

*insulidens*, Bird, the only example not bred, shows the insect in a good light, and should be an aid to western collectors.

A few remarks further argumentative to the results of these studies may be pertinent. The extent to which variation proceeds with this genus has long been a subject receiving attention. That affecting the imago is such as to cause little uneasiness, even though extended in a very few cases. When it is a question of size or wing outline we can explain this in a partly mechanical sense. When their larvæ have lived in an especially rank or vigorous plant an excessive subsequent development may be expected, while those larvæ that leave their burrows from one cause or another and suffer from a lack of food until locating in some substitute, produce the undersized or dwarfed specimens so frequently met with. Thus the rank growth of *Ambrosia trifida*, on the Jersey meadows, yields a giant race of *nitela*, whereas the dwarfs so often seen among *marginidens* and *cerussata* are the result of the larvæ leaving their original abode and taking up with some substitute like Burdock. The wing outline is influenced by the quarters occupied by the pupa; when this is formed in a gallery having insufficient room for a normal development, the resultant imago has the primaries narrower and more acute at the apex in proportion to this previous condition. *Impecuniosa* and *duovata* best illustrate this feature. The colours of the imago here as elsewhere are subject to their peculiar vagaries, but it is not found that they are in any way exceptional. Just what produces colour is not definitely known, of course, but it pertains no doubt to a chemical rather than any mechanical process. So the slight disparities at times noted in the same species, as arising from differences in the food-plant, might be explained on this ground, though it does not meet the question properly. Further than citing that colour is most susceptible to change in the depth of powderings, in the hue or even suppression of the ordinary white spots, it may be needless to proceed. We may apply the general biological law to the effect that commoner and more widely distributed species are apt to show a greater variation, and not meet with any incongruities. The common *nitela* best shows the departures ever taken in the colour scheme, but they are positively not due to locality, food-plant, sex, or even the varying conditions that might assail different broods, and the form to which the varietal name applies is merely the extreme in the opposite direction. But varietal studies have not been confined to the imago