

TABLE 1. CHARACTERISTICS OF EGGS OF AMPHIBIANS USING VERNAL POOLS

	Indicator Species			Other Amphibians Using Vernal Pools				
	Wood Frog	Spotted Salamander	Blue-spotted Salamander	Eastern Newt	Spring Peeper	Grey Treefrog	American Toad	Green Frog
Size of Mass	2.5" - 4" (6 - 10 cm) Often deposited communally.	variable size. 1" to over 4" (6 - 10 cm)	variable size. generally smaller than spotted salamander egg masses.	80 -450 single eggs deposited	single eggs deposited up to 900	up to 4" x 5" flattish mass	up to 3 feet long	6" - 12" (15 - 30 cm)
# Of Eggs Per Mass	~ 1,000 eggs per mass	50-250, avg. 125	highly variable, 1 -30 eggs per mass	-	900 per X	10 - 40 eggs per mass	thousands	1500 - 5000
Shape of Mass	individual mass, ball-shaped; communal deposits like a lumpy sheet.	globular to oval	small, loose scattered groups that may be cylindrical or sausage-shaped attached to vegetation, or single eggs deposited on leaf litter.	-	-	flattish mass or surface film	long, parallel spiraling strings	floating masses of jelly; no shape
Color of Mass	clear, becoming green	clear, milky or green	clear or clouded with sediment film.	-	-	-	transparent, later cloudy as silt & algae adhere	Clear with black and white eggs
Attachment	twigs and stems	usually sticks and stems, also sedges	submerged branches, stems & leaves	Single eggs attached to stems or wrapped in leaves of aquatic vegetation	Attached singly to submerged vegetation	loosely attached to vegetation at surface	sometimes threaded through vegetation	emergent floating vegetation
Depth	just below surface	8" - 10" or more below surface	from 8" - 10" below surface to on or near bottom.	-	-	at or near surface	on open bottom	shallow water
Incubation Period	~ 3 weeks	4 - 8 weeks	3 - 5 weeks	~ 4 weeks	~ 6 days	3 - 5 days	3 - 12 days	3 - 5 days

TABLE 2. CHARACTERISTICS OF LARVAL AMPHIBIANS USING VERNAL POOLS

	Indicator Species			Other Amphibians Using Vernal Pools				
	Wood Frog	Spotted Salamander	Blue-spotted Salamander	Eastern Newt	Spring Peeper	Grey Treefrog	American Toad	Green Frog
Bushy Gills	No	Yes (3 per side) Prominent ruff of gills	Yes (3 per side) Prominent ruff of gills	Yes (4 per side)	No	No	No	No
Size	Hatch 7-9 mm (2.8 – 5.5”); juveniles 10-12 mm (4.5 ”)	Hatch 12-13 mm (0.5”); juveniles 40-75 mm (2-3.5”)	Hatch 8-10 mm; juveniles ~ 50 mm (2”)	–	Juveniles 15-16 mm (0.5-0.6”)	Juveniles 45-50 mm (1.7”-1.9”)	Tiny new toads, 8-10 mm (0.3”-0.4”)	6.4 cm (2.6”)
Color Pattern	At hatch, velvety black, then lightening to mottled olive-brown, sometimes appearing gold-flecked. Venter with pinkish bronze iridescence.	Dull greenish-yellow; sides of head & upper jaw same color as top of head; head broad and blunt, wider than body; chin & throat without markings	Dark brown with yellow blotches dorsally; indistinct light lateral band; underside unpigmented; noticeable paired black spots on dorsum, on either side of tail fin.	Light yellow to green-yellow with grey or brown flecks or bands above; belly pale yellow without bands or spots; Distinct dark stripe on sides of head from nostrils to gills, head narrow. Lower jaw somewhat pointed; upper jaw lighter than top of head.	Beige, tan or orangish dorsum, with dark spots and greenish tone. Iridescent creamy or bronze venter.	Light brown to dark green to black; venter white; intestinal coil visible.	Very dark, almost black, even on venter. Body somewhat flattened; eyes small and dorsal.	Olive green with numerous dark spots on back and cream color underside.
Tail	Tail fin rounded dorsally, tapering to a fine point. Faint, small markings on tail fin.	Tail fin extends forward onto back; fin heavily mottled with black, often giving hind area a dark appearance; gills reddish.	Tail fin extends well forward on body, nearly to head. Fins broad, clouded with black.	Keeled tail	Tan to brown to orange tinge with black spots on outer edge. Fin extends along back.	Orangish to wine to scarlet tailfins, extends along back & heavily mottled with black. Tail fins end in well-developed flagellum.	Relatively short tail with rounded end. Tail fin low, without pigment.	Tail fin with dark mottling. Tail musculature usually more or less uniformly mottled or marbled, often about as dark as the body.
Larval Period	60 - 70 days	Variable; 70 -100 days	Variable; 60 - 80 days	80 - 112 days	60 -90 days	Around 60 days	50 - 60 days	A little over one year
Other	Transform late May-mid-August. Eyes are just above sides, not bulging out on sides like spring peepers or grey treefrogs. Intestinal coil partly visible.	More slender appearance than blue spotted salamander. Transform Aug.-Sept., rarely Oct.; may overwinter.	Big-headed appearance.	Unusual life history with 3 distinct stages. Larvae & adults are aquatic; juveniles are terrestrial red efts.	When viewed from above, pop-eyed appearance; eyes bulge to side.	When viewed from above, pop-eyed appearance; eyes bulge to side.	Congregate in schools. Anus median; all other tadpoles in vernal pool will have anus on right side.	Intestinal coil not visible. A few dark markings present on body.

