be traceable as we recede from their original geographical province.

§ v. Bearing of Palaeontological data upon Evolution.-Since the researches of William Smith at the end of last century, it has been well understood that the stratified portion of the earth's crust contains a suite of organic remains in which a gradual progression can be traced, from simple forms of invertebrate life among the older rocks to the most highly differentiated mammalia of the present time. Until the appearance of Darwin's "Origin of Species" in 1859, the significance of this progression and its connection with the biological relations of existing faunas and floras were only dimly perceived, though Lamarck had proposed a theory of development, in support of which appeals had been made to the organic succession revealed by the geological record. Darwin, arguing that, instead of being fixed or but slightly alterable forms, species might be derived from others, showed that processes were at work, whereby it was conceivable that the whole of the existing animal and vegetable worlds might have descended from, at most, a very few original forms. From a large array of facts, drawn from observations made upon domestic plants and animals, he inferred that, from time to time, slight peculiarities due to differences of climate, etc., appear in the offspring which were not present in the parent, that these peculiarities may be transmitted to succeeding generations, especially where from their nature they are useful in enabling their possessors to maintain themselves in the general struggle for Hence varieties, at first arising from accidental cirlife. cumstances, may become permanent, while the original form from which they sprang, being less well adapted to hold its