

C105

Ultrastructure of the Malpighian Tubules in the Cockroach, *Periplaneta japonica*

류 재 혁
인하대학교 이과대학 생물학과

The last instar Larval Malpighian tubules of the cockroach, *Periplaneta japonica* were examined using light and electron microscopy. The tubules epithelium was composed of cells encircling lumen, and the free surface of the epithelial cells had a regular array of microvilli "brush border" which cell membranes close to the basal lamina were extremely infolded and a lot of mitochondria were concentrated in those processes. And those cells had well developed rough endoplasmic reticulum, ribosomes and Golgi complex. But the Malpighian tubules epithelium was divided into two distinct proximal and distal regions. The proximal region cells were characterized by the microvilli which were short and loosely packed, and the basal plasma membranes were extremely infolded. The distal region cells had micovilli which were larger, compactly arranged and the components contained a mitochondrion along their entire lenght, and basal infoldings were made irregularly dilated canaliculi. The cytoplasm of the distal region cells had numerous intracellular membrane bound crystals and vacuoles.

C106

한국산 기름종개과 어류의 난모세포의 부착구조

박종영* · 김익수
전북대학교 자연과학대학 생물학과

한국의 기름종개과 Cobitidae 어류 5속 14종의 난모세포 부착구조(adhesive structure)를 조사하였다. 난황물질 형성시기인 난황구 후기의 zona radiation 외측에는 다음의 7가지 형태의 부착구조로 구별되었다.

① 과립형(granular type)--*Cobitis lutheri*, *C. striata*, *C. sinensis*; ② 움모형(villous type)--*C. longicarpus*, *C. koreensis koreensis*, *C. k. pumilus*, *C. granoei*, *Niwaella multifasciata*; ③ 톱니형(saw-shaped type)--*C. rotundicaudata*; ④ 선반형(shelf-shaped type)--*Nemacheilus toni*; ⑤ 필라멘트형(filamental type)--*C. choii*; ⑥ 무구조형(no structure type)--*Lefua costata*, *Misgrunus angullicaudatus*, *M. mizolepis*.

이와같은 난의 부착구조의 형태, 수 및 크기는 종별 특이성뿐만 아니라 산란습성을 이해하는데도 좋은 기초자료가 된다고 본다. 한편 *Cobitis sinensis-longicarpus* complex 집단의 난 부착구조는 변형된 과립형(modified granular type)을 보여주어서 분류학적으로도 주목된다.