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### ABSTRACT

The present study was designed to demonstrate the comparative anatomical, histological study of Uvea in the eyes of two cyprinid fresh water teleost fishes *Garra rufa* (first species) and *Chondrostoma regius* (second species). Which belong to family Cyprinidae Each species differ in light intensity, in that *G. rufa* bottom dwelling but *C. regius* approximately surface dwelling. The two species omnivorous in nutritional nature.

The choroid in the two species, essentially similar in that it composed of connective tissue consist of fibers, melanocytes, sinusoid, blood vessels and nerves. On the other hand, variations appeared in the thickness and nature of these components, but the choroid was more developed in *C. regius*.

The distinct structures in the choroids of the two species were tapetum lucidum and argenteum layer which were more developed in *C. regius*. On the other hand there were variations in choroid components intraocularly for each species. The choroid gland appeared at both sides of optic nerve in the choroid, and more developed in *C. regius*. The most important result in this study was the appearance of choroid fissure and falciform process in the eye of *G. ruffa* only. The ciliary body disappear in both species, but its position called ciliary region which was distinct in the eye of both species. The ciliary region extended between the retina and iris which composed of two portions, the first one originated from the choroid and the other from the retina. The length of ciliary region differs between the two species as well as intraocularly.

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The iris showed a wide variations in the shape, thickness, length and nature of its components between the two species and intraocularly. The iris components have two origins. The first one from the choroid (iris stroma), the second from the retina which were the non pigmented ciliary cells and pigmented epithelium. We can conclude that the presence of tapetum lucidum ,argenteum layer, Choroid glands in the Choroid of both species indicate that they posses high visual acuity ,high resolution power and strong image contrast but *G. ruffa* have more visual power because the appearance of Chroid fissure and falciform process.

*Garra rufa*

*Chondrostana regius*

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.Retina-

Uvea-

Sclera-

: ( )

Choroid

.Pupil

Iris

Ciliary body

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Avascular

Choroid gland

Rete mirabile

Choroid fissure ( )

.( ) Falciform process

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Tapetum lucidum

.( ) Stratum argenteum

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*Garra rufa*

*Chondrostoma regius*

*Garra rufa*

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*Chondrostoma regius*

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Aerators

Aquaria

24±1

Thermostat

Petri dish

(% , )

( ) Yacob

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(% ) Gluteraldehyde

Osmium

%

Phosphate buffer  
tetraoxide

(% % % % )

Epon-812.

Semi-thin sections

( - )

.LKB 2088 Ultratome

%

D.P.X

4X

7X

100 VX

Konica

*Chondrostoma regius*

*Garra rufa*

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:Uvea-

:Choroid-

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### Bruch's membrane

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Choroid gland

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.Falciform process

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**:Iris and ciliary region-**  
Ciliary body

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*Garra rufa*

Binocular

*Chondrostoma regius*



( ) Uniocular

:Uvea-

:Choroid-

( )

Iridophores

Xanthophores

Pterinophores

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(18)

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(21) *Priacanthus arenovtus*

*Cyprinion*      *Dasyatis brevifudata*      *Stizogtedion vitreum*

.(22) *Latimeria chalumnae*      *carpio*

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.(6)

*Pseudomugil sigifer*

.(6)

*Gambusia affinis*

(15) *Limnichthy fasciatus*

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(14)

*Trachinus vipera*

.(17)

(5) *Leposareus pardalis*

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.(17)

(23) *Trachinus vipera*

.(24)

**:Ciliary region and iris-**

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.( ) *Gempylus serpens*

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*Corythoichthyes paxtoni*

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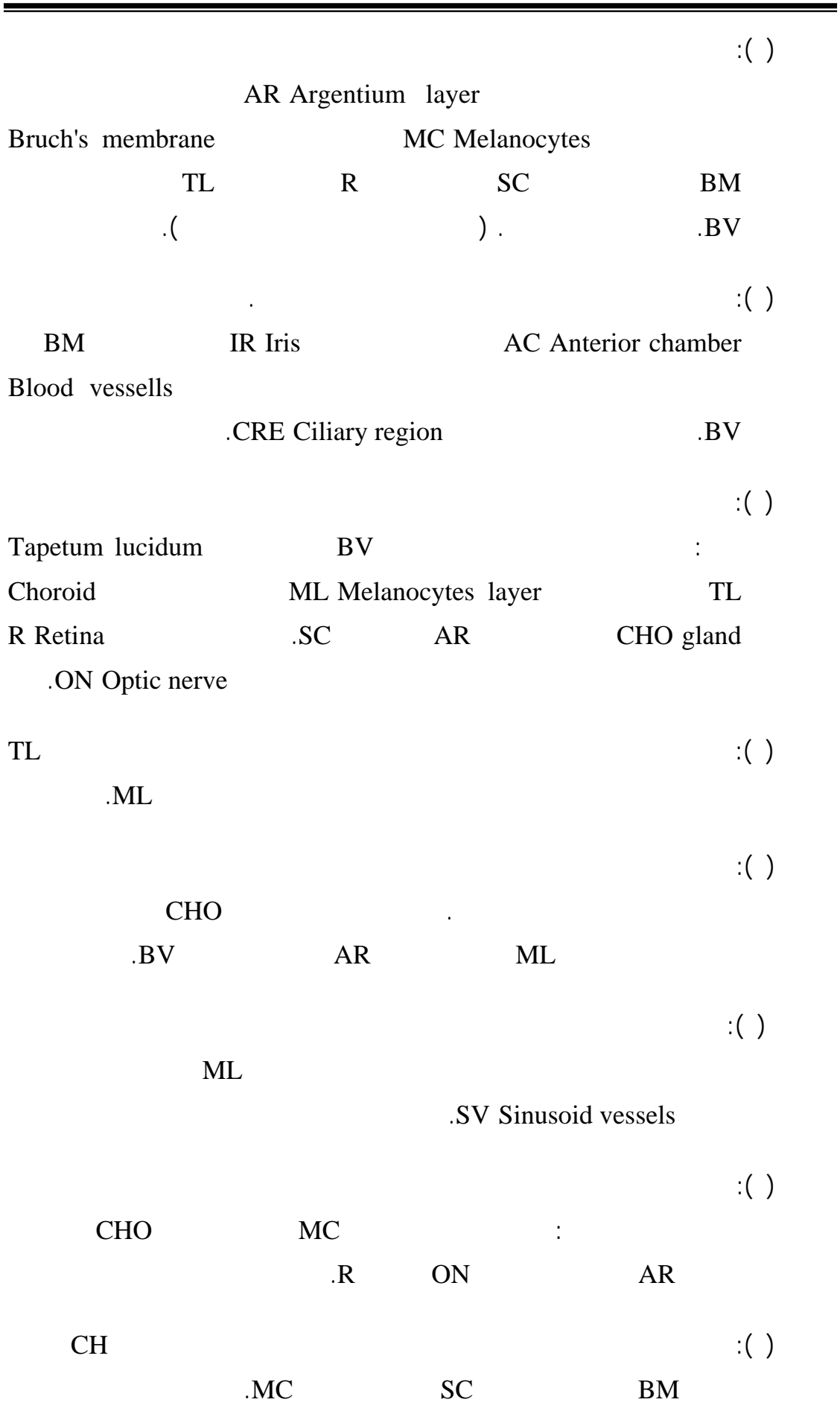
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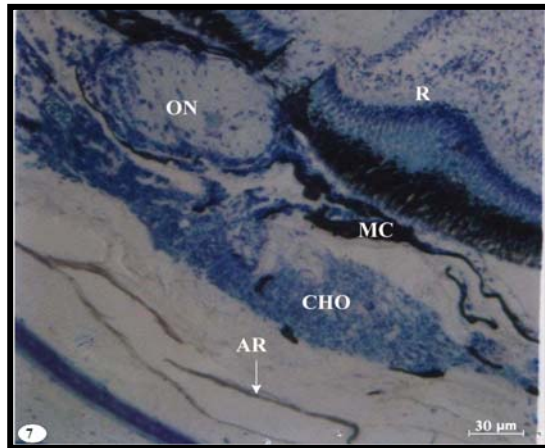
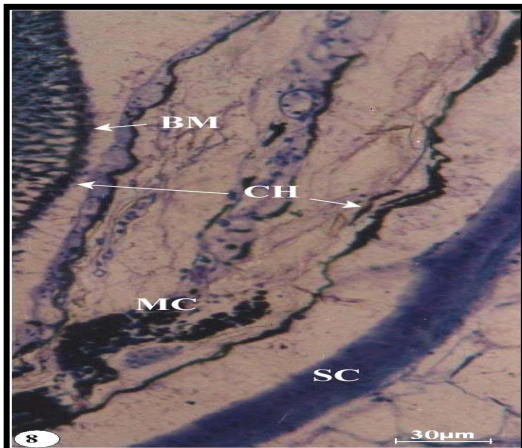
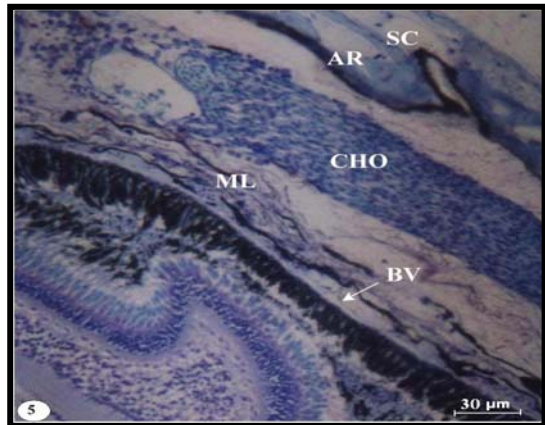
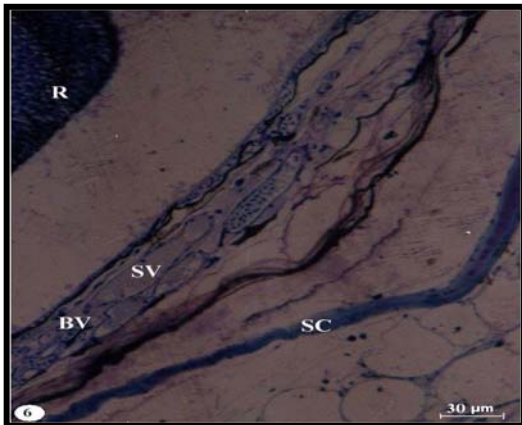
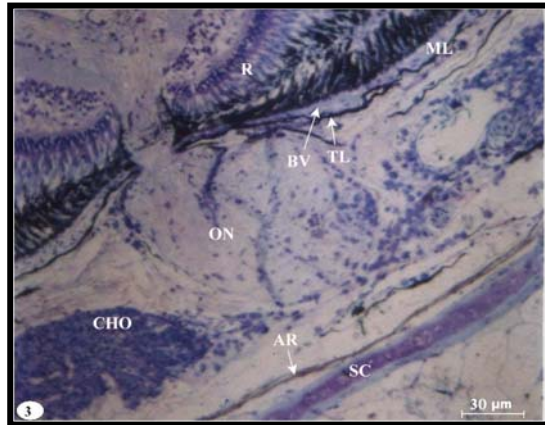
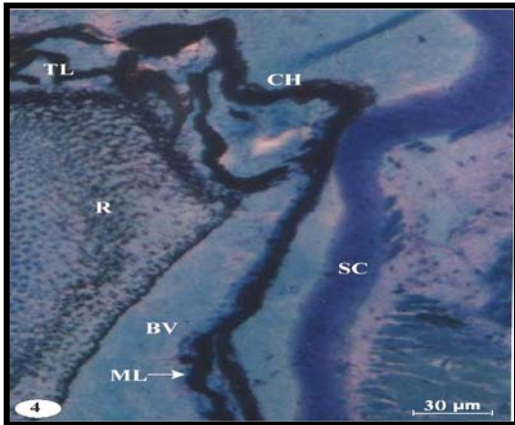
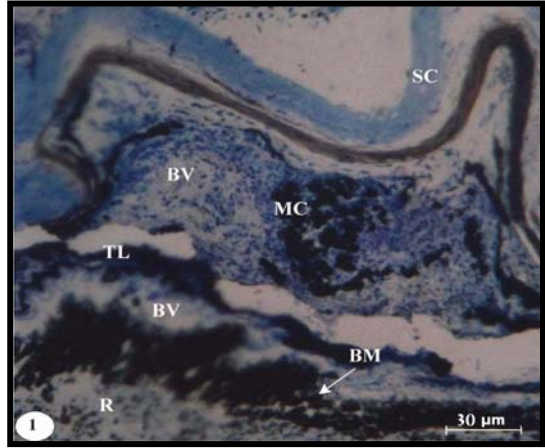
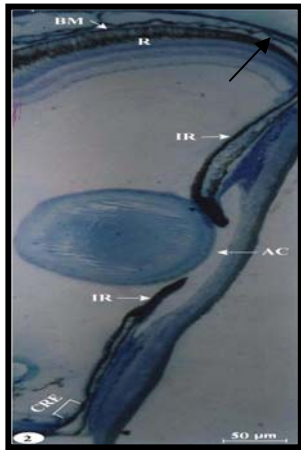
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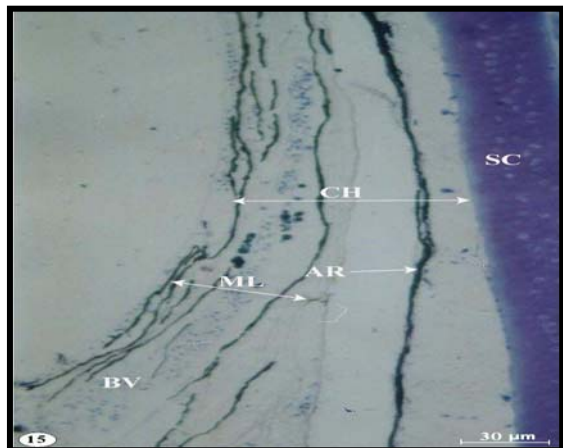
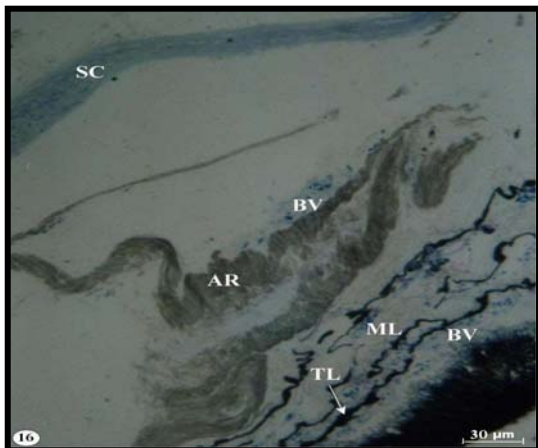
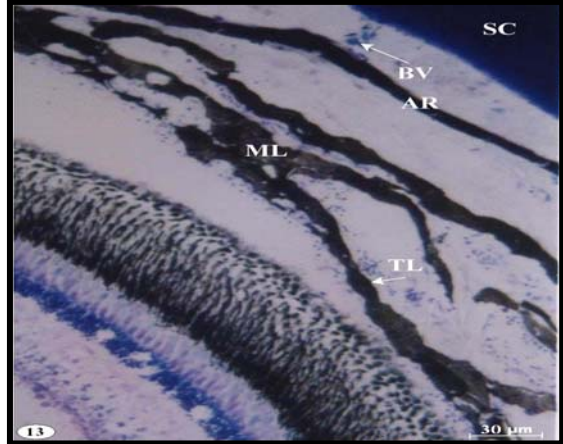
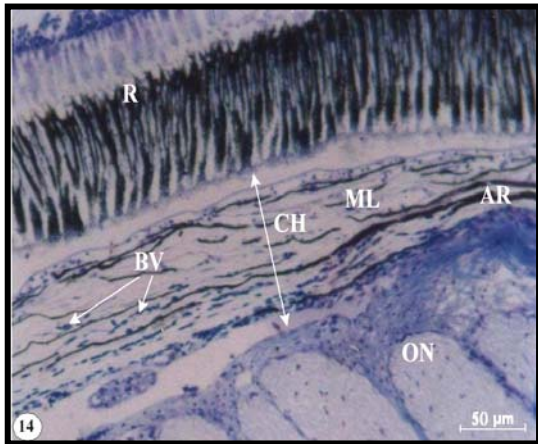
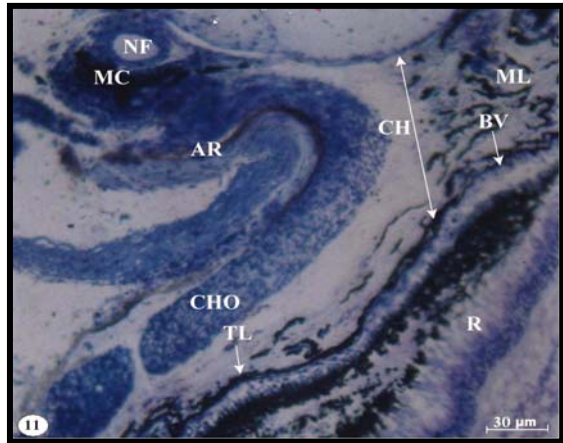
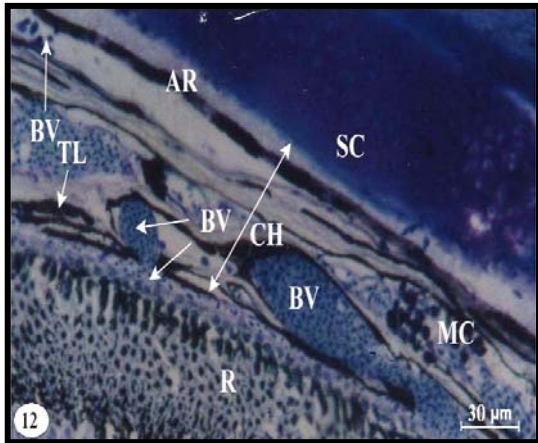
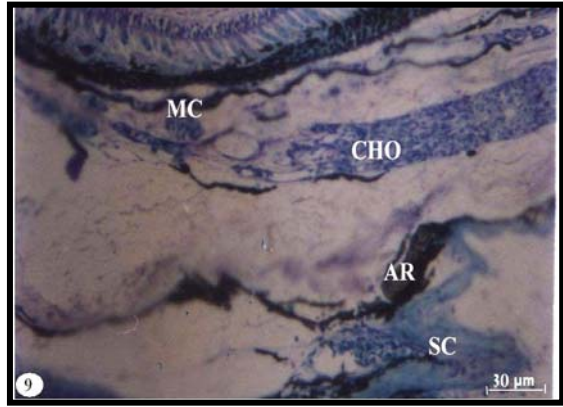
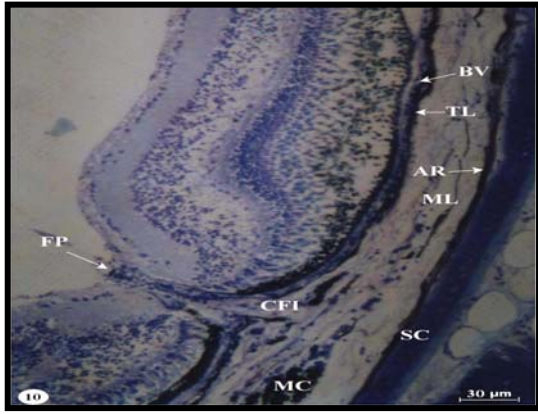
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CI Ciliary cells

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An Annular ligament

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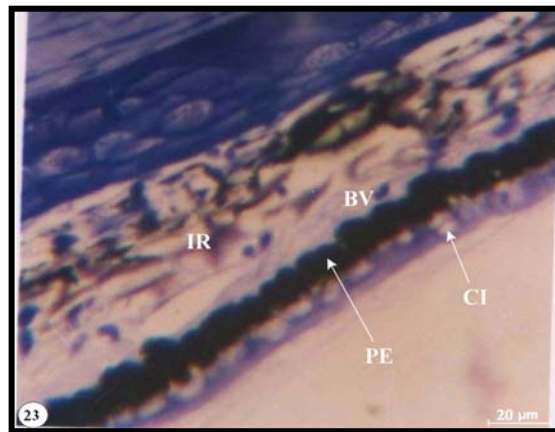
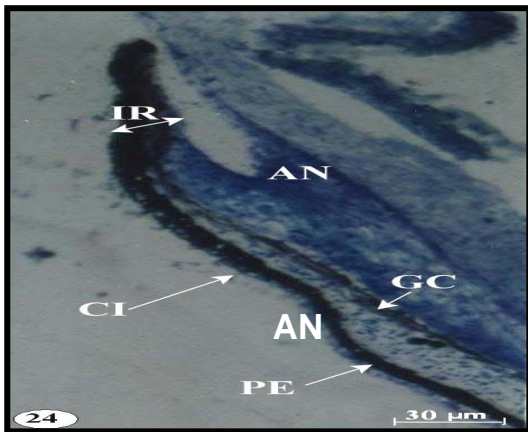
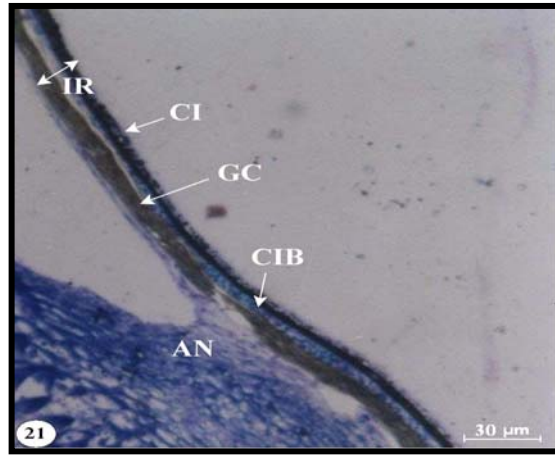
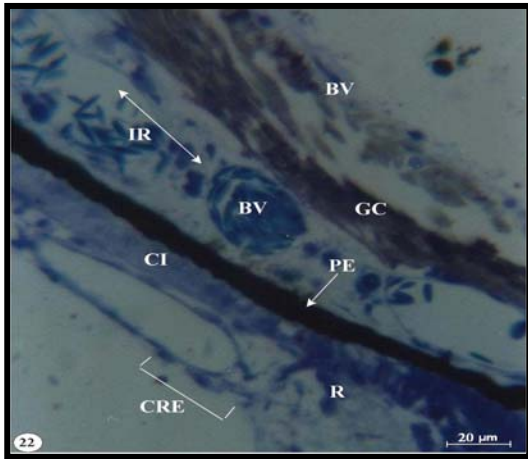
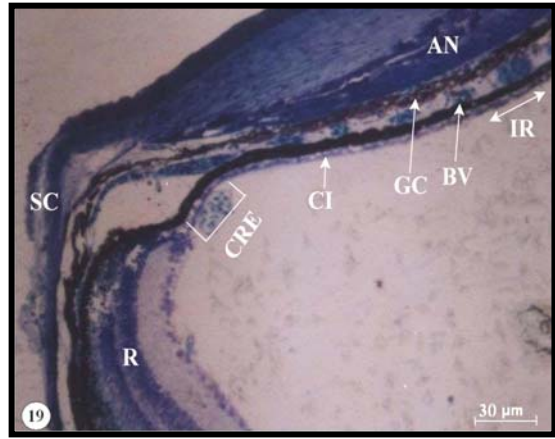
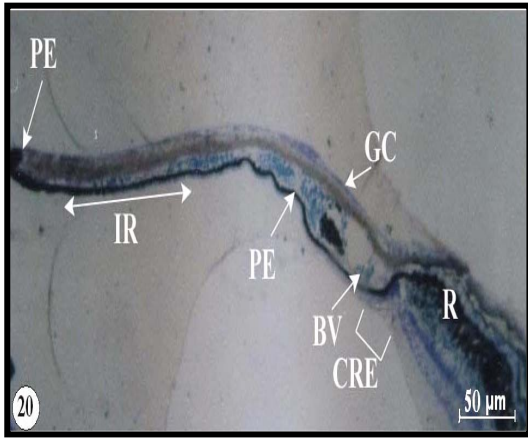
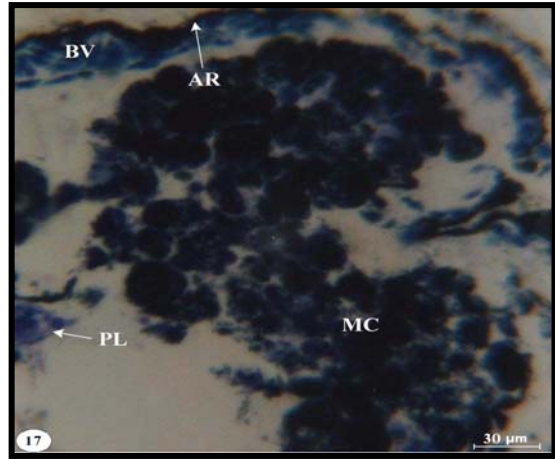
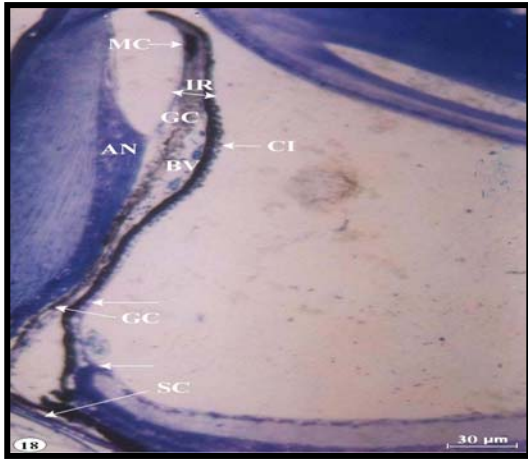
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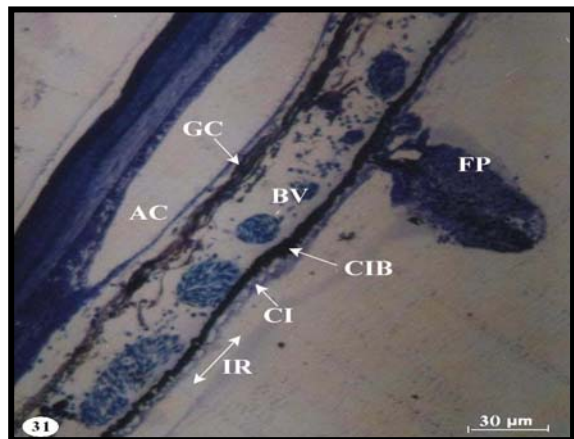
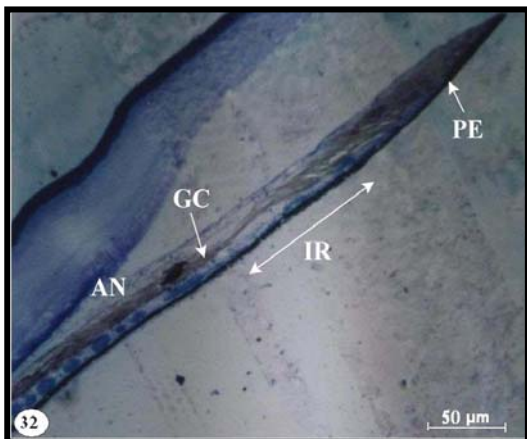
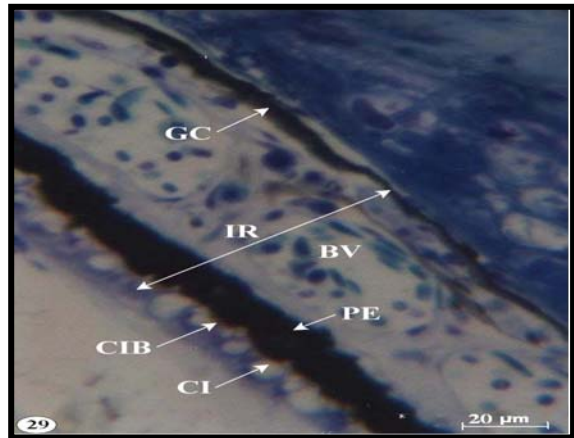
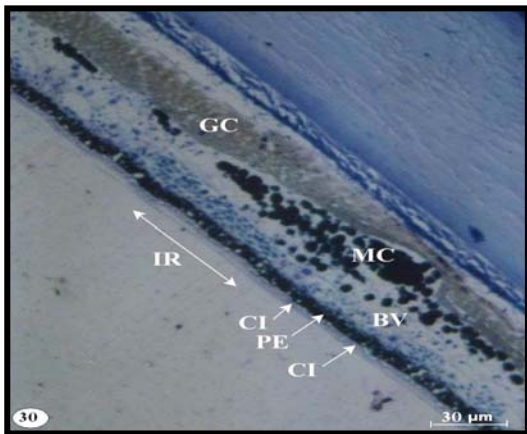
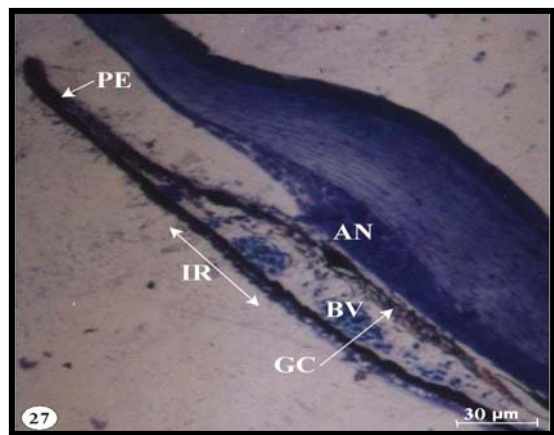
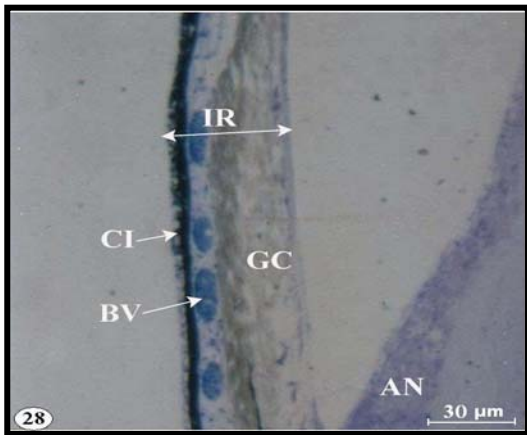
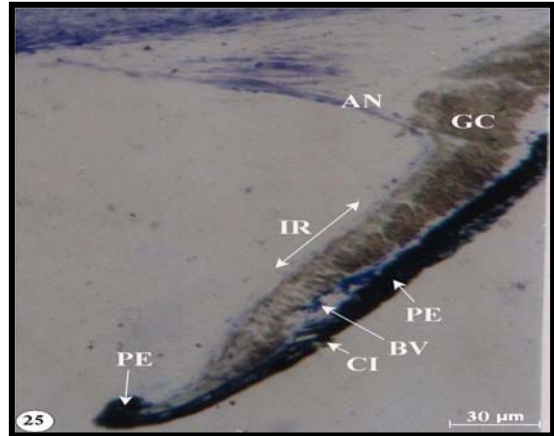
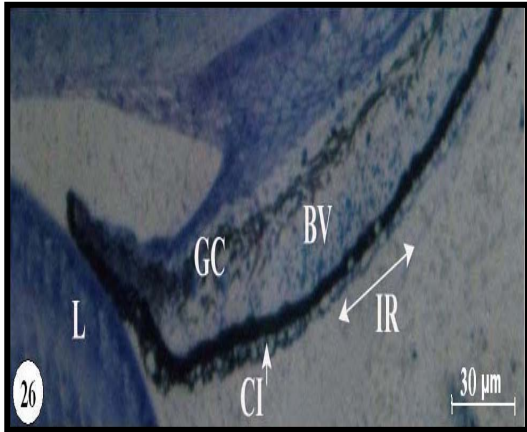
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