

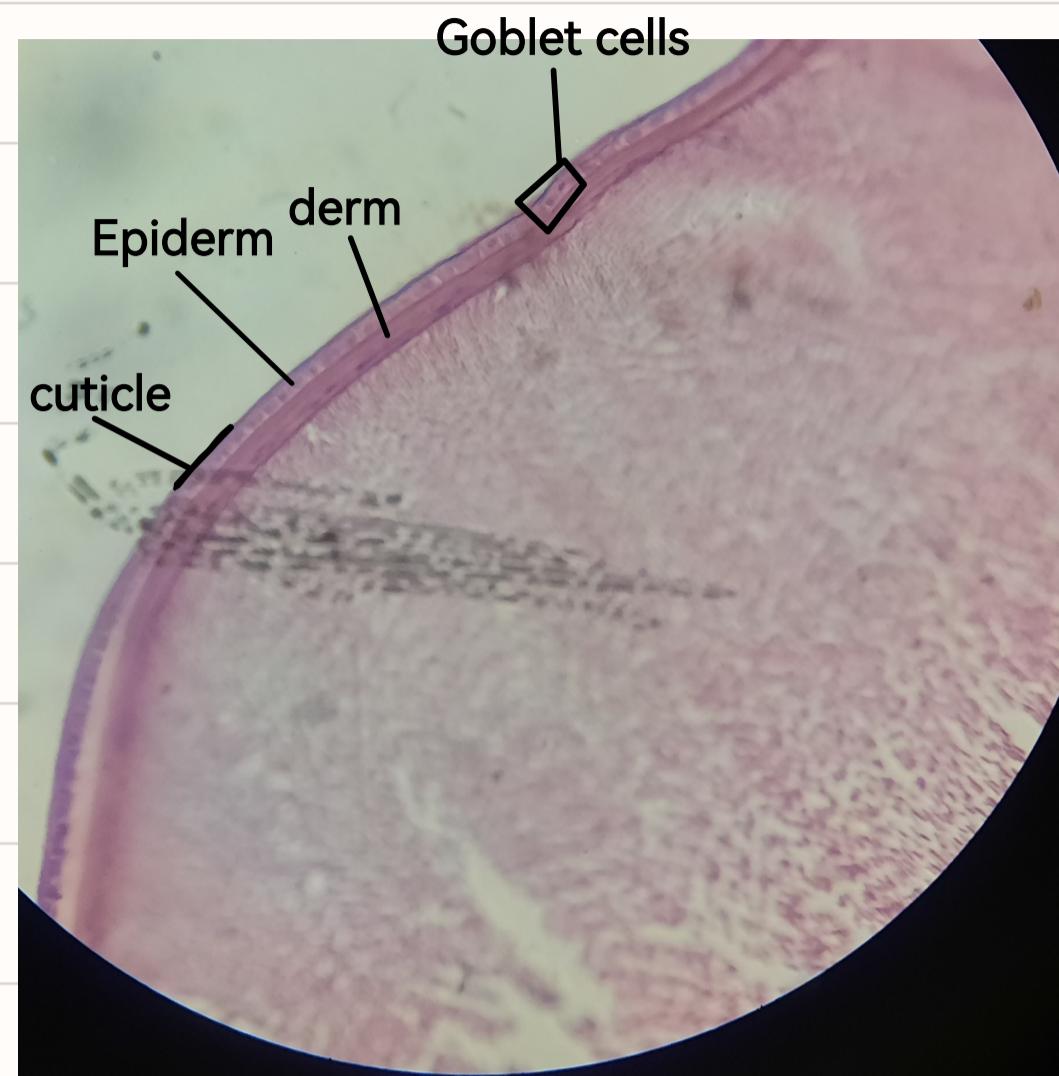
# 1- amphioxus skin

Epiderm:

- single layer of columnar covered by cuticle and goblet cells.
- epidermal derivative skin : goblet cell (mucus gland)

Derm:

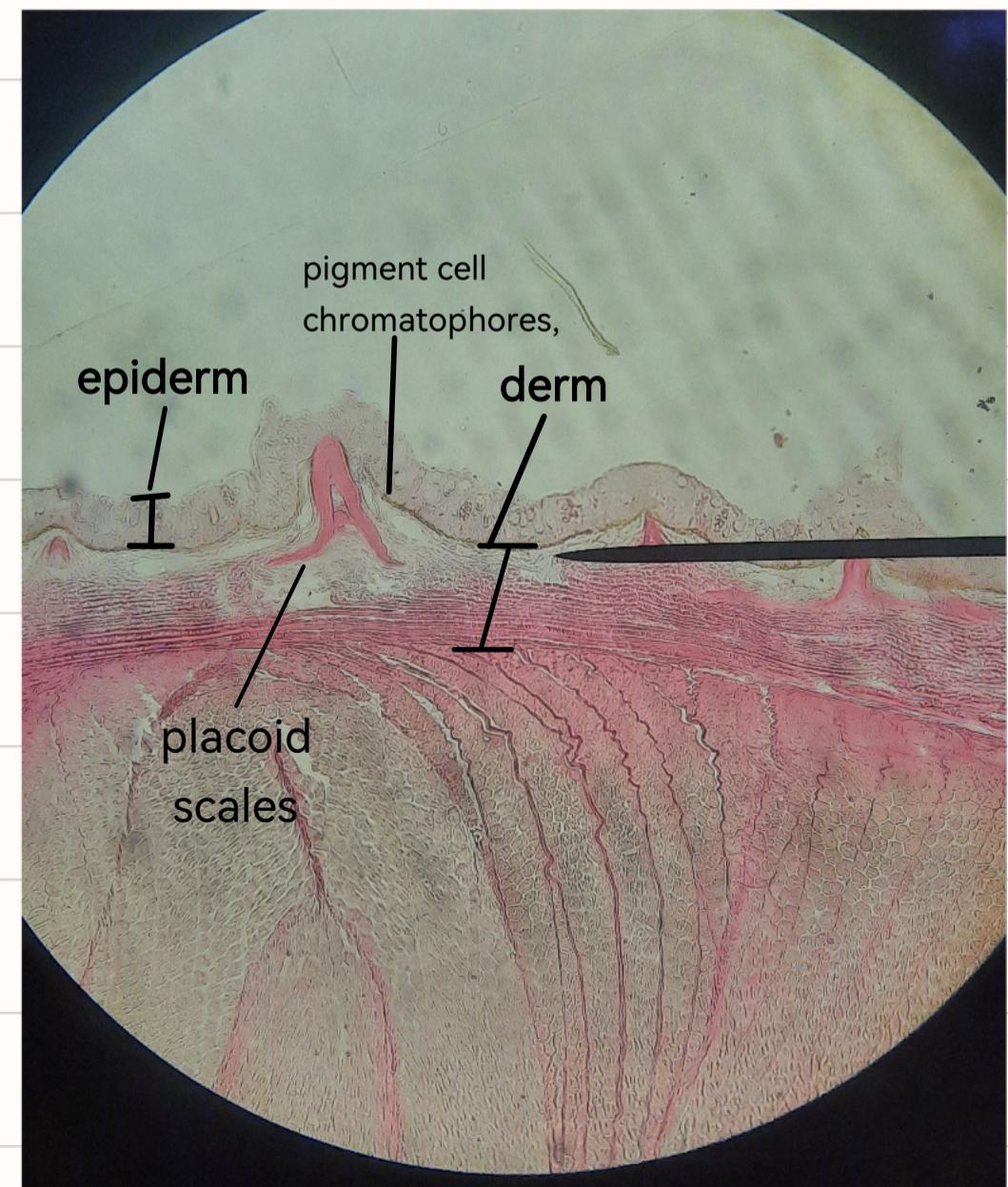
- lack Creatine, scale and pigment cell



# 2- dog fish skin

Epiderm:

- stratified sq. epi with mucas gland (skin derivative)
- epiderm derivative skin: mucas gland
  - derm: is typical
  - cartilaginous fishes have placoid scale derivative from derm
  - pigment cell call chromatophores
  - derm derivative skin: placoid scale



### 3- amphibia skin

epiderm: stratified squamous epithelium cell with mucas gland.

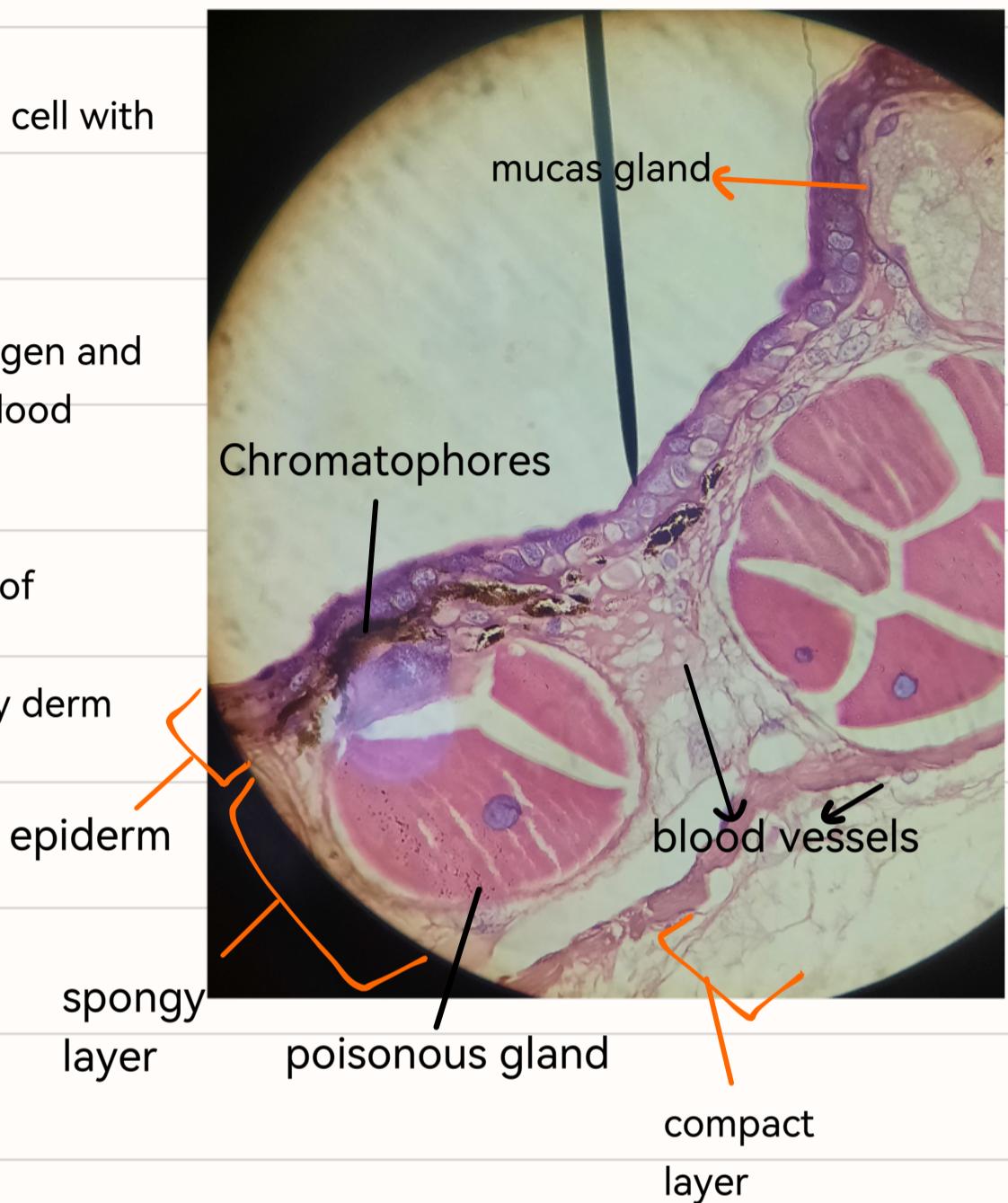
epidural derivative skin: mucas gland.

derm: consist of two layer

spongy layer: consist of network of collagen and elastic fibers , chromatophores, gland, blood vessels and nerves.

compact layer: consist of compact layer of collagen fibers.

- poisonous and mucas glands in spongy derm drive from epiderm.



### 4- reptile skin

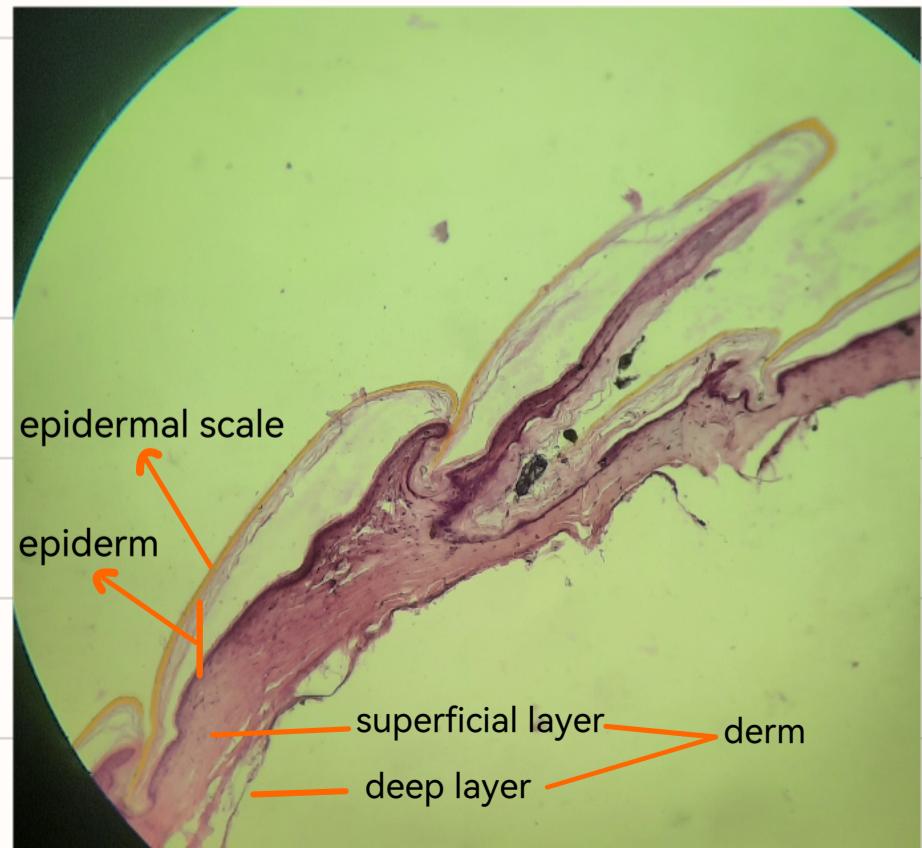
epiderm: st. sq. epi cells. without mucas gland.

epidermal derivative skin: epidermal scales

derm: consist of two layer

superficial layer

deep layer.



## 5- mammals skin

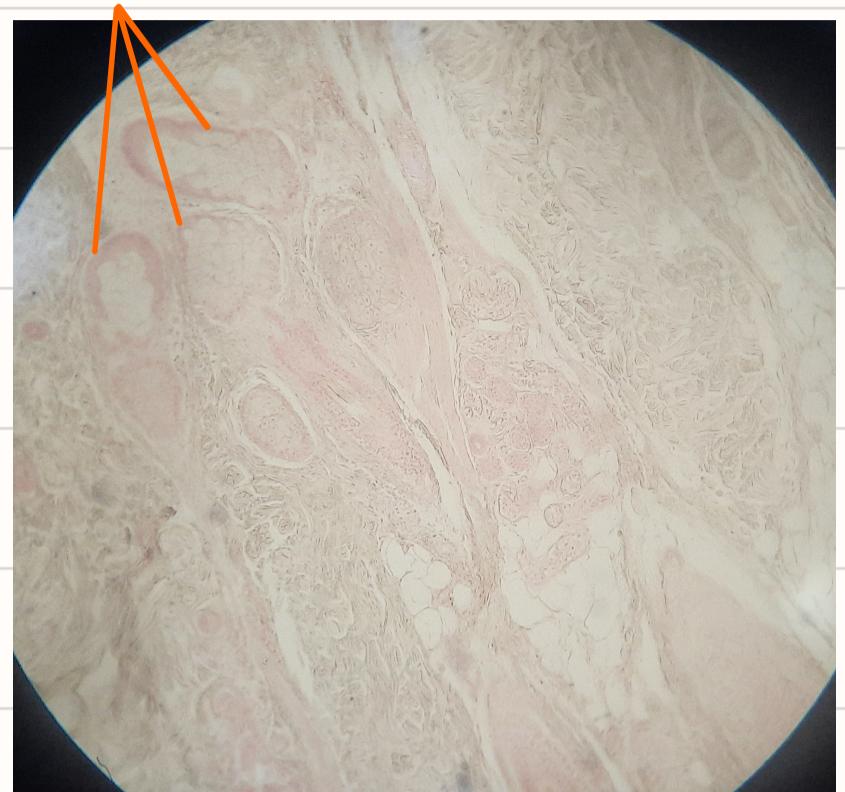
epiderm : st. sq. epi cells without mucas

gland

derm:

oils and sweat glands only found in  
mammals in derm

sweat glands



hair follicles gland

oil gland



Sinus

# Integumentary System

