

bring under the common law of organization the ovaries with a free central placenta, whose differences from ordinary ovaries are more apparent than real;" that most probably placentation always, in spite of appearances, belongs to the ovarian leaves. We are pleased to find that the experience of this eminent botanist has brought him into agreement, as regards the conception of species, with the views of those whom we must regard as the soundest workers and writers of the present day, and those on whom the hopes of the science rest. He states that if he had the *Plantagineæ* to elaborate anew, he should not hesitate to reduce considerably the number of species, "and perhaps to refer some entire sections to a single specific type." Perhaps even the greater part of two sections, we may add; for of two sections in the Prodrusus, one is founded upon substerile and the other upon truly fertile forms of the same species, or set of species: and in another part of the genus one wide-spread American species figures under at least a dozen names. See notes on *Reports of Pacific Railroad Explorations*, vol. 4, p. 117.*

A. G.

12. *Naturhistoriske Bidrag til en Belkrivelse af Grønland*; af J. REINHARDT, J. C. SCHIÖDTE, O. A. L. MÖRCH, C. F. LÜTKEN, J. LANGE, H. RINK. 8vo, pamph., pp. 172, with map. Copenhagen, 1857.—This work contains a complete catalogue of the fauna and flora of Greenland as far as known, together with some account of the geology and meteorology. It is a work of great importance to North American naturalists, relating as it does to our northern Fauna and Flora, and containing many valuable remarks upon the genera and species, particularly in regard to their synonymy. The zoological portion only will be noticed here. The Mammalia, of which there are 27 species, Birds, 111 species, Fishes, 69 species, Crustacea, 138 species, and Annelida, 87 species,—are elaborated by Reinhardt; the Insects by Schiödte; the Mollusca, 211 species, and Acalephæ, 33 species, by Mörch; the Echinodermata, 29 species, and Polypi, 7 species, by Lütken.

In the catalogue of testaceous molluscs, our conchologists will not be surprised to see many of our familiar species appearing under strange names. In this department of zoology, the names, particularly those of the genera, seem to undergo a periodical change. Of Pulmonates there are eleven species, seven land and four freshwater. *Vitrina angelica* hardly differs from *V. pellucida*; if distinct it is probably identical with *V. limpida*, Gould. The various divisions of *Helix*, as *Conulus*, *Helicella* and *Helicogena*, are adopted as genera.

Our *Bulla triticea* is regarded as the same as the European *Cylichna alba*. *B. Reinhardi*, Möll., is catalogued as "*Cyl. insculpta*, Totten," which however is only a synonym of *Bulla solitaria*, Say. *Dendronotus Reynoldsii*, Couth., is considered a distinct species from the European *arborescens*, to which it is generally referred by our naturalists. Four species of *Velutina* are mentioned, *V. flexilis*, *lanigera*, *haliotoides* and *zonata*. The classification adopted is singular in some respects; for example it is somewhat startling to see *Littorina* introduced between *Velutina* and *Natica*; while *Rissoa* and its allies are placed between *Natica* and *Cerithium*. *Natica* is divided into four genera, *Natica*, *Lunatia*, Gray,

* These volumes some of them contain much interesting botanical matter. We may call attention to them when the remaining volumes are published.

Mamma, Klein, and *Amauropsis*, nov. gen. Our *Natica clausa* is *N. affinis* (*Nerita*) Gmel. *N. grönlandica*, Beck., is a *Lunatia*. *N. immaculata*, Totten, is said to be the young of *N. (Mamma) borealis*, Gray, 1839; if so, Totten's name has priority. *Natica helicoides*, Johnst., is called *Amauropsis islandica* (*Nerita*), Gmel. *Adeorbis costulata* is placed in *Cyclostrema*, Marryat. *Mangelia turricula* of our coast is regarded as distinct from the European *Fusus turriculus* and styled *Defrancia scalaris*, Möll. The name *Tritonium* is adopted for *Buccinum*, including *B. glaciale*, *Donovani*, *undatum*, *grönlandicum*, *Hancockii*, *tenue*, *undulatum*, *Humphreysianum*, and *ciliatum*; while the name *Fusus* is retained for *F. despectus*, *tornatus*, *islandicus*, *norvegicus*, etc. The rules of nomenclature would however seem to require that *Buccinum* should be retained, being the older name, whether *Tritonium* be preferred to *Fusus* or not. *Fusus clathratus* is placed under *Murex*. *Spirialis Gouldii*, Stimpson, is correctly referred to *Limacina balea*; but we cannot see why the name *Heterofusus* of Fleming, founded on an error, should be preferred to the more euphonic one of Souleyet. *Margaria undulata* is *M. grönlandica*, Chemn., 1781. The names *M. cinerea* and *argentata* of our naturalists are acknowledged over European synonyms.

Patella candida is regarded as identical with *P. cæca* and arranged in *Lapeta*, Gray (*Cryptobranchia*, Midd.). *Cemoria*, Leach, is retained over *Diadora*, Gray. Only two Chitons, *C. marmoreus* and *C. albus*, are catalogued, and the subgenera of Gray are adopted. Eight species of Cephalopoda are found in the list, which seems a large number in view of the fact that only three are known to occur on the eastern coast of the United States. The Greenland *Teredo* is set down as "*T. denticulata*, Gray, 1850," with *T. dilatata*, Stimpson, as synonym; an error of date, the latter name having been published, with description, in Oct. 1851; Gray's name in the Ann. and Mag. Nat. Hist. for Nov. 1851, with no description. *Cyrtodaria* of Daudin is retained for *Glycymeris*, Lamk. *Tellina proxima* is *T. (Macoma) sabulosa*, Spengler, according to Mörch. We are not aware however of its having been called *Psammobia sordida* either by Couthouy or Gould. *Tellina fusca* (*grönlandica*, Beck) occurs under the name of *T. tenera*, Leach, in Rozet's Journal, 1818. Should this name hold, our common species *T. tenera*, Say, 1821, must receive a new designation, and might be called *T. agilis* in view of its quick and sprightly movements. *Serripes*, Beck, is preferred to *Aphrodita*, Lea; which latter name however has priority, and should stand unless rejected on account of its occurrence in other departments of the animal kingdom. *Nuculana*, Link, is retained over *Leda*, Schum.

Several of our New England mollusks, whose limits were not before known to extend so far north, are mentioned in the catalogue: as *Bulla insculpta*, *Eolis Bostoniensis*, *E. salmonacea*, *Rissoa eburnea*, *Thracia truncata*, *Montacuta elevata* and *Kellia planulata*. Many other points of interest to our malacologists may be found in the catalogue, but our space will not permit of further notice of them here.

We will add a few brief remarks upon Lütken's catalogue of the Echinodermata. Of this class we find 9 Holothuridæ, 1 Echinus, 8 Asteriadæ, and 11 Ophiuridæ. *Cucumaria* is retained instead of *Pentacta*, Goldfuss, notwithstanding the latter has priority. *C. Koreni*, Ltk., nov. sp., is

Pentacta calcigera, St., Bost. Proc., 1851. *Cuvieria* is united to *Psolus* and with good reason. The new genus *Eupyrgus* seems related to *Psolus*; *Myriotrochus* of Steenstrup to *Chirodota*. *Asteracanthion grönlandicus*, Stp., scarcely differs from *A. littoralis*, Stimpson, Synopsis Inv. of Grand Manan, p. 14, while *A. problema*, nov. sp., is identical with *A. albulus*, St., loc. cit. *Ophiura Sarsii*, Ltk., n. s., is common on our coast and here considered a variety of *O. ciliata*. *O. squamosa*, Ltk., nov. sp., is common at Grand Manan, and is *O. robusta* of the Synopsis. *O. robusta* of Ayres seems to include both *O. squamosa* and *nodosa* of Lütken. It is proper to state that the above identifications are established upon actual comparisons of specimens. w. s.

13. *Contributions to The Natural History of the United States of America*; by LOUIS AGASSIZ. First Monograph in three parts: I. Essay on Classification; II. North American Testudinata; III. Embryology of the Turtle. In two volumes 4to of 640 pages, with thirty-four plates. 1857. Boston: Little, Brown & Company. London: Trübner & Co. Subscription price, per volume, \$12.

These two quarto volumes on American Zoology are the first of a series of ten volumes, which Prof. Agassiz has in course of preparation. It is most honorable to the country and a high tribute to the author, that this great work is appearing under so liberal auspices.

Eleven years ago Prof. Agassiz landed in America: since then his labors have been incessant, and as a consequence, a large amount of drawings and manuscripts connected with American zoology had accumulated on his hands. The seashores here opened to him a field in zoology he had not hitherto enjoyed, the rivers and lakes were full of life that had new revelations for him, the whole land in every direction tempted a mind in love with all forms of nature, and nearly every department of zoology had therefore been the subject of special researches. Encouraged and aided by a distinguished friend, Mr. Francis C. Gray of Boston—since deceased—the plan of publication by subscription was set on foot. Prof. Agassiz alluding to his benefactor and the subscription, says, in his Preface:

“He took the whole direction himself, awakening attention to it by personal application to his friends and acquaintances, by his own liberal subscription, by letters, by articles in the journals, and by every means which the warmest friendship and the most genuine interest in science could suggest. He was rewarded beyond his utmost hope or mine, by the generous response of the public to whom he appealed. We had fixed upon five hundred subscribers as the number necessary, to enter upon the publication with safety; and we had hoped that the list might perhaps be increased to seven or eight hundred. At this moment it stands at twenty-five hundred: a support such as was never before offered to any scientific man for purely scientific ends, without any reference to government objects or direct practical aims,—although I believe no scientific investigations, however abstruse, are without practical results. My generous friend did not live to witness the completion of the first volume of the series, which without his assistance could not have appeared, but he followed with the deepest interest every step in its progress, to the day of his death;—he did live, however, to hear the echo which answered his appeal to the nation, in whose love of culture and liberality towards all