

染色體在體細胞的配對及壓片法弄混了各細胞原來在精巢的位置，使有絲分裂和減數分裂的某些時期無法分辨(Breland et al. 1964)，但在本研究中可清楚的分開此二分裂的各期，比較有絲分裂前期和減數分裂前期 I (圖5, 6, 7和圖13, 14)，前者成對的染色體股大而模糊，後者有清楚的染色體股及股上的染色粒(Chromomeres)，在有絲分裂之後期，姊妹染色體股並不像減數分裂 I 的同源染色體股，前者其染色體之四臂比後者細長而不相密集(圖10和22)。

在精子生成過程中，中心粒及中心粒附體之構造，軸絲之如何從中心粒伸出及其超顯微構造有待進一步研究。

摘 要

以白腹叢蚊蛹期的精巢用簡單的壓片法，補充以連續切片及在相位差顯微鏡下研究其精子發生的過程。在此研究所得關於蚊蟲的新資料有下列幾點：

1. 發現一個副繪痕在一較長的染色體上，並推測此具有副繪痕的較長的一對同源染色體與此蚊的性別決定有關。

2. 在減數分裂後期 I，各染色體分開的快慢不同在分開的次序上亦不一定。

3. 各種分裂的後期，各染色體分開所需時間均不相同。

4. 揭示此種蚊蟲在精子生成時，顯微鏡可見的各種細胞器的詳細變化情形。

5. 可清楚的區別有絲分裂與減數分裂的每一過程。

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Spermatogenesis of *Armigeres subalbatus*

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SUMMARY

1. Some details of spermatogenesis in *Armigeres subalbatus* were revealed from simple squashes of pupal testes, supplemented by observations on serial sections of the material.
2. The spermatogonial metaphase configuration consists of three pairs of metacentric chromosomes. A secondary constriction can be seen in only one of the homologous chromosomes which may have an effect on sex determination.
3. *Armigeres subalbatus* has no visible leptotene and zygotene stage at meiotic division because of somatic pairing of the chromosomes.
4. During mitotic prophase, meiotic pachytene, and meiotic prophase II, the arms of chromosomes are polarized.
5. During mitotic anaphase, meiotic anaphase I and meiotic anaphase II, the separation of

the chromosomes is asynchronous.

6. In this study, the stages of meiosis and mitosis are readily distinguishable despite the somatic pairing of chromosomes.

7. Spermatogenesis of this species was studied, using phase contrast microscopy. The change in microscopic structure from spermatids to spermatozoa was discussed.

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