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不同体色鲤、鲫鳞片的色素分布特点

The distribution characteristics on scale chromatophore of carp and crucian carp in different body colors

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中文关键词: 鲤 鲫 体色 鳞片 色素

英文关键词:*Cyprinus carpio* *Carassius auratus* body color scale chromatophore

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中文摘要:

选取不同体色的鲤（*Cyprinus carpio*）、鲫(*Carassius auratus*)品种为实验对象，测量和观察了背部鳞片、腹部鳞片，以及彩色斑纹鳞片的色素组成和分布。结果得出，鲤、鲫鳞片上层的色素有黑色素、红色素、黄色素3种，分布于鳞片的后区，其中心区域色素浓密，外缘区域较稀疏，占整个鳞片的百分比为25%～35%。鳞片下层的色素主要是鸟粪素，镶嵌有少量的黑色素、红色素、黄色素，分布于鳞片的后区和前区，约占整个鳞片的百分比为30%～65%。并归纳总结了鲤、鲫中相近体色品种的鳞片色素分布异同点，讨论了鸟粪素在鲤、鲫鳞片上的分布特征，金鲫的体色演化，以及黑背鲤、黑背鲫中黑色素的遗传特点。

英文摘要:

Composition and distribution of chromatophore on back scales, abdomen scales, and color pattern scales were studied on varieties of carp (*Cyprinus carpio*) and crucian carp (*Carassius auratus*) with different body colors. The results showed that the chromatophores on upper layer were melanin, red pigment and yellow pigment, which were distributed on the back area and accounted for 25%-35% of the scale; the main chromatophore on lower layer was guanine, with a little melanin, red pigment and yellow pigment, which were distributed on the proparea and back area, and accounted for 30%-65% of the scale. Based on the analysis, we summarized the differences of chromatophore distribution between varieties with similar body color; discussed the distribution of guanine on carp and crucian carp, the evolution of the body color on one of *Carassius auratus* variety with red color, and the genetic characteristics of melanin on varieties of carp and crucian carp.

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