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## **General account of Anthoceros(contd.):**

### **Sexual reproduction in Anthoceros:**

Sexual reproduction is oogamous. Male reproductive bodies are known as antheridia and female as archegonia. Some species of Anthoceros like *A. longii*, *A. gollani*, *A. fusiformis*, *A. punctatus*, *A. crispulus* and *A. himalayensis* are monoecious while some species like *A. erectus*, *A. chambensis*, *A. hallii*, *A. pearsoni* and *A. laevis* are dioecious. The monoecious species are protandrous i.e., antheridia mature before archegonia.

### **Antheridium:**

#### **Structure:**

A mature antheridium has a stalk and club or pouch like body. The stalk attaches the antheridium to the base of the antheridial chamber. Stalk may be slender and composed of four rows of cells or more massive. A single or a group of two to four or more antheridia are present in the same antheridial chamber. A single layered sterile jacket encloses the mass of androcytes which metamorphosis into antherozoids.

In some species for e.g., *A. punctatus* and *A. erectus* jacket layer is formed of four tier of cells. Each tier appears to be composed of elongated rectangular cells. In *A.*

*laevis* and *A. himalayensis* jacket is composed of many relatively smaller and less regularly arranged cells.

The cells of the upper most tiers are triangular with a narrow end towards the apex. Each cell of the jacket consists plastids. At maturity these plastids change their colour from green to red to bright orange. Young antheridia are, therefore, green and mature one turn bright orange or reddish.

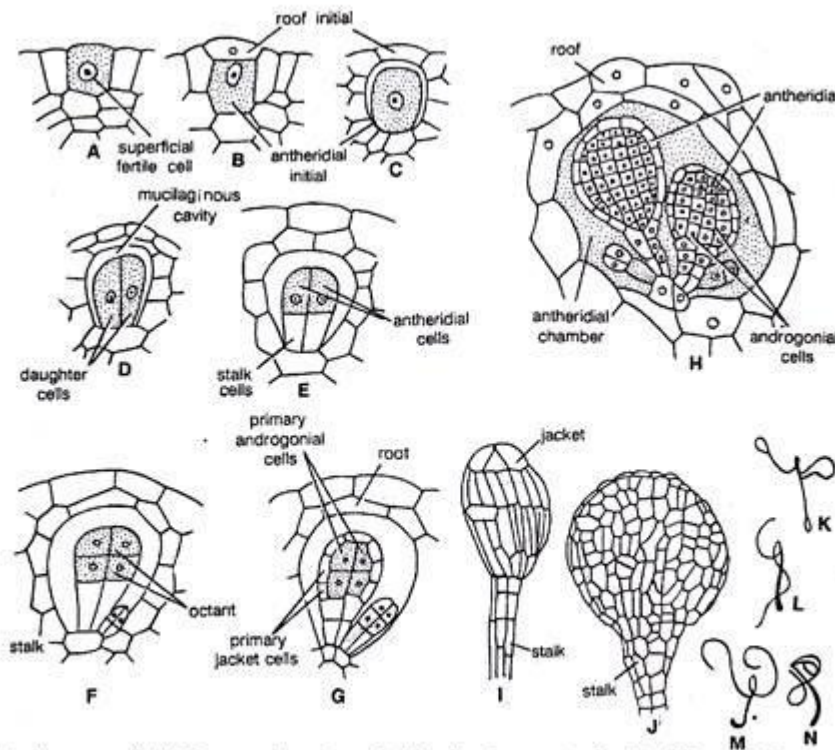


Fig. 3. (A-N) *Anthoceros*. (A-H) Successive stages in the development of antheridium, (I) Mature antheridium of *A. punctatus* (J) Mature antheridium of *A. laevis*, (K, L) Antherozoids of *A. laevis*, (M, N) Antherozoids of *A. punctatus*.