may be observed, that of the species discovered in Chili, several are entirely new, and distinct from such as exist on this side the Cordilleras.@@1

Notwithstanding the interest of the subject, we must now bring our general observations to a close, and proceed with a brief systematic sketch of the principal genera and species, referring the reader to M. Schlegel’s work (and to those of the other Erpetologists here quoted) for more minute de­tails. In conformity with the views of the author just nam­ed, we preserve the ancient subdivision of venomous and non-venomous kinds. The constant character of the for­mer consists in being provided with a gland of a cellular structure, which secretes a very deleterious poison. Maxil­lary teeth, called fangs, of much greater length than the others, hollow interiorly, and furnished with openings at either extremity, for the entrance and exit of the poison, are the potent weapons with which these insidious reptiles inflict their fatal wounds. It is difficult, if not impossible, to assign to these serpents any certain character of exter­nal distinction, although there is something in their general aspect which points them out, even to the uninitiated, as dangerous neighbours. Their natural habits also offer this distinction, that the venomous kinds are almost always either terrestrial or marine, although *Trig, viridis* is slightly arbo­real, and certain species of *Naja* occasionally occur in fresh water. But the colubriform venomous kinds so greatly re­semble the innocent species, that professed naturalists have sometimes combined them with each other. Their most common characters consist in a thickish rounded muzzle, and a short, thick, conical tail. The marine serpents may be recognised by their flattened tails.

The constitution of the following families bears relation rather to the habits of life than the organic structure of the species they respectively contain.

FIRST PRIMARY DIVISION. NON-VENOMOUS SERPENTS.

*Family I.—Burrowing Serpents.*

Genus Tortrix. Body cylindrical, of nearly equal di­mensions throughout ; head small, obtuse, and covered by imperfectly developed plates ; eyes small ; nostrils narrow ; gape not widely cleft ; teeth short and conical ; tail short. Plate CCCCXLIV. fig. 6.

The species of this genus (which in M. Schlegel’s work includes also *Eryx* and *Xenopeltis* of other authors) inha­bit the warmer countries of both the Old and New World, preferring dry and sandy districts, in which they form nar­row excavations. *T. eryx* occurs over a vast extent of ter­ritory, from Egypt to Hindustan, and is met with in the southern parts of Europe. The ground colour of the dor­sal region is a beautiful red with numerous confluent spots, and bands of blackish brown ; the under parts are yellow, the whole covered by small scales. The muzzle is obliquely truncated at the end. Length about two and a half feet. Abdominal plates 195, caudal twenty. Six other species are known, of which *T. scytale* is American, and, of all un­doubtedly Ophidian reptiles, makes the nearest approach to those ambiguous genera *Typhlops* and *Amphisbæna.@@2*

*Family II.— Worm-like Serpents.*

Genus Calamaria. Body small and cylindrical, termi­nated by a short conical tail. Head uniform with the body. Plates in the muzzle few in number.

The majority of the genus have the lower surface of a fine vermilion hue, a colour frequent among reptiles which

inhabit low and moist abodes. They seldom exceed a foot in length, and are found in both the Americas, in Africa, Southern Asia, New Holland, and the Indian Archipelago. There are eighteen described species, of which one of the most curious is *cal. lumbricoidea* of Boié.@@3 Its body, though sometimes several feet long, does not exceed the thickness of a swan’s quill. The colour is blackish-blue above, bluish below, with blackish spots, and a yellow ray along the sides. The scales are smooth, square, and disposed in thirteen rows. Abdominal plates from 190 to 217, caudal from sixteen to twenty-three.

*Family III.—Terrestrial Serpents.*

Genus Coronella. Body somewhat pentagonal, thick­ening towards the centre. Head distinguishable from the neck, sometimes very broad at the base, depressed, the muzzle short, obtuse, and slightly truncated. Scales smooth, and disposed in from seventeen to nineteen longitudinal rows. Abdominal and caudal plates about 180 + 40.

The species of this genus are very alert in their move­ments, and defend themselves, when attacked, with great energy and perseverance. They are dispersed over almost all parts of the world (preferring plains and humid places), but have not as yet been observed in Japan or New Holland, and are rather rare in Asia. Specimens from South Ame­rica are very frequent in collections, *cor. lævis* is a well- known European species, which occurs in France, Germany, Switzerland, Italy, and, from Sparmann’s description, ap­pears to be among the number of the few Ophidians which inhabit Sweden.@@4 It is of a shining bay colour, ornament­ed by irregular black marks, which form a peculiar design upon the head. The under surface is yellowish, marked with square black spots. There are twenty-one rows of scales, and the plates arc 175 + 55. This species is vivi­parous, that is, the young are hatched within the body of the mother. When attacked, it attempts to escape with great celerity, and when foiled in that intention, it fights with energy, bites furiously, and will scarcely allow itself to be taken alive. It cannot be lifted by the end of the tail (at least with impunity), as many serpents may, as it pos­sesses the power of bending its body upwards, and wound­ing the hand of its captor. However, its bite, though dis­agreeable, is in no way dangerous. It is an excellent swimmer, butdoesnot enter the water willingly. It is very fond of mice. About thirteen other species are known to naturalists.

Genus Χενοοον. General form heavy, head broad, muzzle short and truncated, body thick, abdomen flattened. Upper jaws provided posteriorly with a solid, elongated, compressed tooth. Scales smooth, and dispersed in rather oblique ranges, especially on the neck, which is capable of expansion. Plates of the head short and broad.

Of this genus the species are few in number, and of these the individuals are by no means abundant. They are of large size, sometimes measuring from three to four feet in length, and, being thick in proportion, present a somewhat formidable aspect. They are usually characterized by a grayish-blue tint, and occur chiefly in Java and intertropical America. None have been as yet found in Africa or New Holland, but *Xen. Michahelles* inhabits the south of France and Spain.@@5 This species is distinguished by its short conical head, terminated by a prominent rostral plate. It has twenty-seven rows of scales, and 216 + 60 plates.

Genus Heterodon. Head not very distinguishable from the general form, which is slightly pentagonal, and almost of cqual thickness throughout. Abdomen somewhat angu­lar, and narrower than in Xenodon. Tail very short, and furnished beneath with divided plates. Rostral plate al-

@@@1 See *Physiognomie des Serpents* (distribution géographique), i. p. 195, et seq.

*@@@’ Museum Adolph. Fred.* pl. 6, fig. 2.

*@@@, Erpitolngie de darn,* **pl. 22.**

*@@@, Neue Schwed. Abhandl.* **xvi. 180, pl. 7, f∙ A, B.**

@@@• Figured by Wagler under the title of *Rhinechis Ayassizii. Icones,* pl. 25.