



Herps of the Verde Valley



What are Herps?

Amphibians

- Caecilians
- Newts, Sirens & Salamanders
- Frogs & Toads

Reptiles

- Turtles & Tortoises
- Tuatara
- Lizards & Snakes
- Crocodiles & Alligators

Amphibians Vs. Reptiles

Amphibians

- Breathe through:
 - gills (as larvae and some adults)
 - lungs (adults)
 - skin (adults)
- Eggs metamorphose into larvae
 - Called tadpoles in frogs and toads
 - Called waterdogs in salamanders
- Larvae are aquatic, most adults are terrestrial
- Larvae metamorphose (absorb gills and tail, grow lungs and legs)
- Lay eggs in the water; larvae live in water; adults live on land, but then return to water to lay their eggs
- Adult skin is:
 - scaleless
 - moist
 - allows oxygen exchange

Reptiles

- Breathe through lungs
- No metamorphosis – newborns are miniature versions of adults
- Most are terrestrial, turtles & crocs are aquatic
- Reproduce on land; lay eggs or give live birth on land; live on land (except turtles & crocodiles)
- Skin is:
 - dry
 - scaly
 - waterproof
- Snakes and lizards shed their skin as they grow



Salamanders Vs. Frogs & Toads

Salamanders

- Larvae have external gills
- Adults retain their tails and some adults retain their gills
- Adults walk on all fours like lizards
- Strange adaptations:
 - Some larvae capable of breeding (neotenic)
 - Some larvae never transform (paedomorphic)
 - Some adults retain their gills and are aquatic
 - Some adults are lungless

Frogs & Toads

- Larvae have internal gills
- Tails are absorbed as the legs develop
- Adults hop
- Strange adaptations:
 - Some adults are poisonous



Frogs Vs. Toads

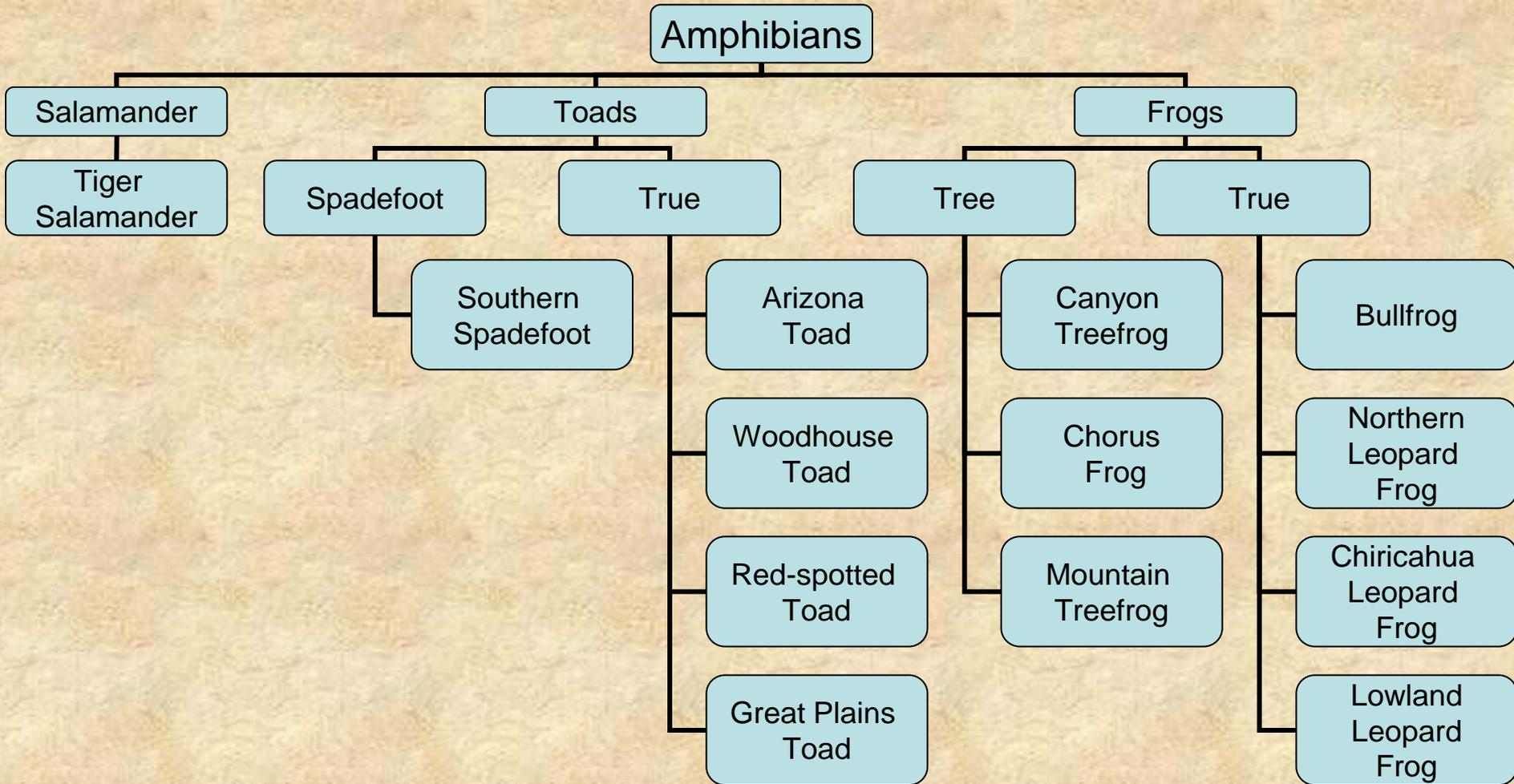
Frogs

- Skin is smooth and moist
- Adults have slender build
- Long hind legs - excellent jumper
- Spends life in and around water
- No parotid glands

Toads

- Skin is rougher, bumpier, and drier
- Adults have chunkier bodies
- Short hind legs - clumsy jumpers
- Spend more time on land returning to water only to breed
- Have parotid glands behind ears

Amphibians of the Verde Valley



Tiger Salamander



Larvae

Adult



Southern (or Mexican) Spadefoot

Photo © Gary Nafis



True Toads



Great Plains Toad

Red Spotted Toad



Arizona Toad

Woodhouse Toad



Great Plains Toad



Woodhouse Toad

Photo © Randy Babb



Arizona Toad

Photo © Randy Babb



Red-spotted Toad

Photo © Gary Nafis



True Toads



Great Plains Toad

Red Spotted Toad



Arizona Toad

Woodhouse Toad



Look-alikes

Red-spotted Toad

Photo © Gary Nafis



Photo © Gary Nafis



Mexican Spadefoot

Treefrogs



Photo © Randy Babb

Chorus Frog



Photo © Randy Babb

Mountain Treefrog



Photo © A. T. Holycross

Canyon Treefrog

Chorus Treefrog



Photo © Randy Babb

Mountain Treefrog



Canyon Treefrog

Photo © A. T. Holycross



Treefrogs



Photo © Randy Babb

Chorus Frog



Photo © Randy Babb

Mountain Treefrog



Photo © A. T. Holycross

Canyon Treefrog

True Frogs



Bull frog



Northern Leopard Frog



Chiricahua Leopard Frog



Lowland Leopard Frog



Bullfrog

Photo © Tom Brennan



Lowland Leopard Frog

Photo © Tom Brennan



Chiricahua Leopard Frog

Photo © 2004 Tom Brennan



Northern Leopard Frog

Photo © 2004 Tom Brennan



True Frogs



Bull frog



Northern Leopard Frog

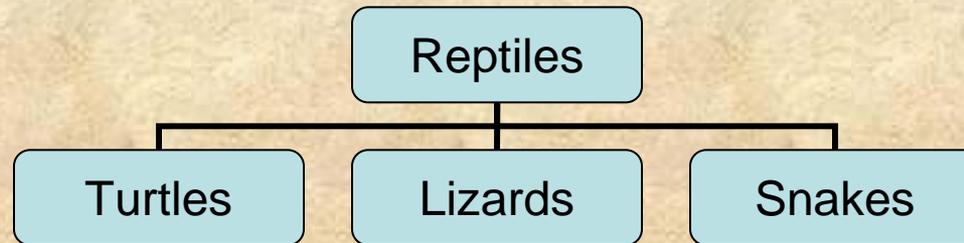


Chiricahua Leopard Frog

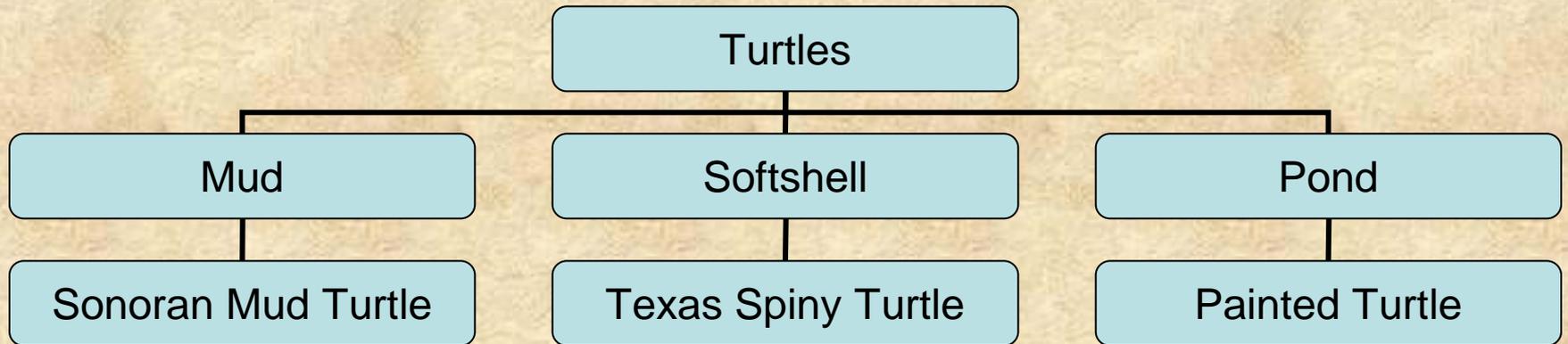


Lowland Leopard Frog

Organization of Reptiles



Turtles of the Verde Valley



Turtles of the Verde Valley

Sonoran Mud
Turtle



Texas Spiny
Turtle



Painted
Turtle



Sonoran Mud Turtle

Photo © Tom Brennan



Texas Spiny Turtle



Photo © Martin J. Feldner



Painted Turtle



Turtles of the Verde Valley

Sonoran Mud
Turtle



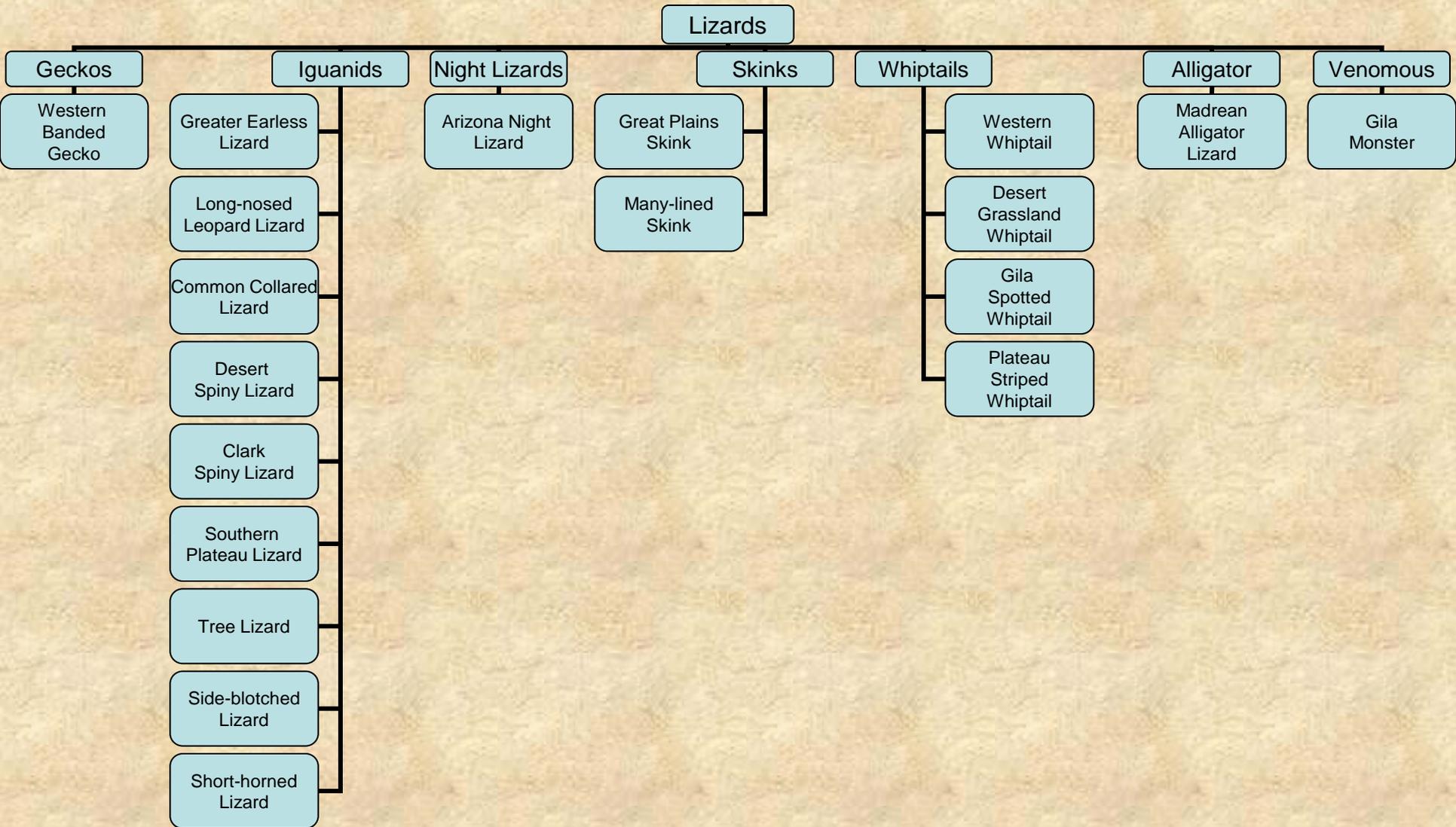
Texas Spiny
Turtle



Painted
Turtle



Lizards of the Verde Valley



Western Banded Gecko



Photo © Tom Brennan

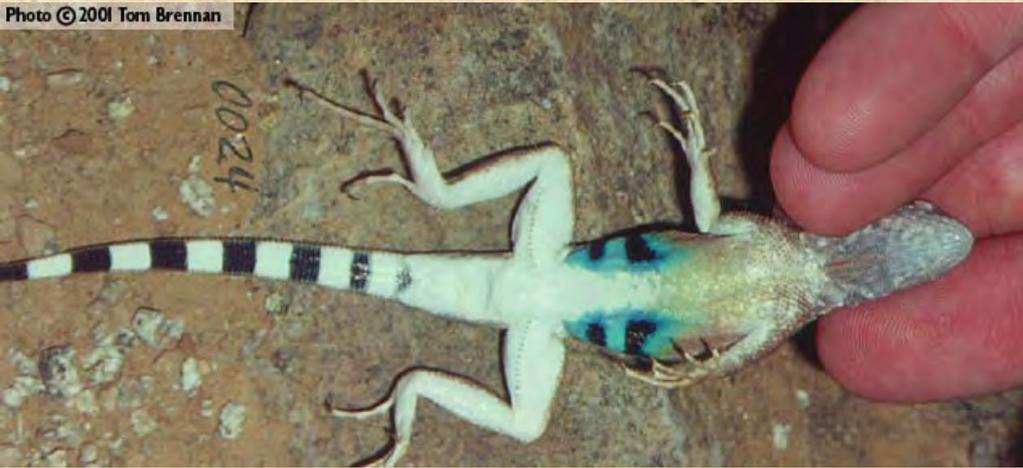
Desert Night Lizard



Photo © Jim Rorabaugh

Iguanids

Photo © 2001 Tom Brennan



Greater Earless Lizard



Photo © Tom Brennan

Side-blotched Lizard - female



Photo © 2005 Tom Brennan

Side-blotched Lizard - male



Photo © 2005 Tom Brennan

Greater Earless Lizard



Photo © Tom Brennan

Female Side-Blotched Lizard



Male Side-blotched Lizard



Iguanids, cont...



Photo © Randy Babb

Collared Lizard

Iguanids, cont...



Clark's
Spiny Lizard



Desert Spiny Lizard



Clark's Spiny Lizard



Desert Spiny Lizard

Photo © Randy Babb



Iguanids, cont...



Photo © 2004 Tom Brennan

Tree Lizard

Photo © Tom Brennan



Photo © 2004 Tom Brennan

Plateau Lizard



Tree Lizard



Photo © 2004 Tom Brennan

Plateau Lizard

Photo ©Tom Brennan



Iguanids, cont...



Long-nosed Leopard - male



Short-horned Lizard



Long-nosed Leopard - female

Female Long-nosed Leopard Lizard

Photo ©Randy Babb



Male Long-nosed Leopard Lizard



Short-horned Lizard

Photo©2002 Tom Brennan



Skinks



Many-lined Skink - subadult



Many-lined Skink - adult



Great Plains Skink

Adult Many-lined Skink

Photo © Randy Babb



Juvenile Many-lined Skink

Photo © 2005 Tom Brennan



Great Plains Skink

Photo © Randy Babb



Whiptails

Photo © Tom Brennan



Gila Spotted Whiptail



Photo © 2005 Tom Brennan

Western Whiptail

Photo © Randy Babb



Plateau Striped Whiptail

Photo © Tom Brennan



Desert Grassland Whiptail

Gila Spotted Whiptail

Photo © Tom Brennan



Western Whiptail



Plateau Striped Whiptail

Photo © Randy Babb



Desert Grassland Whiptail



Whiptail Identification



Gila Spotted Whiptail



Photo © 2005 Tom Brennan

Western Whiptail



Plateau Striped Whiptail



Desert Grassland Whiptail

Madrean Alligator Lizard

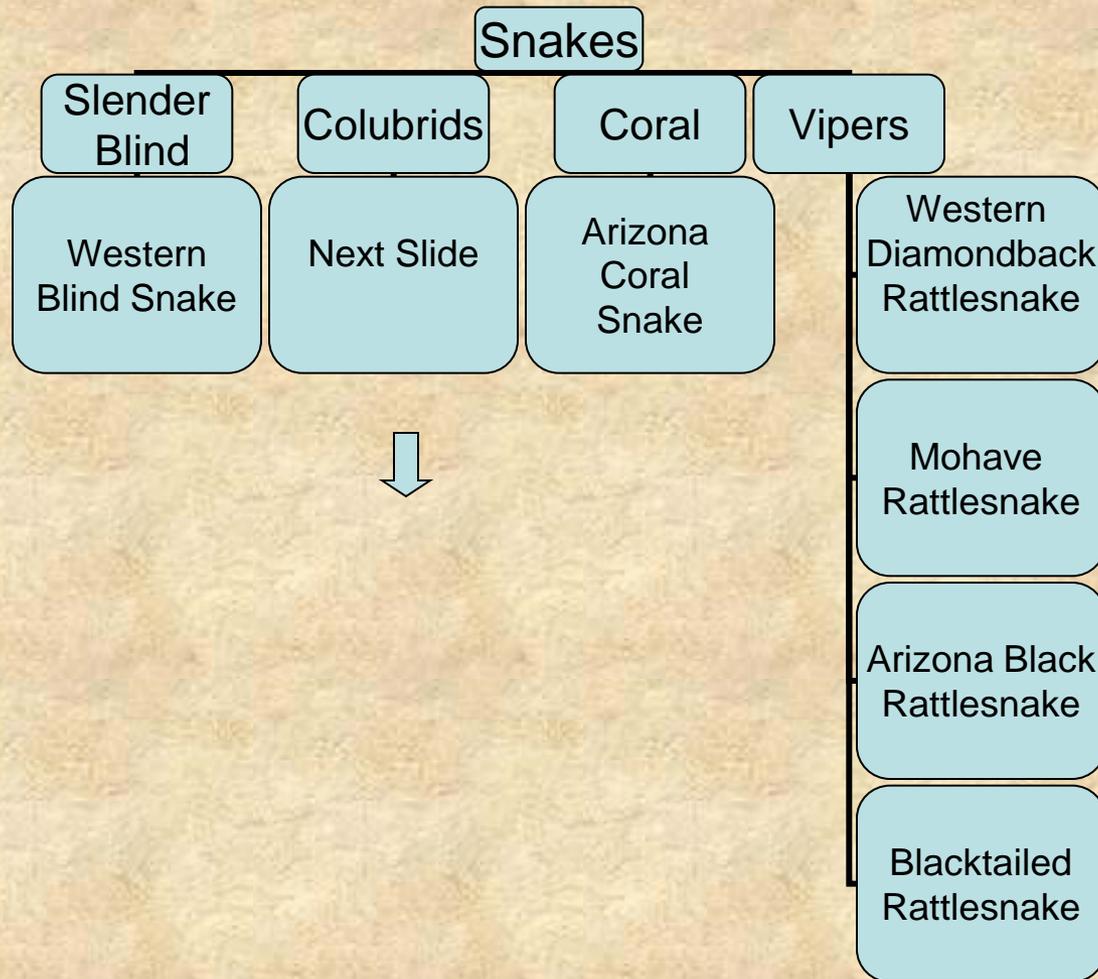


Venomous

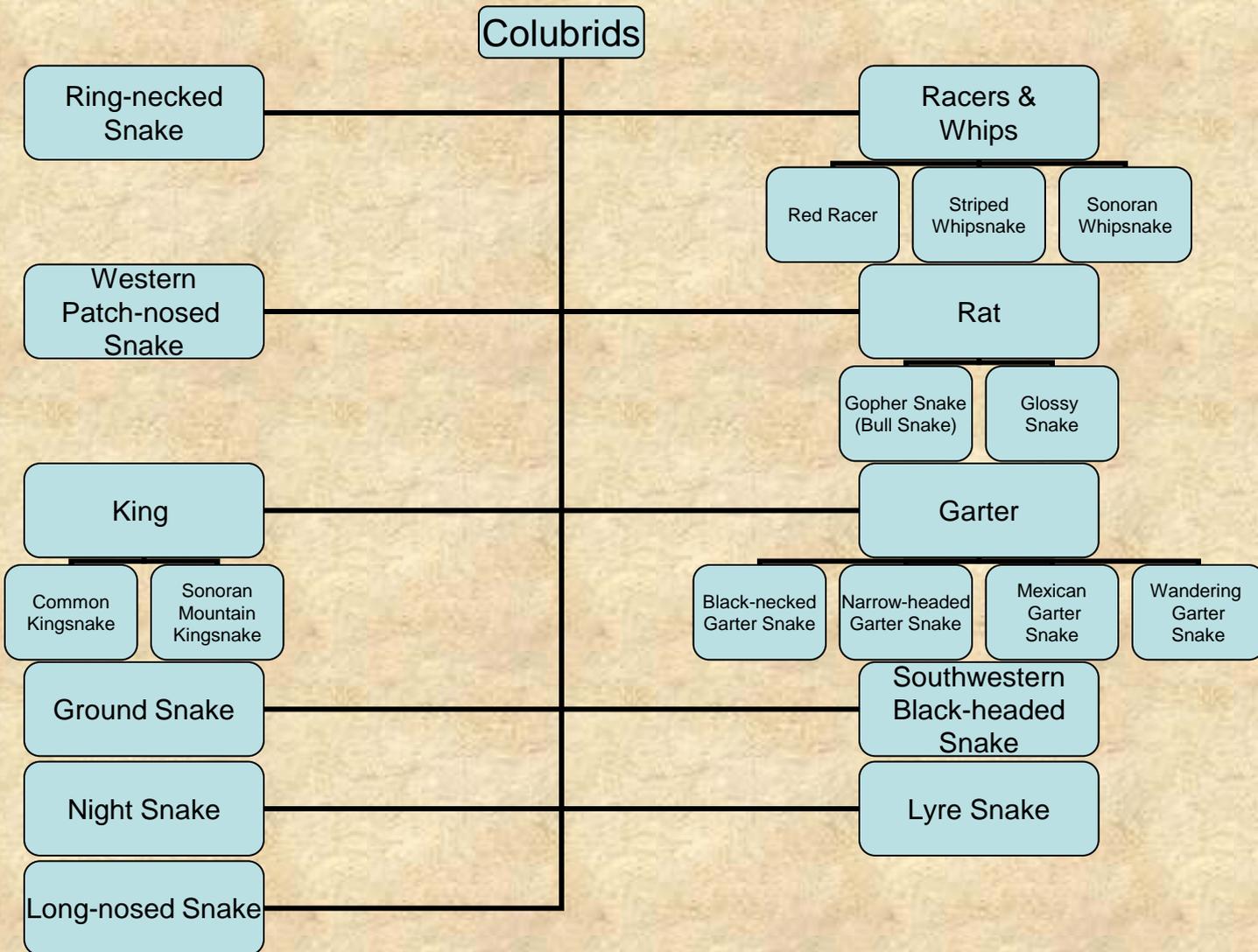


Photo by Janie Agyagos

Snakes of the Verde Valley



Snakes, cont...



Western Blind Snake

Photo © A. T. Holycross



Colubrids – Ring-necked Snake



Colubrids – Racers & Whips



Striped
Whipsnake



Sonoran
Whipsnake



Red Racer

Photo © Tom Brennan

Striped Whipsnake

Photo © Randy Babb



Sonoran Whipsnake

Photo © Tom Brennan



Red Racer



Photo © Tom Brennan



Colubrids – Western Patched-nose

Photo © 2003 Tom Brennan



Colubrids – Rat Snakes

Photo © Tom Brennan



Glossy Snake

Photo © Tom Brennan



Gopher Snake

Glossy Snake

Photo © Tom Brennan



Gopher Snake

Photo © Tom Brennan



Colubrids – King and Long-nosed



Common
Kingsnake



Sonoran
Mountain
Kingsnake



Long-nosed
Snake

Common Kingsnake



Sonoran Mountain Kingsnake



Long-nosed Snake



Colubrids – Garter Snakes



Narrow-headed Garter Snake



Photo © 2004 Tom Brennan

Black-necked Garter Snake



Mexican Garter Snake

Photo © A. T. Holycross



Terrestrial (Wandering) Garter Snake

Photo © A. T. Holycross



Garter Snake Identification

Black-necked



Photo © 2004 Tom Brennan

Mexican



Photo © 2003 Tom Brennan

Terrestrial
(Wandering)



Photo © 2003 Tom Brennan

Narrow-headed



Colubrids – Ground Snake

Photo © Randy Babb



Photo © A. T. Holycross



Colubrids – Black-headed

Photo © Randy Babb



Colubrids – Night Snake



Colubrids – Lyre Snake

Photo © 2004 Tom Brennan



Confusing Look-Alikes

Photo © Tom Brennan



Glossy

Photo © Tom Brennan



Gopher

Night

Photo © 2005 Tom Brennan



Lyre

Photo © 2004 Tom Brennan



Arizona Coral Snake

Photo ©Tom Brennan



Confusing Look-Alikes



Coral snake

Sonoran King



Photo © 2004 Tom Brennan



Photo © A. T. Holycross

Long-nosed

Ground – banded form



Photo © A. T. Holycross

Pit Vipers



Western Diamondback Rattlesnake



Mohave Rattlesnake

Arizona Black Rattlesnake



Black-tailed Rattlesnake



Western Diamondback Rattlesnake



Photo © A. T. Holycross

Mohave Rattlesnake



Photo © M. J. Feldner

Black-tailed Rattlesnake



Photo © Tom Brennan

Arizona Black Rattlesnake



Rattlesnake Identification



Western Diamondback Rattlesnake



Mohave Rattlesnake

Arizona Black Rattlesnake



Black-tailed Rattlesnake





Go Herping!

Daytime

- Use binoculars
- During the day in the spring and fall
- During early morning in the summer
- Will readily see various species of baskers
- Won't see burrowers or those species that hide under debris

Nighttime

- Drive slowly (< 10 mps) along remote roads.
- Snakes are attracted to warm asphalt and even dirt
- During monsoon will see toads, frogs, salamanders on roads at night
- Occasionally turn off your engine to listen for frogs and toads that may be breeding in nearby pools of water