antinomia (Cat.). The two generic names *Pygope* and *Antinomia* are employed, because they are supposed to indicate two independent parallel genetic series, whose members differ in size and position of the perforation, and in characters of the lateral margin. But there is yet another series of diphyoids, typified by *Terebratula diphyoides,* d'Orb. It is pointed out that, although the species covered by the name *diphyoides* are very like *Pygope* as now used, yet they all differ in having particular characters in the preperforate stage — a dorsal ridge and a ventral sulcus. For this series de Haan's MS. name *Pygites* is used; and it is supposed that there are three genetic series of diphyoids which have developed independently, and that the remarkable perforate form, with its two lobes joined, has been evolved three times over. The three series develop from the glossothyridoid, to the bifidate, to the perforate (ordinary *T. diphya*) stage; and two series are supposed to finish by losing all trace of the perforation, the lobes completely coalescing (the imperforate stage), represented by *T. pileus,* Brug. = *T. triangulus,* Val. in Lamarck.

In compiling synonymies of the species in the three genera there have been found two other papers overlooked by Brachiopod bibliographers—one by E. Newman in the *Zoologist,* 1844, p. 679, naming *T. Duvali,* and one by Catullo.

S. S. BUCKMAN.

GEOLOGICAL SECTION OF NEW MEXICO.

UNTIL within the past year no connected view of the geological formations of the New Mexican region has been possible. From the literature alone little of an exact sequence of geological formations could be made out. Since the work of the geological and mineral survey of New Mexico, under the direction of the School of Mines, at Socorro, has been undertaken much new and much-desired information has been obtained, until now a very satisfactory and correlated scheme of the rock succession has been constructed. The section is instructive on account of—(1) its completeness, (2) its easy parallelism with the better known sections of other parts of the continent, (3) the great development of certain of the major formations, and (4) the many great unconformities which represent long erosion intervals.

Nearly every one of the twenty-five larger formations, those having a taxonomic rank of series, are separated by marked unconformities. The recognition of these erosion intervals explains many hitherto unsolved phenomena regarding the relationships of the various formations, and enables exact correlations to be made in a way that is impossible among the terranes of most other localities, and largely without the use of organic remains. The section is as follows:

GENERAL GEOLOGICAL SECTION OF NEW MEXICO.

	Age.	Series.	Thickness.	Rocks.
Cenozoic	Quaternary		200	Gravels.
	Tertiary	Llano Estacadan	200	Shales.
		Arriban	500	Sandstones.
		Wasatchan	1,700	Sandstones.
		Nacimientan	800	Shales.
Mesozoic	Cretaceous	Laramian	3,600	Sandstones.
		Montanan	1,500	Shales.
		Coloradan	1,000	Shales.
		Dakotan	500	Sandstones.
		Comanchan	100	Sandstones.
	Jurassic	Morrisonian	200	Shales.
		Zunian	1,200	Sandstones.
	Triassic	Shinárumpan	1,500	Shales.
Paleozoic	Carboniferous.	Cimarronian	1,000	Shales.
		Guadalupan	2,500	Limestones.
		Maderan	1,000	Limestones.
		Manzanan	1,000	Limestones.
		Ladronesian	200	Shales.
		Socorran	300	Limestones.
	Devonian		400	Limestones.
	Silurian		100	Limestones.
	Ordovician	El Pasan	1,200	Limestones.
	Cambrian		300	Sandstones.
Proterozoic			3,000	Quartzites.
Archeozoic			5,000	Schists.

The most noteworthy features are the great development of the Tertiary and Cretaceous deposits, the presence of rocks of the Jurassic horizon, the completeness of the Carboniferous sequence, the representation of all systems of the Paleozoic, and the differentiation of the

Proterozoic clastics and the Archeozoic crystallines.

Charles R. Keyes.
New Mexico School of Mines.

BOTANICAL NOTES.

STUDIES OF ISLAND VEGETATION.

Two contributions to Atlantic island floras have recently appeared dealing with the plants of the Bahamas and the Bermudas respectively. Dr. Charles F. Millspaugh's 'Contributions to a Flora of the Bahamian Archipelago' issued (under the title 'Praenunciae Bahamenses, I.') by the Field Columbian Museum in February, 1906, is the first of a proposed series intended thoroughly to cover the flora of these islands. A large amount of material collected by many botanists has been brought together for the use of Dr. Millspaugh in his study of the species. The principal collectors represented are L. J. K. Brace (1875 to 1905); N. L. Britton (1904–5); E. G. Britton (1905); W. C. Coker (1903); Wm. Cooper (1859); A. H. Curtiss (1903); F. S. Earle (1903); M. A. Howe (1904–5); C. F. Millspaugh (1904–5); G. V. Nash and N. Taylor (1904); A. R. Northrop (1890); J. T. Rothrock and A. S. Hitchcock (1890); A. E. Wright (1905). The families of plants represented in this paper are *Amaranthaceae, Euphorbiaceae, Rubiaceae, Verbenaceae* and *Solanaceae.* New species are described in each of these families, aggregating fourteen in all, and two new genera of *Verbenaceae* are characterized. It is noteworthy that both generic and specific descriptions are in Latin, in accordance with the growing feeling among botanists that all new descriptions should be so written.

The second paper is a 'List of Plants Collected in Bermuda in 1905' by Albert H. Moore. It is the result of collections made by Mr. Moore in Bermuda in July and August, 1905. The specimens (with few exceptions) were determined by comparison in the Gray Herbarium of Harvard University. As a result we have a list of 221 species, two of which are new to science. The latter are illustrated by reproductions of photographs. Eleven species are listed as endemic in Bermuda, including three ferns, a juniper, two sedges, a palm, a *Sisyrinchium,* an *Elaeodendron* (tree of a new species), a *Statice,* and an *Erigeron.* The descriptions are in Latin here also, and the nomenclature is in accord with the rules adopted in the Vienna congress last year.

From the other side of the world we have a pamphlet of about one hundred pages devoted to Philippine plants, and containing five papers, viz.: 'New and Noteworthy Philippine Plants, IV.'; 'Notes on Cuming's Philippine Plants in the Herbarium of the Bureau of Government Laboratories'; 'Notes on Philippine *Gramineae'; 'Scitamineae* Philippenses'; 'Philippine *Acanthaceae.*' Many new species are described, two of which are of especial interest, viz: *Acer philippinum* and *Fraxinus philippensis.* Neither one of these genera had been known previously on the islands. The *Gramineae* are treated by Hackel, the well-known agrostologist of Gratz, Austria.

In this connection mention should be made of *The Philippine Journal of Science,* the first number of which was issued by the Bureau of Science of the Government of the Philippine Islands in January of the present year. Its purpose is the publication of the researches of the Bureau of Science. There are to be ten numbers a year, aggregating approximately one thousand pages, and these are to take the place of the bulletins hitherto issued by the government laboratories. The subscription price is placed at five dollars per year.

ANOTHER NOMENCLATURE RULE.

In his 'Leaflets' issued April 10, 1906, Dr. E. L. Greene prints a timely and vigorous protest against the dedication of more than one genus to any man, however eminent, and calls attention to the practise of some of the earlier masters of botany, who promptly suppressed duplicate names. Thus Dr. Torrey rejected *Wittea,* proposed by Kunth in honor of De Witt Clinton, with the comment 'it would be inadmissible to bestow two genera on the same person,' holding that *Clintonia*