

With many flowers, especially perennials, nothing can be more fluctuating than the colour of the seedlings, as is notoriously the case with verbenas, carnations, dahlias, cinerarias, and others.<sup>48</sup> I sowed seed of twelve named varieties of Snapdragon (*Antirrhinum majus*), and utter confusion was the result. In most cases the extremely fluctuating colour of seedling plants is probably in chief part due to crosses between differently-coloured varieties during previous generations. It is almost certain that this is the case with the polyanthus and coloured primrose (*Primula veris* and *vulgaris*), from their reciprocally dimorphic structure;<sup>49</sup> and these are plants which florists speak of as never coming true by seed: but if care be taken to prevent crossing, neither species is by any means very inconstant in colour; thus I raised twenty-three plants from a purple primrose, fertilised by Mr. J. Scott with its pollen, and eighteen came up purple of different shades, and only five reverted to the ordinary yellow colour: again, I raised twenty plants from a bright-red cowslip, similarly treated by Mr. Scott, and every one perfectly resembled its parent in colour, as likewise did, with the exception of a single plant, 72 grandchildren. Even with the most variable flowers, it is probable that each delicate shade of colour might be permanently fixed so as to be transmitted by seed, by cultivation in the same soil, by long-continued selection, and especially by the prevention of crosses. I infer this from certain annual larkspurs (*Delphinium consolida* and *ajacis*), of which common seedlings present a greater diversity of colour than any other plant known to me; yet on procuring seed of five named German varieties of *D. consolida*, only nine plants out of ninety-four were false; and the seedlings of six varieties of *D. ajacis* were true in the same manner and degree as with the stocks above described. A distinguished botanist maintains that the annual species of *Delphinium* are always self-fertilised; therefore I may mention that thirty-two flowers on a branch of *D. consolida*, enclosed in a net, yielded twenty-seven capsules, with an average of 17·2 seed in each; whilst five flowers, under the same net, which were artificially fertilised, in the same manner as must be effected by bees during their incessant visits, yielded five capsules with an average of 35·2 fine seed; and this shows that the agency of insects is necessary for the full fertility of this plant. Analogous facts could be given with respect to the crossing of many other flowers, such as carnations, &c., of which the varieties fluctuate much in colour.

As with flowers, so with our domesticated animals, no character is more variable than colour, and probably in no animal more so than with the horse. Yet, with a little care in breeding, it appears that races of any colour might soon be formed. Hofacker gives the result of matching two hundred and sixteen mares of four different colours

<sup>48</sup> See 'Cottage Gardener,' April 10, 1860, p. 18, and Sept. 10, 1861, p. 456; 'Gard. Chron.,' 1845, p. 102.

<sup>49</sup> Darwin, in 'Journal of Proc. Linn. Soc. Bot.' 1862, p. 94.