

ANNEX XVIII

Maturity stages scale for oviparous sharks **males** applied to *Galeus melastomus*

Stage	Definition	Description
A or 1	immature, juvenile	Claspers undeveloped as small, flexible sticks being shorter than extreme tips of posterior pelvic fin lobes. Gonads (testes) small, sperm ducts straight and thread-like. <i>(plate 1, fig. 1)</i>
B or 2	maturing, adolescent, subadult	Claspers becoming extended, approaching tips of posterior pelvic lobes, as long as or a bit longer than posterior pelvic lobes, their terminal region (glans) becoming structured, but skeleton still soft and flexible. Gonads enlarged, sperm ducts eventually beginning to meander (coil). <i>(plate 1, figs. 2 & 3; plate2, figs. 1 & 2)</i>
C or 3	mature, adult	Claspers full length, as long as or longer than posterior pelvic lobes, their external and internal glans structures fully formed, skeleton hardened so that claspers stiff and glans' free cartilaginous components sharp. Gonads greatly enlarged, sperm ducts meandering over almost their entire length and tightly filled with sperm. <i>(plate 2, fig. 3; plate 3)</i>
D or 4	active, copulating	Glans clasper often dilated, its structures reddish and swollen. Sperm flowing on pressure from cloaca and/or present in clasper groove or glans. Sperm ducts largely as stage C/3 but may be less tightly filled, whereas seminal vesicle may be well filled. For oviparous sharks and chimaeras, this stage does not necessarily mean that the glans is spread open, but fleshy pads are obviously enlarged and sperm is present in clasper grooves. <i>(plate 4; plate 5; plate 6)</i>

Plate 1

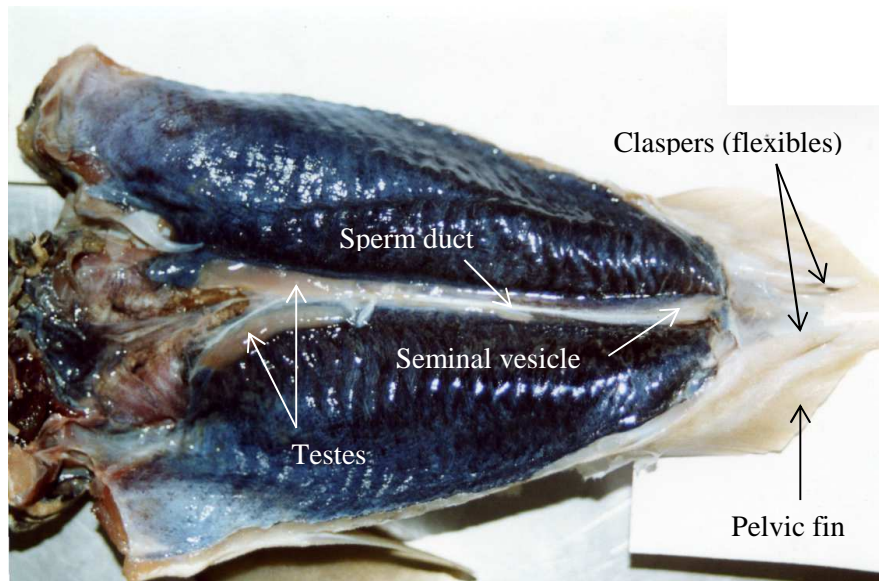


Figure 1:
Galeus melastomus
Male: stage A/1

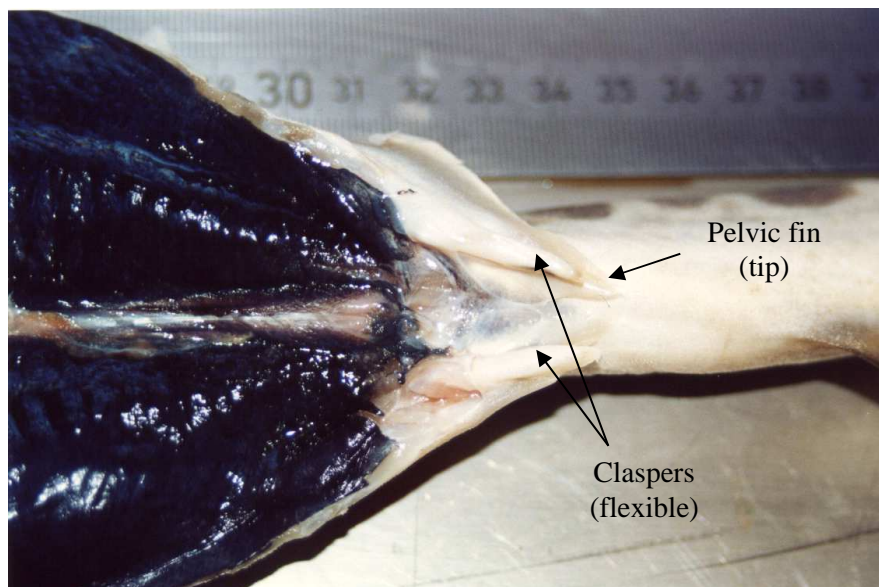


Figure 2:
Galeus melastomus
Male: stage B/2

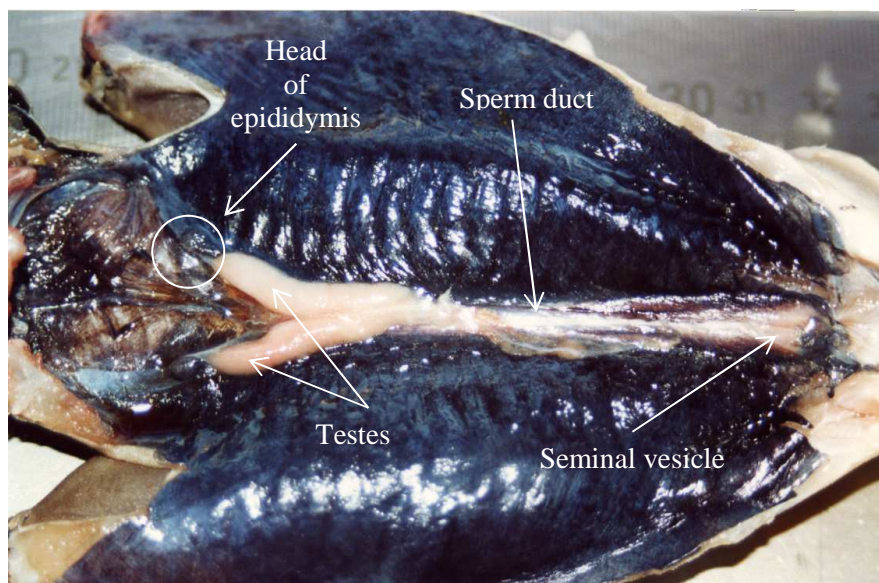


Figure 3:
Galeus melastomus
Male: stage B/2
(initial stage)

Plate 2

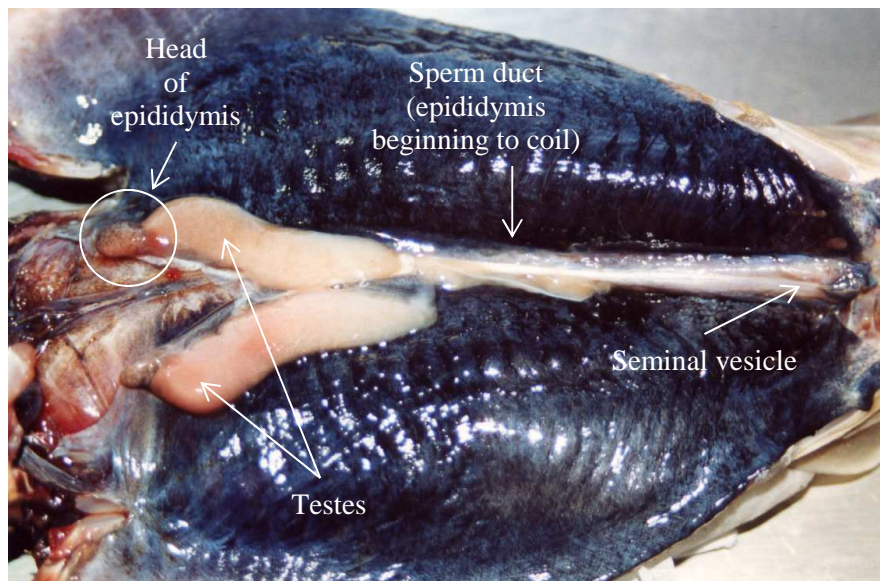


Figure 1:
Galeus melastomus
Male: stage B/2
(advanced stage)

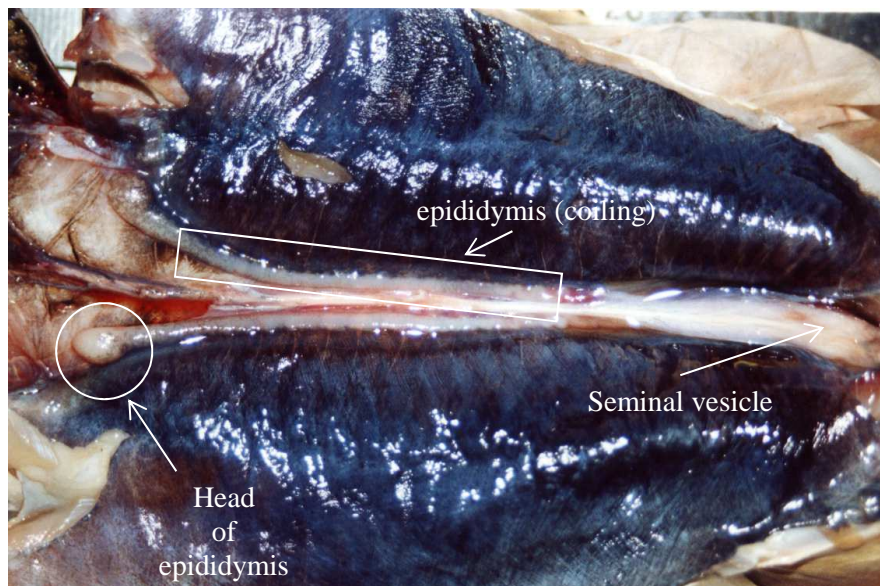


Figure 2:
Galeus melastomus
Male: stage B/2
(advanced stage)

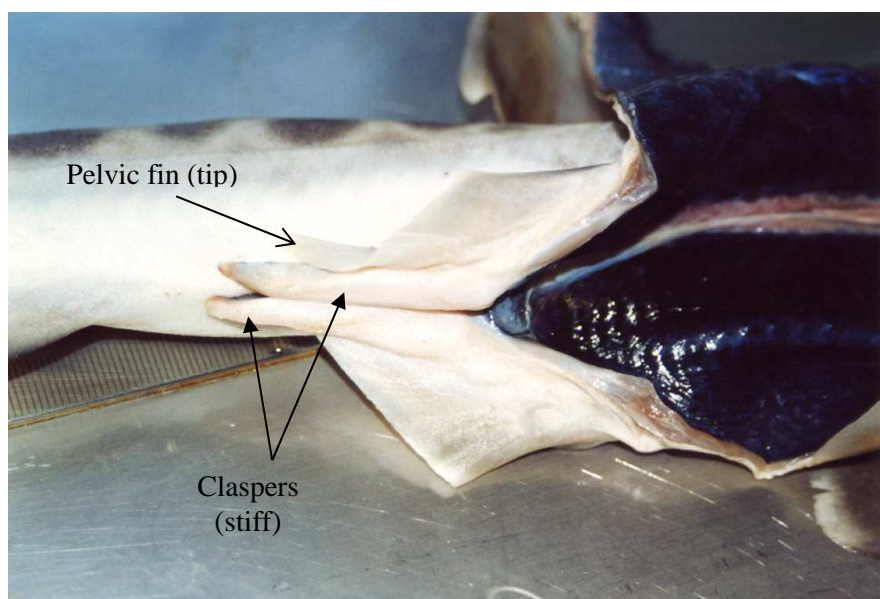


Figure 3:
Galeus melastomus
Male: stage C/3

Plate 3

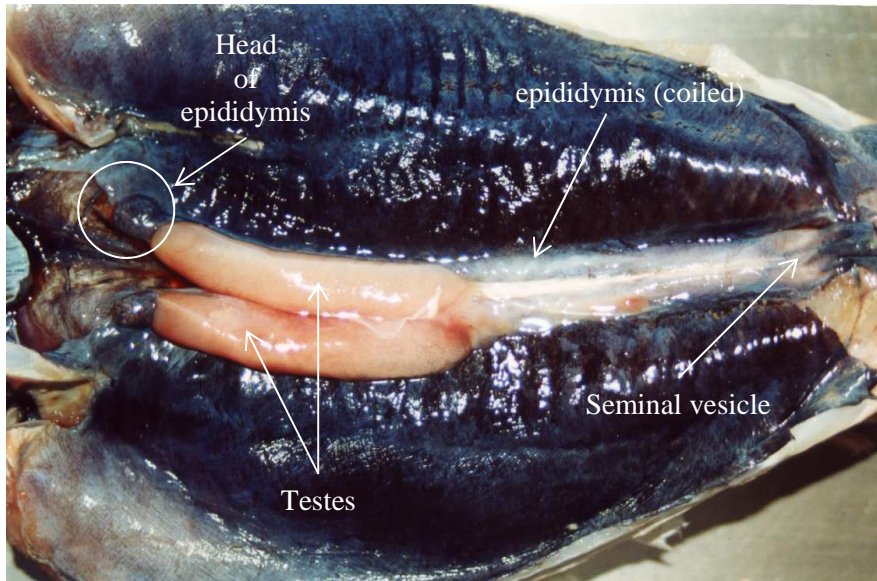


Figure 1:
Galeus melastomus
Male: stage C/3

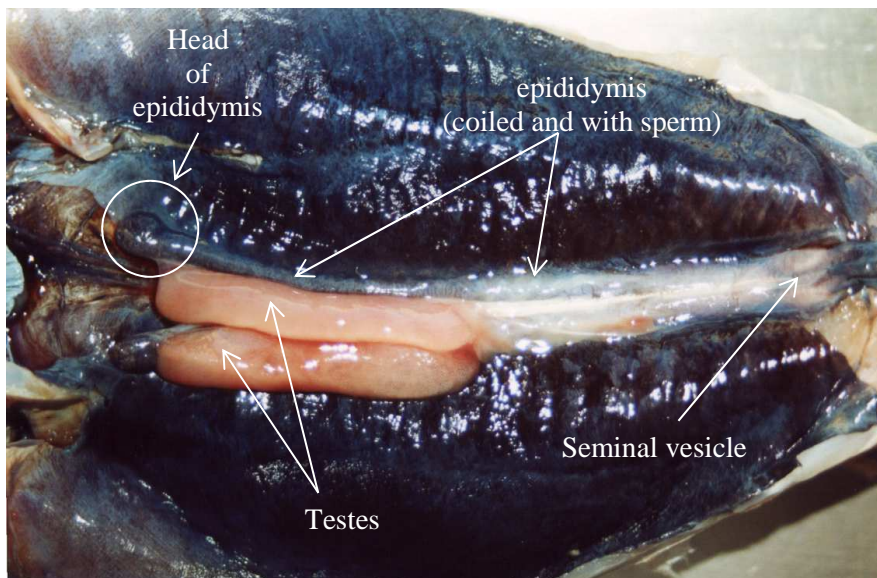


Figure 2:
Galeus melastomus
Male: stage C/3

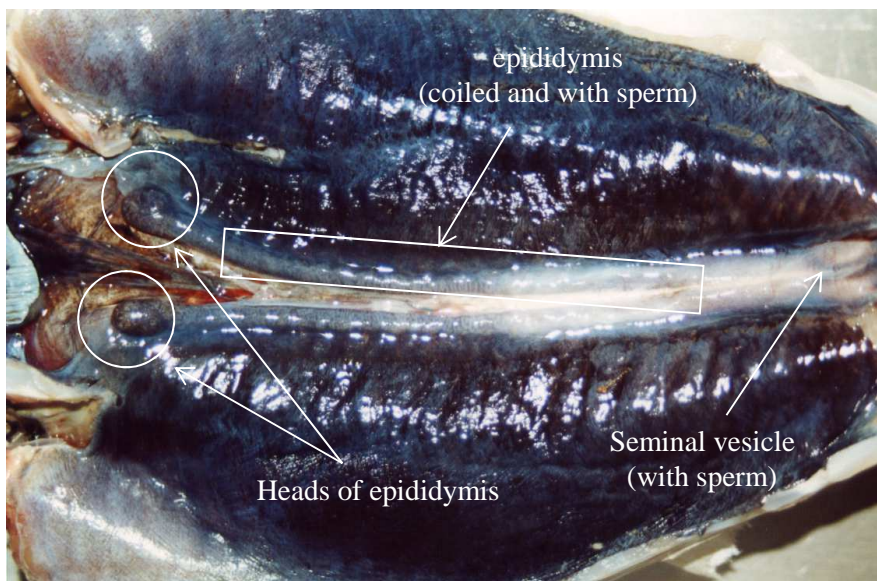


Figure 3:
Galeus melastomus
Male: stage C/3

Plate 4

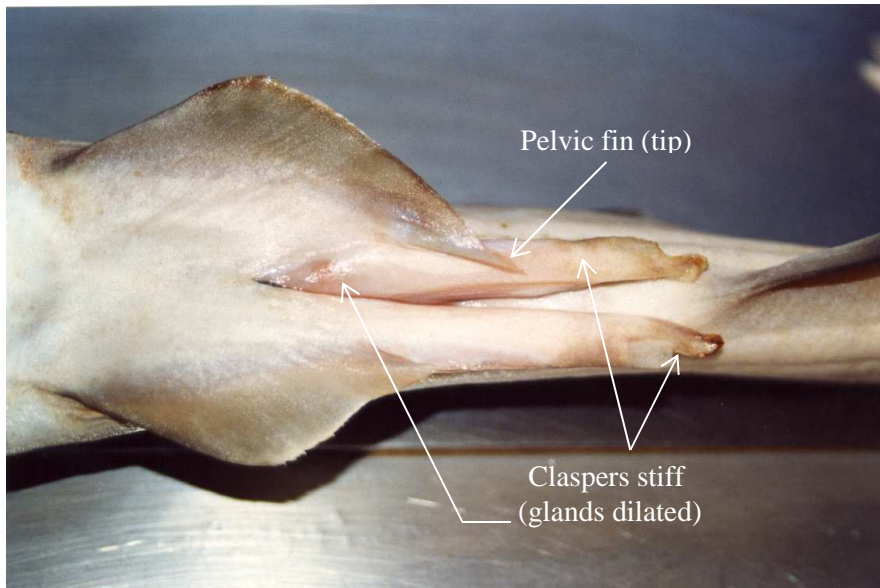


Figure 1:
Galeus melastomus
Male: stage D/4

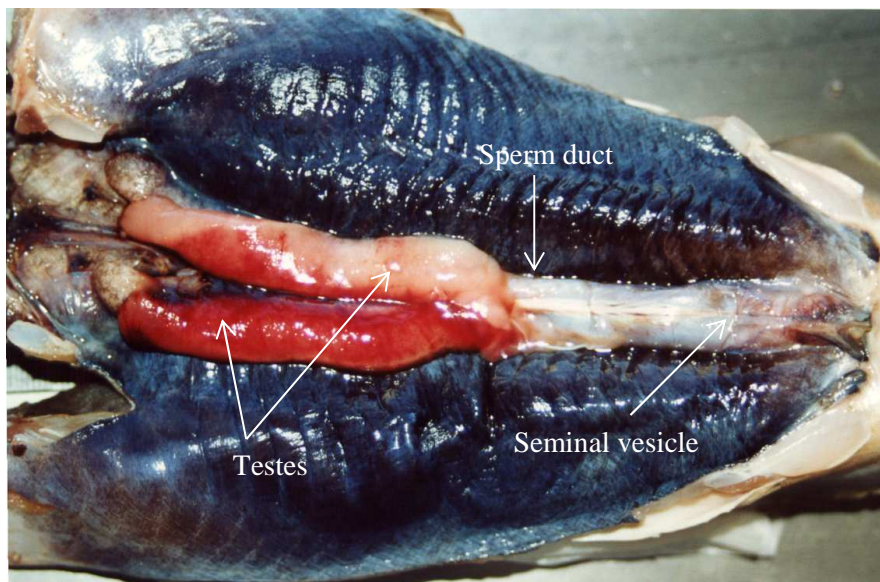


Figure 2:
Galeus melastomus
Male: stage D/4
(initial stage)

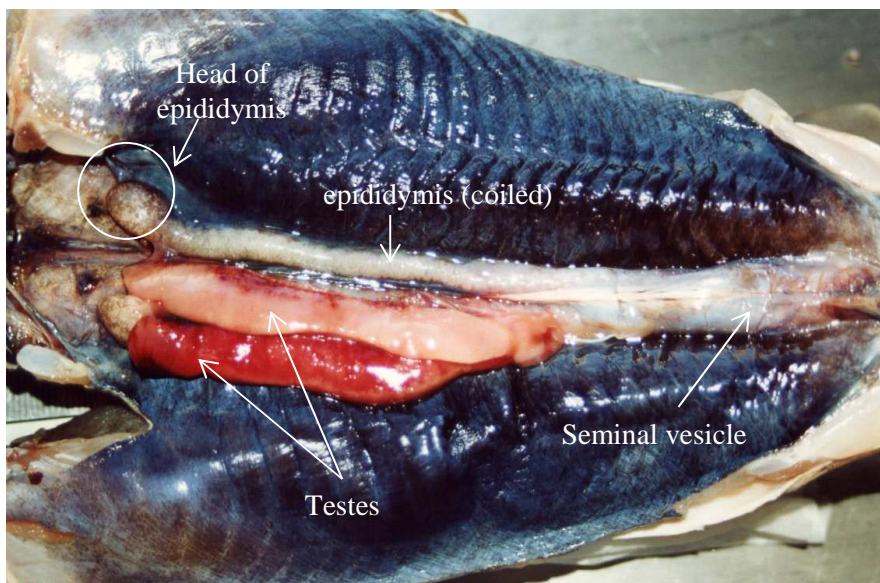


Figure 3:
Galeus melastomus
Male: stage D/4
(initial stage)

Plate 5

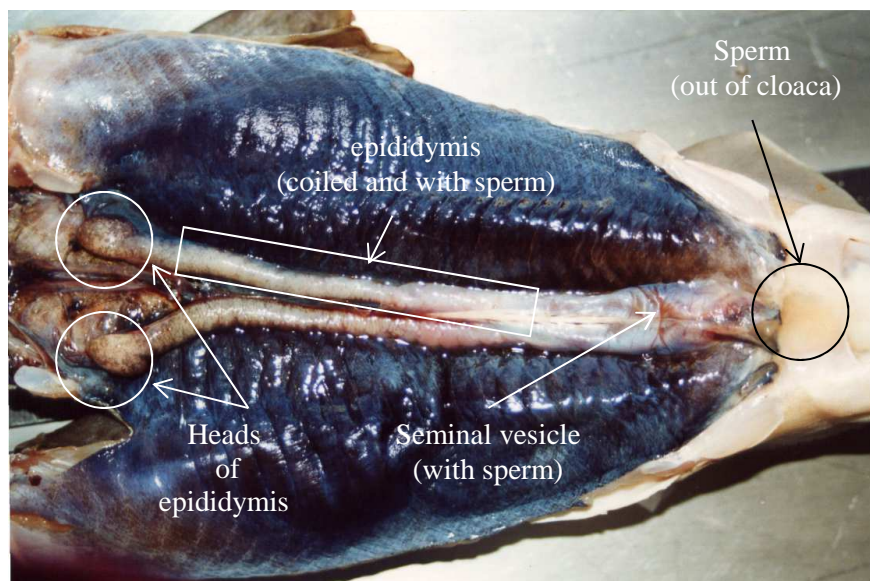


Figure 1:
Galeus melastomus
Male: stage D/4
(initial stage)

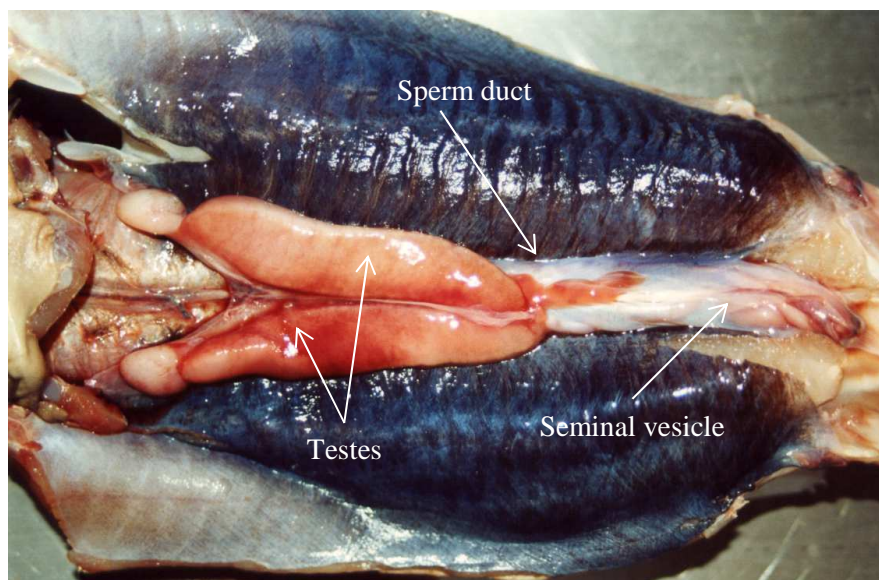


Figure 2:
Galeus melastomus
Male: stage D/4
(advanced stage)

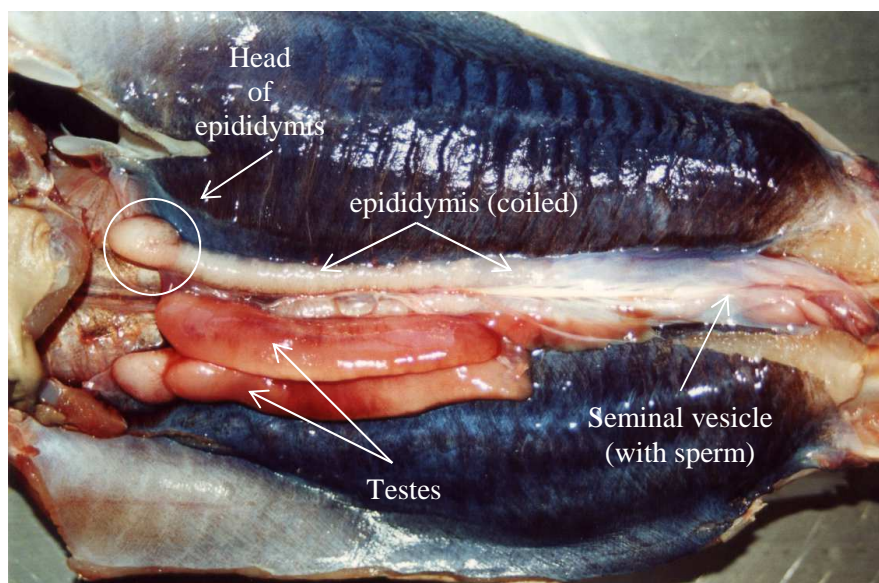


Figure 3:
Galeus melastomus
Male: stage D/4
(advanced stage)

Plate 6

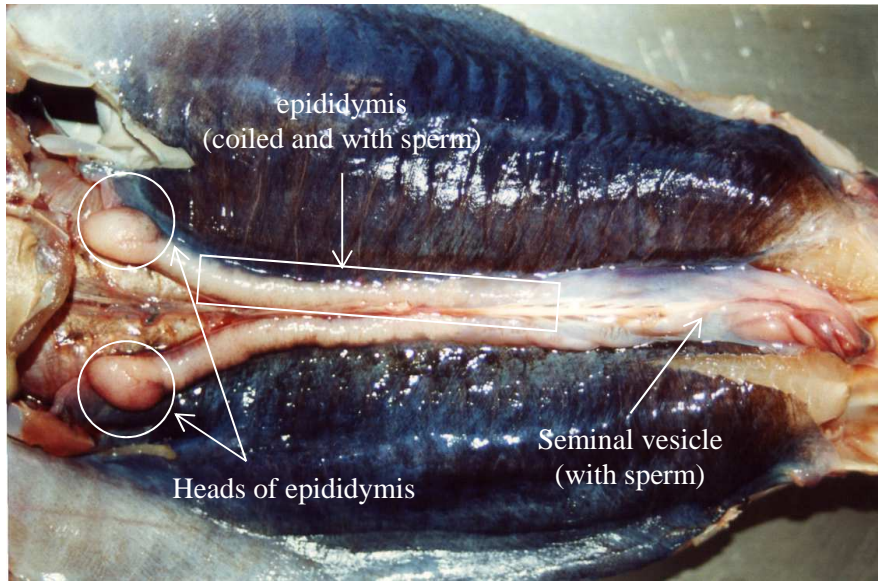


Figure 1:
Galeus melastomus
Male: stage D/4