

## Thought Lab 4.5: Leopard Frogs: One Species or Seven? Answer Key

### Answers to Analysis Questions

1. Male frogs use distinctive calls to attract mates of the same species. Females will respond only to the mating calls of males of their own species.
2. Summary of differences/similarities between the species  
Background:

#### **Northern Leopard Frog (*Rana pipiens*)**

- 50 – 100 mm long, dark spots surrounded with lightly coloured rings (halos); whitish belly; green (or sometimes brown) background.

#### **Southern Leopard Frog (*Rana sphenocephala*)**

- 75 – 125 mm long; distinguished from the northern leopard frog by light spot in centre of tympanum (external “frog eardrum”), longer pointed head and only a few dark spots on the side of its body; breeding occurs all year:

#### **Florida (*Rana sphenocephala sphenocephala*)**

- Populations of southern leopard frog in Florida have been given their own subspecies classification; these species cannot be easily distinguished from other species of southern leopard frog.

#### **Rio Grande (*Rana berlandieri*)**

- Medium-sized frog reaching lengths in excess of 100 mm; looks similar to the plains and southern leopard frogs, except duller in colour of background and spots; medial inset dorsolateral folds.

#### **Plains (*Rana blairi*)**

- Length varies from 51 to 95 mm; stockier than the northern leopard frog, has a shorter head, and a light line running along the upper jaw; broken dorsolateral folds; brownish in colour; small light spot on each tympanum; breeding occurs all year long.

#### **Ramsey Canyon (*Rana subaquavocalis*)**

- Up to 150 mm in length, found only in Arizona; green and olive brown in colour; rough skin; broken dorsal lateral folds; morphologically indistinguishable from the Chiricahua leopard frog.

#### **Lowland (*Rana yavapaiensis*)**

- 46 – 86 mm in length; colour ranges from tan, brown, light green to bright green; large dorsal spots with no light halos; no spots on head in front of eyes; dorsolateral folds are broken; faint light stripe on upper lip; breeds January–April.