

Major difference between reptiles and mammals

Bio 1413, Ziser, 2000

REPTILE

Epidermis covered with scales

Most with three chambered heart

Most with no diaphragm

Low metabolic rate

Oviparous (egg laying)
little care of young

Growth continues through life

Skull with small brain case,
several bones forming jaw

Teeth continually replaced with
simple cheek teeth

Anterior brain (cerebrum) relatively
small

Skull with one occipital condyle

Single middle ear bone
(columella=stapes)

MAMMAL

Epidermis covered with hair

All with four chambered heart

Diaphragm for respiration

High metabolic rate; homeotherms

Viviparous (young develop within
mother) placenta, live birth
& care of young with milk

Growth limited after adulthood

Skull with expanded brain case,
single bone forming jaw

Two sets of teeth only (deciduous &
permanent) with complex cheek
teeth

Anterior brain (cerebrum) larger and often
convoluted

Skull with two occipital condyles

Three middle ear bones
(malleus, incus, stapes)

Bony palate usually incomplete

Bony palate completely separates nasal passages from mouth

Ribs present on all vertebrae

Free ribs confined to thoracic vertebrae

Pelvic bones separate

Pelvic bones fused

Sprawling gait with limbs emerging horizontally from body

Upright stance with limbs directly beneath body