

tures, being ornamented with red, white, yellow, black and orange colours, arranged in bands or in circular and semi-lunar spots, generally placed regularly on the two elytra or wing-covers. Their legs are very short, and the insect creeps slowly; when the beetle is alarmed it withdraws its legs and remains quiet for some time; if it is climbing when disturbed, it will close its legs under its body and allow itself to fall, but sometimes will open its wings and fly off rapidly. When laid hold of, these beetles have the curious property of causing a yellow, mucilaginous liquid, of a strong, pungent and disagreeable odour, to exude from the articulations of their abdomens, and this appears to be the only means of defence possessed by these little inoffensive beings. This fluid has been held by the ignorant to be a certain remedy for the toothache, but in as many other similar cures, the therapeutic value is entirely confined to the faith exhibited, and the greater the faith the greater the cure.

Lady Birds often occur in immense swarms, as in one instance, cited by Kirby and Spence, "the banks of the Humber were so thickly strewn with the common species, that it was difficult to walk without treading upon them." These swarms often alarmed the superstitious, who thought them the forerunners of some great evil.

The eggs of lady-birds are long, oval, and yellow, and are laid in patches, often in a group of plant-lice, which the larvæ, as soon as they are hatched, greedily devour. Here we have an excellent example of instinct in the mother lady-bird, for the plant-lice are the natural food of our little insect friends.

Packard (Guide to Study of Common Insects, p, 511) thus describes the changes which takes place in the common two-spotted coccinella. "The eggs of the common two-spotted coccinella *C. bipunctata*, Linn., are laid in May, on the bark of trees, and those of another brood are laid in June, and hatched July 1st. They are oval, cylindrical, orange-yellow, and are attached in a bunch of about twenty-five, by one end to the bark. They hatch out when the leaves and their natural article of diet, the aphids, appear, and may be found running about over the leaves of various garden shrubs and trees. The body is black with flattened tubercles spinulated above; on each side of the first abdominal segment is a yellowish spot, and there is a broad yellowish spot in the middle of the fourth segment, and one on each side. On June 28th we found several fully grown larvæ a quarter of an inch long, transforming into pupæ, with a freshly transformed beetle. The larva begins the operation by attaching very firmly, with a sort of silky gum, its tail to the leaf, the point of attachment not being the extreme tip, but just before it, where the tip of the abdomen of the pupa is situated. Meanwhile the body contracts in length and widens, the head is bent upon the breast, and in about twenty-four hours the skin splits open and discloses the pupa. The body of the pupa is black, the head is also black, and the prothorax is yellowish black and pink, with a black dot on each side, and a smaller black dot on each edge; the meso-thorax, wing-covers, scutellum and legs are shining black. The abdominal rings are pale flesh-coloured, with two rows of large black spots on each side, the spots being transverse; the terga of the fourth to the seventh segments are separated, the body being arched and leaving a deep furrow between. The beetle is orange-yellow, with a black head and thorax; the side of the prothorax is whitish, with a central diamond-shaped white spot, and behind it a much larger whitish spot. The beetle derives its specific name from the two black dots on the elytra. It hibernates, and might be used to clear house plants of plant-lice."

Referring to the illustrations at the beginning of this article, we may give the following short description of the various insects there figured, in order to render the illustrations more valuable:—

C. novem-notata is a nearly round insect, of a brick-red colour, with nine black spots on the wing covers.

C. munda may be easily distinguished from most of the other species, as it is of a brick-red colour, and has no markings on its wing covers.

Hippodamia maculata is a pinkish coloured beetle, with twelve large black spots.

H. 13-punctata is larger than the previous, and has thirteen black spots on a brick-red ground.

H. convergens is of a deep orange-red colour marked with black and white. Its larva (Fig. 32a) is blue, orange and black in colour, *b* shows the pupa or chrysalis suspended by the tail, and *c* the perfect beetle.

Mysia 15-punctata varies much in colour from a light grey to a deep chestnut brown, so

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