

Variation of Color Patterns in the Multicolored Asian Ladybird Beetle, *Harmonia axyridis* III

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Variation in the color and patterns on the pronotum and elytra is not confined to ladybirds. There are 5 main components of the color patterns; ground color, color of markings, number of spots, strength of spots, and fusions between the spots. All these components show variation in some species. In a few species the variation is even more complex.

Harmonia axyridis typically has 4 elytral color patterns: succinea (orange with some or no black spot(s)), axyridis (black with some red spots), conspicua (black with 2 red spots), spectabilis (black with 4 red spots)(Komai, 1956). Following previous works (Hosino, 1936 ; Komai, 1956 ; Sasaji, 1971), ladybird beetles with black elytra (axyridis, conspicua, and spectabilis) were regarded as melanic and those with orange or yellow elytra (succinea groups) as non-melanic in this study.

Non-melanic form in succinea group was divided into 2 small groups by the number of spots on the elytra. Individuals which have 19 black spots on elytra were classified into succinea 1, and 0-18 spot(s) individuals were succinea 2.

According to the 5 color patterns, their occurrence frequencies were investigated and the differentiation of occurrence frequencies between field and laboratory populations were compared. Also, by carried out laboratory experiments of mate choice, their above differences were explained.