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Determining Blood Feeding History by Ovarian Examination in Mosquitoes

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Gonotrophic Cycle

- **The Sequence of Events from Blood Meal Ingestion to Oviposition in Mosquitoes**

  (One Complete Passage through Christopher's Stages)

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Biological Phases of the Gonotrophic Cycle

1. **Engorgement**
2. **Ovarian Development**
3. **Oviposition**

Mosquito Returns to Host-seeking Mode

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Mosquitoes Lay Multiple Batches of Eggs

Each Requires a "Gonotrophic Cycle"

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Nulliparous Mosquito

- **A Mosquito that has not Completed a Full Gonotrophic Cycle**

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Host seeking Nulliparous Mosquitoes

- **Looking for their 1st Blood Meal Host**
- **Cause Considerable Nuisance**
- **Unimportant as Vectors of Disease**

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Parous Mosquito

- **A Mosquito that has Completed at Least One Gonotrophic Cycle**

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Parous Mosquitoes

- **Have Laid at Least one Batch of Eggs**
- **Have Fed on Blood Before**
- **Host seeking Parous Mosquitoes are Potential Vectors of Disease**

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Ovarian Tracheation

- Dissect out Ovaries
- Dry in Water Drop
- Compound Microscopy
- Skeins = Nulliparous Female
- No Skeins = Parous Female

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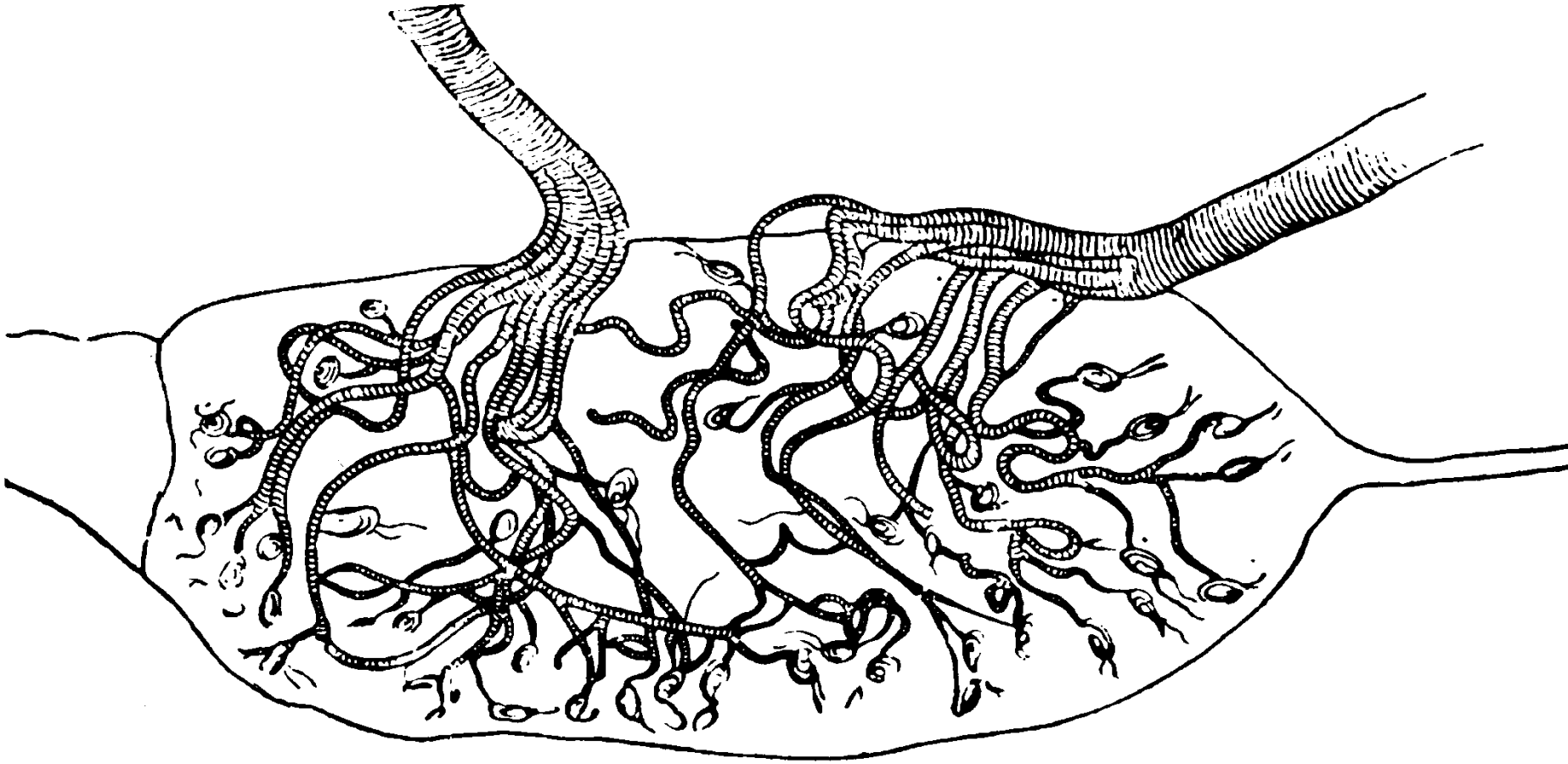
Nulliparous Ovary



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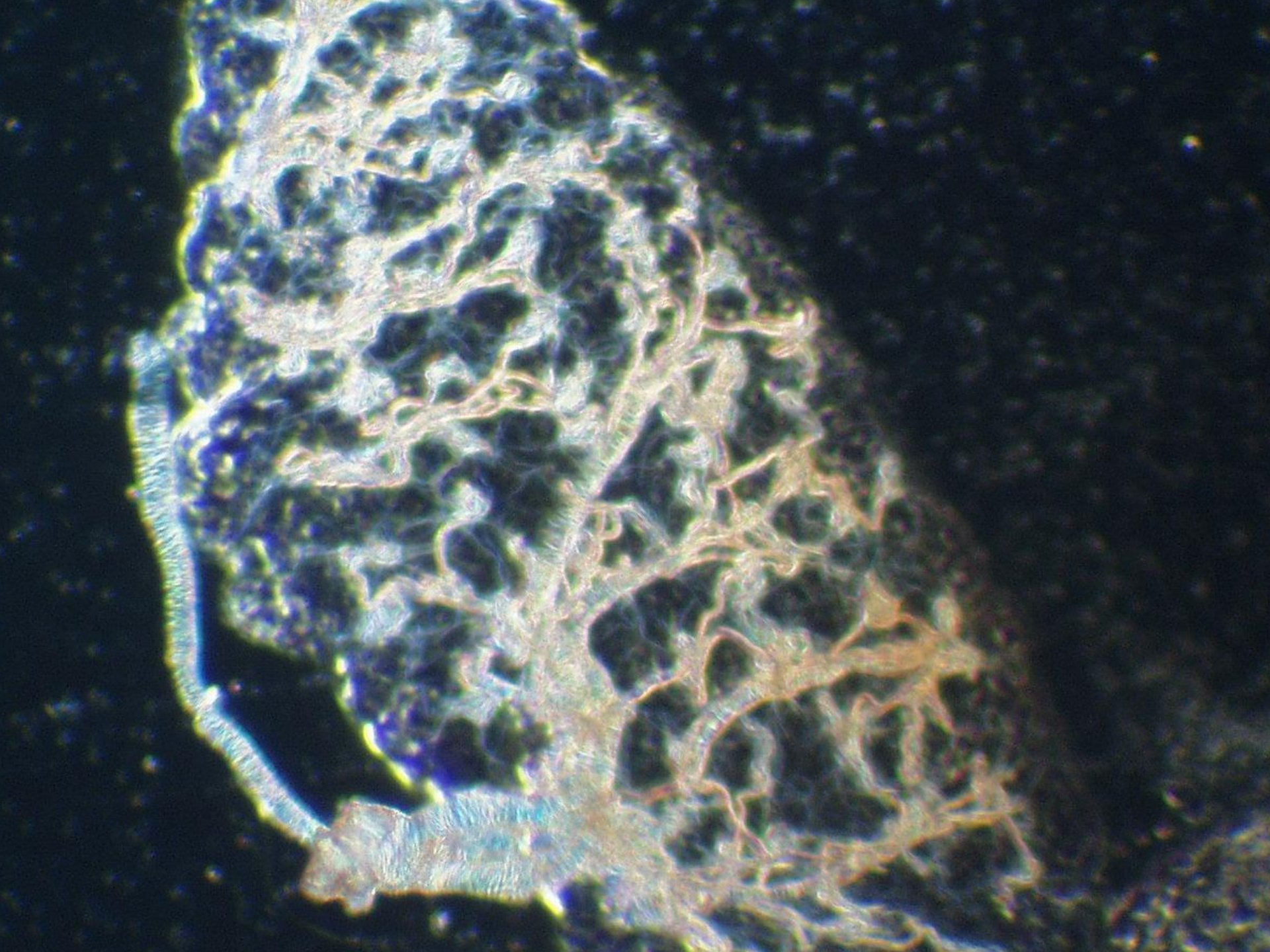
Parous Ovary



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Mosquito Control Biologist Working Group

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