already enumerated, two small examples of *Limax canariensis* of d'Orbigny were collected at this locality, agreeing in every particular with d'Orbigny's description excepting size, from which it is concluded that they are but half-grown, being about an inch in length in contraction.

CAPE DE VERD ISLANDS.

Only two species of Helicidæ were collected at St. Vincent, namely *Helix advena*, Webb and Berthelot, and *H. bollei* of Albers.

ASCENSION ISLAND.

The only land-shell met with, *Helix (Fruticicola) similaris* of Férussac, is almost cosmopolitan, and has previously been recorded from this locality. The unbanded variety appears to be more common than that with a peripheral brown zone, judging from the series of 240 specimens at hand.

SOUTH AFRICA.

The following species were obtained in this district: *Limax gagates*, Draparnaud (?=*L. capensis*, Krauss), and *Helix aspersa*, Müller, from the Cape of Good Hope; also a young specimen of the latter from Sea Point near Cape Town, and *Helix afra*, Pfeiffer, from Simons Bay.

It will thus be seen that the first two of these species are well-known British and European forms, and doubtlessly have been introduced. The single specimen of *H. afra* differs from that described by Pfeiffer in having the perforation entirely closed by the expanded columellar callus. The lip also is quite thin, without any internal thickening, and even in the type itself this is very slight and some distance from the extreme margin, which, being the last-formed part of the shell, has not received so much internal callus.

BERMUDA.

All the terrestrial mollusks obtained at this locality are well-known forms, but one, the common European *Limax gagates*, has not, I