D121

Comparison of Gastrin-Immunoreactive Neurons in brains of larva and adult from cabbage butterfly *Pieris rapae*

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This investigation was performed to compare gastrin-immunoreactive neurons in the brains of larva and adult from cabbage butterfly *Pieris rapae*.

The 5th instar larva brain contains about 4 gastrin-immunoreactive neurons, while the adult brain includes larger number of gastrin-immunoreactive neurons. In 5th instar larva brain gastrin-immunoreactive cell bodies were examined in pars intercerebralis. The central neuropil of 5th instar larva brain have few gastrin-immunoreactive nerve processes. The adult brain contains gastrin-immunoreactive cell bodies in both pars intercerebralis and lateral region of protocerebrum. In adult brain small number of gastrin-immunoreactive nerve processes could be found.

D122

Gastrin-Immunoreactive Neurons in developing larval brains of cabbage butterfly *Pieris rapae*

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This study has been carried out to map gastrin-immunoreactive neurons in developing larval brains of cabbage butterfly *Pieris rapae*.

The gastrin-immunoreactive neurons were examined in the brains of 1st instar larva, 2nd instar larva, 3rd instar larva, 4th instar larva, and 5th instar larva, which were used in this experiment. The gastrin-immunoreactive neurons, which are found in brains, have location in its pars intercerebralis and show bilateral symmetry in location. In the brains of 3rd instar larva, 4th instar larva, and 5th instar larva about four gastrin-immunoreactive neurons were located. It indicates that no changes in number of gastrin-immunoreactive neurons occurs in three stages of developing brains. However, few gastrin-immunoreactive nerve processes were found in the neuropils of the brains.