

### Locomotion on land

- Salamanders and caecilians use primitive lateral undulation inherited from aquatic ancestors
  - body bends back and forth; limbs apply force against substrate
- Frogs have derived jumping locomotion
  - stiff pelvis, vertebral column, and long hind limbs act together as a catapult

### Amphibian feeding strategies

- Unlike fishes, tetrapods (including amphibians) have a “neck” and movable head. Who else does also?
  - fish operculum links skull to shoulder; lack of gills “frees” head
- Many aquatic amphibians retain primitive suction feeding method
  - Can suction feeding work in air?
- many terrestrial amphibians have evolved projectile, sticky tongues<sup>3</sup>

### Frog Mating behavior: A good model for sexual selection

- Most male frogs vocalize to attract females
- Females often choose among many males

**MALES MAKE LONGER CALLS OR LOWER PITCH, WHY? BECAUSE LARGER FROG MEANS HEALTHIER**

### Amphibian reproduction

- Most amphibians still tied to water for reproduction (ancestral condition)
  - aquatic larvae metamorphose into terrestrial juveniles
- Eggs require moist environment, from water or\*
  - males or females carry on back, in mouth, or in stomach
  - females whip up frothy nest
  - females retain eggs in reproductive tract for development

\*WHATEVER: the eggs have no shells

What would be a good invention? Egg shell!- with amniotic cavity, amniotic fluid, and egg