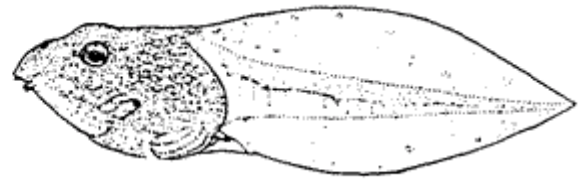
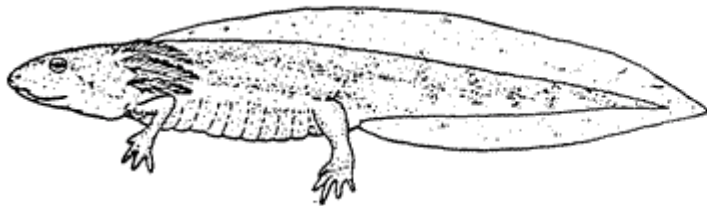


**Key to the Amphibian larvae of Southeastern Minnesota**

Jeff Parmelee

- 1. Body elongate, front limbs present from early stages, ext. gills... **Tiger Salamander**
- 1. Body globose with no distinct head and trunk, limbs small if present..... 2



- 2. Body and musculature of tail uniformly dark, very small (1.8-2.4cm) **American Toad**
- 2. Body and musculature of tail not all black or brown ..... 3

- 3. Eyes lateral (dorsolateral in cricket frog), oral disc not emarginate ..... 4
- 3. Eyes dorsal, oral disc emarginate (later stages large, >3.5cm) ..... 7

- 4. Mottled tail fins, no black tail tip ..... 5
- 4. Tail fins lack mottling or with black tail tip..... 6

- 5. High tail fins, top fin extending onto upper body, tail mottled with black usually a red tinge in life; narrow lower jaw, midventral marg. pap. biserial.....



**Gray Treefrog**

- 5. Medium tail fins, usually heavily mottled with a clear band adjacent to musculature. Large upper jaw, 3<sup>rd</sup> posterior tooth row short..... **Spring Peeper**



- 6. Black-tipped tail, dorsum of tail musculature banded, body dorsolaterally flattened ..... **Cricket frog**

- 6. Lacks mottling, clear tail fins, dorsal fin extending onto body (to 3cm), tail musculature may be bicolored (dark dorsally), 3<sup>rd</sup> post. tooth row short... **Chorus frog**

- 7. Large in later stages, cream belly, black dots or dashes on body ..... 8
- 7. No distinct black spots on upper body & tail ..... 9

- 8. Large (to 12cm), green body with distinct black dots on upper body & tail ... **Bullfrog**

- 8. Big (7.4-10cm), few dark marks on body, tail & tail fin often strongly mottled, solid cream belly, depressed body with long, low-arched fins ..... **Green Frog**

- 9. Tooth row formula 3/4; body without distinct markings, rounded tail fins have faint mottling, tail tapers to a fine point ..... **Wood Frog**

- 9. Tooth row formula 2/3; lower jaw sheath robust & wide ..... 10

- 10. P-1 medial gap; dorsal fin originates anterior to tail-body junction, high arch ..... **Pickereel Frog**

- 10. P-1 no medial gap; dorsal fin originates near tail-body junction, medium arch ..... **Leopard Frog**

# Key to the Eggs of the Amphibians of Southeastern Minnesota

Jeff Parmelee

- 1. Eggs in cylindrical strings.....American Toad
- 1. Eggs in clusters or single..... 2
- 2. Eggs in large cluster (>5cm diameter) or see **Tiger salamander (5)** ..... 3
- 2. Eggs single or in small clusters ..... 8
- 3. Mass spherical, up to 11.5cm, egg diameter to 5.5mm, lots of clear jelly makes the eggs widely separated, usually attached to plants, may be free in water (early in year only)..... **Wood frog**
- 3. Mass globular or wide and flat on surface ..... 4
- 4. Large, wide floating mass, each egg small (<1mm) ..... 7
- 4. Eggs in a globular mass..... 5
- 5. Eggs (10-12mm) single or in loose mass, fresh egg mass firm (6-7cm), older egg masses flimsy, small clumps of 18-110 eggs attached to vegetation near bottom of pond, in advanced eggs embryos will have limbs..... **Tiger salamander**
- 5. Egg mass larger, firmer ..... 6
- 6. Black eggs in a tight globular mass 10-16cm in diameter (ca. 6,000 eggs), near surface or several cm under water on vegetation or pond bottom..... **Northern leopard frog**
- 6. Light brown eggs (cream beneath), slightly smaller than *R. pipiens*, deep or near surface globular mass attached to vegetation (2-3,000 eggs), 9-11cm diameter ..... **Pickerel frog**
- 7. up to 20,000 eggs, single indistinct layer of jelly..... **Bullfrog**
- 7. up to 4,000 eggs, 2 jelly layers..... **Green frog**
- 8. Found earlier than mid-May..... 9
- 8. Found later than mid-May (if it is mid-May look at descriptions!) ..... 10
- 9. Eggs single or small cluster (2-3 eggs) attached to grass, sticks, leaves in shallow water, little jelly.....**Spring Peeper**
- 9. Eggs in small clumps (5-20 eggs) 7.5-20cm below water, usually wrapped around a stem or grass, indistinct large jelly layer..... **Chorus frog**
- 10. Eggs single or clumps of 7-15 eggs attached to vegetation or surface, single jelly layer..... **Cricket frog**
- 10. Eggs single or clumps of 30-40 light brown eggs, attached to vegetation near surface, jelly weak or indistinct, 2 layers, inner small..... **Gray Treefrog**

