

between animals and reptiles, viz: the Tortoise which it somewhat resembles, is another popular error, for the Armadillo has a coat of mail, implanted as it were on the skin, whilst the shell of the Tortoise is part of the skeleton extended, and as it were thrown outside the body for the protection of the internal organs. The Bat, ignorantly asserted by many to be a connecting link between birds and mammals, belongs exclusively to the latter as much as the so-called flying squirrel, and the flying fish has acquired that name only from the impetus it gains by its fins in leaping out of the water when pursued by larger fish, the fins not being used as wings at all.

Errors like these have to be guarded against by the student of Natural History, and, where possible, nothing should be taken for granted without examination.

Turning to the vegetable kingdom we find the mutual relations of the parts of the flower and their homology with the leaves indicated by those cases in which there is a gradational passage from the leaf to the bract, from the bract to the sepal, from that to the petal, and from the petal to the stamen. The non-development of some organ possessed by neighboring groups is manifested by the presence of that organ in a rudimentary or undeveloped condition. When the whorl, or part of it, in a flower is suppressed, the deficiency is manifested either by the presence of the undeveloped organs in rudimentary form, or by leaving a space for them in the arrangements of the parts which are present. Thus, in the Primrose tribe, there is a single row of stamens opposite to the petals, instead of alternately with them, according to the regular plan of floral development, from which the botanist concludes that a whorl has been suppressed, which ought to intervene between the petals and stamens. The rudiments of an intermediate row are found in the *Samolus* in the form of a whorl of little scales, not developed into stamens. In the common Sage, only two stamens are found where the plan of the flower would lead us to expect five; but on looking at the interior of the corolla attentively, two little scales may be seen where the two deficient stamens should have been. These scales are frequently developed as perfect stamens in flowers, which otherwise are constructed precisely like the Sage.

In botany, however, the term transition might more appropriately be used than connecting links. The Algae, or water weeds, vegetate exclusively in water or damp situations. Their nearest representa-