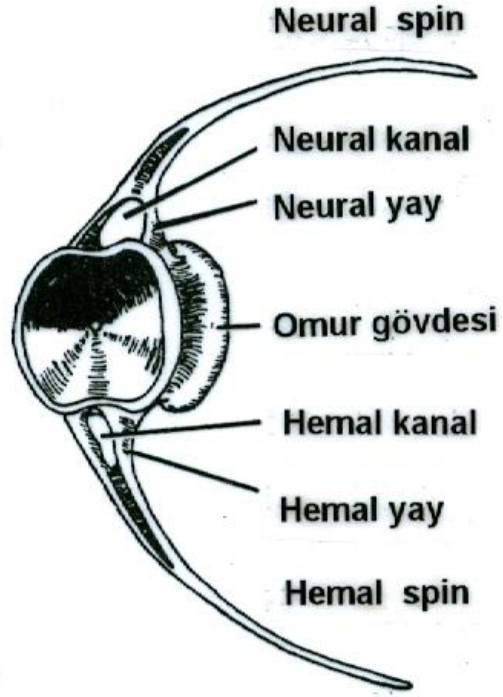


AXIAL (EKSEN) İSKELET

2 - Omurga



Şekil 5 -4. Omur yapısı (*Teleost kuyruk omuru*).

Omur yapısı

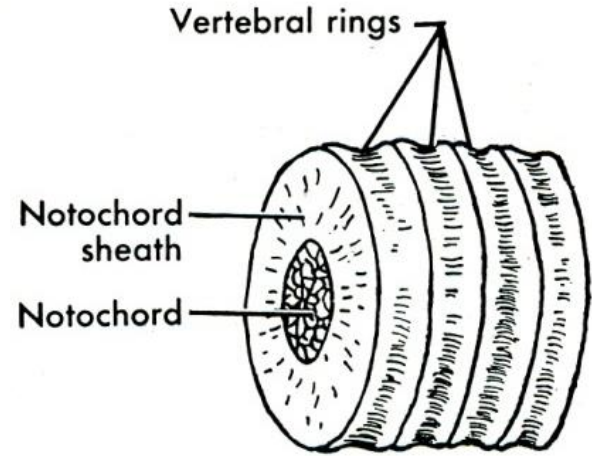
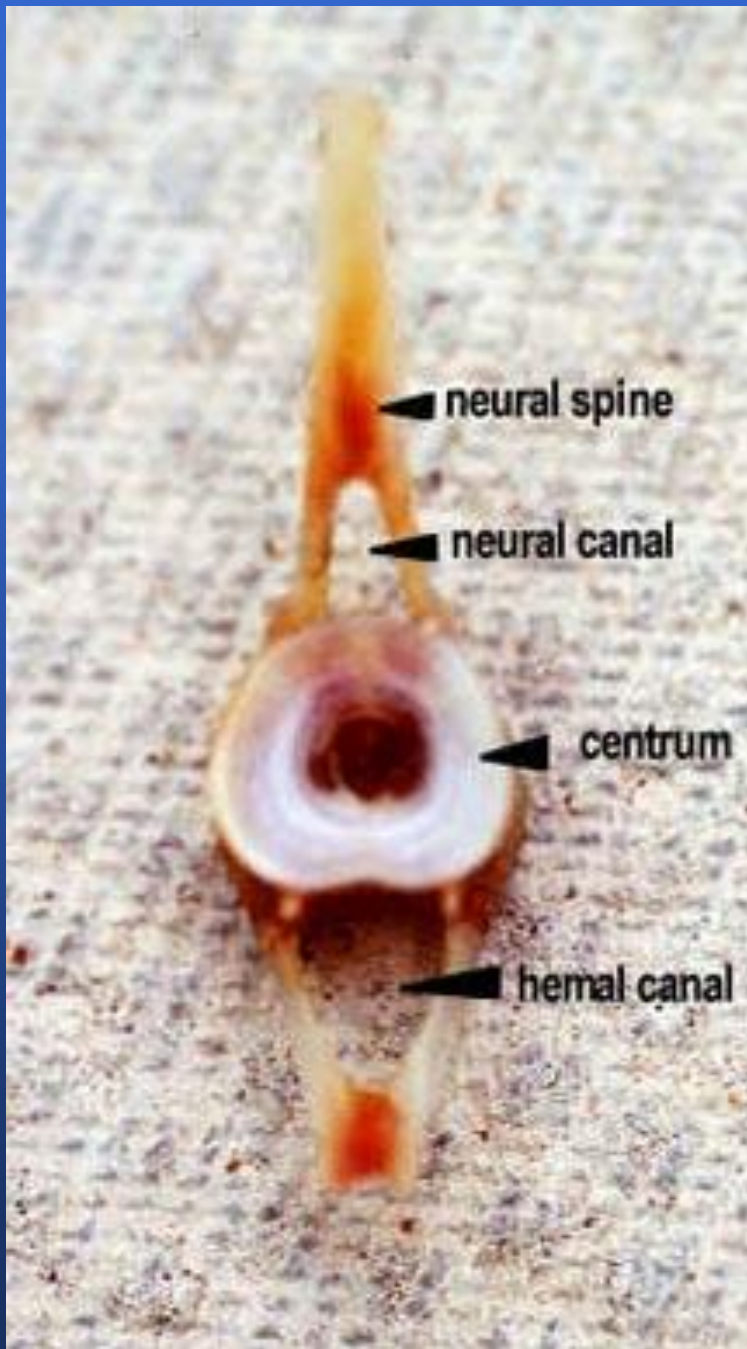
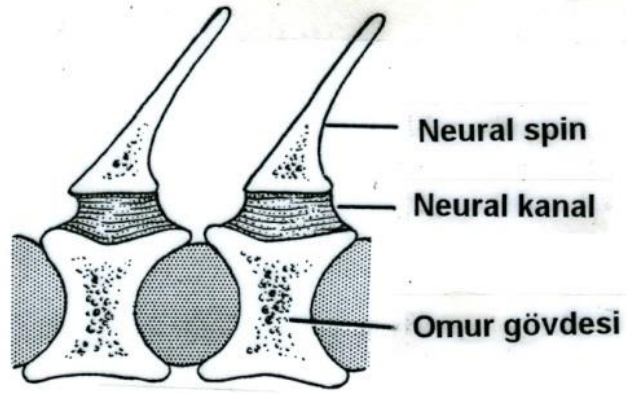


Fig. 7-6. Calcified cartilaginous notochordal rings typical of some Holocephali. The rings are more numerous than the somites. The neural and hemal arches are not illustrated.

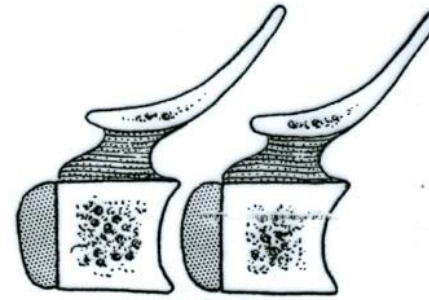
Omur gövdesi



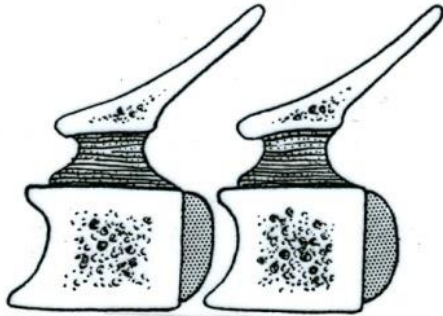
Balık omuru (Amfifisöl)
Neural ve hemal yaylar



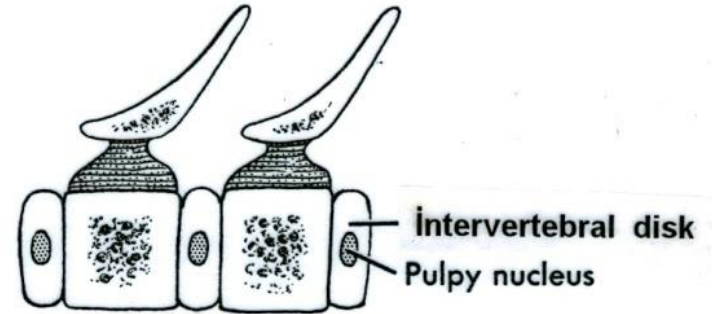
AMFİSÖL



OPİSTOSÖL

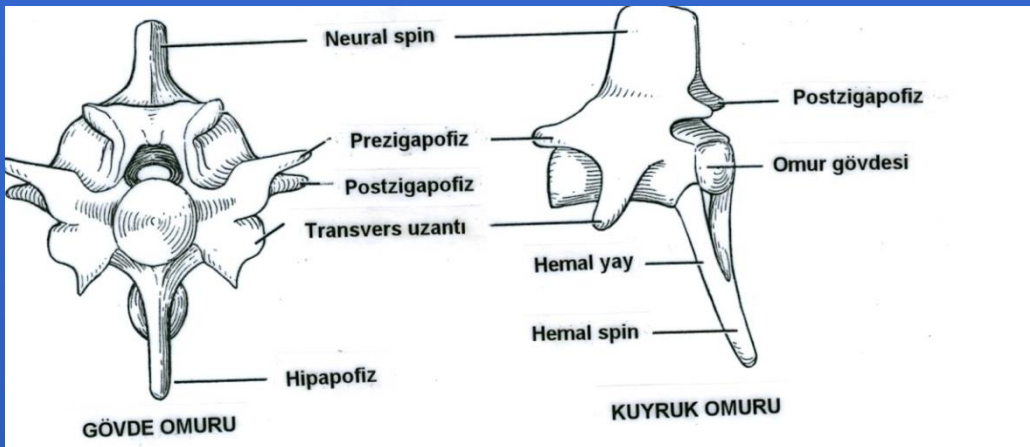


PROSÖL

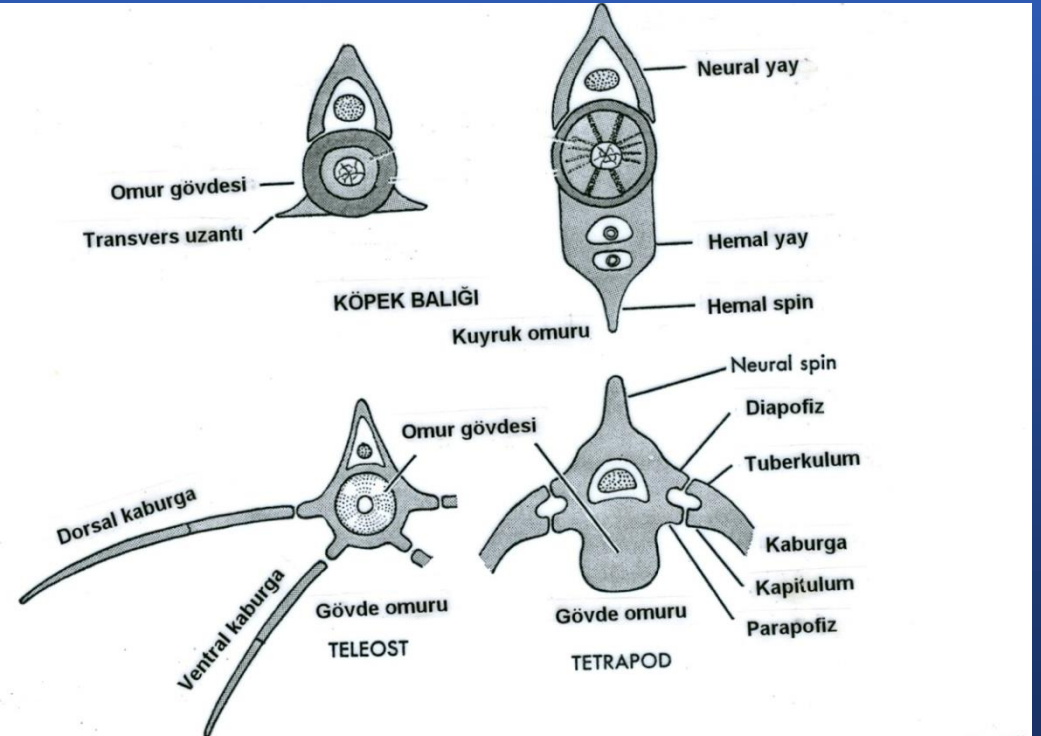


ASÖL

Şekil 5 - 5. Omur tipleri (Sagittal görünüş).



Şekil 5 -6. Reptil (Fiton) gövde omurlarında çıkıntılar ve yaylar.



Şekil 5 - 7. Kıkırdaklı balık (köpek balığı), teleost ve tetrapotlarda omurlar ve ilişkili yapılar

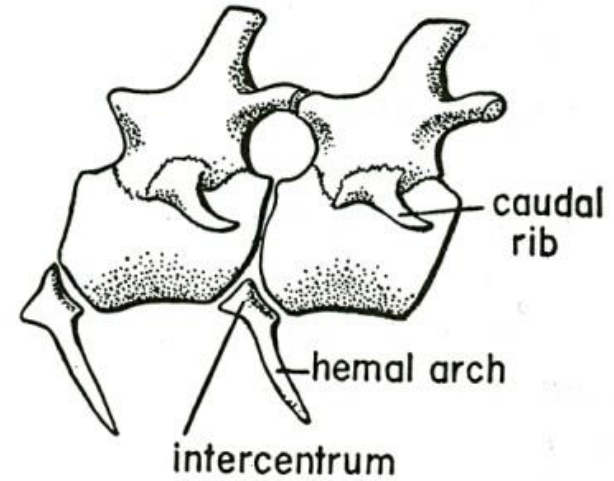
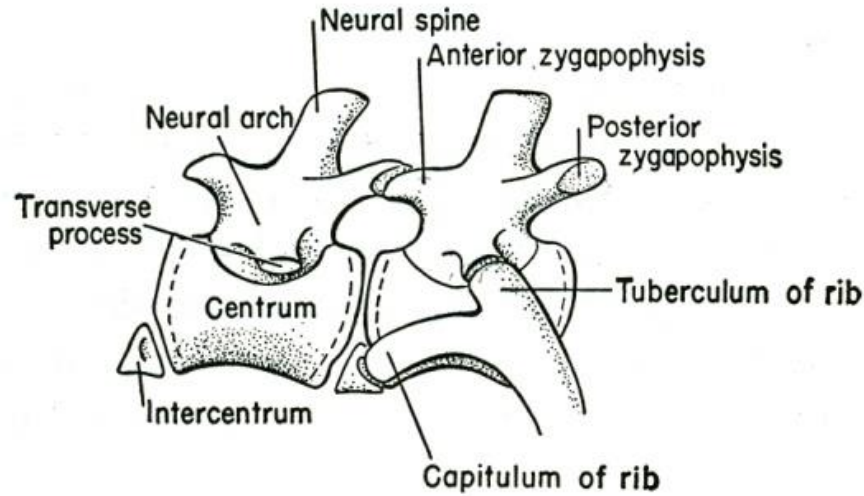
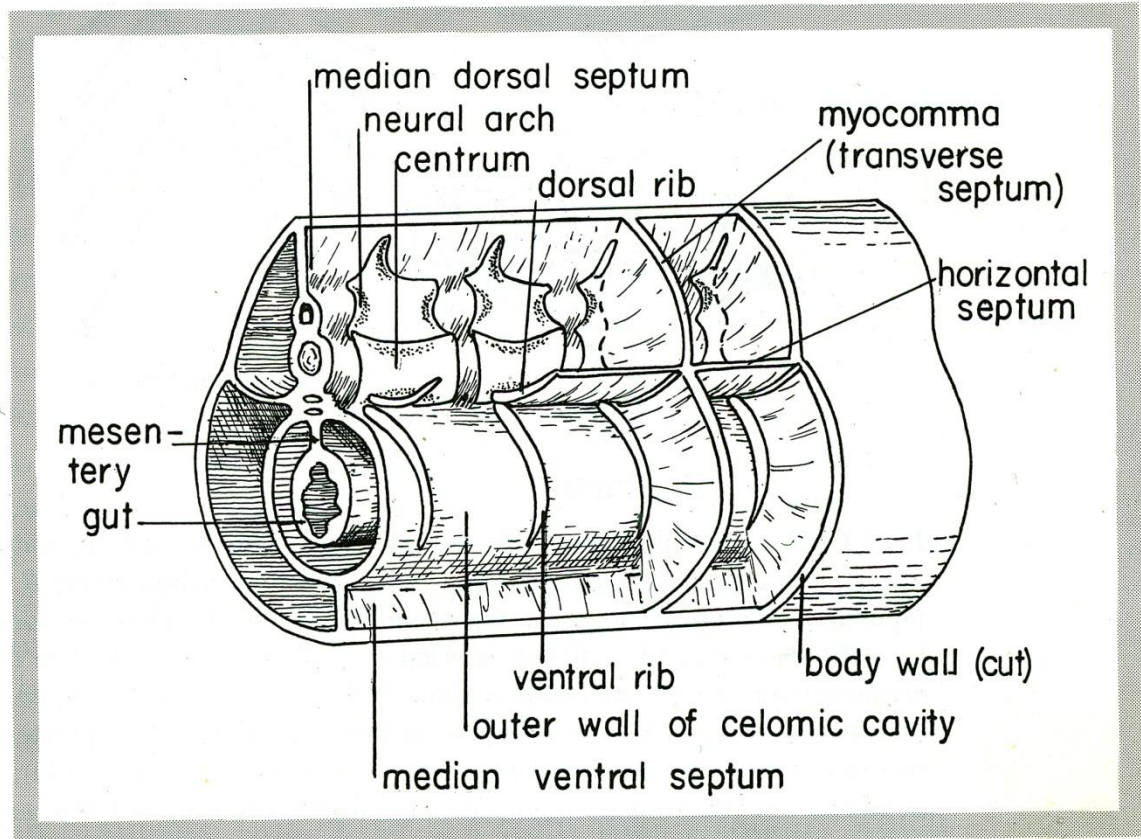


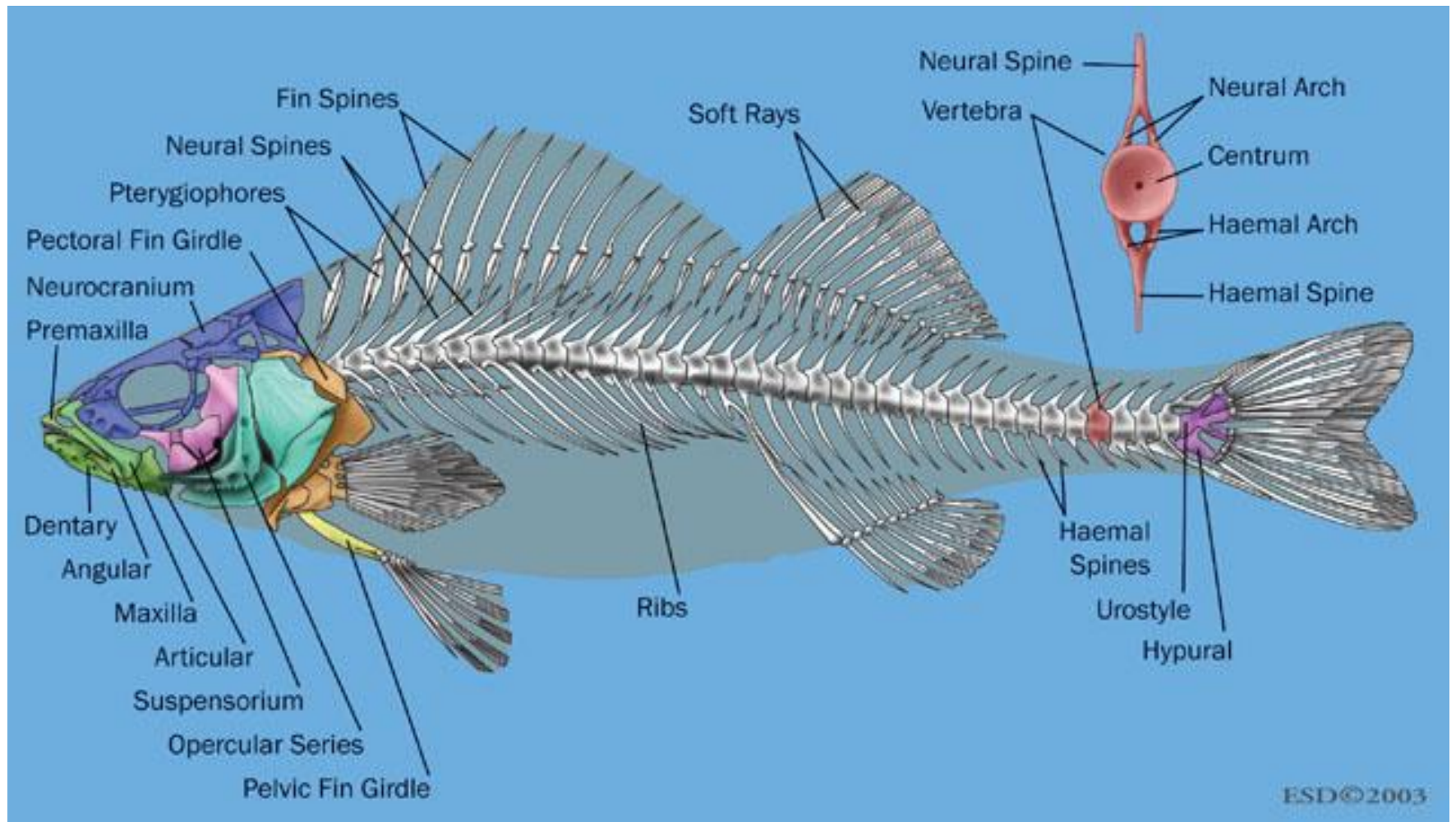
Fig. 100. *Left*, two trunk vertebrae of an early generalized reptile (anterior end to the left). *Right*, two caudal vertebrae.

Göğüs ve kuyruk omurlarının birbirleriyle eklemlenmesi

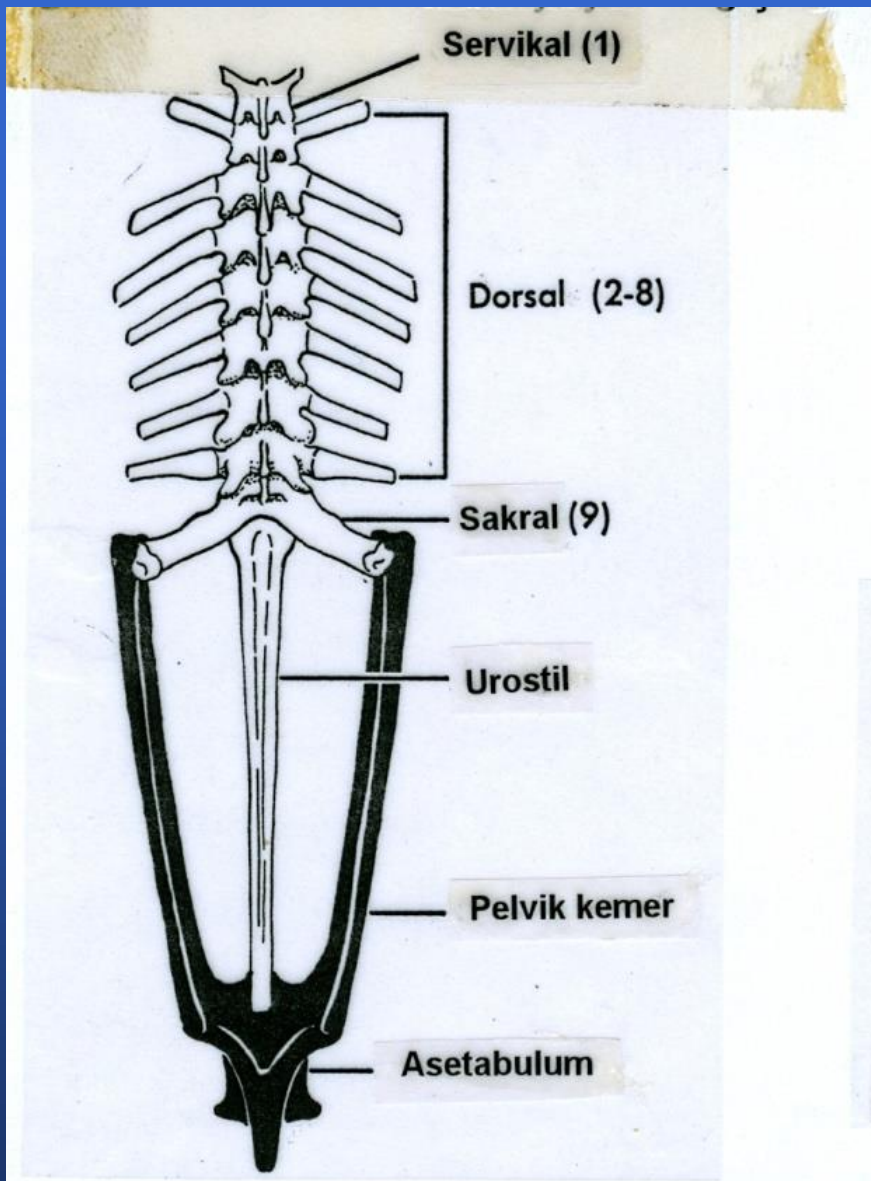
Fig. 114. Diagram of a section of the trunk of a vertebrate to show the connective tissue system and the axial skeletal elements. A view from the left side, as if partially dissected out and the muscles removed from between the septa. Vertebral elements develop in the tissue sheath surrounding the spinal cord and notochord; ribs, dorsal or ventral, develop where the transverse septum intersects the horizontal septum or celomic wall. (After Goodrich.)



Balık kaburgaları – Dorsal , ventral kaburgalar



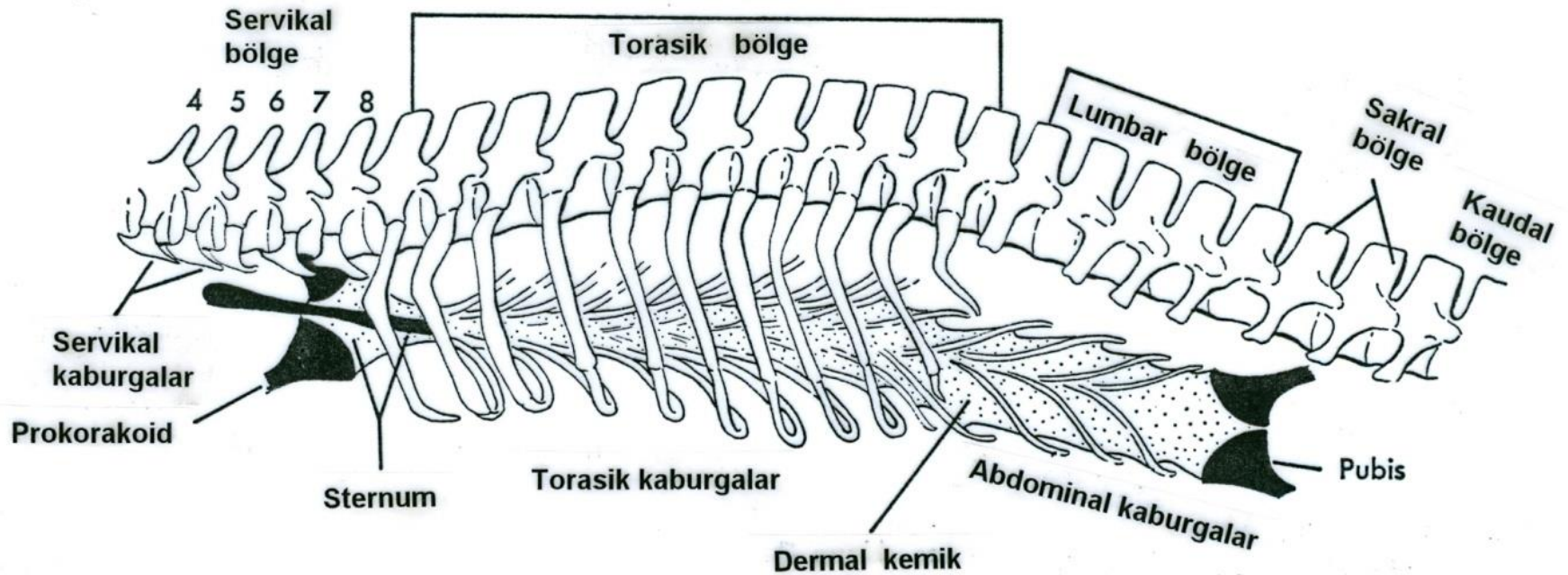
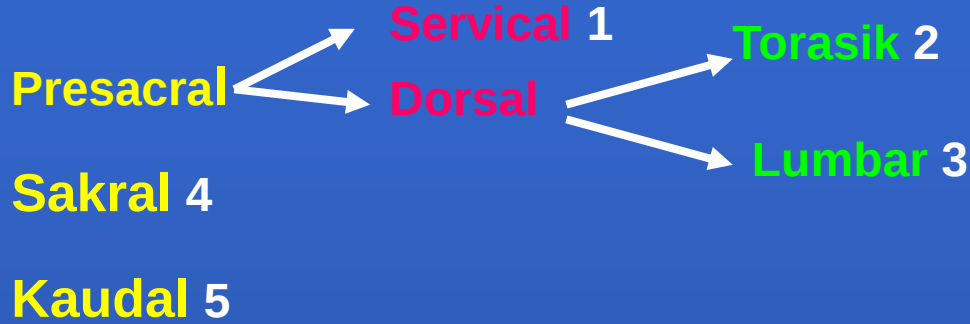
Kemikli balık - Omurga



Şekil 5 - 8. Kurbağada omurga ve pelvik kemer

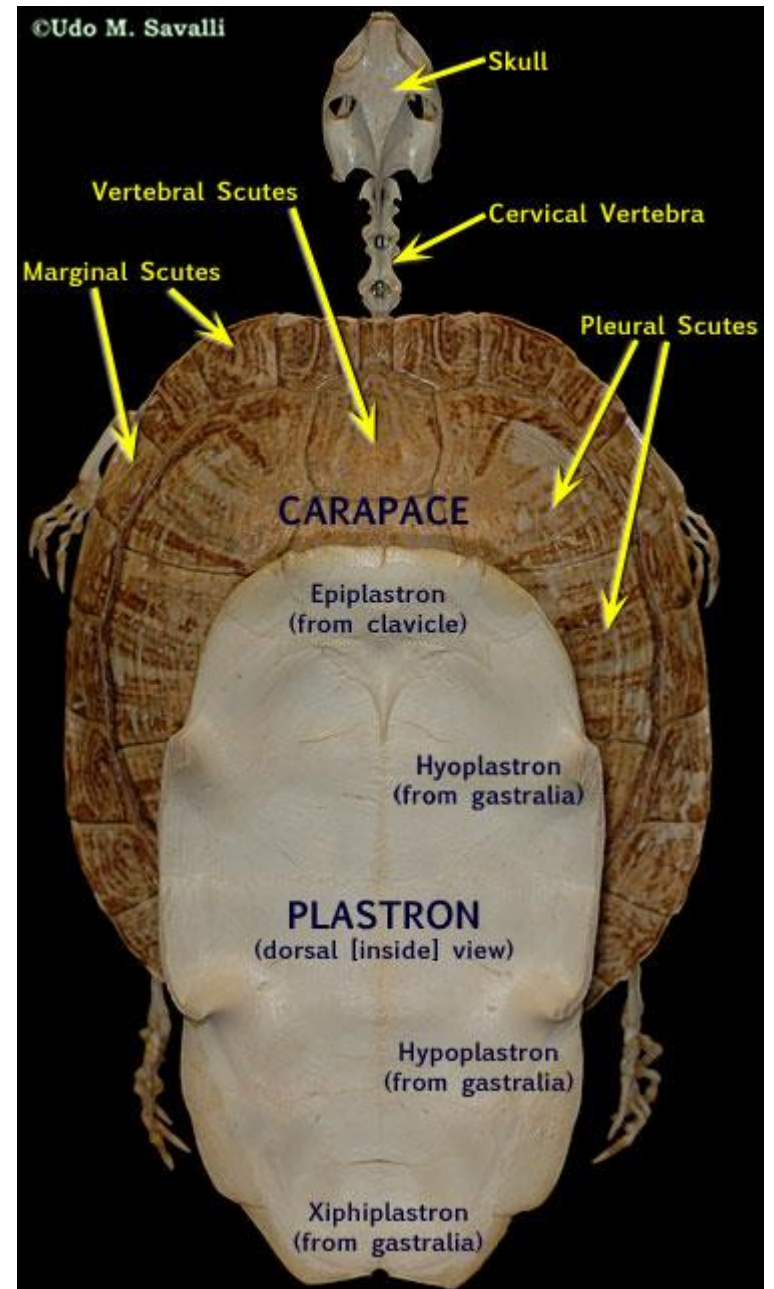
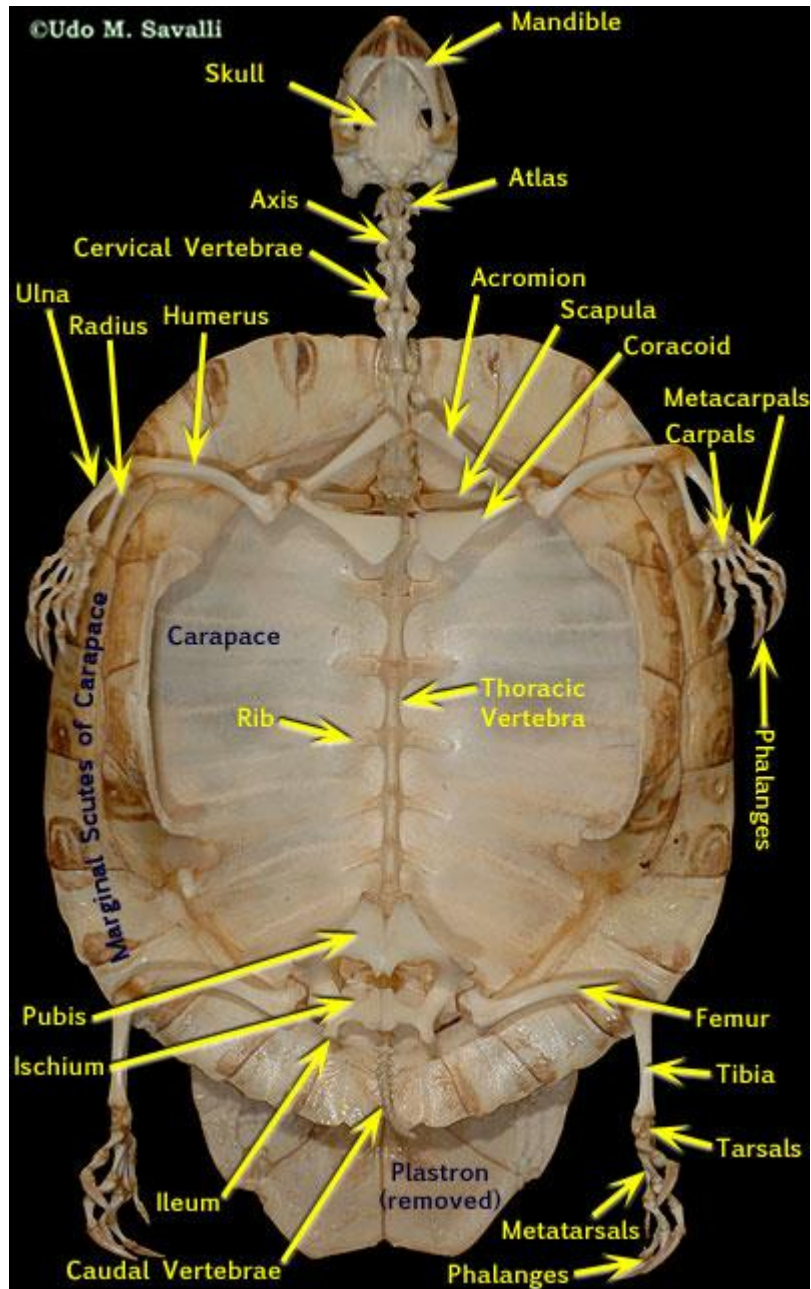
Amphibia omurgası

Reptilia omurgası

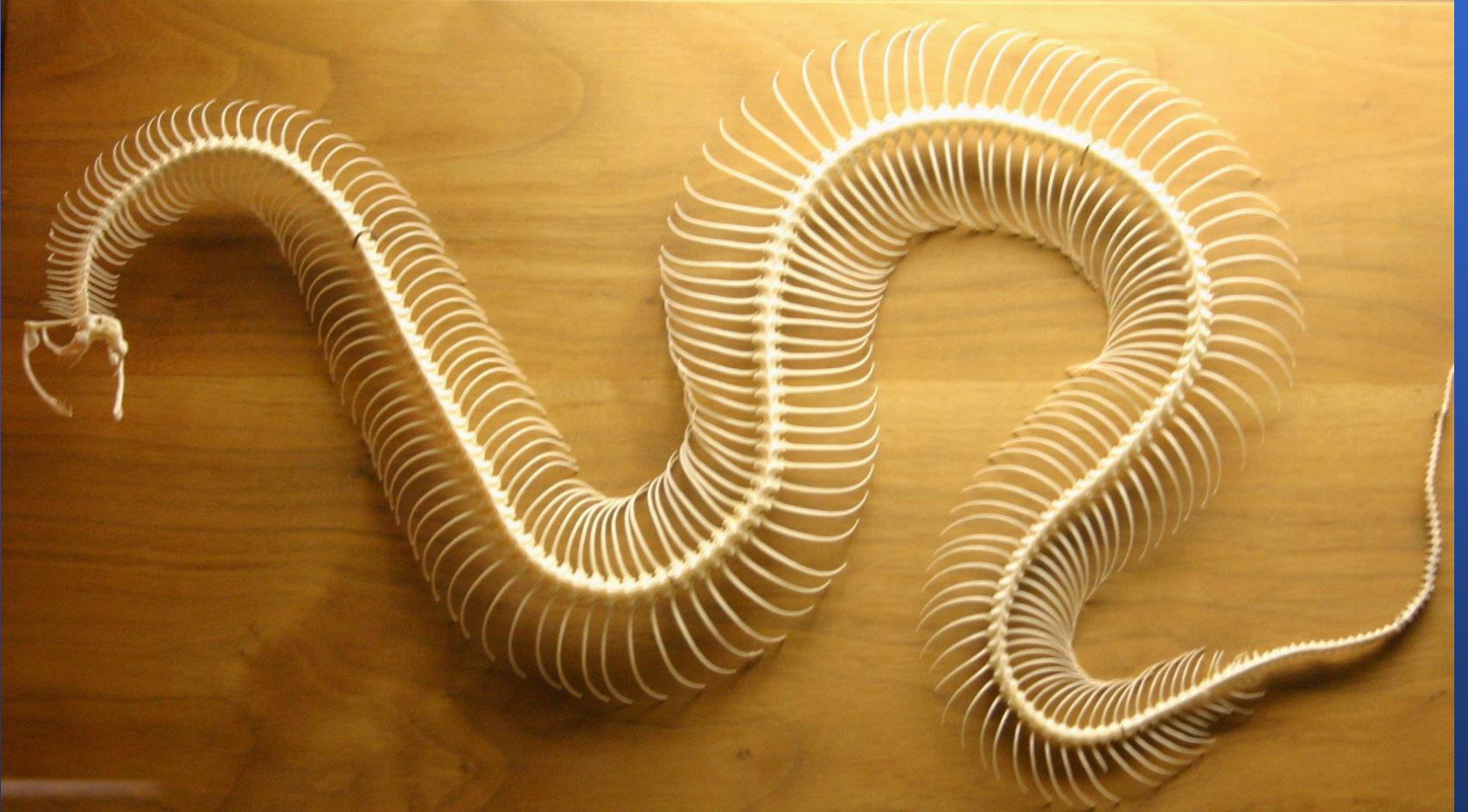


Şekil 5 - 10. Timsahta servikal, torasik ve abdominal kaburgalar (gastralia)

Kaplumbağa iskeleti



Yılan omurgası



Yılan omurgası



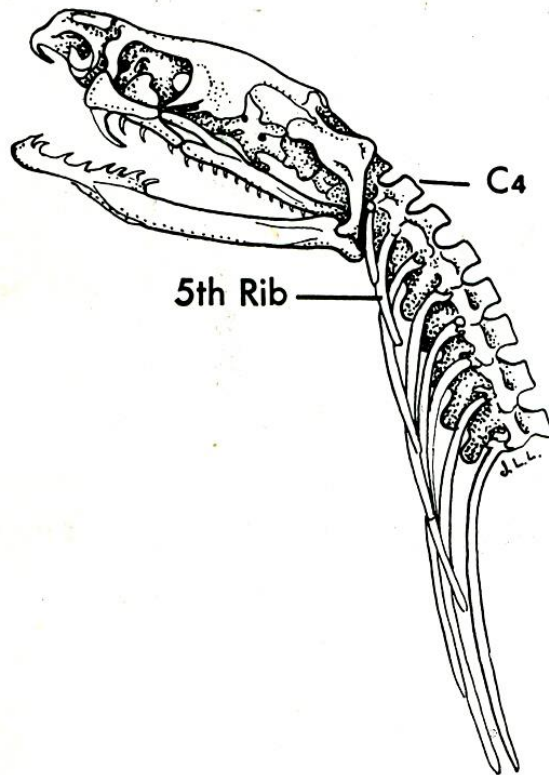
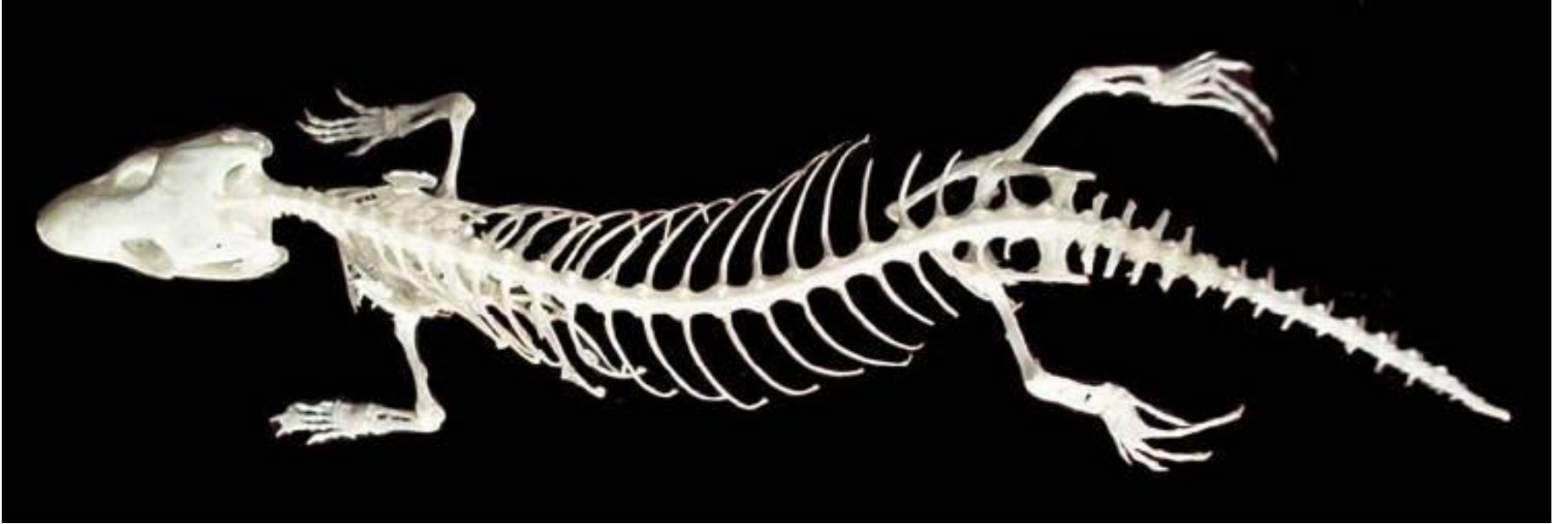
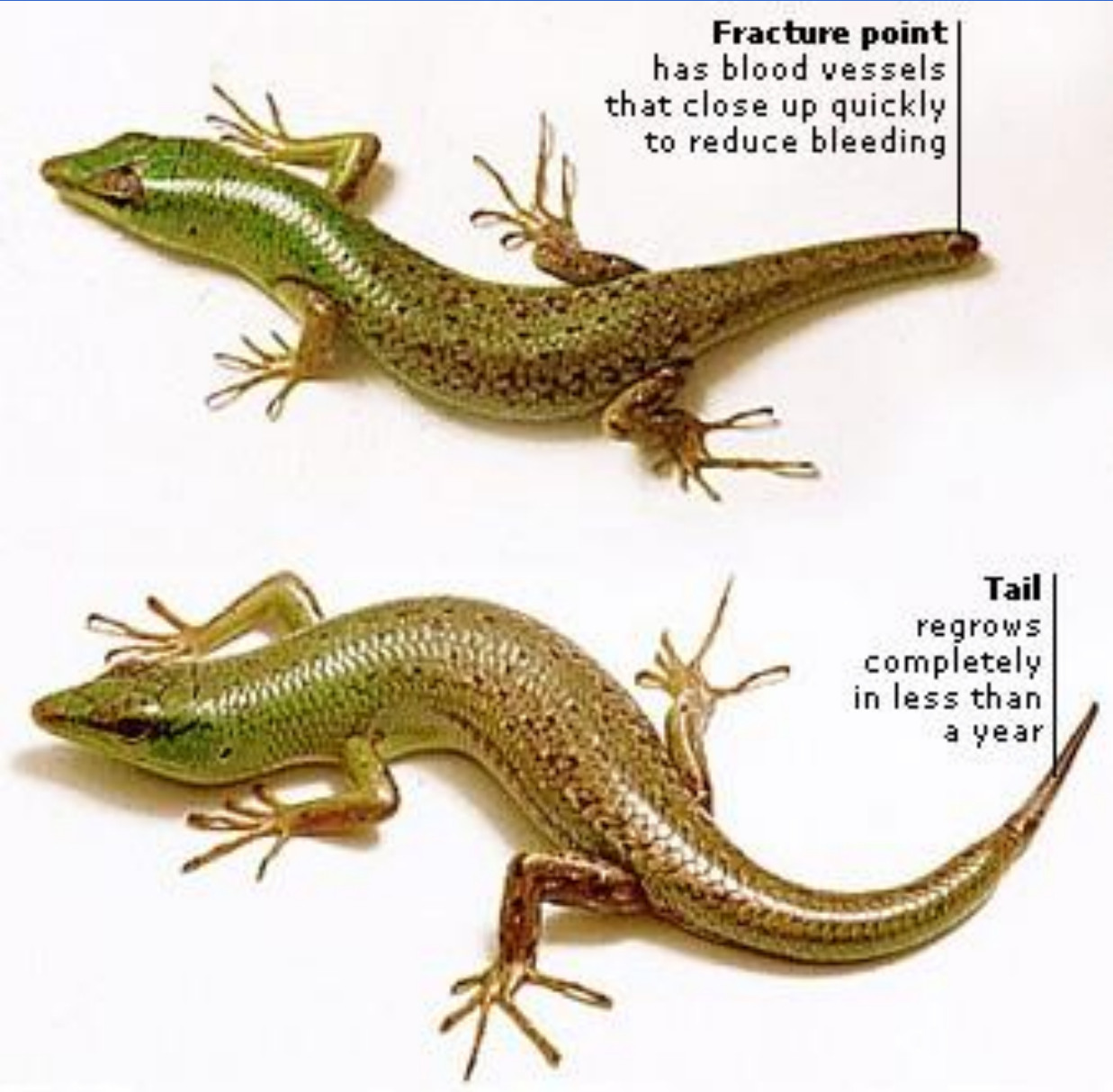


Fig. 7-22. Cervical ribs of a cobra. The first three ribs, associated with the atlas, axis, and third vertebra, are short and are hidden by the jaws, **C₄**, The neural spine of the fourth cervical vertebra.

Yılan'da
servikal
kaburgalar

Kertenkele omurgası

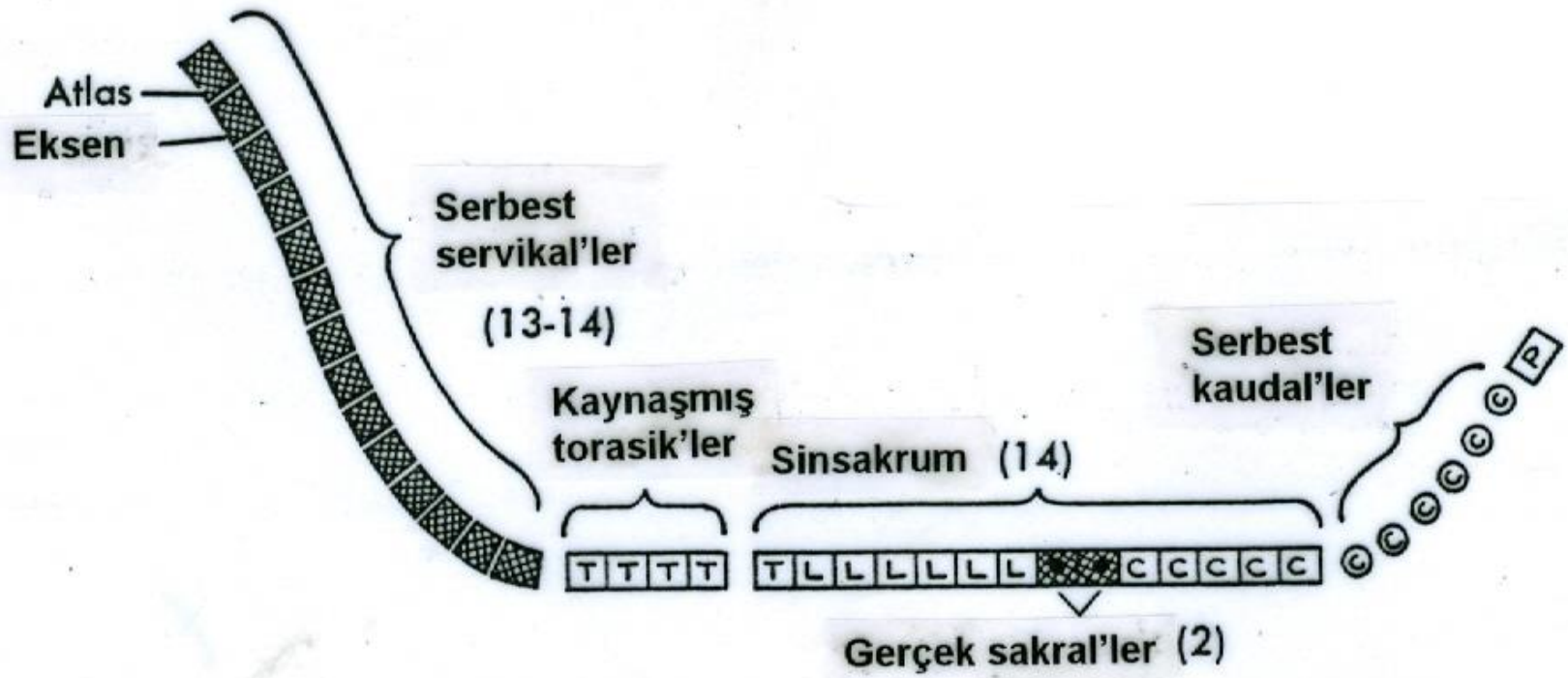




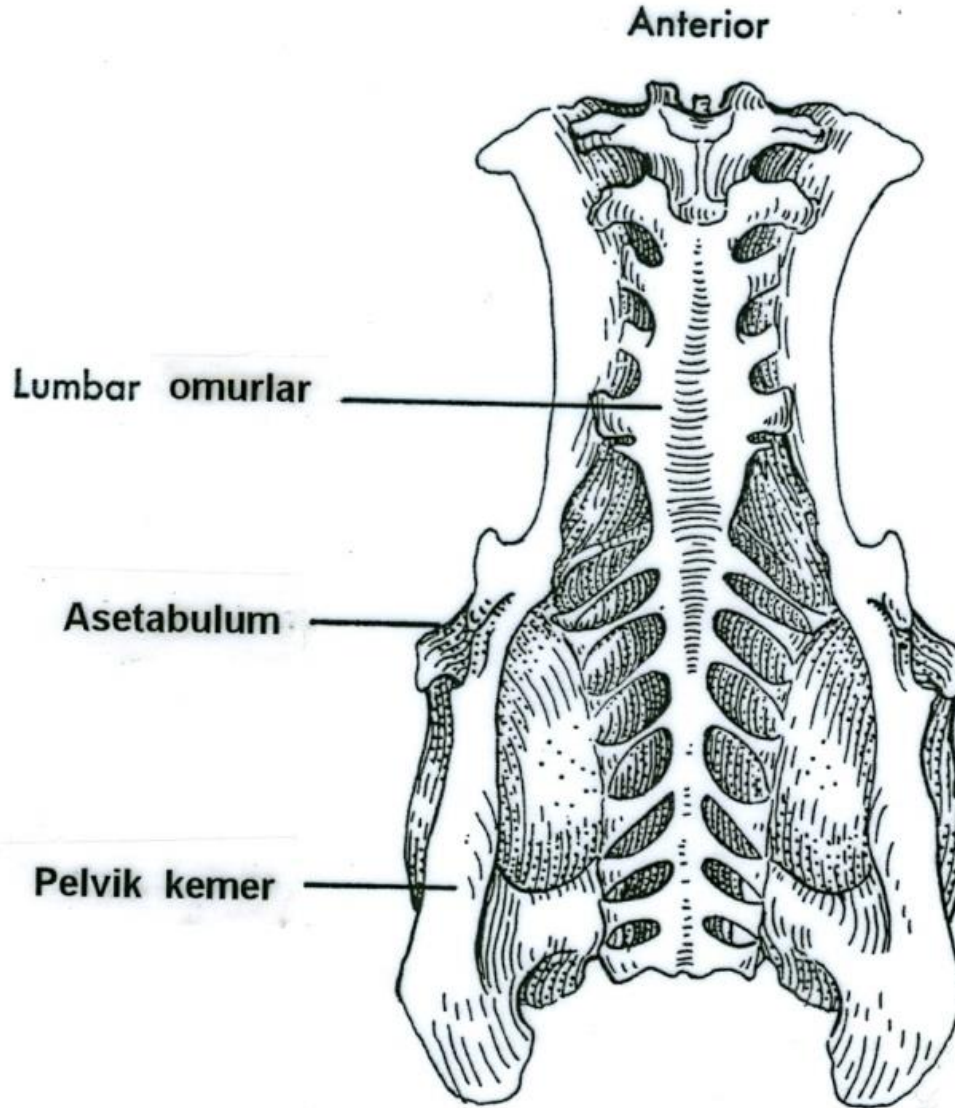
Fracture point
has blood vessels
that close up quickly
to reduce bleeding

Tail
regrows
completely
in less than
a year

Kertenkele Kuyruk rejenerasyonu



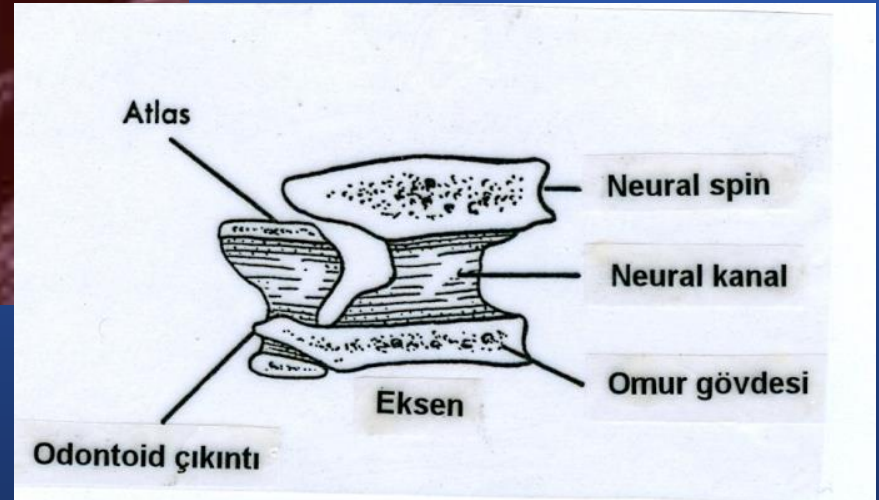
Şekil 5 - 12. Güvercin' de omurga (şematik).



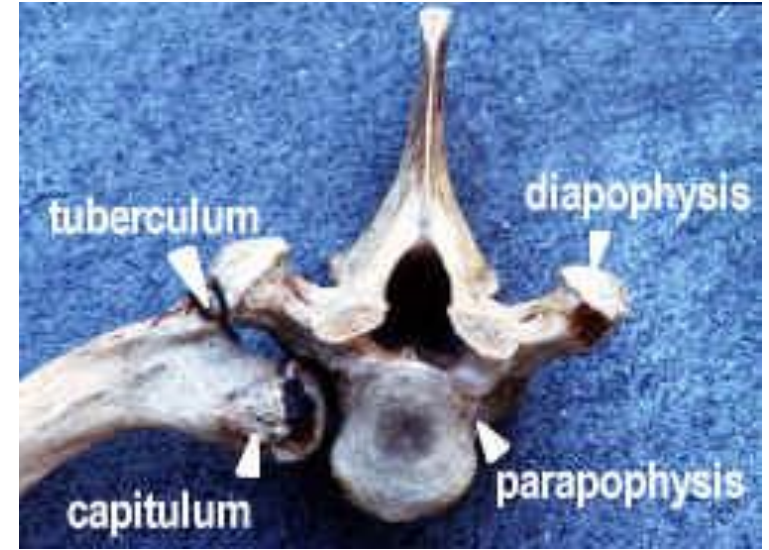
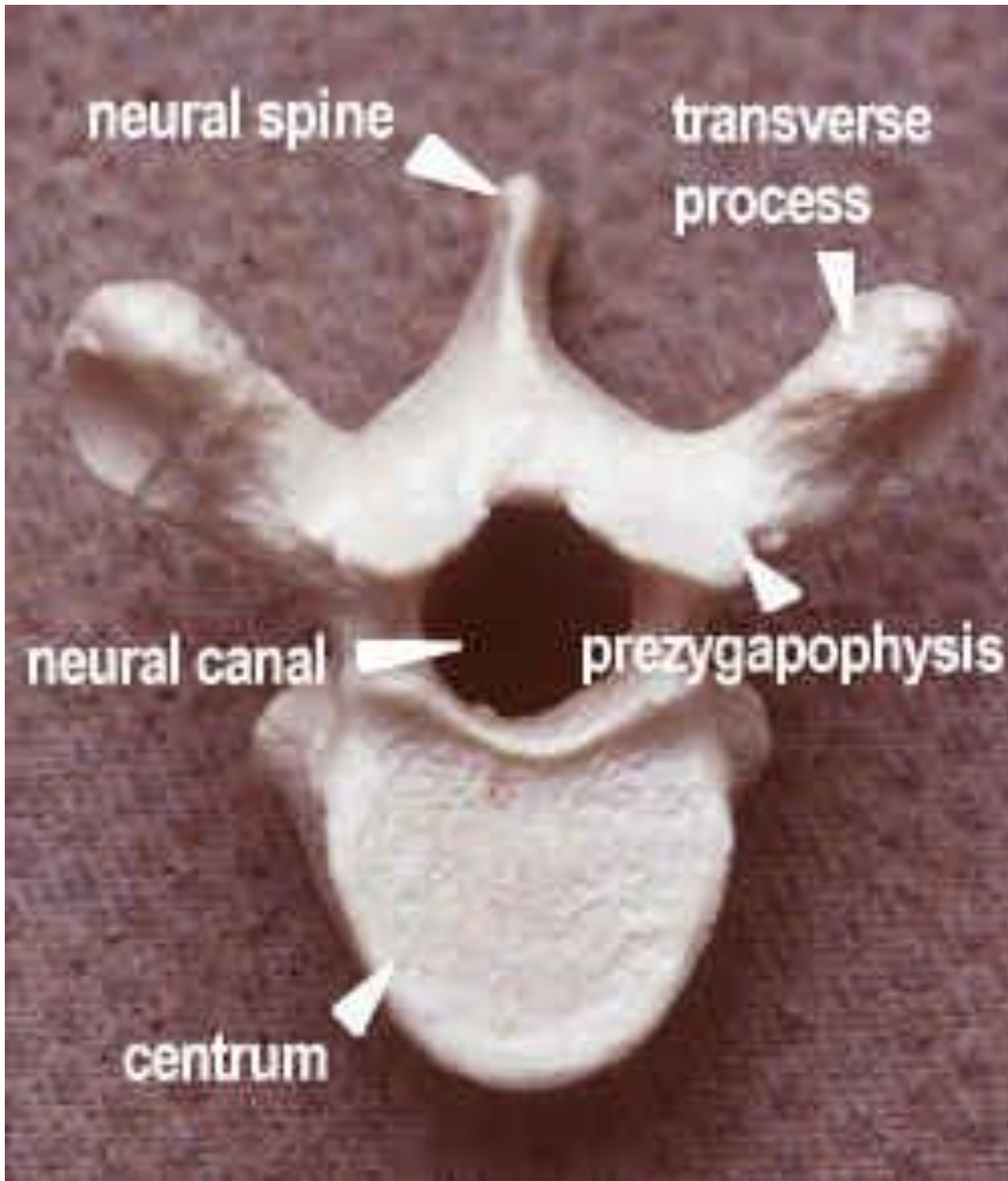
Şekil 5 - 11. Sinsakrum ve pelvik kemer
(tavuk)

Kuş
Synsacrum
(vental görünüm)

Atlas ve eksen omuru (Memeli)



Şekil 5 - 9. İlk iki boyun omurundan sagittal kesit (kedi'de)



**İnsan Torasik bölge omuru
ve kaburganın bağlantısı**

Memeli – Lumbar bölge omuru



Servikal omur



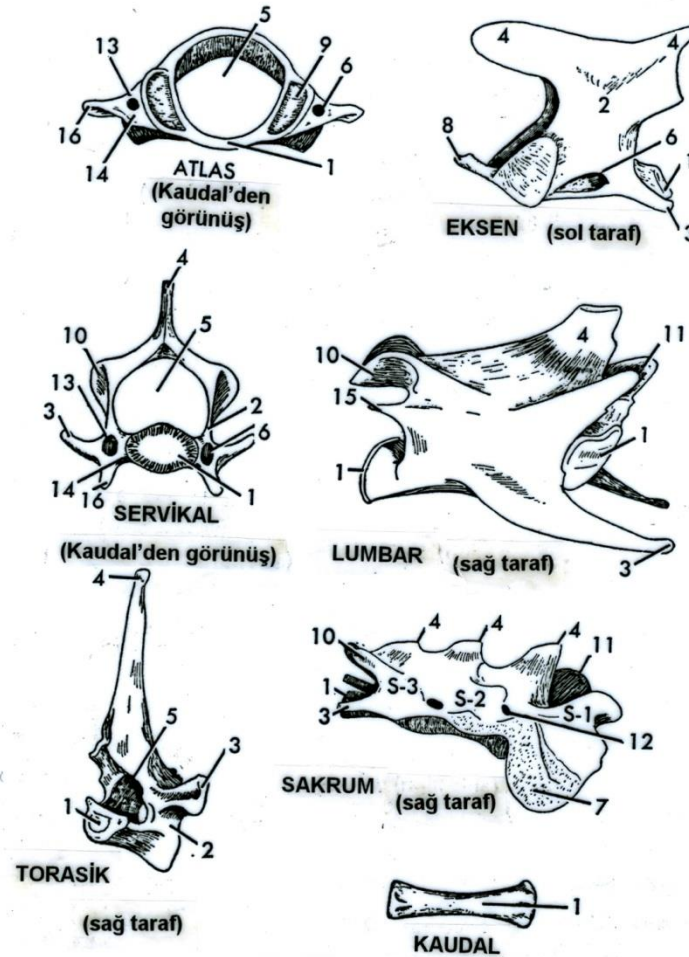
Torasik omur



**Lumbar
omur**



**Kaudal
omur**

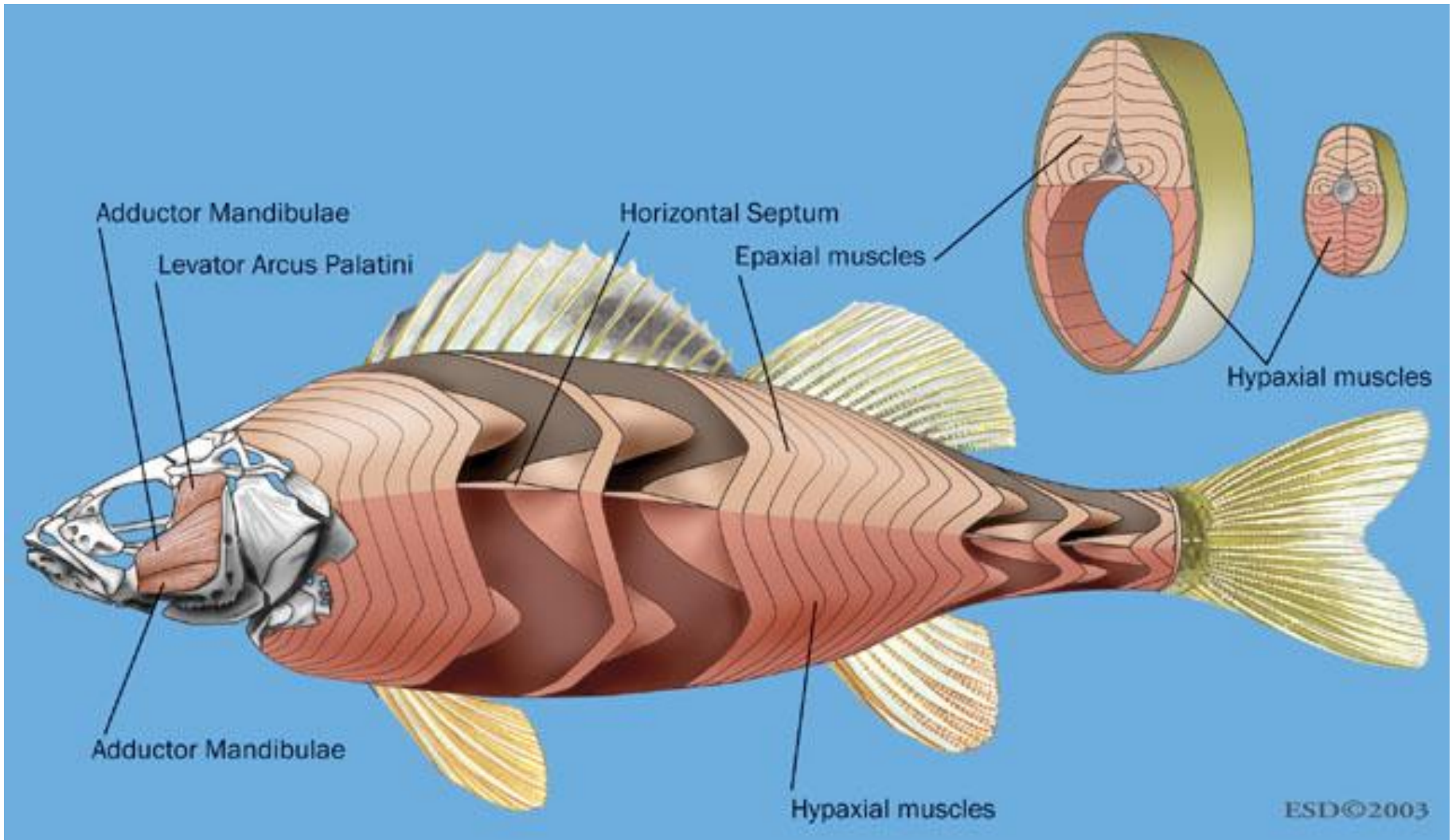


Şekil 5 - 13. Kedi omurgası. 1. gövde; 2. pedisel; 3. transvers uzantı; 4. neural spin; 5. neural kanal; 6. transvers foramen; 7. ilium'la eklemlenme yüzeyi; 8. odontoit çıkıntı; 9. eksen eklem yüzeyi; 10. postzigapofiz; 11. prezigapofiz; 12. intervertebral foramen; 13. diapofiz; 14. parapofiz; 15. yardımcı çıkıntı 16. iki başlı servikal kaburga; S-1, S-2, S-3. sakral omurlar.

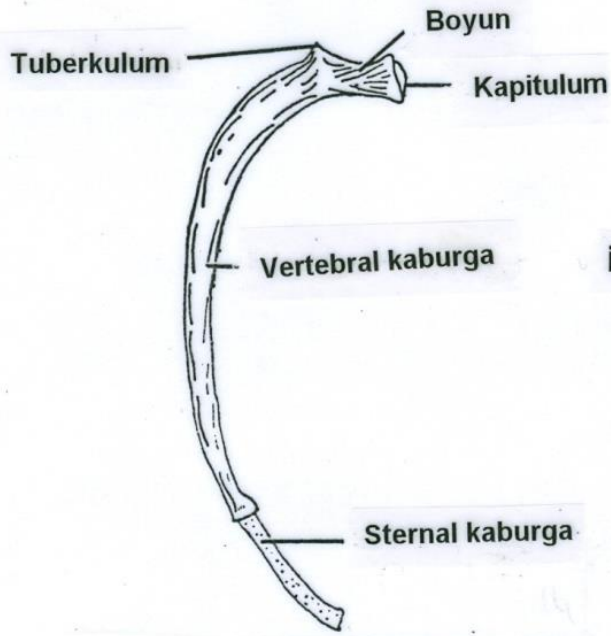
Memeli omur tipleri

	<i>Cervical</i>	<i>Thoracic</i>	<i>Lumbar</i>	<i>Sacral</i>	<i>Caudal</i>
Horse	7	18 to 20	6	5	15 to 21
Opossum	7	13	6	2	19 to 35
Hamster	7	13	6	4	13 to 14
Sheep	7	13	6 to 7	4	16 to 18
Cat	7	13	7	3	18 to 25
Dog	7	12 to 13	7	3	19 to 23
Rabbit	7	12	7	4	16+
Man	7	12	5	5	3 to 5
Bat	7	11	5	5	9
Sperm whale	7	11	8	0	24

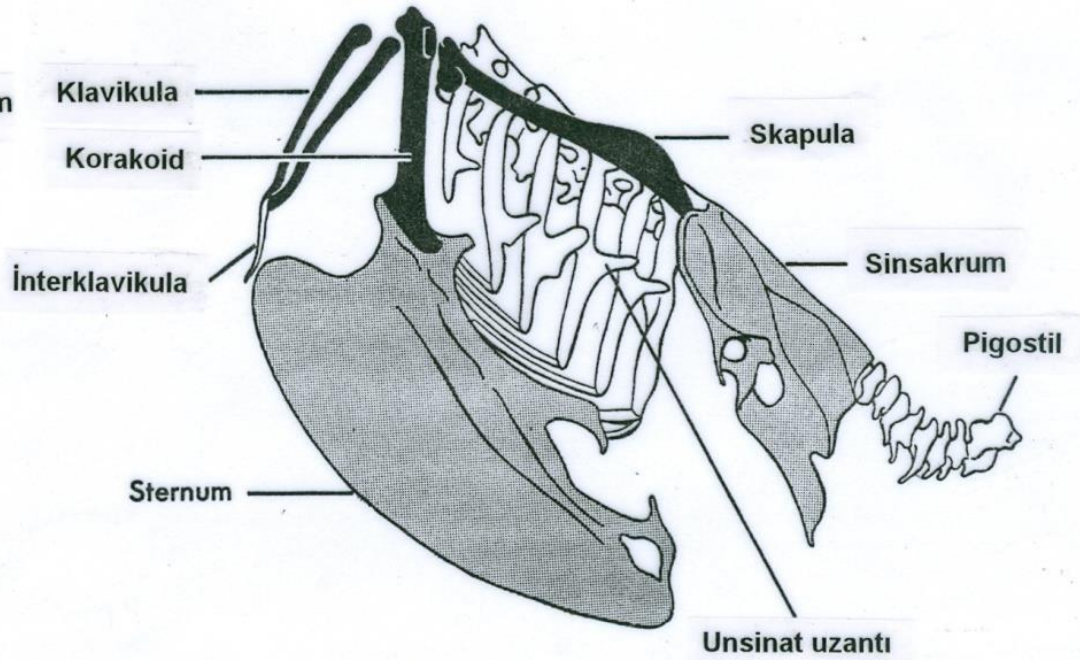
Memeli gruplarında omurların sayısal değerleri



Perca flavescens

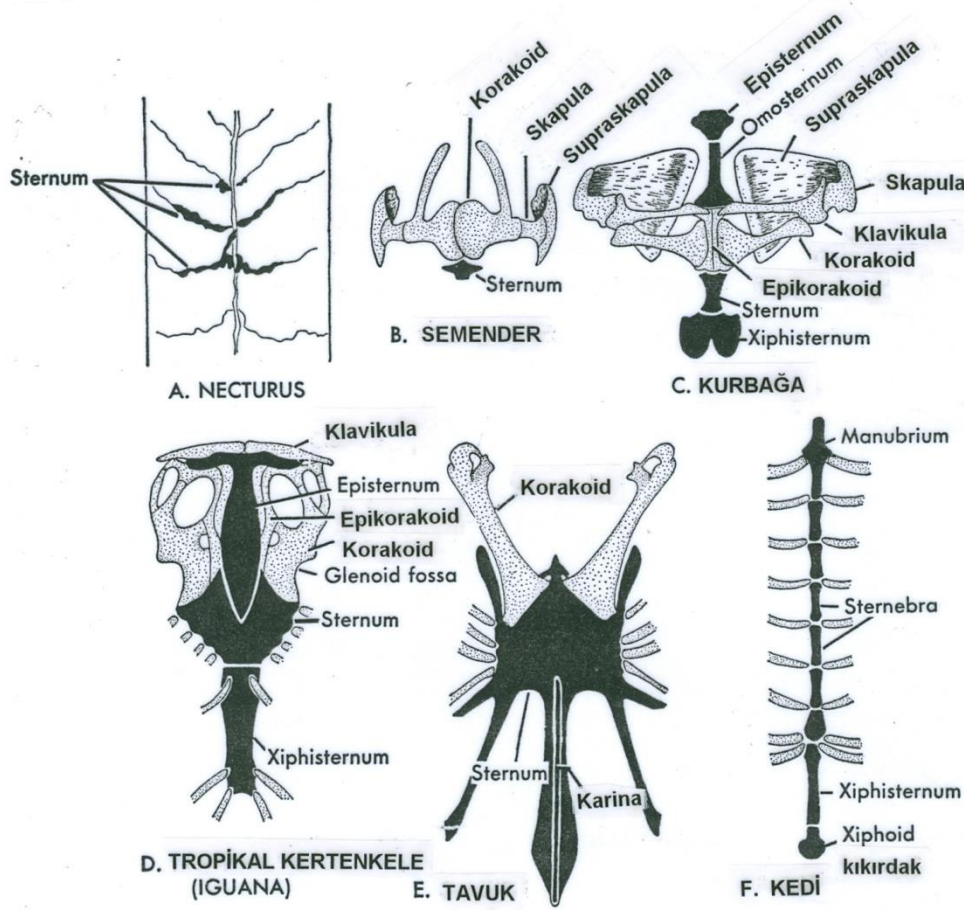


Şekil 5 -14. Kedi'de torasik kaburga iki başlı (tuberkulum ve kapitulum)

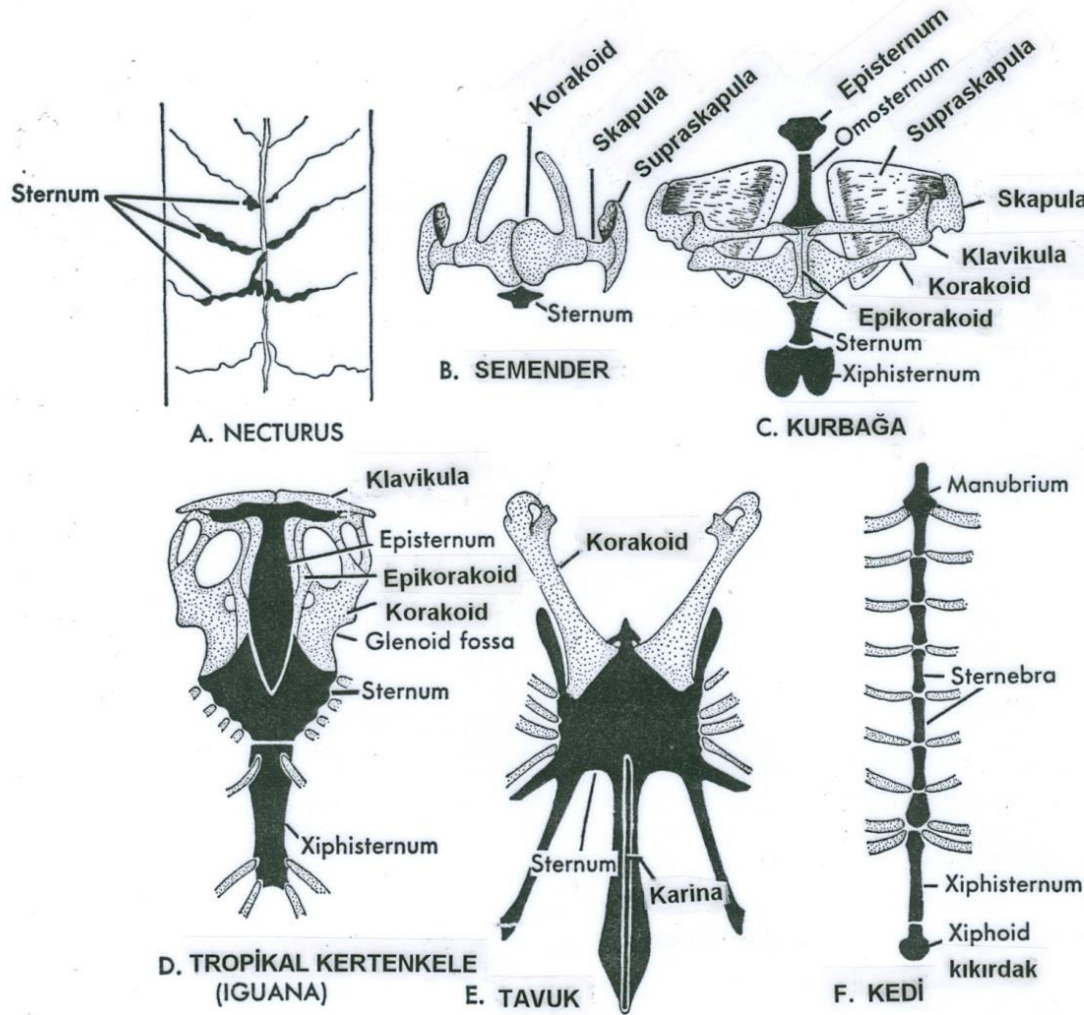


Şekil 5 - 15. Güvercin'de gövde, kuyruk ve pektoral kemer iskeleti (pektoral kemer siyah'la gösterilmiş)

kaburga

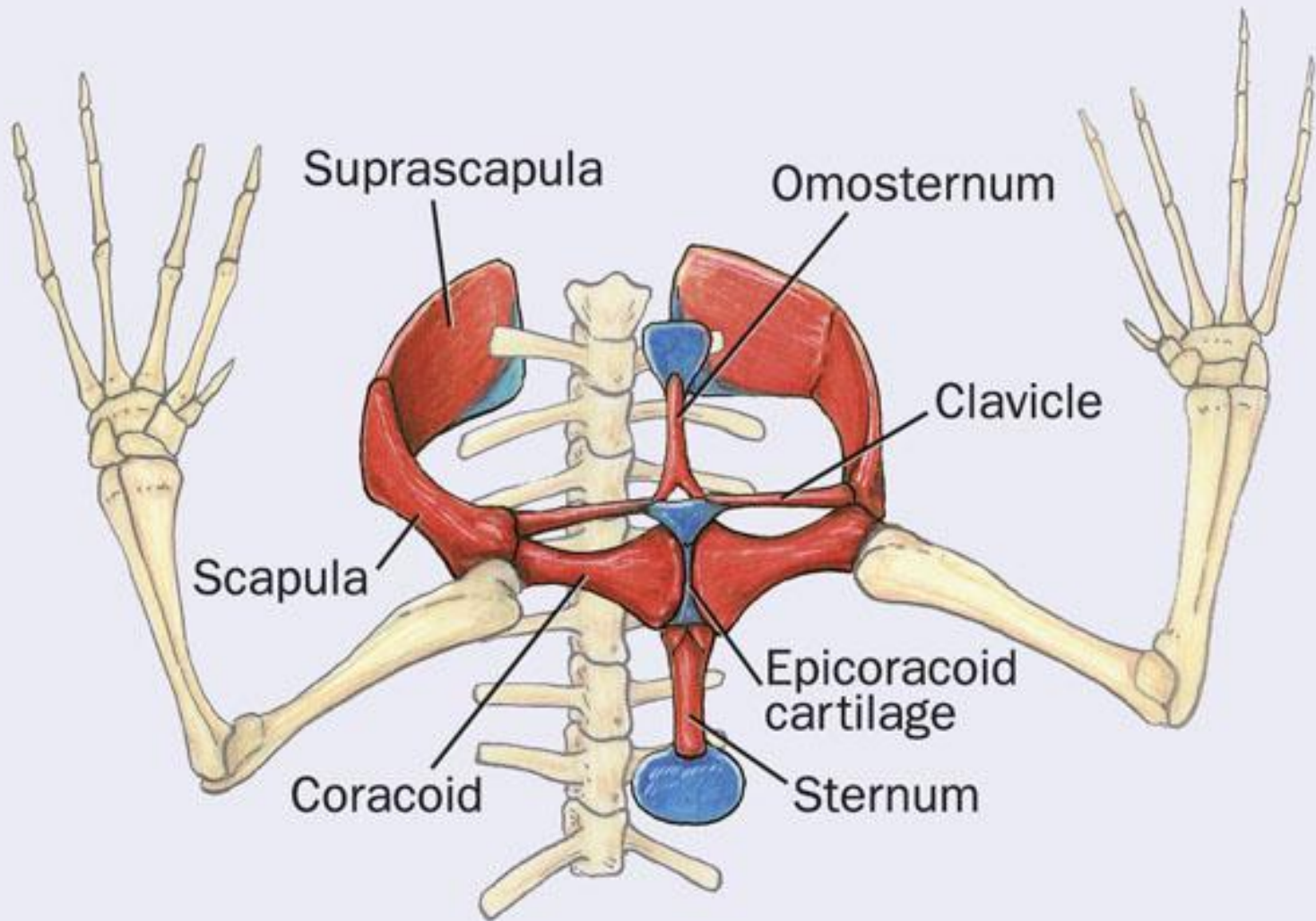


Şekil 5 - 16. Tetrapodlarda sternum ve ilişkili yapılar . Iguana'nın episternum (interklavikula)' u sternum' un bir bölümü halinde değil.



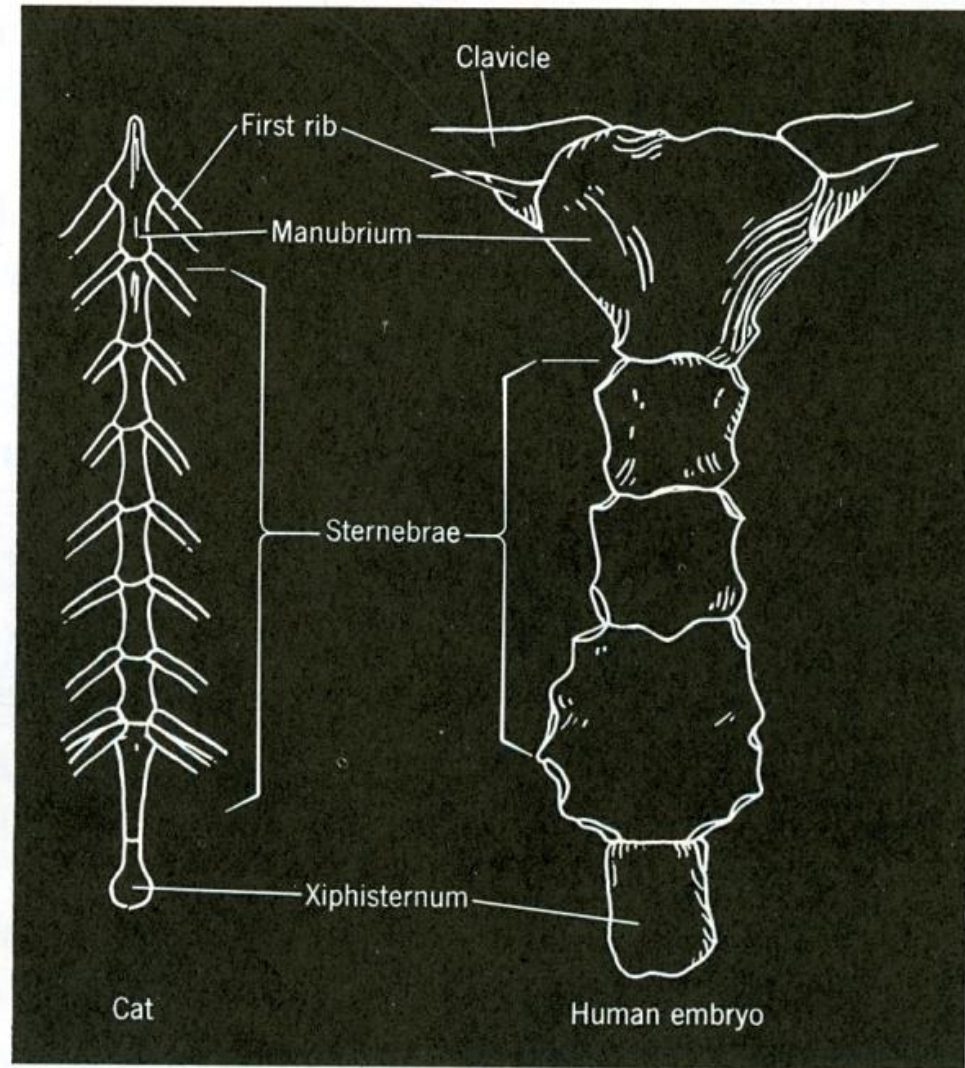
Şekil 5 - 16. Tetrapodlarda sternum ve ilişkili yapılar . Iguana'nın episternum (interklavikula)' u sternum' un bir bölümü halinde değil.

Omurgalı gruplarda göğüs kemiği



Kurbağalarda Göğüs kemiği

Figure 31. Mammalian sterna.



Kedi ve İnsanda göğüs kemiği

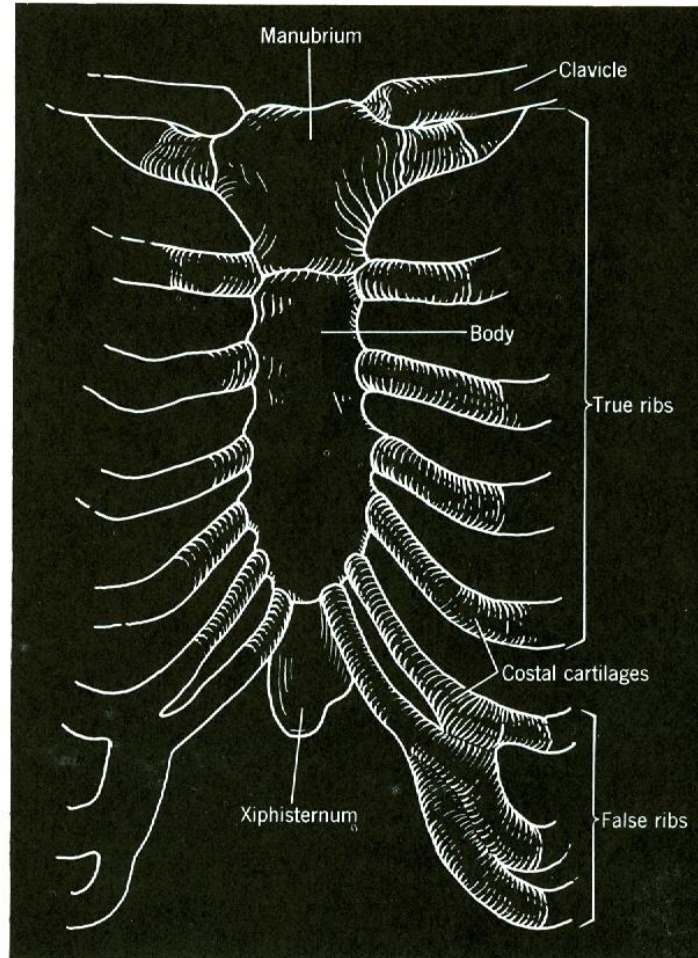


Figure 26. Sternum and rib attachments of man, with costal cartilages shaded.

Göğüs kemiğine kaburgaların bağlanması (İnsan)