

*niceum* (the sterility of which varied according to the season), and with the *Passiflora alata*, which recovered its self-fertility when grafted on a different stock.

It is interesting to observe in the above several cases the graduated series from plants which, when fertilised by their own pollen, yield the full number of seeds, but with the seedlings a little dwarfed in stature—to plants which when self-fertilised yield few seeds—to those which yield none, but have their ovaria somewhat developed—and, lastly, to those in which the plant's own pollen and stigma mutually act on one another like poison. It is also interesting to observe on how slight a difference in the nature of the pollen or of the ovules complete self-sterility or complete self-fertility must depend in some of the above cases. Every individual of the self-sterile species appears to be capable of producing the full complement of seed when fertilised by the pollen of any other individual (though judging from the facts given with respect to *Abutilon* the nearest kin must be excepted); but not one individual can be fertilised by its own pollen. As every organism differs in some slight degree from every other individual of the same species, so no doubt it is with their pollen and ovules; and in the above cases we must believe that complete self-sterility and complete self-fertility depend on such slight differences in the ovules and pollen, and not their having been differentiated in some special manner in relation to one another; for it is impossible that the sexual elements of many thousand individuals should have been specialised in relation to every other individual. In some, however, of the above cases, as with certain *Passifloras*, an amount of differentiation between the pollen and ovules sufficient for fertilisation is gained only by employing pollen from a distinct species; but this is probably the result of such plants having been rendered somewhat sterile from the unnatural conditions to which they have been exposed.

Exotic animals confined in menageries are sometimes in nearly the same state as the above-described self-impotent plants; for, as we shall see in the following chapter, certain monkeys, the larger carnivora, several finches, geese, and pheasants, cross together, quite as freely as, or even more