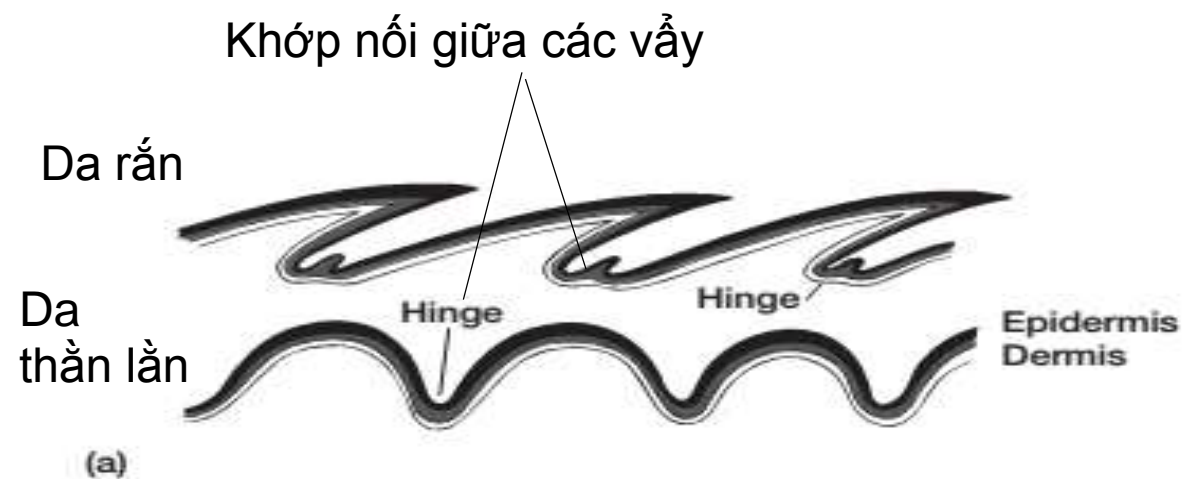


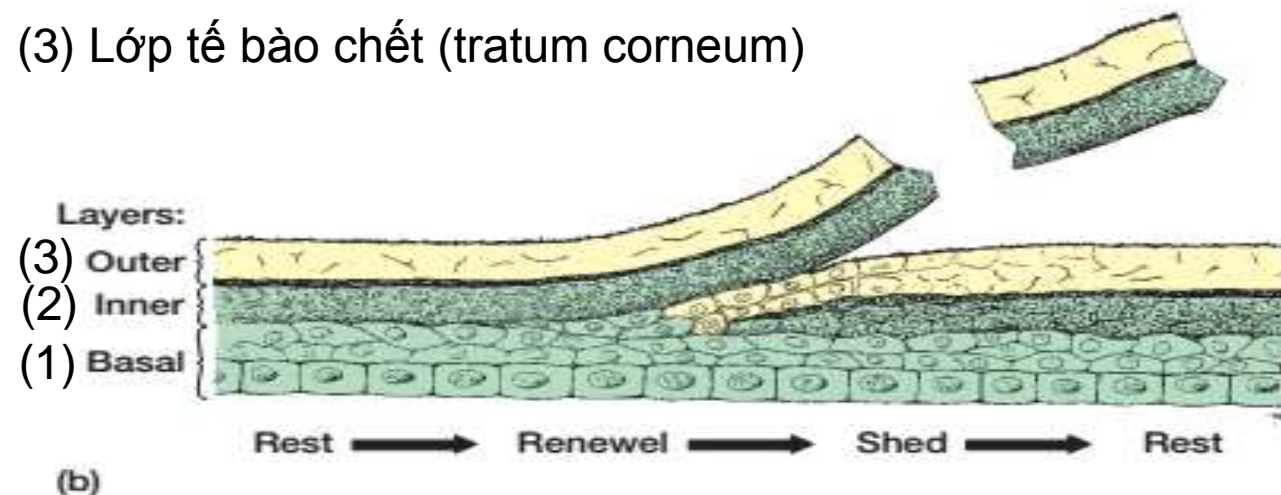
REPTILIA



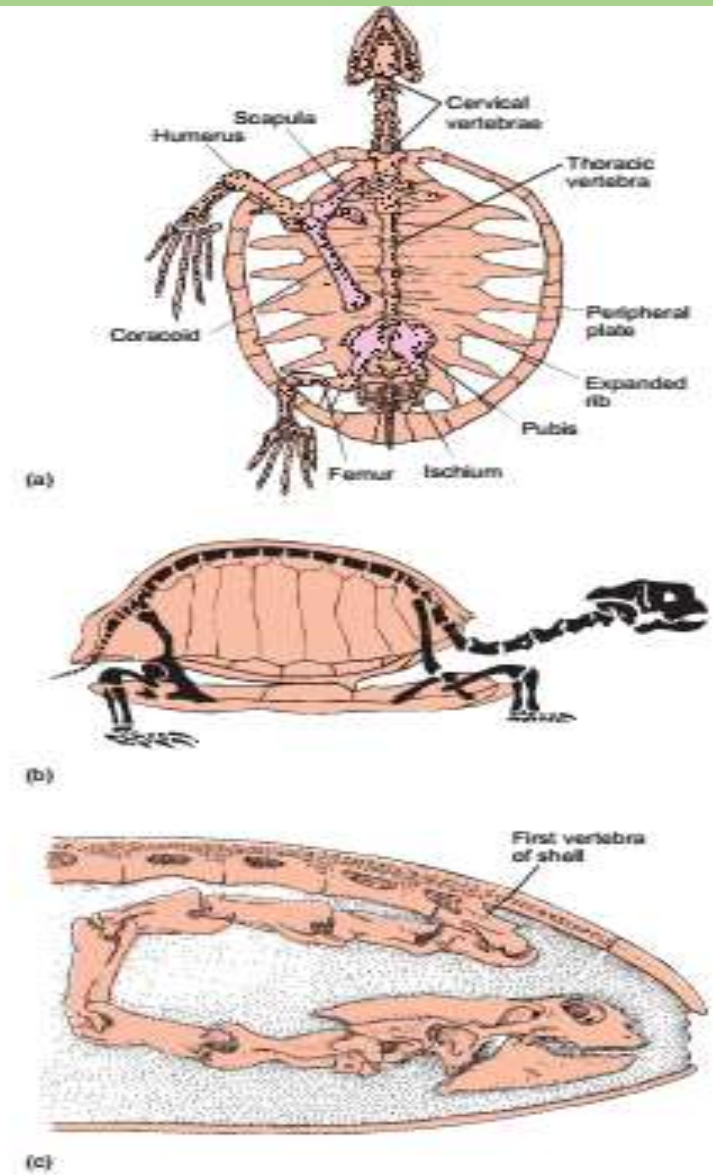
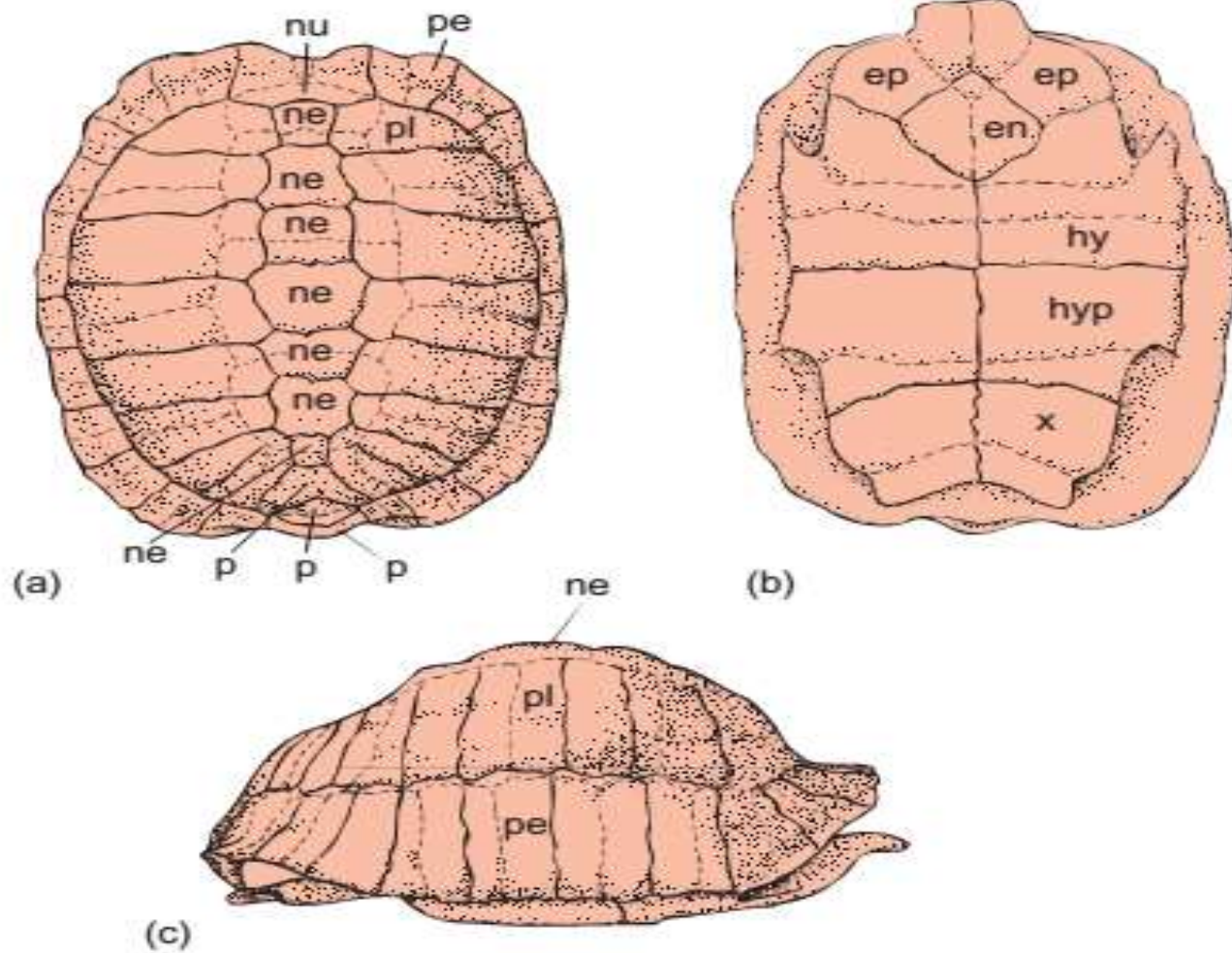
BIỂU BÌ



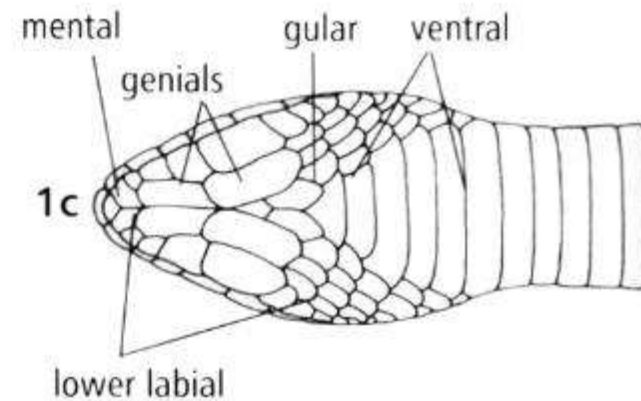
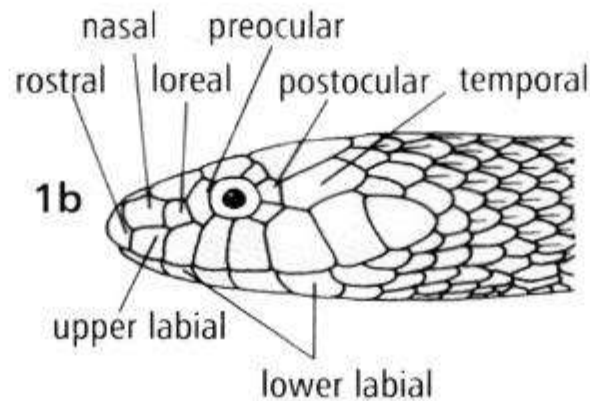
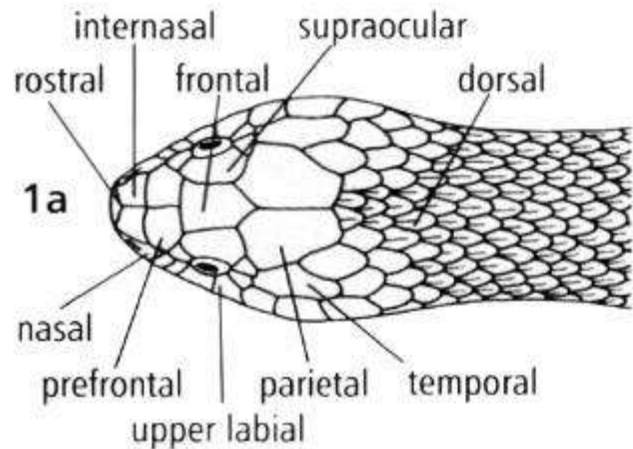
- (1) Lớp tế bào gốc (stratum basale),
- (2) Lớp tế bào hóa sừng (stratum granulosum)
- (3) Lớp tế bào chết (stratum corneum)



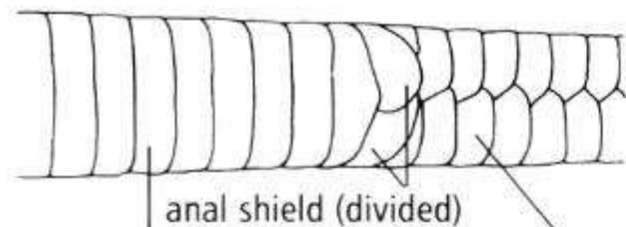
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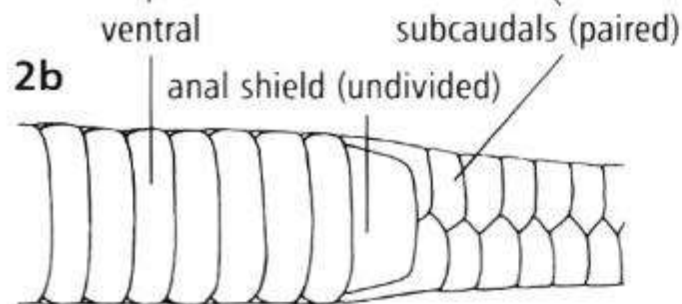
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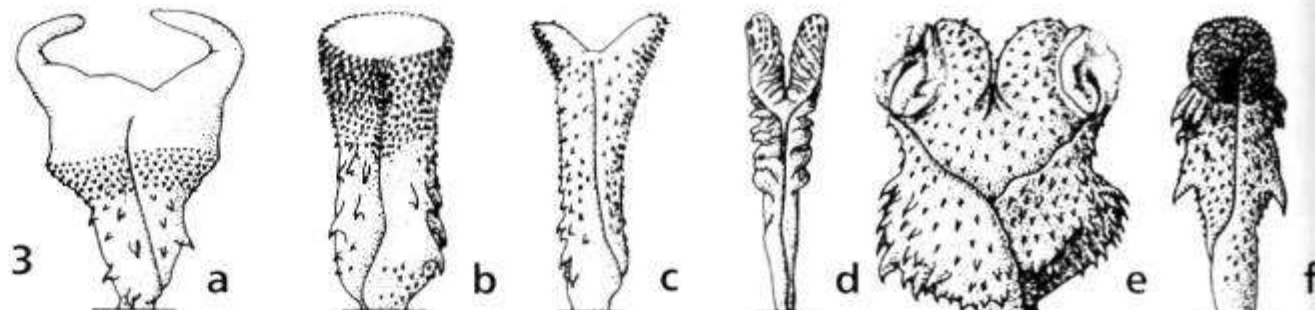
2a



2b

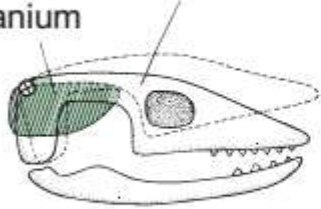


1 Above, left and below Scales and hemipenes: **1** The typical arrangement of scales on an advanced snake's head and upper body **a** from above, **b** from the side, **c** from below; **2** Anal and tail scutes of an advanced snake; **3** Single hemipenis, **a** with apical awns, **b** with spines and calices, **c** with spines only, **d** with flounces, **e** with apical disks, **f** with capitations.

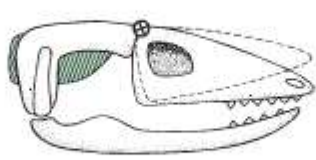


HOẠT ĐỘNG CÁC CẤU TRÚC SỌ

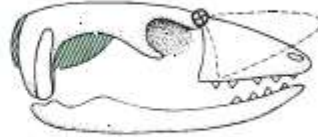
Neurocranium
Dermatocranium



(a) Metakinesis

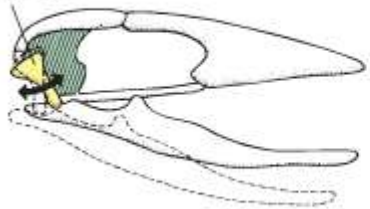


Mesokinesis

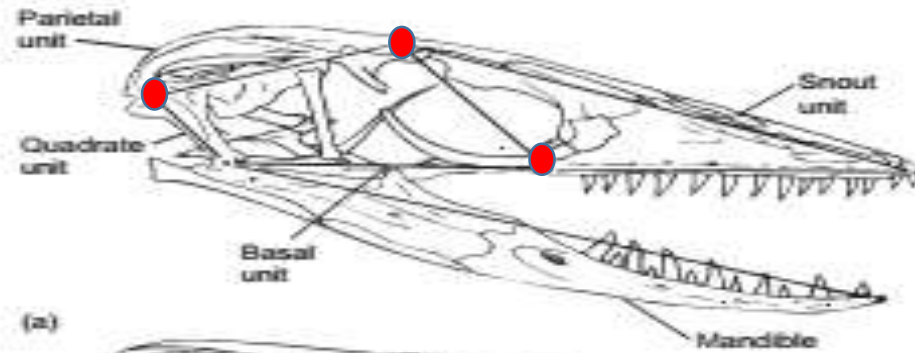


Prokinesis

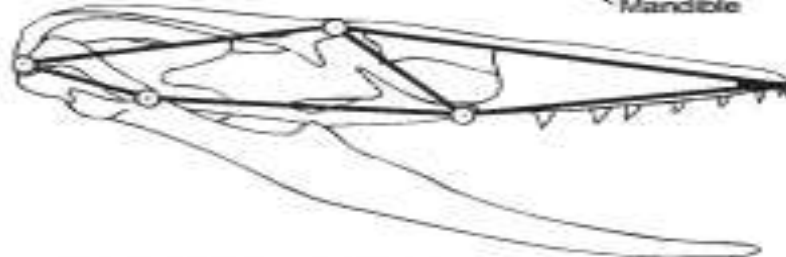
Quadrate



(b) Streptostyly

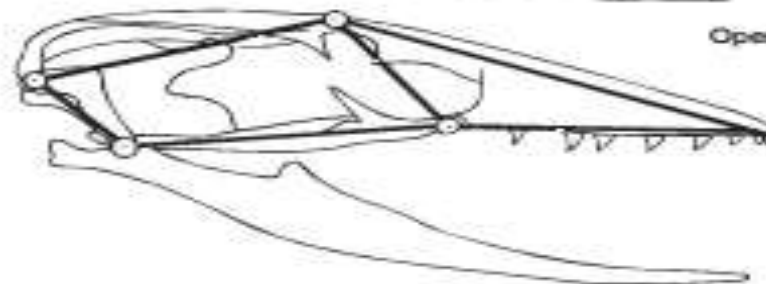


(a)

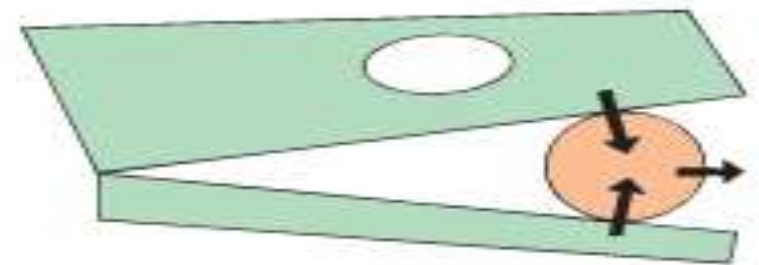
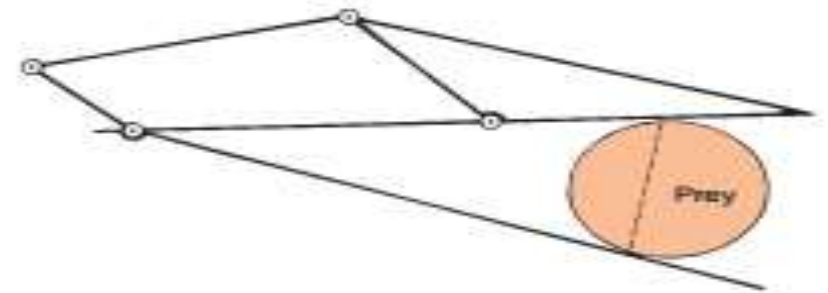


Opening

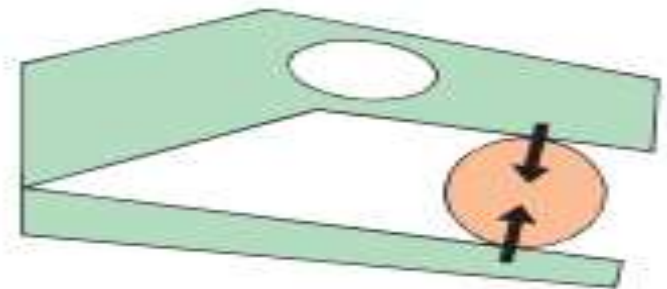
(b)



Closing



(c)



HOẠT ĐỘNG CÁC CẤU TRÚC SỌ

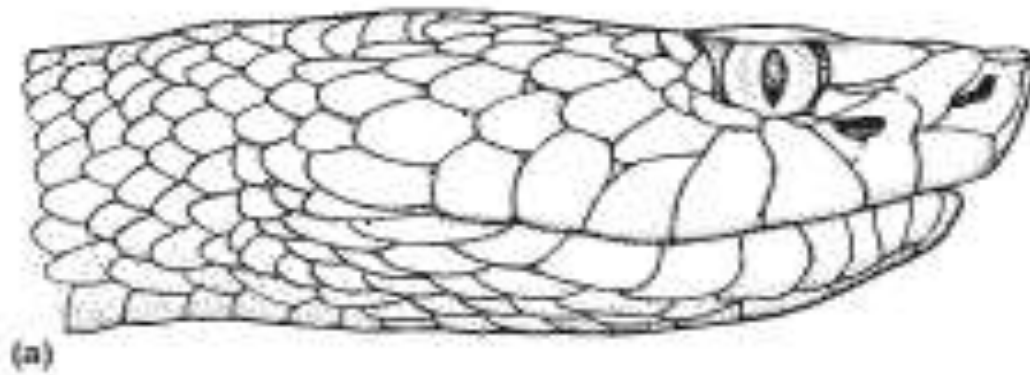
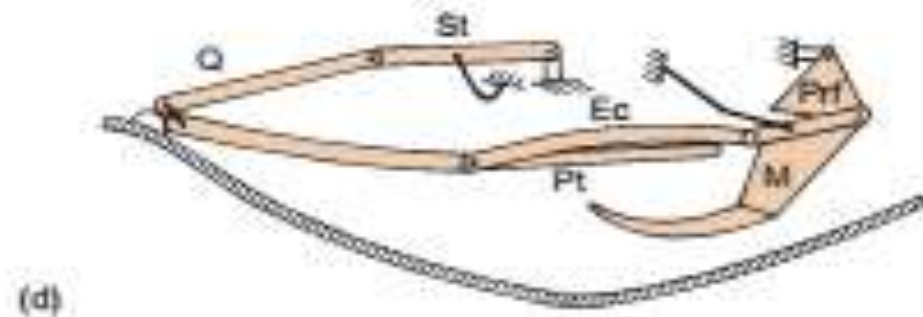
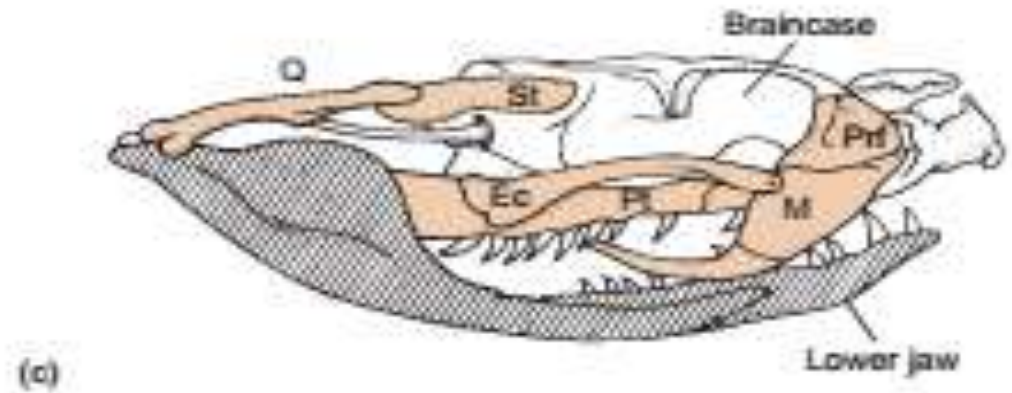
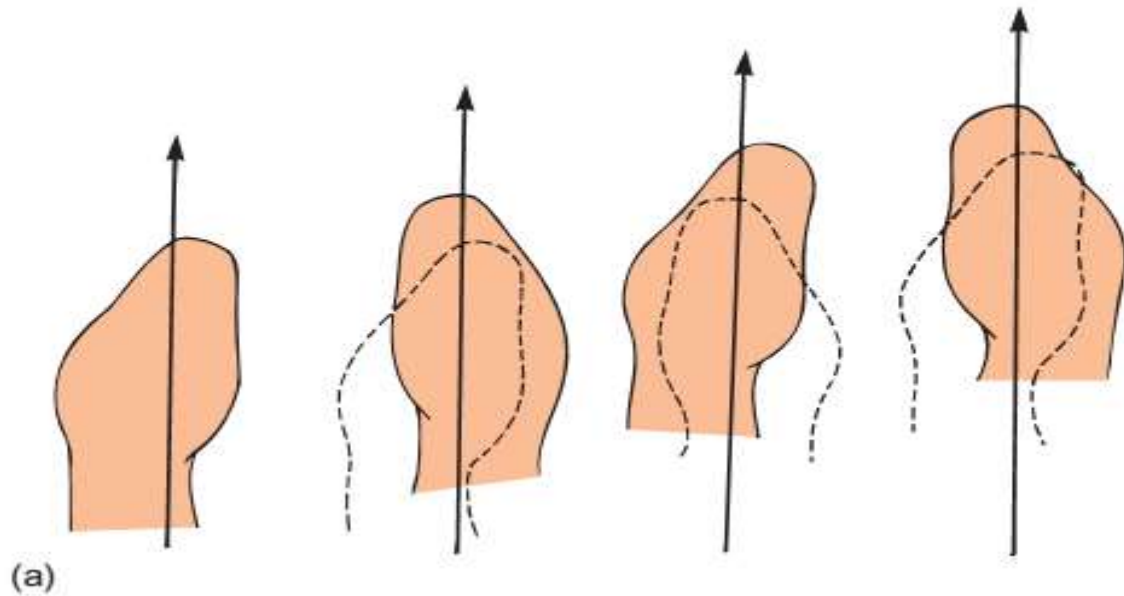


FIGURE 7.43 Kinematic model of movable skull bones in a venomous snake, the water moccasin. Whole head (a) with successive removal of skin and muscles (b) reveals bones of the skull (c). Linkage bones movable relative to the braincase are in color; lower jaw is crosshatched. (d) Biomechanical model of movable bones rotatable about pin connections. Movable bones include the ectopterygoid (Ec), maxilla (M), pterygoid (Pt), prefrontal (Prf), quadrate (Q), supratemporal (St). Location of the main venom gland (Vg) is shown as well.

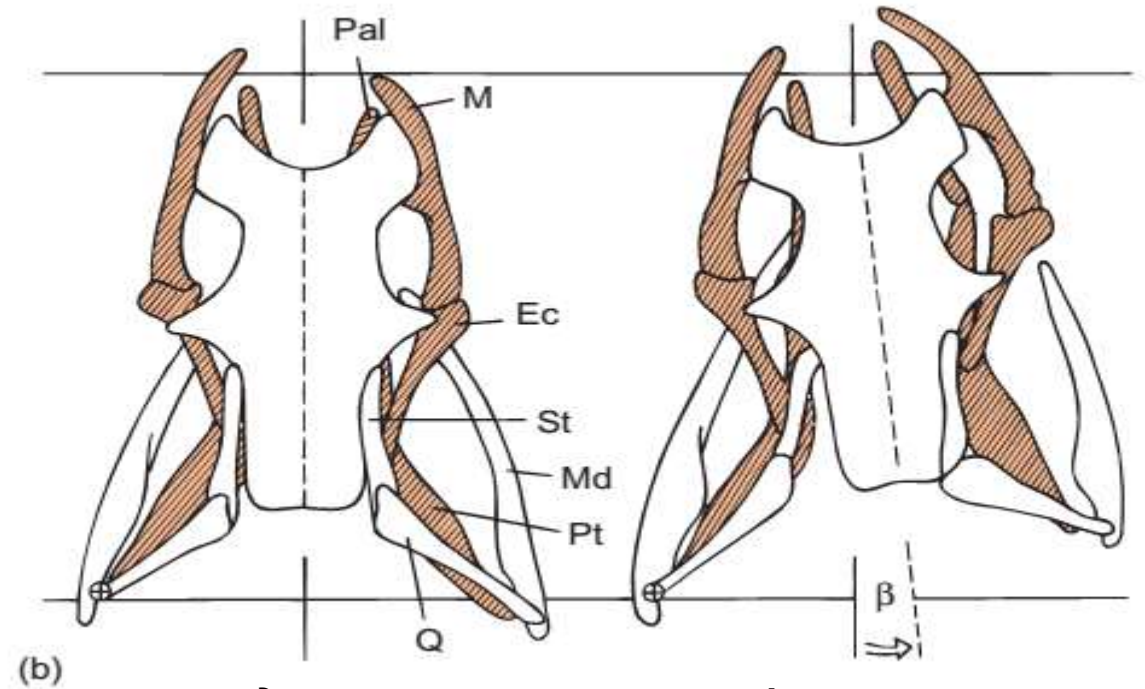
After Kordang.



HOẠT ĐỘNG NUỐT CON MỒI



Các chuyển động của đầu trong quá trình nuốt con mồi. Vị trí của đầu trước đó được thể hiện bằng nét đứt khoảng. Với các chuyển động lần lượt quay trái, quay phải, rắn từ từ cắn chặt hết con mồi theo hướng mũi tên, đẩy con mồi ra phía sau cổ họng để đi vào dạ dày.

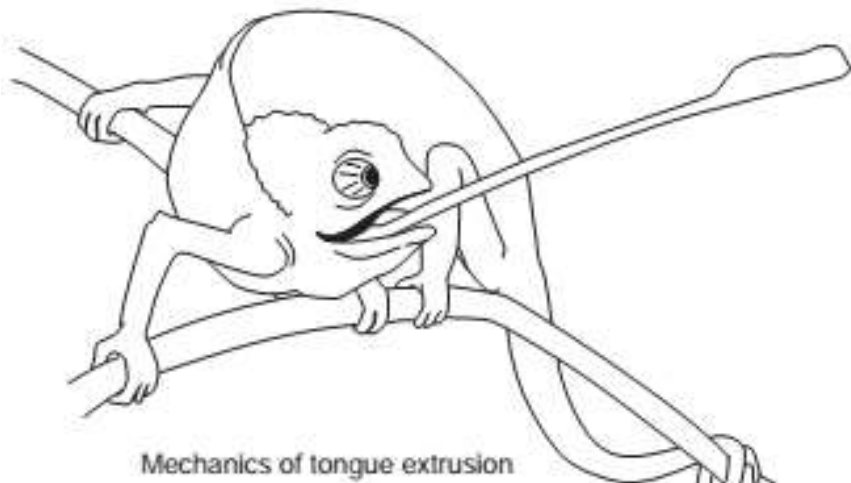


Di chuyển luân phiên của các cấu trúc sọ theo chuyển động lắc (trái, phải) của đầu để bám chặt vị trí mới của con mồi.

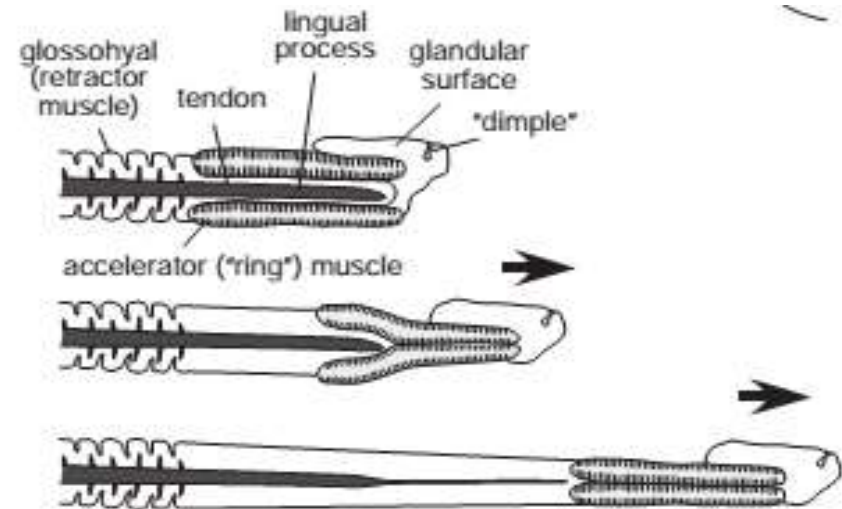
HOẠT ĐỘNG BẮT CON MỒI



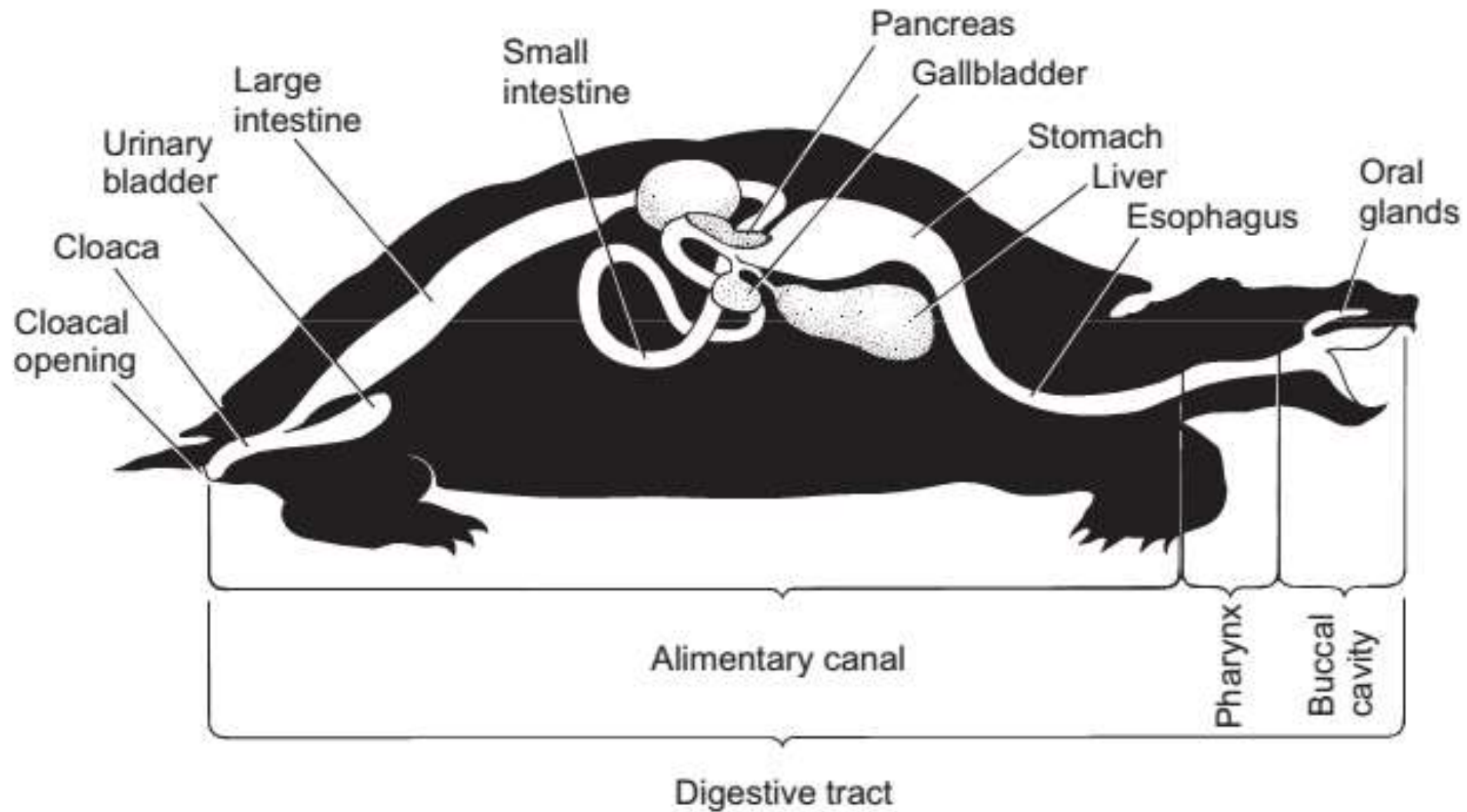
Chameleon



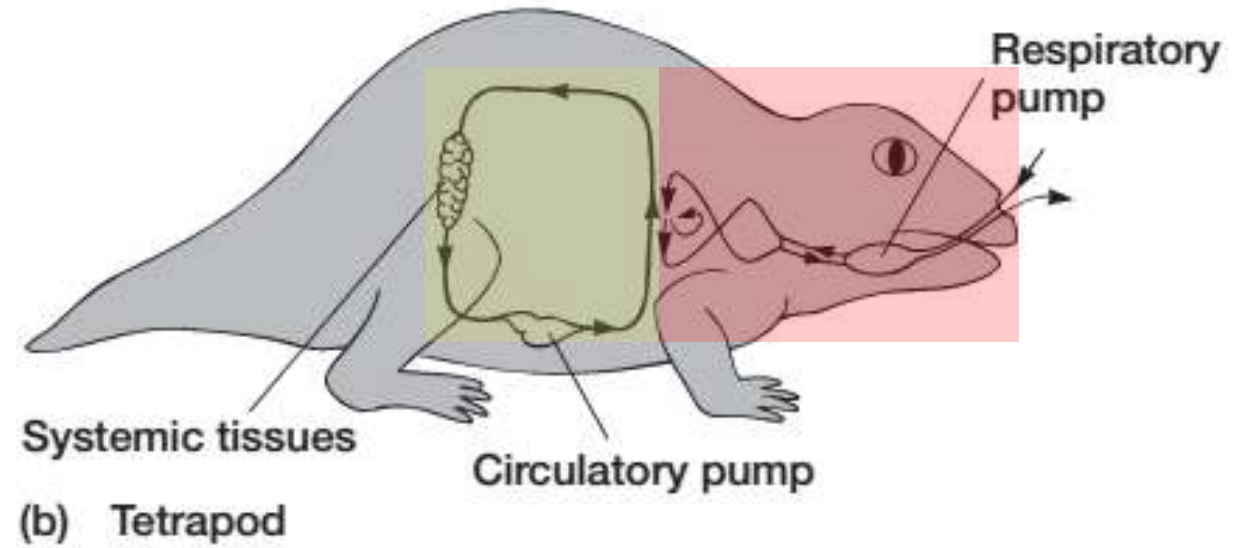
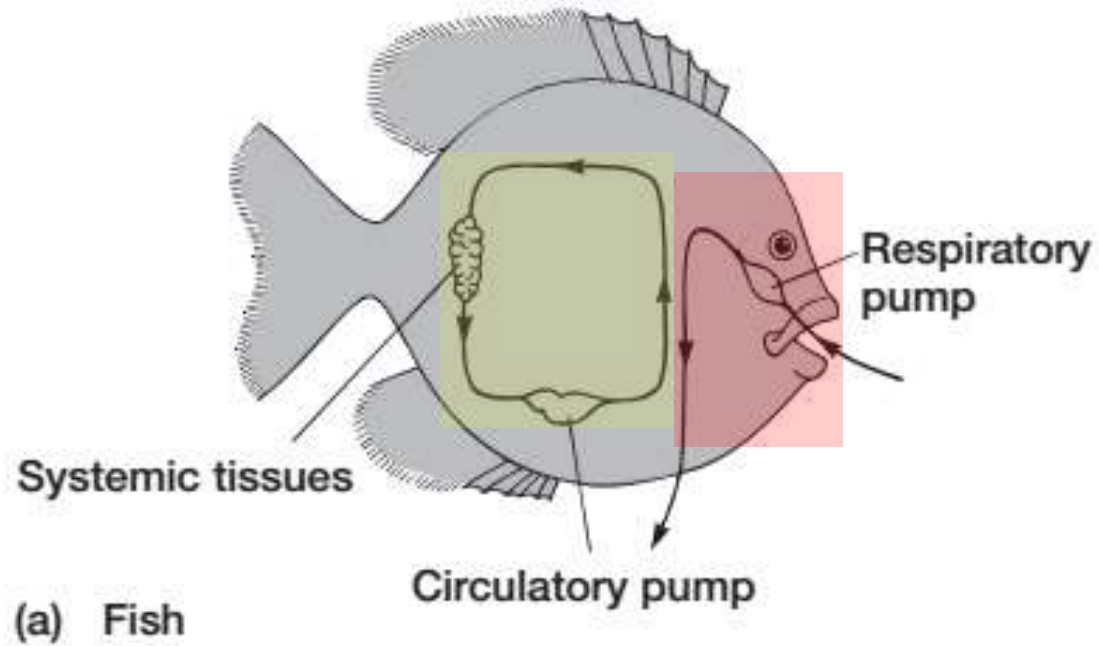
Mechanics of tongue extrusion



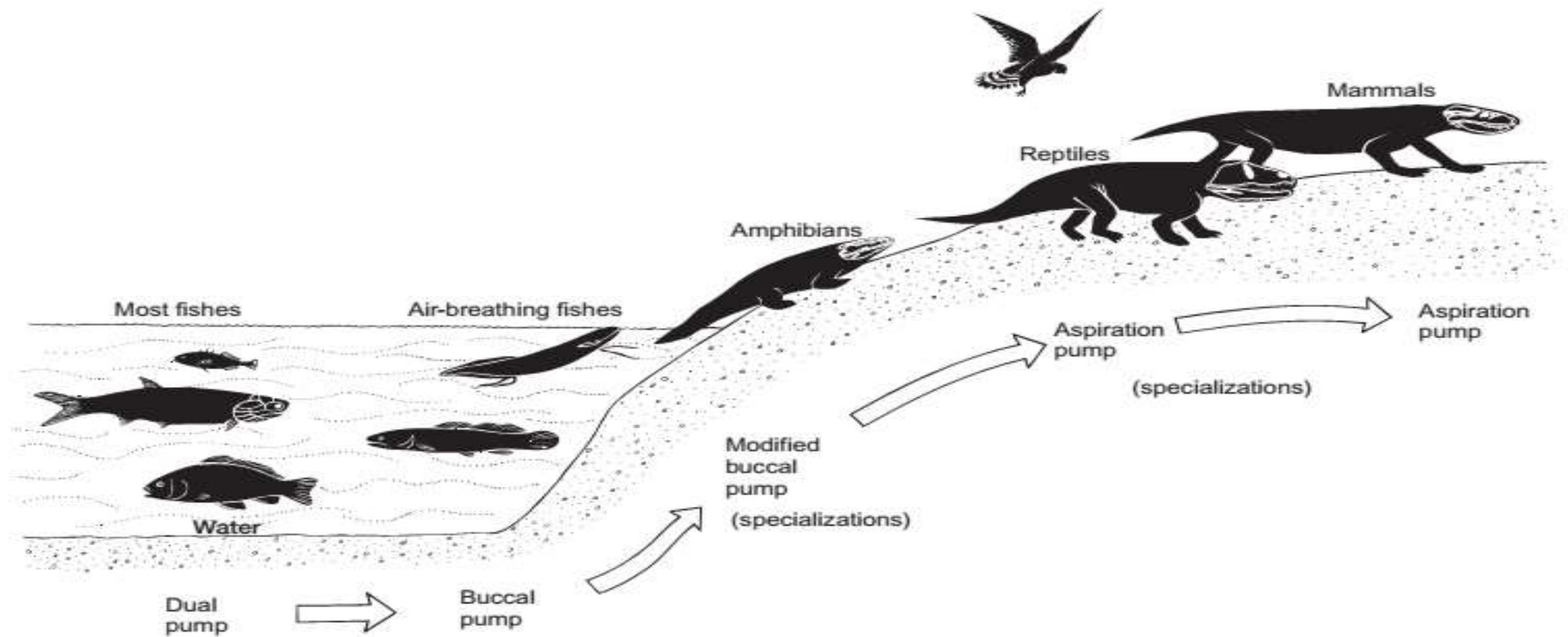
HỆ TIÊU HÓA



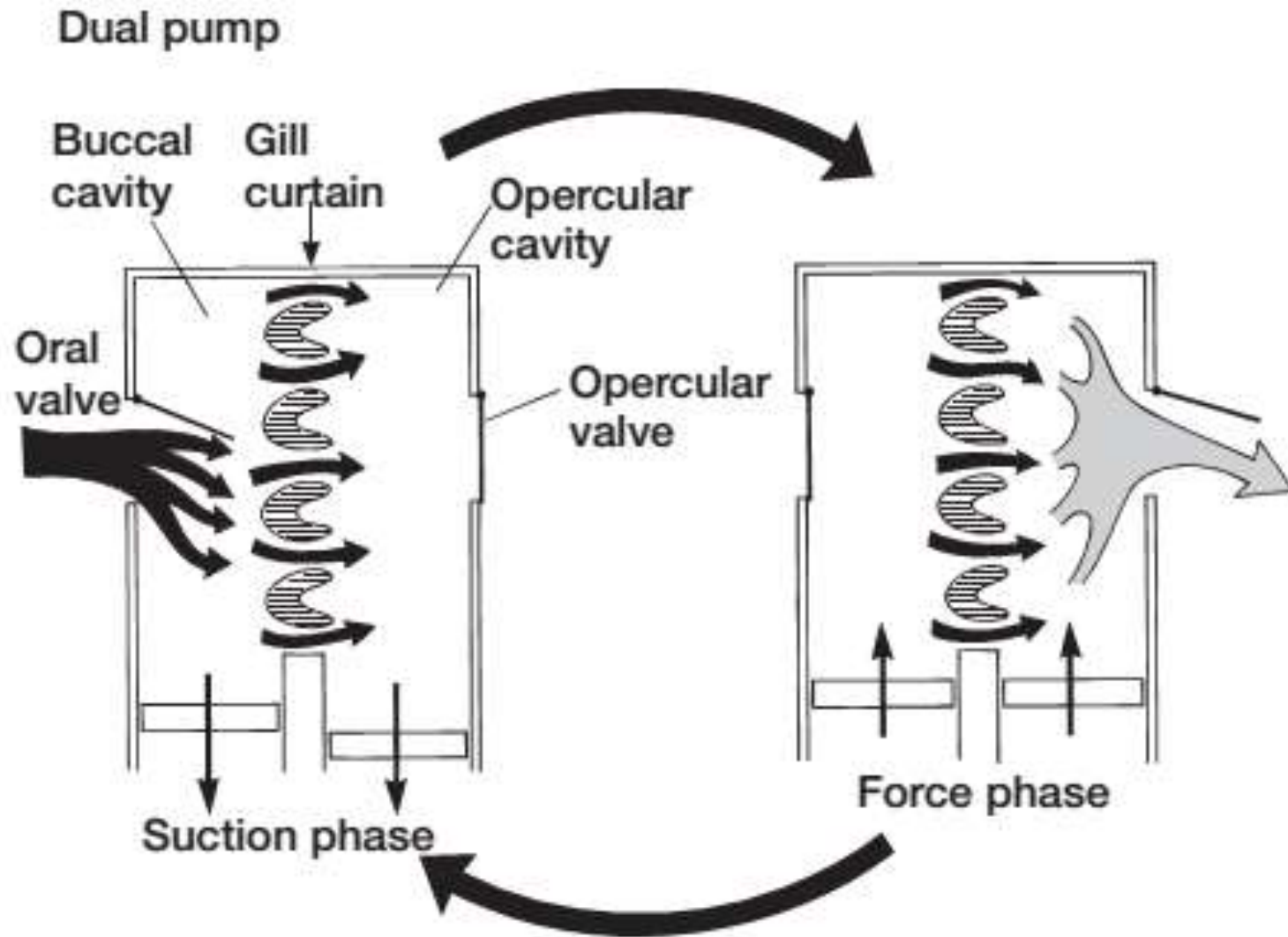
HÔ HẤP



HÔ HẤP



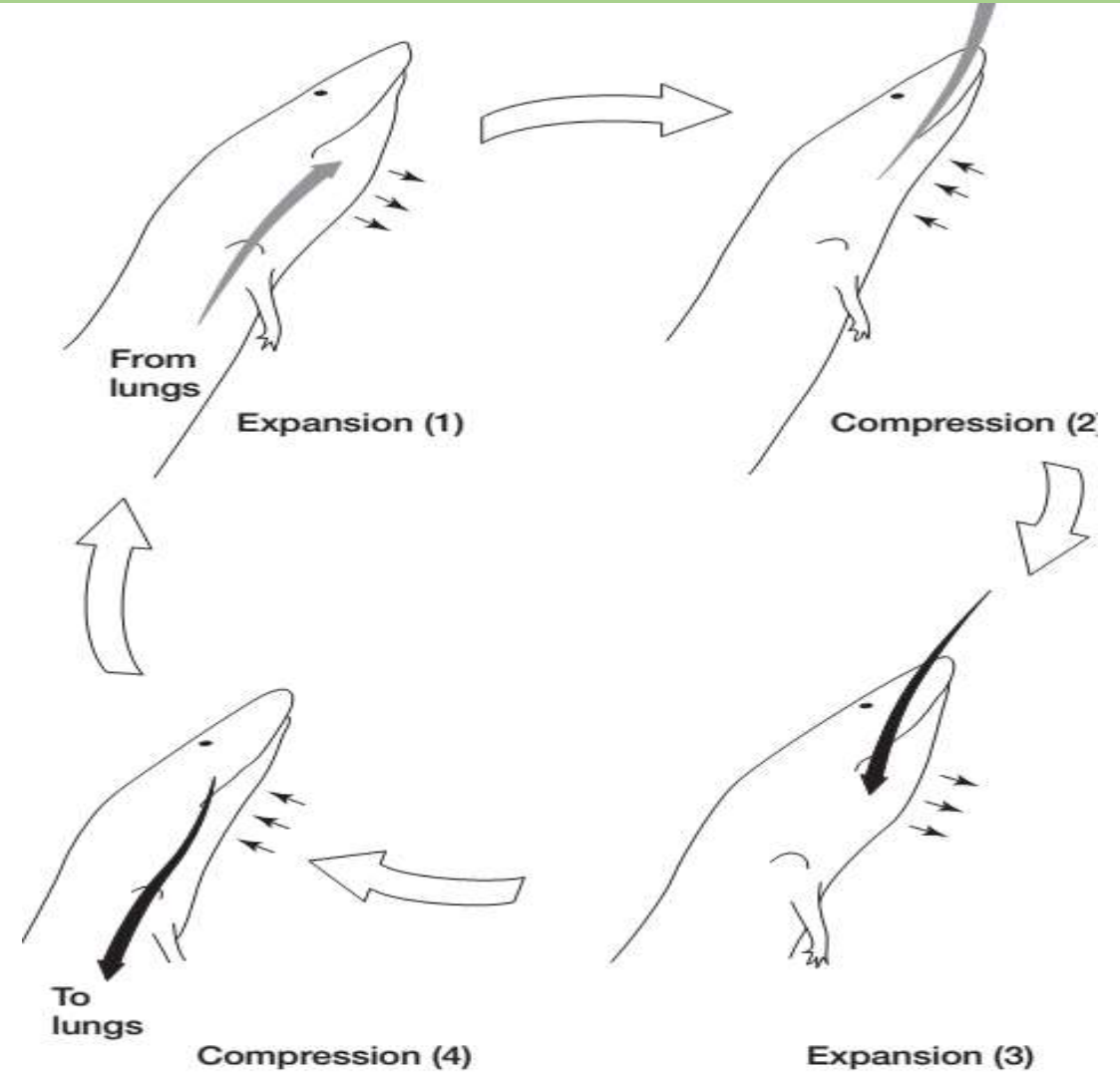
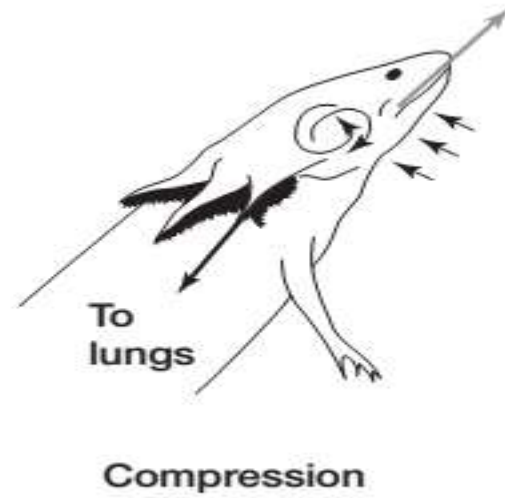
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HÔ HẤP

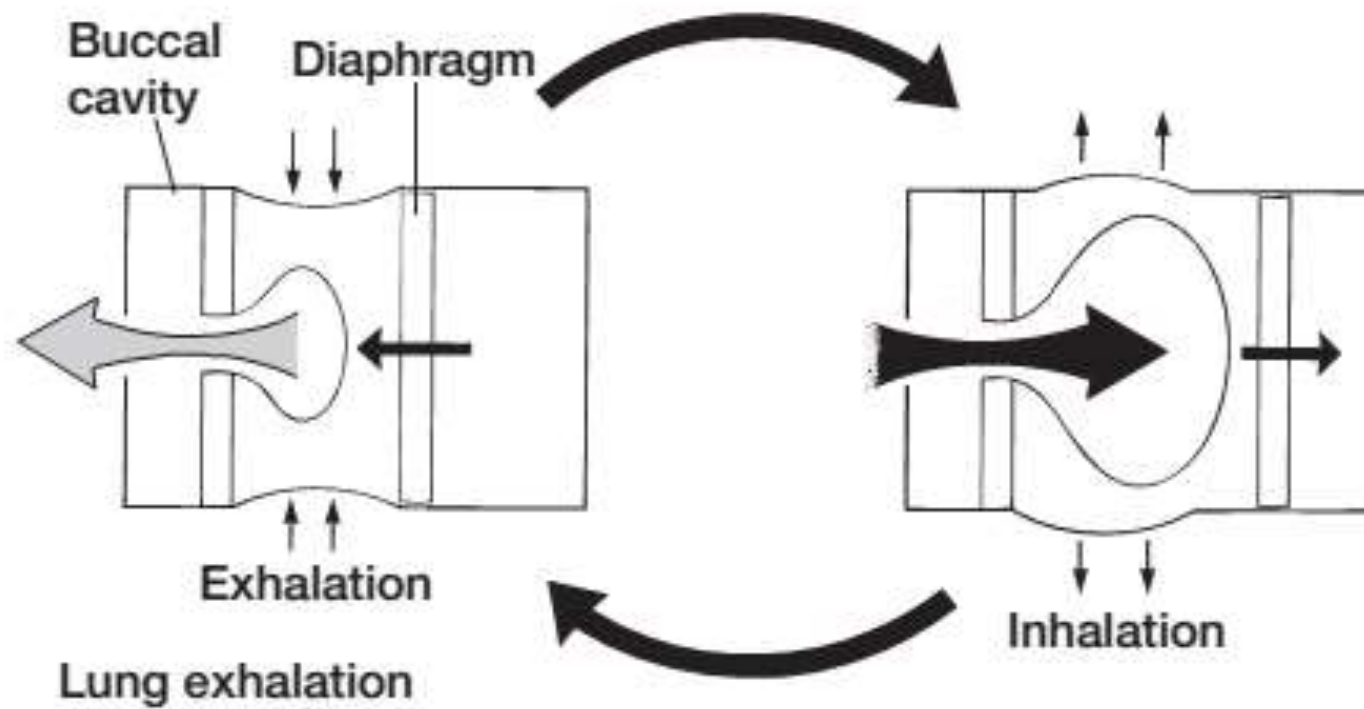


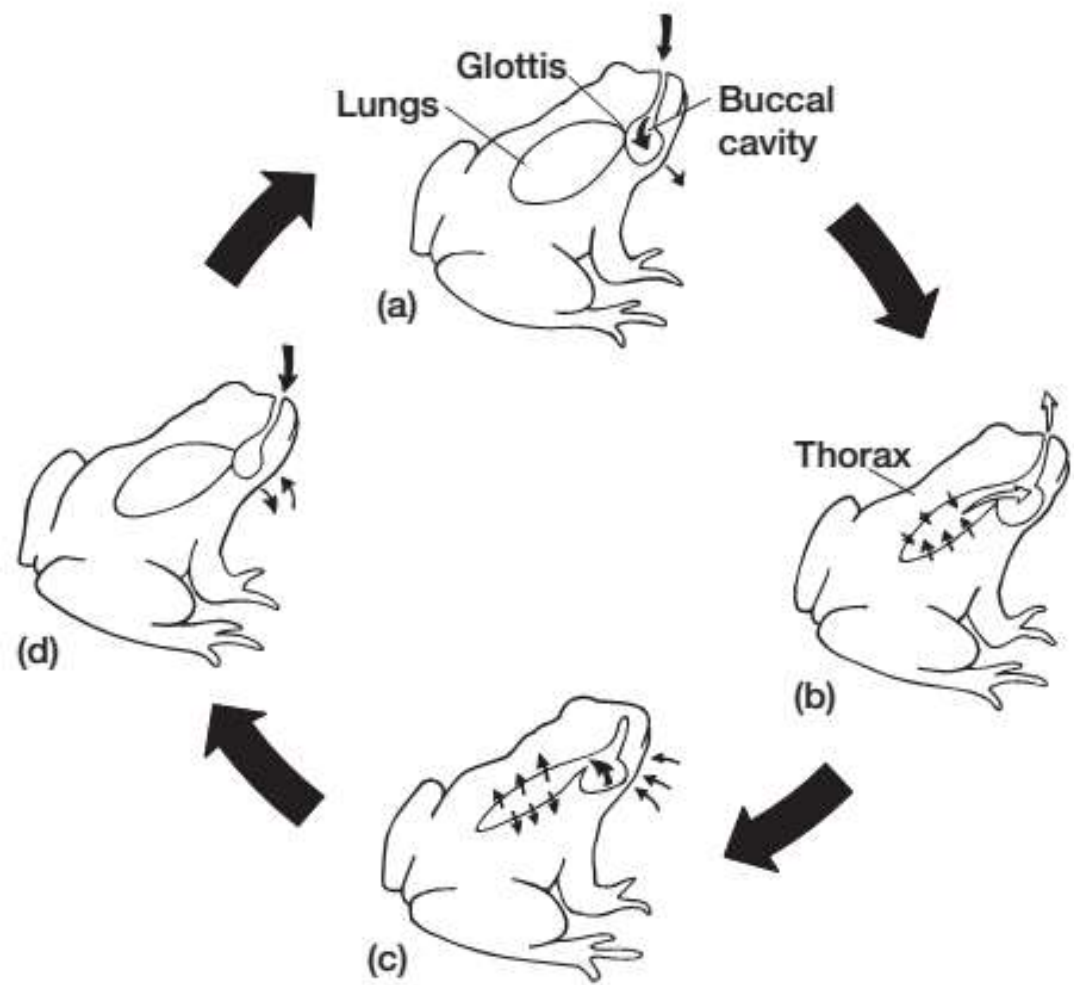
(a) **Two-stroke** (Buccal pump)



(b) **Four-stroke** (Buccal pump)

HÔ HẤP





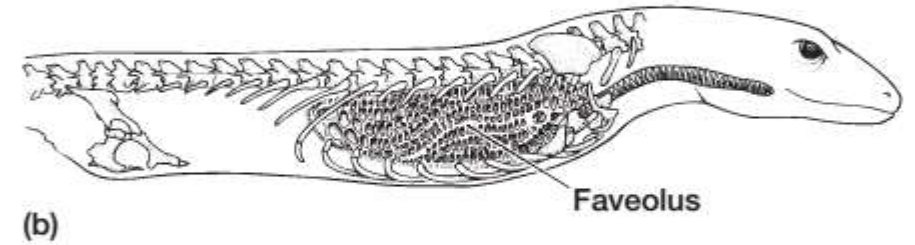
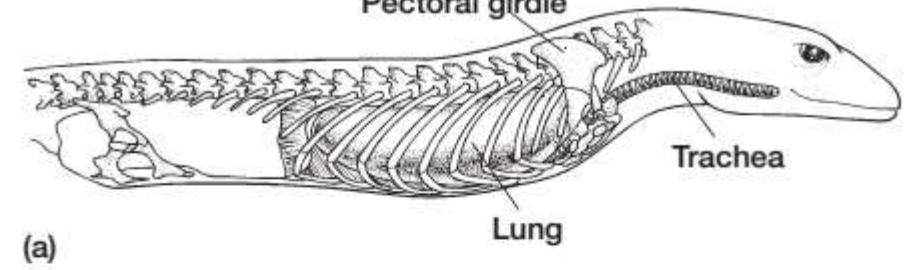
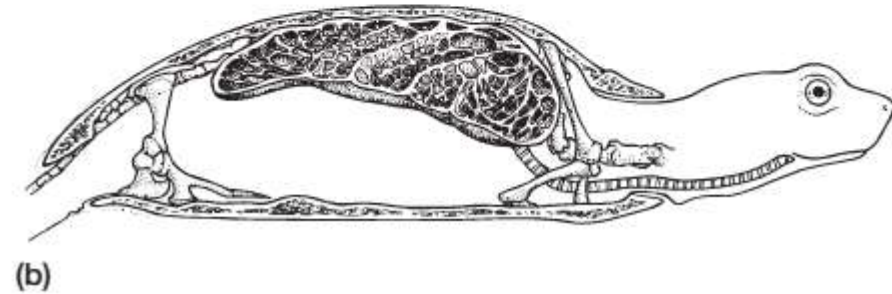
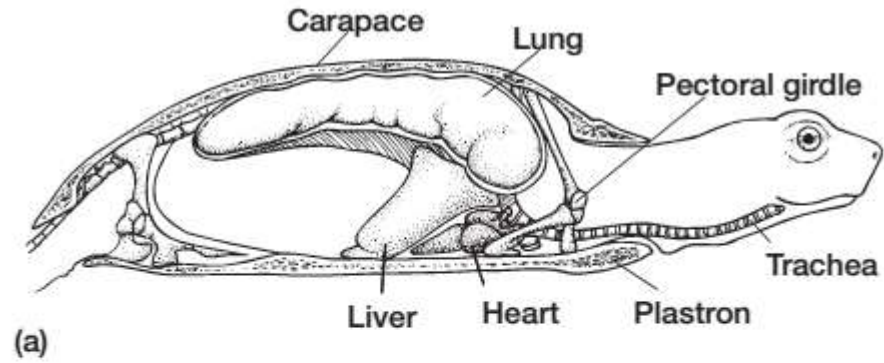
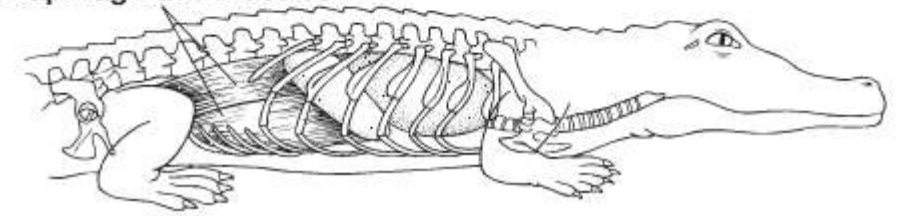
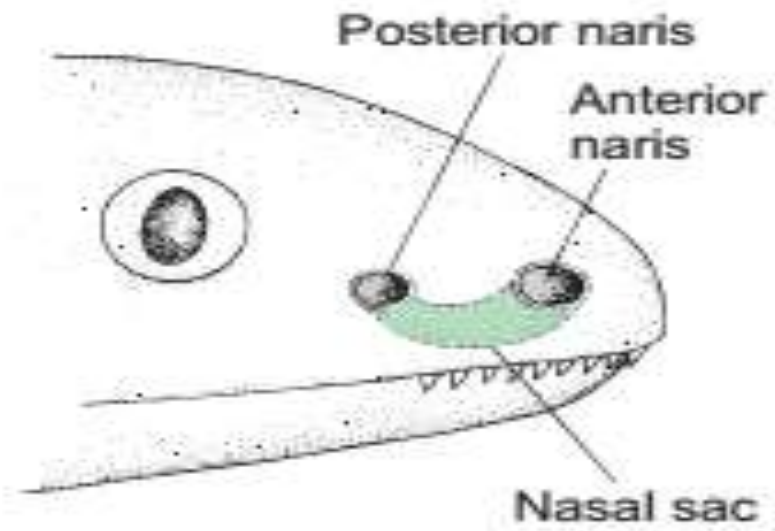


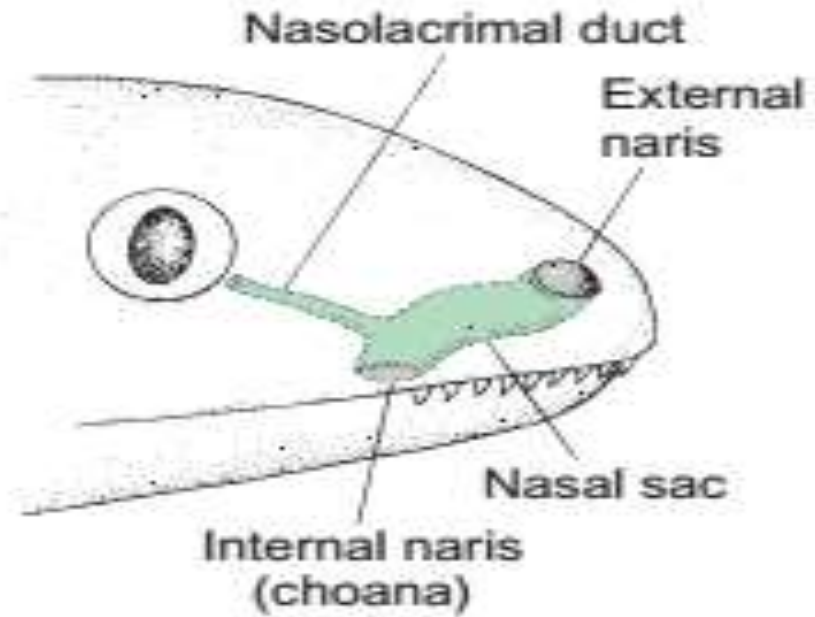
FIGURE 11.26 Lung ventilation in a lizard. (a) The lungs are located in the thorax, surrounded by ribs and connected to the trachea. Compression and expansion of the rib cage force air in or out of the lungs. (b) Cutaway view of the internal lining of the lungs showing numerous faveoli that collectively give the lining a honeycomb appearance. The internal faveoli of the lungs increase their respiratory surface area and function in gas exchange with capillaries lining their walls.



CÂN BẰNG NƯỚC

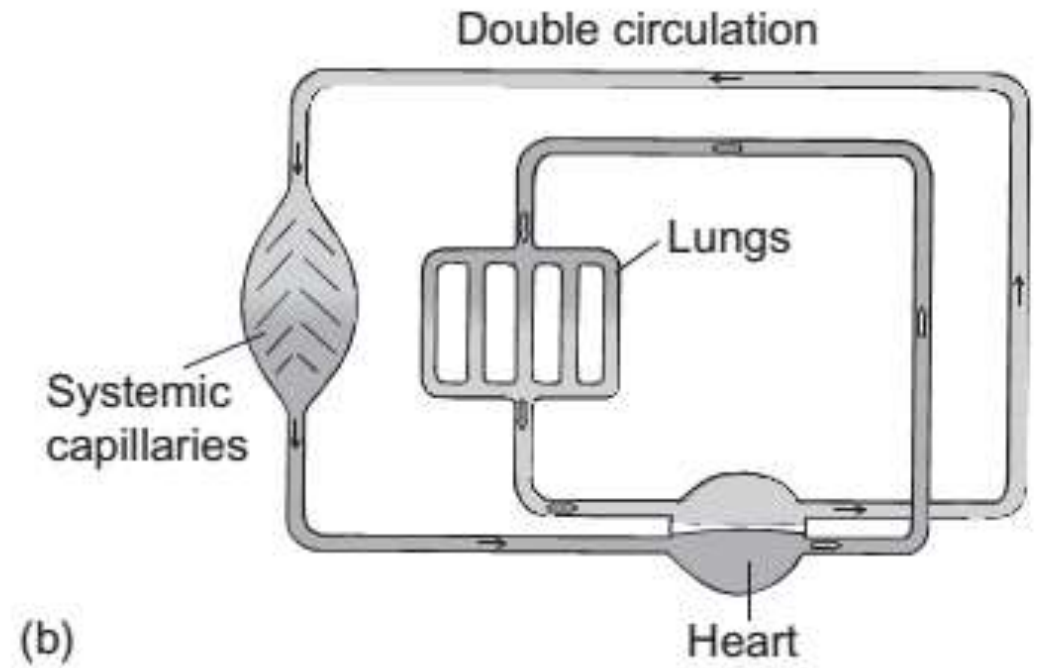
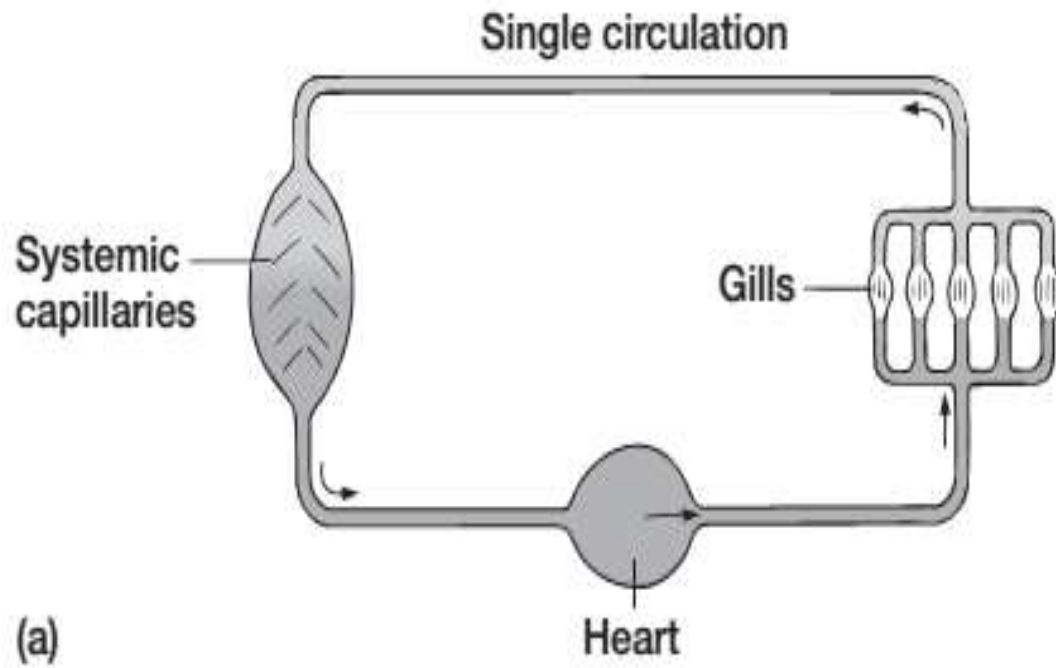


(a) Fish

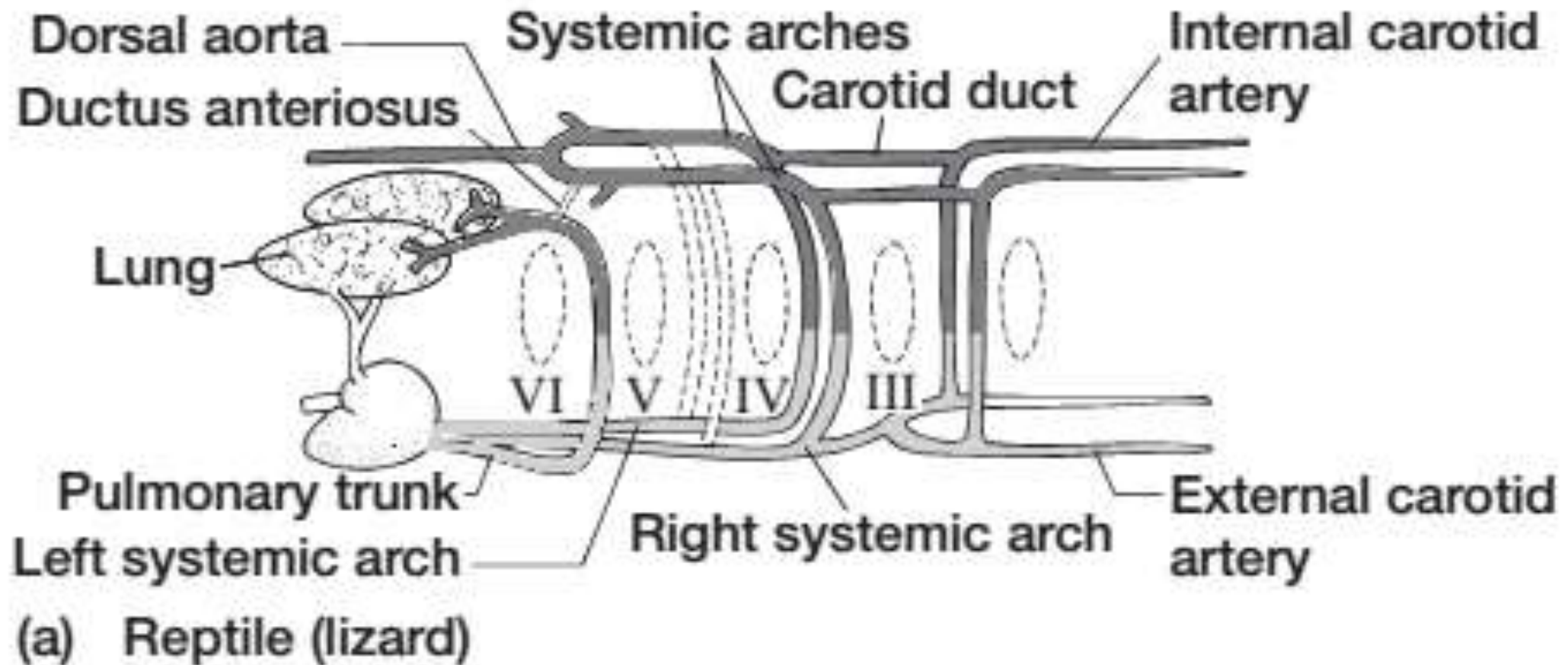


(b) Tetrapod

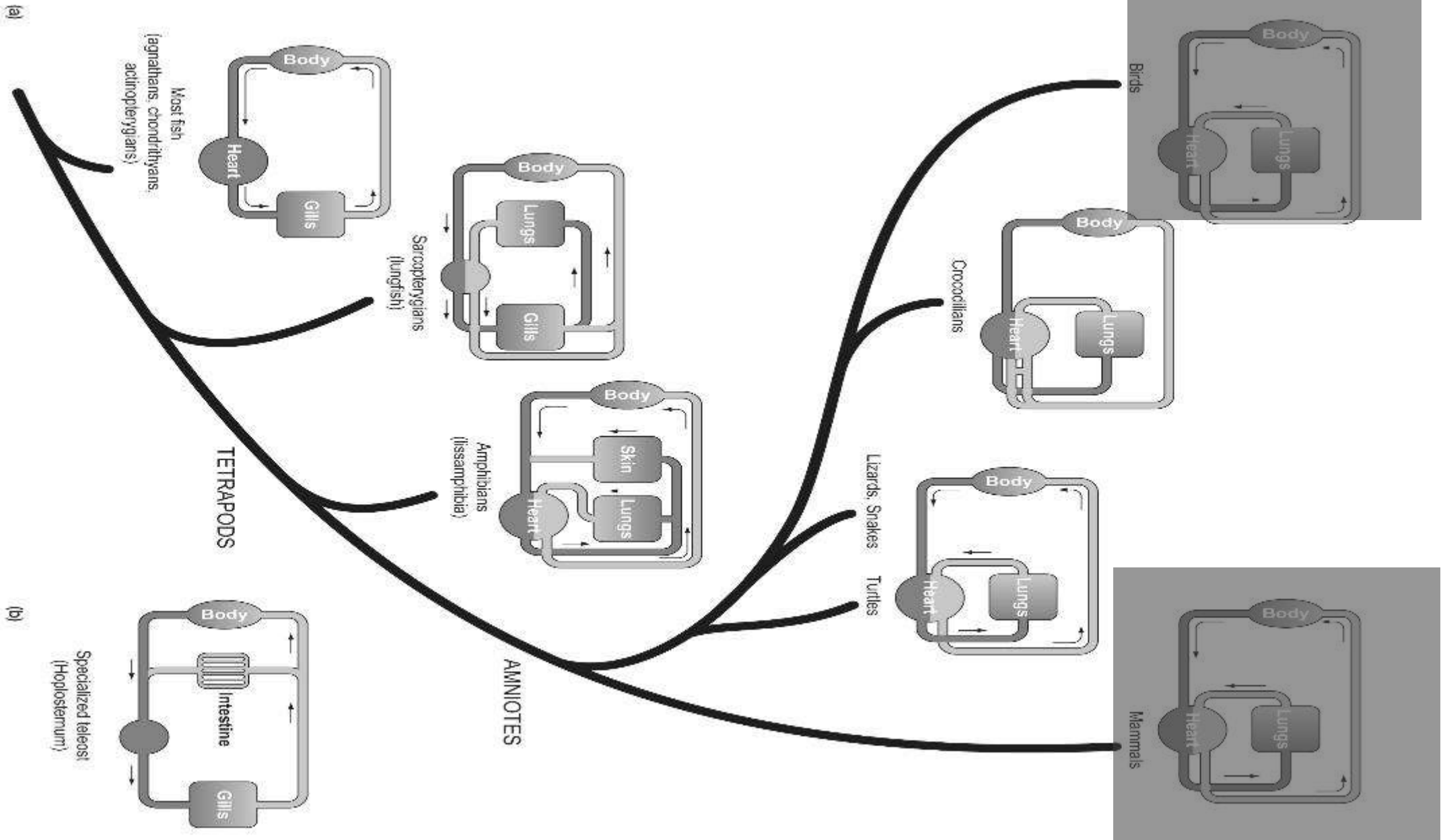
HỆ TUẦN HOÀN



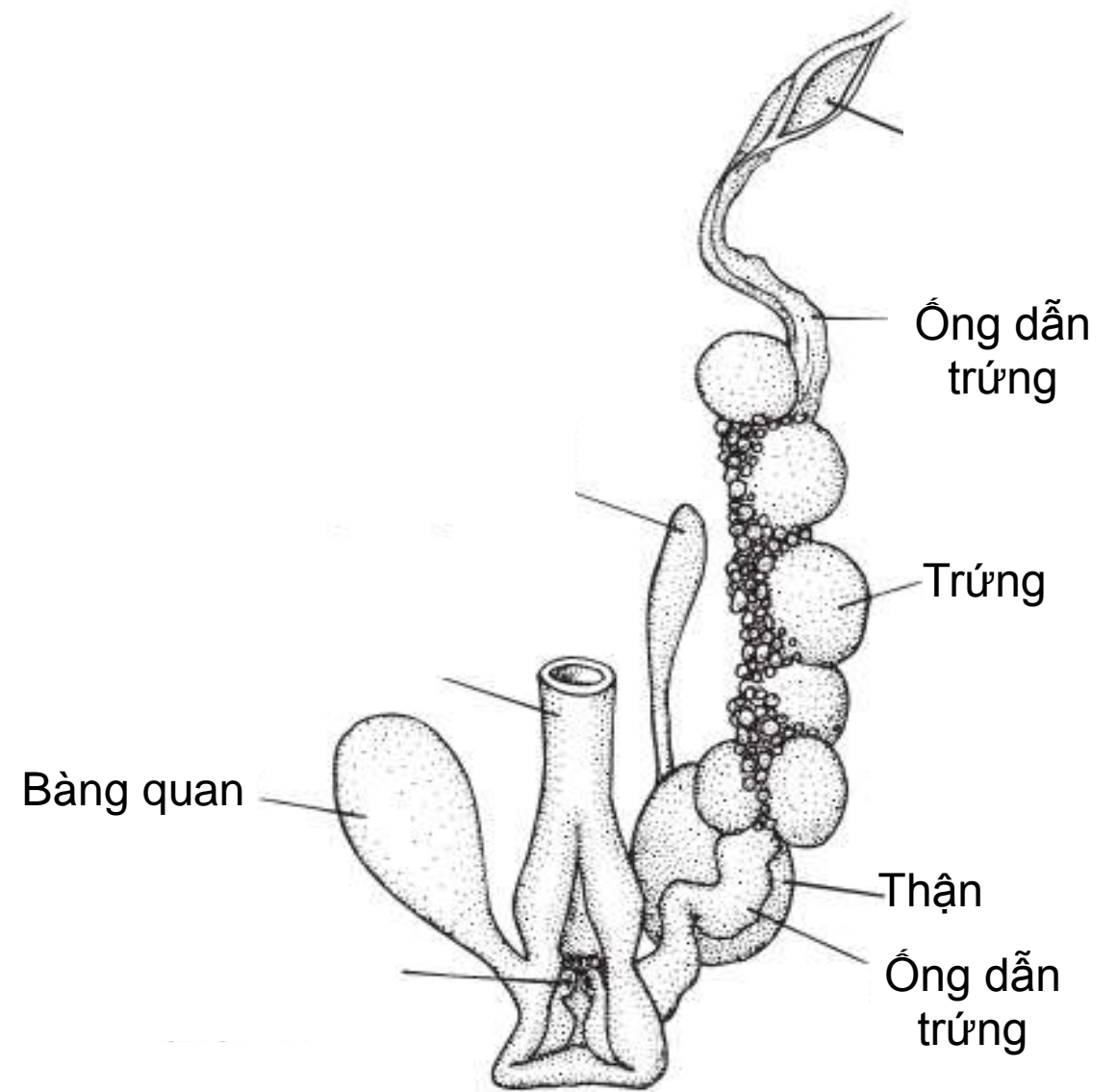
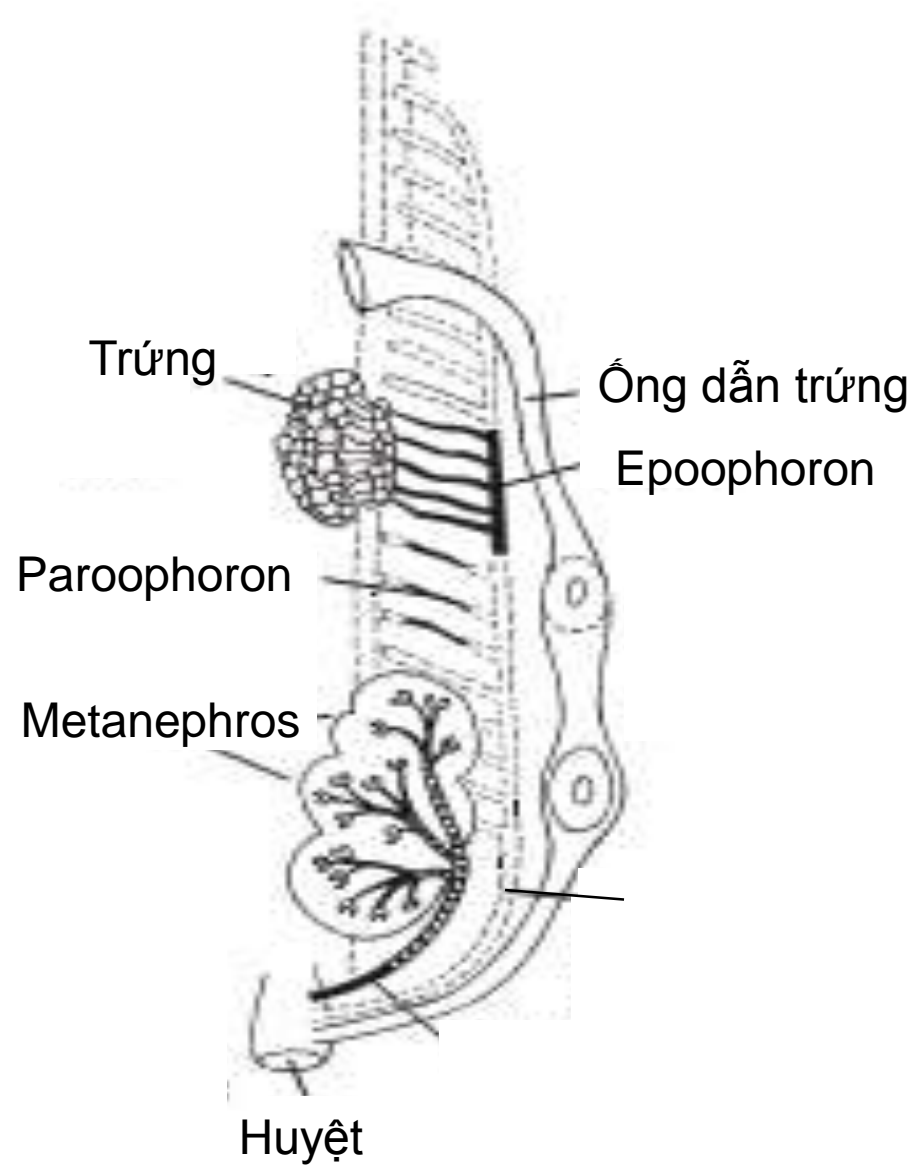
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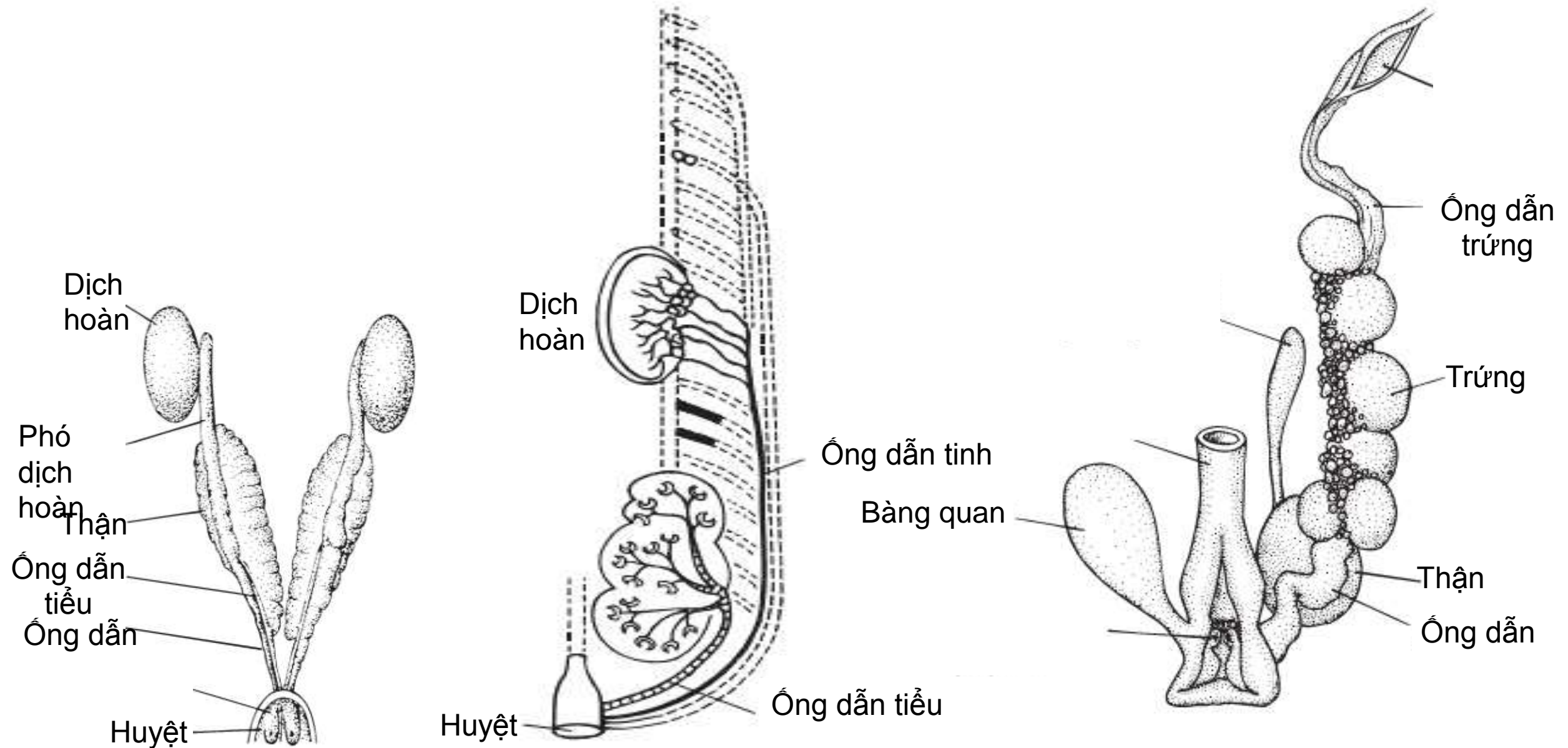
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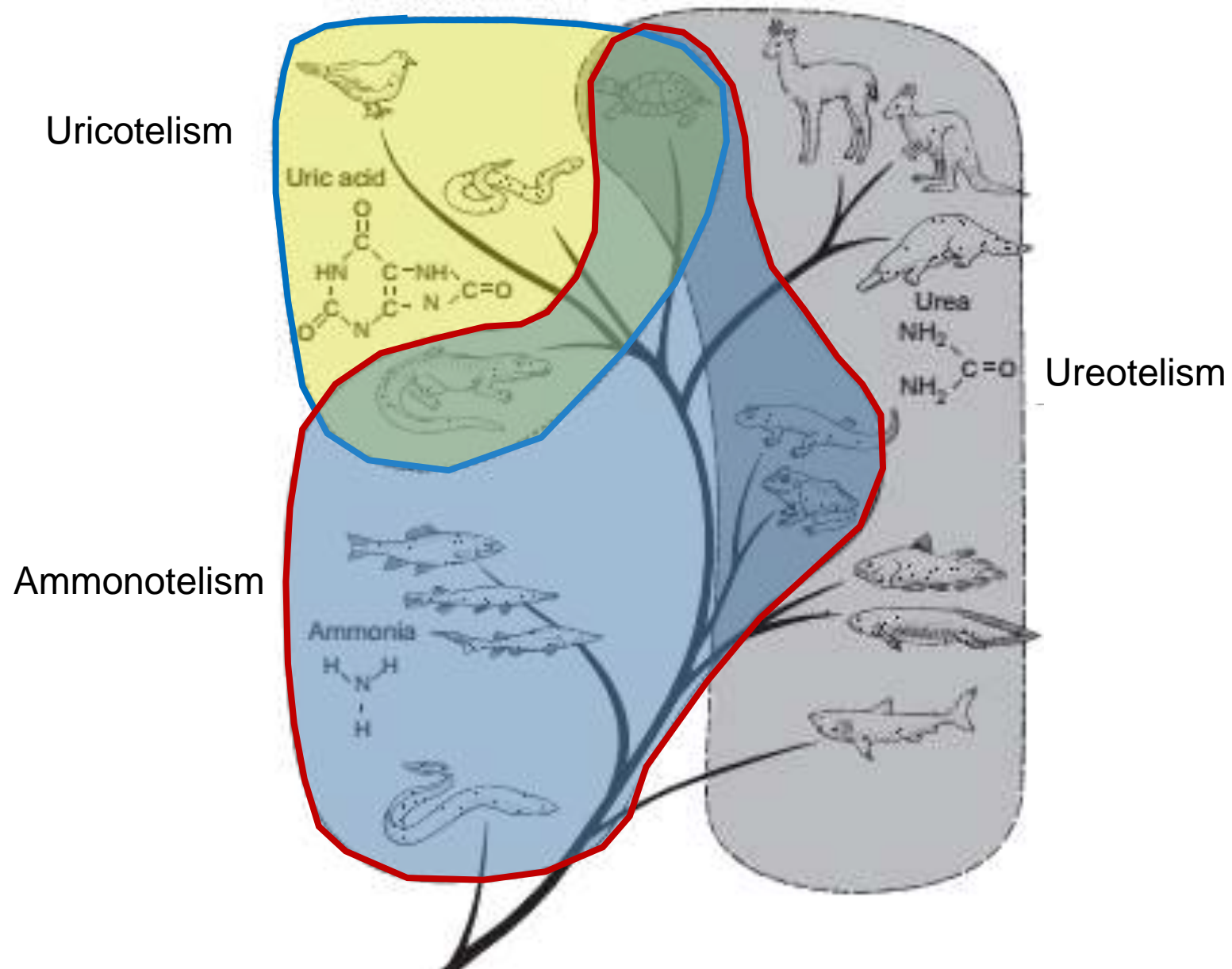
HỆ SINH DỤC



HỆ BÀI TIẾT



HỆ BÀI TIẾT



CÂN BẰNG NƯỚC

Nước lỏng

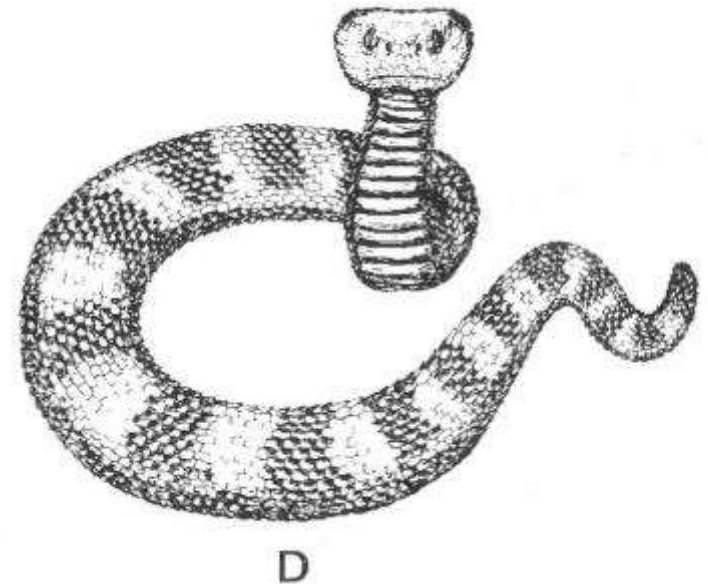
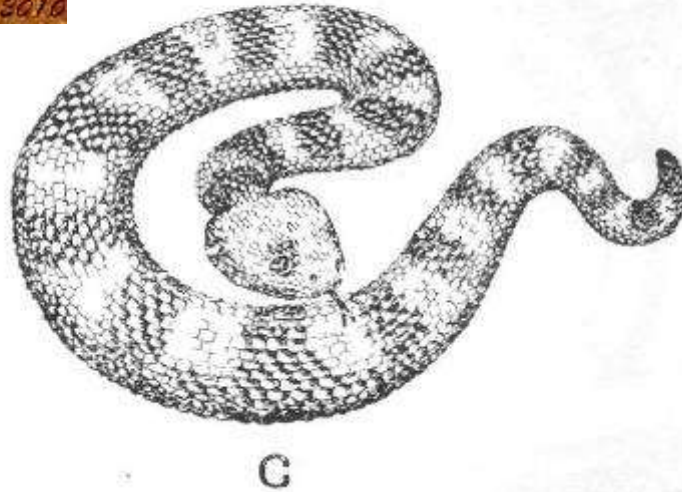
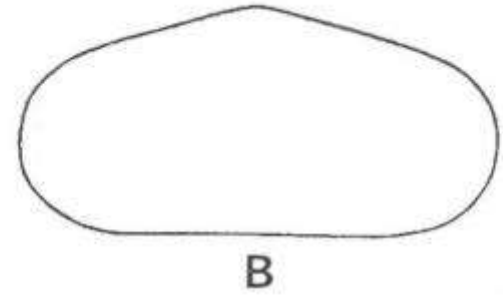
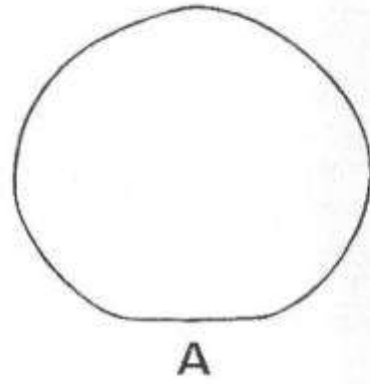


Nước



Nước

CÂN BẰNG NƯỚC



CÂN BẰNG NƯỚC

Nước lỏng



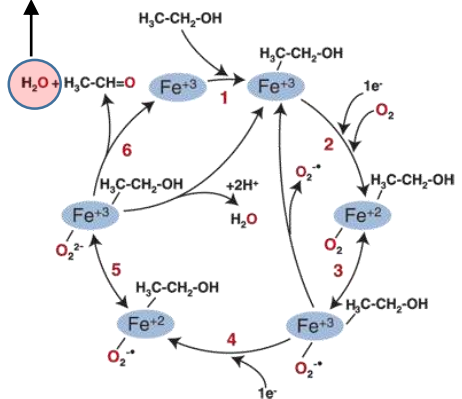
Nước



Nước tiềm sinh



Nước do biến dưỡng



CÂN BẰNG NƯỚC

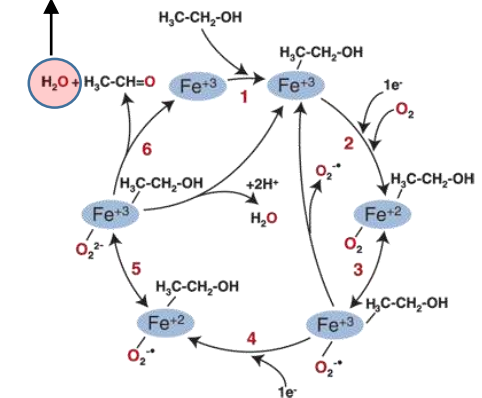
Nước lỏng



Nước tiềm sinh



Nước do biến dưỡng



Nước



Nước

Bốc hơi



Bài xuất:

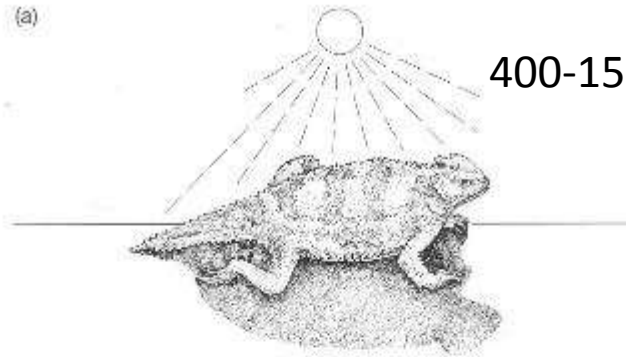
- + nước tiểu
- + phân
- + chất tiết

CÂN BẰNG NHIỆT

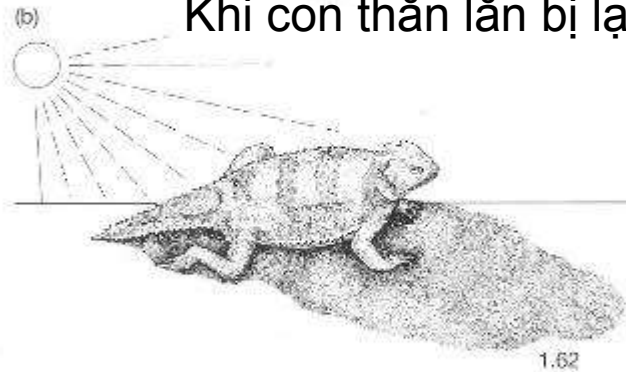
- Nhiệt hấp thu từ mặt trời qua bề mặt cơ thể
- Nhiệt tạo ra trong quá trình biến dưỡng
- Nhiệt được hấp thu hay mất đi do môi trường không khí hoặc nước xung quanh
- Nhiệt mất đi do quá trình bốc hơi

NHIỆT TỪ NĂNG LƯỢNG MẶT TRỜI

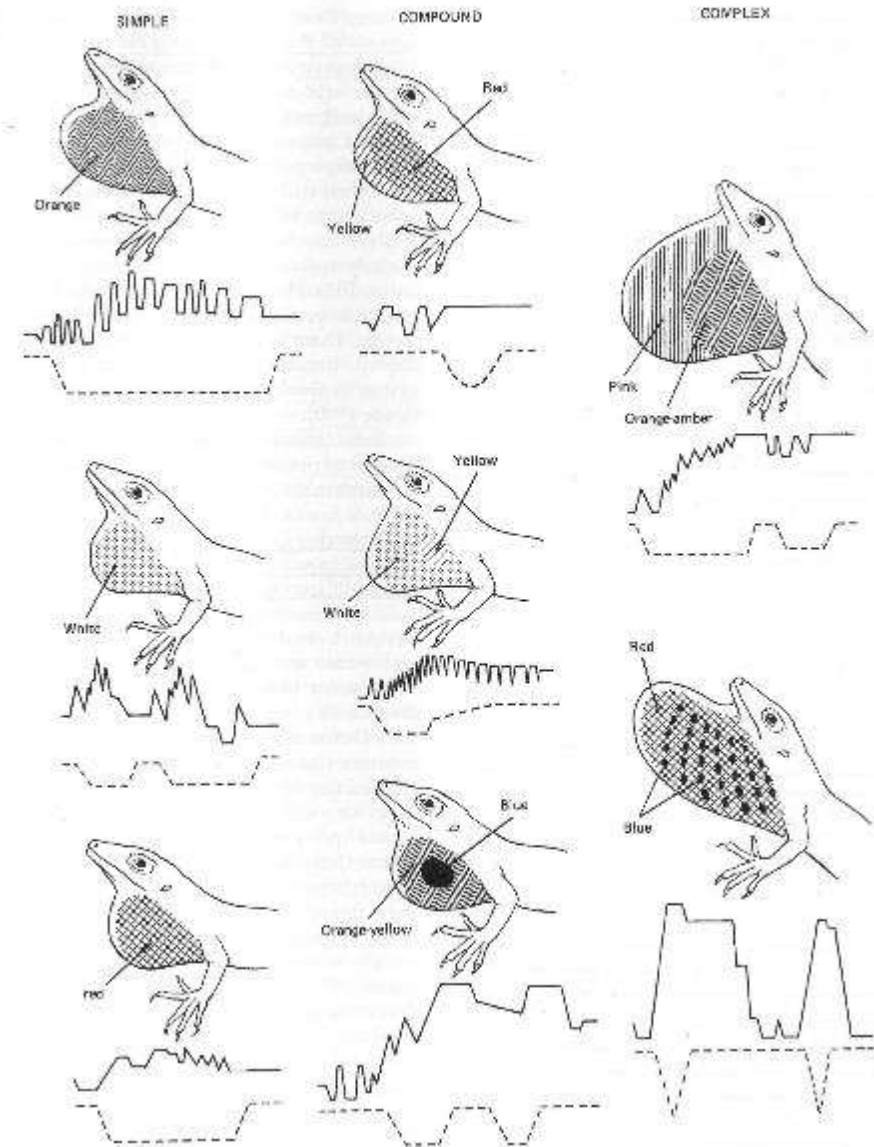
(a) 400-1500 nanometers



Khi con thằn lằn bị lạnh



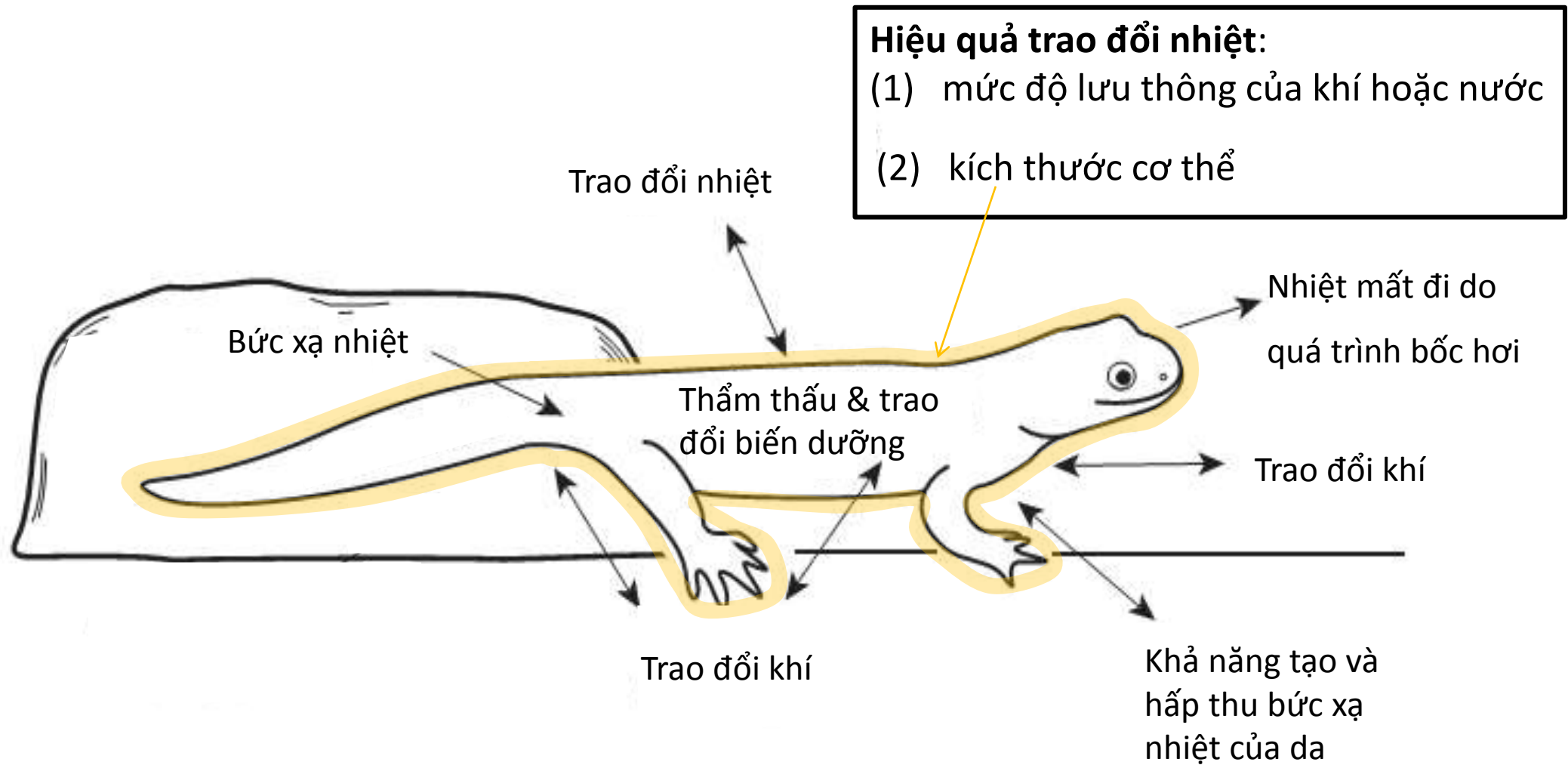
(c) khi con thằn lằn bị nóng



NHIỆT DO QUÁ TRÌNH BIẾN DƯỠNG



TRAO ĐỔI NHIỆT VỚI MÔI TRƯỜNG XUNG QUANH



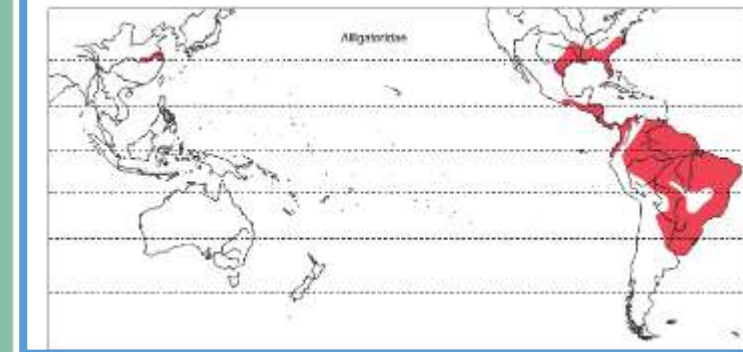
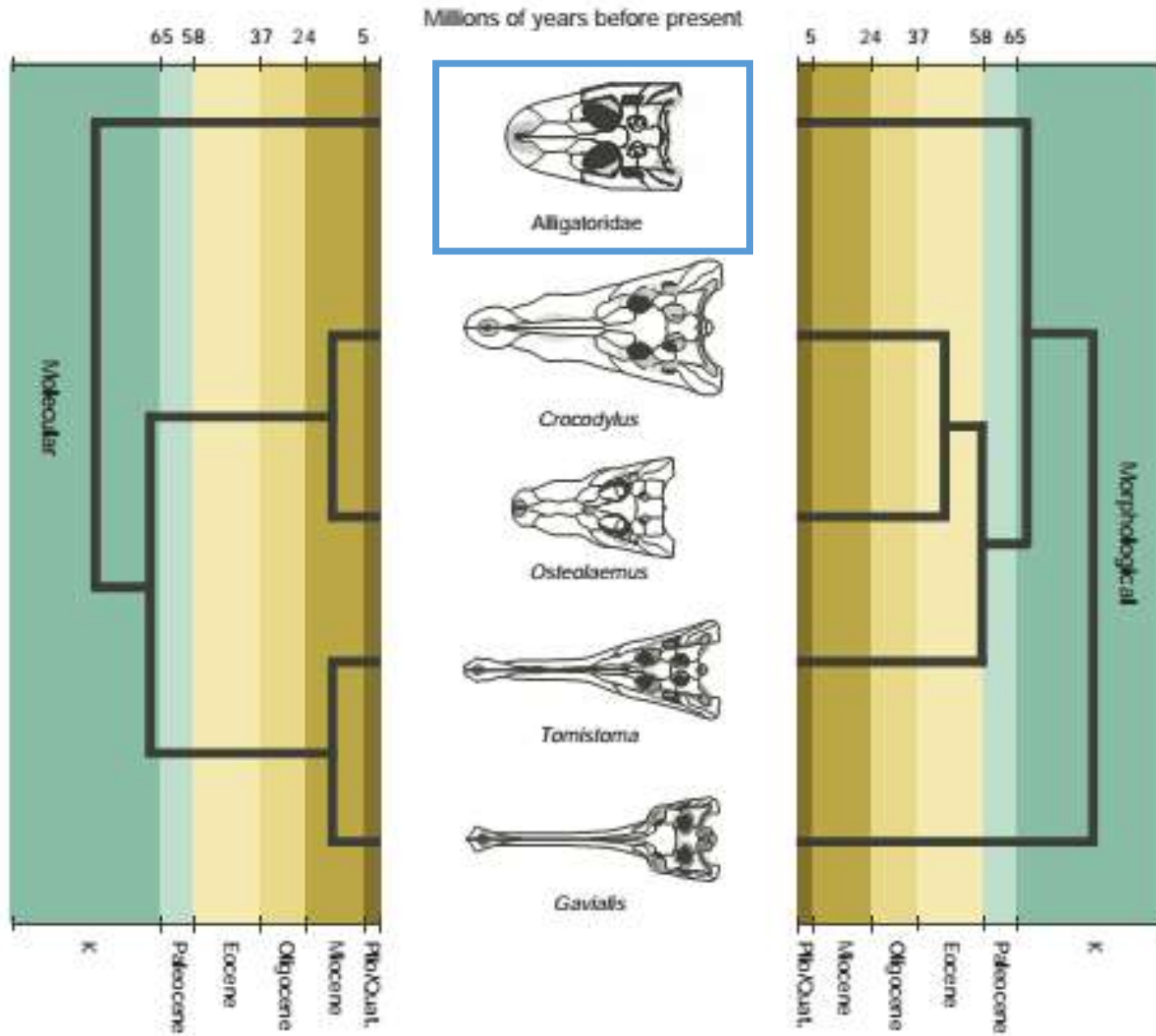
ĐA DẠNG



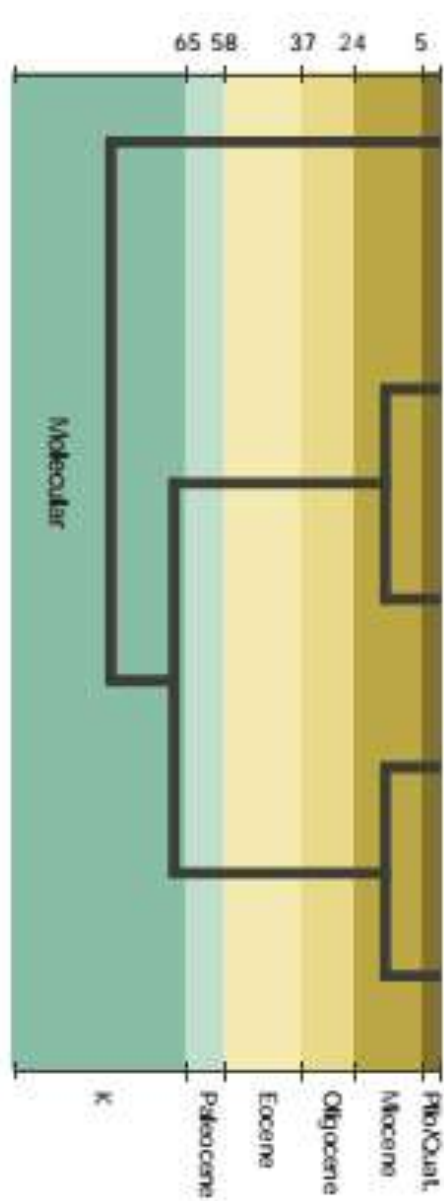
ĐA DẠNG RÙA



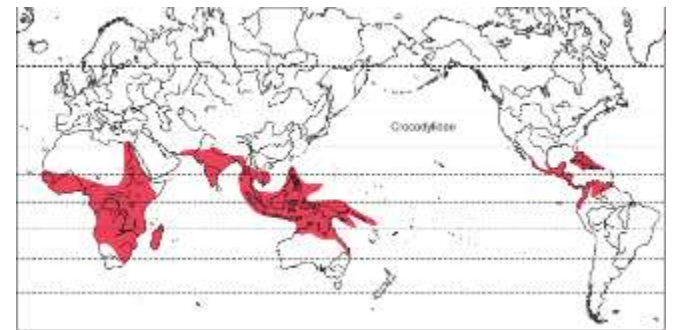
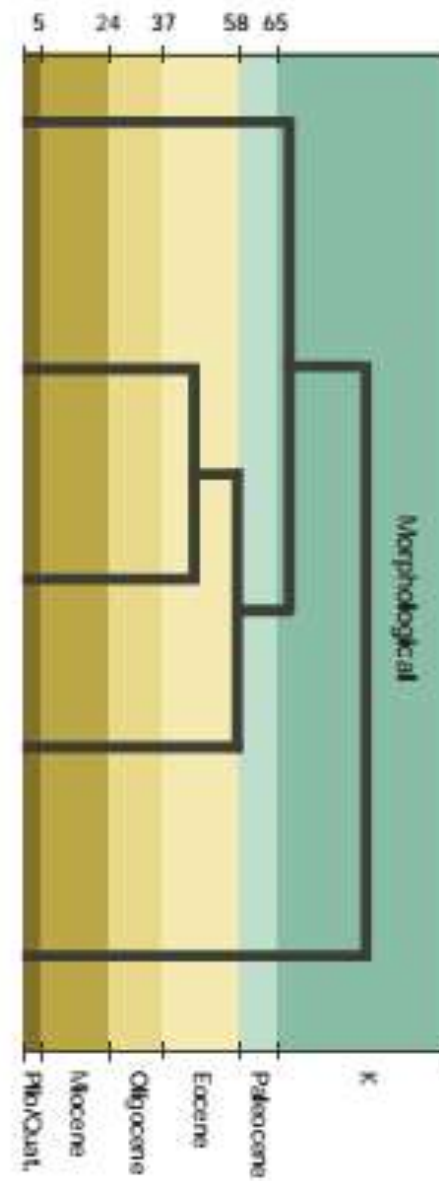
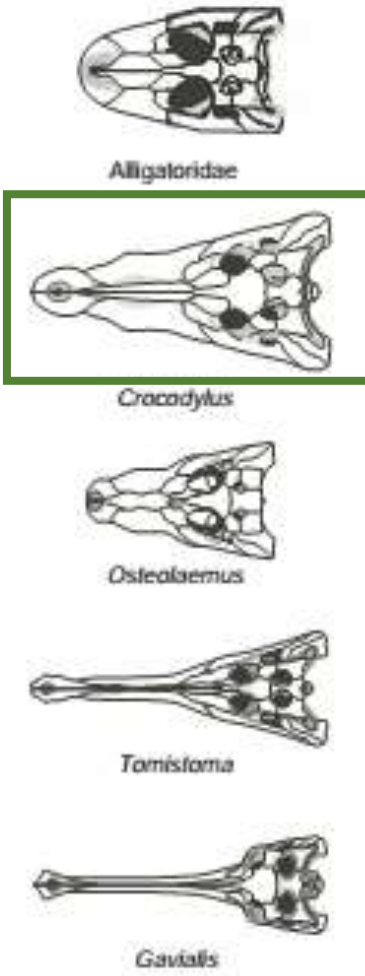
ĐA DẠNG CÁ SẪU



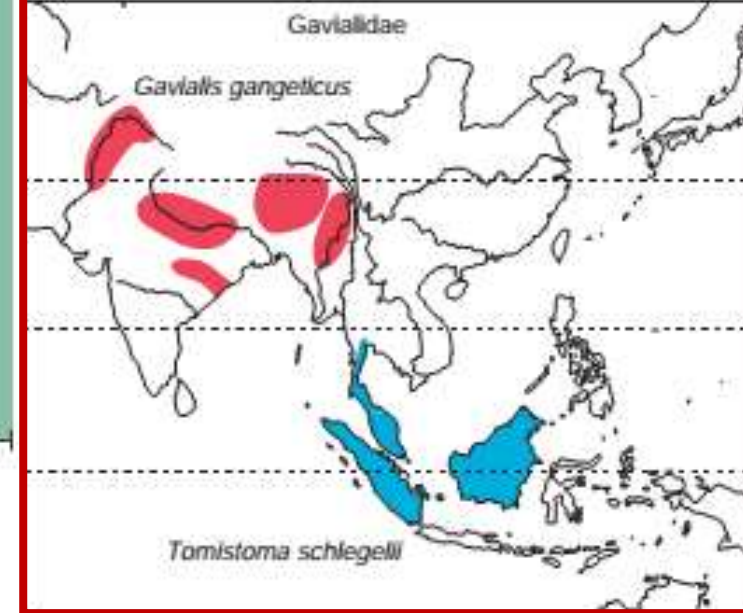
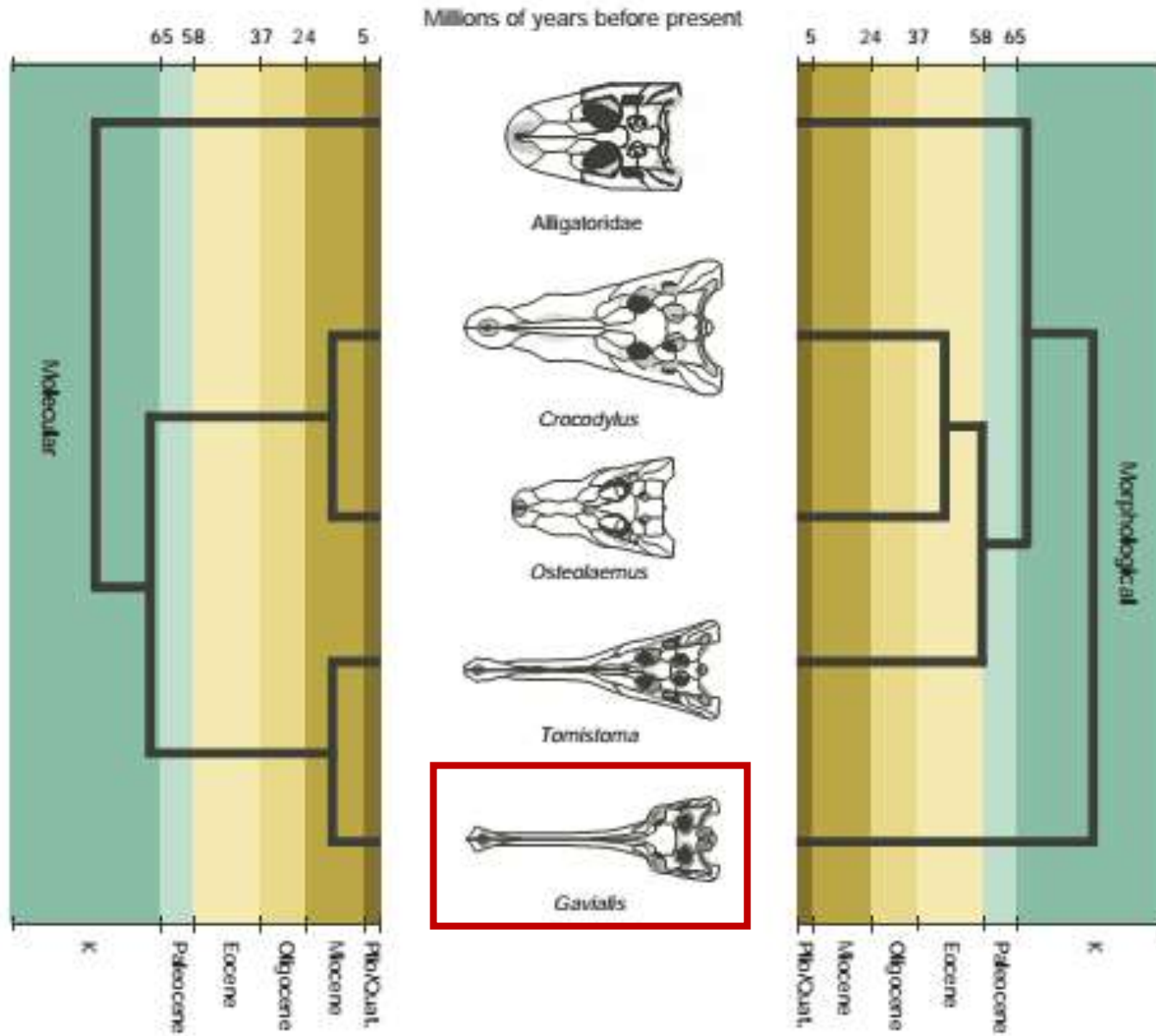
ĐA DẠNG CÁ SẼU



Millions of years before present



ĐA DẠNG CÁ SẼU



ĐA DẠNG THẦN LẪN



ĐA DẠNG RẪN

