

Mexican Spadefoot

Spea multiplicata

<http://www.reptilesfaz.com/Turtle-Amphibs-Subpages/h-s-multiplicata.html>

Nutrients: Eats termites, ants, beetles, spiders, detritus, carrion, and other spadefoot larvae

Water: Temporary ponds and rain

Energy: Food

Shelter: Buries itself in underground burrows for most of the year

Reproduction: Sexual reproduction between males and females during summer monsoon season

Other Information: Comes out from underground when summer rains occur. During the summer monsoon season, they mate and eat in temporary pools created by rain. Eggs are laid that attach to vegetation or debris in the pond, tadpoles hatch from eggs in 2-3 days, and tadpoles change into frogs within 3 weeks. Nocturnal. About 65 mm long.

Tooth Amoeba

Entamoeba gingivalis

<http://parodontite.com/pict/image005.jpg>

Nutrients: Engulfs bacteria and organic matter

Water: Moisture in the mouth

Energy: Food

Shelter: They live in stagnant water (in the mouths) but can take shelter in crevices and holes

Reproduction: Reproduce by cell division

Other Information: They are less than 0.1 mm in size.

Coyote

Canis latrans

http://www.worldwildlife.org/wildworld/profiles/photos/na/na0503_pto.html

Nutrients: They eat small mammals, reptiles, carrion, insects, and fruit

Water: They dig in the ground for water; food contains water; and take advantage of human-constructed sources of water (e.g., pools, ponds, etc.)

Energy: From food

Shelter: Crevices in rocks or dens in the ground

Reproduction: Sexual reproduction between males and females; pair for one mating season

Other Information: Weigh 7-20 kg; lifespan of about 15 years; found solitary, in pairs, or in packs. They have a range of about 26 km² in open grassland, but can take advantage of most open environments; they can be found in rural areas

Cactus wren

Campylorhynchus brunneicapillus

http://www.birdforum.net/pp_gallery/data/525/2332cactuswren01.jpg

Nutrients: Eat mostly insects found around vegetation such as ants, beetles, grasshoppers, and wasps and some fruit and seeds

Water: From food; human constructed water elements

Energy: Food

Shelter: Builds nests within thorny plants such as cactus

Reproduction: Sexual reproduction between females and males; 2-3 broods per year

Other Information: About 16.5 cm long; does not migrate

Saguaro

Carnegiea gigantea

<http://www.shannontech.com/ParkVision/Saguaro/Saguaro.html>

- Nutrients:** From soil and makes its own food from carbon dioxide from air and water from soil
- Water:** Absorbed from the ground on which rain falls
- Energy:** Light from the sun to make food
- Shelter:** When small, sheltered by larger trees and shrubs such as Palo Verdes on rocky slopes and well-drained flat areas
- Reproduction:** Produce flowers that have female and male reproductive organs; requires cross-pollination with the help of bats, birds, and insects; reproduces by seed
- Other Information:** Roots are close to ground surface and can radiate up to fifty feet from the trunk; average height is 9 m; average diameter of trunk is about 60 cm; can weigh 9,000 kg

Mycorrhizal Fungi

Glomus mosseae

www.sci.muni.cz/~mykorrh/html/g_mosseae_ERM.htm

- Nutrients:** Elements from soil and food from plants
- Water:** Soil
- Energy:** Food from plants
- Shelter:** In soil and in plant roots (between cells)
- Reproduction:** Asexual by vegetative growth and producing spores
- Other Information:** Over 90% of higher plants on land form symbiotic relations with mycorrhizal fungi; hyphae grow beyond plant root zones to patches of nutrients available in the soil

Bruchid Beetle

Mimosestes ulkei

http://agspsrv34.agric.wa.gov.au/ento/images/M_ulkei.jpg

Nutrients: Adults feed on pollen of Palo Verde trees; larvae feed on seeds

Water: From food?

Energy: From food

Shelter: In plants and their seed pods

Reproduction: Sexual reproduction between males and females in flowers

Other Information: Less than 1 cm long; 34 days to maturity; when eggs hatch, larvae burrow into seeds to mature

Palo Verde

Parkinsonia florida

xerophyte.co.il/cercidium_floridum.htm

Nutrients: Elements from soil and makes food from water obtained from soil and carbon dioxide from the air

Water: soil

Energy: Light from the sun to make food

Shelter: Roots in soil

Reproduction: Sexual reproduction via flowers that have both male and female reproductive parts; requires insect pollinators

Other Information: Can grow up to 9 m tall; found in desert washes and southwest landscaping

Gila Woodpecker

Melanerpes uropygialis

bailey.aros.net/nature/D-L.htm

Nutrients: Eats insects, fruit, and seeds

Water: From food?

Energy: From food

Shelter: Excavate nest in cactus (e.g., saguaro)

Reproduction: Sexual reproduction between females and males; up to 3 broods per year

Other Information: About 23 cm long; does not migrate

California Leaf-nosed Bat

Macrotus californicus

home.earthlink.net/~cmsquare/calleaf.html

Nutrients: Eats moths, caterpillars, beetles, grasshoppers, cicadas, and occasionally cactus fruit

Water: From food?

Energy: From food

Shelter: Geothermally heated mines, caves, and tunnels

Reproduction: Sexual reproduction between females and males; females form nursery colonies of more than 100

Other Information: About 10 cm long; live about 15 years; forage at night within 1.5-5 km of roosting site; does not migrate

Follicle Mite

Demodex folliculorum

<http://www.geocities.com/thesciencefiles/eyelash/creatures.html>

Nutrients: Eat skin cell debris

Water: Secretions from host body

Energy: From food

Shelter: Hair follicle

Reproduction: Sexual reproduction between females and males; eggs laid in hair follicles

Other Information: Less than 0.4 mm long; live about 14-18 days

Bladderwort

Utricularia purpurea

<http://www.illusionary.com/~dglidden/cp/glades/>

Nutrients: From water; digested invertebrates (e.g., daphnia spp.), and communities living within bladders

Water: From marshes or body of water in which it lives

Energy: Light energy from the sun to make food and from digested organisms

Shelter: N/A; free floating or in floating mats of vegetation

Reproduction: Flowers that require pollination for sexual reproduction to produce seeds; vegetative reproduction

Other Information: This plant is a rootless, free-floating, aquatic, carnivorous plant; about 50 cm long

Broad needleleaf

Tillandsia simulata

savebromeliads.ifas.ufl.edu/epiphytes.htm

Nutrients: Uses carbon dioxide and water from the air to make food; elements obtained from the plant detritus and animal feces

Water: From air

Energy: Uses light energy from the sun to make food

Shelter: Attaches to rough-barked trees in warm, moist swamps with a lot of light

Reproduction: Sexual reproduction via flowers

Other Information: About 20-40 cm tall; seeds germinate on bark of oaks and cypress

Florida panther

Puma concolor coryi

<http://www.colliergov.net/natresources/species/florida%20panther.htm>

Nutrients: Eats feral hogs, white-tailed deer, raccoons, armadillos, and sometimes rabbits, rats, and birds

Water: Drinks from surface water such as ponds

Energy: From food

Shelter: Under vegetation; will make dens out of palmetto thicket

Reproduction: Sexual reproduction between females and males

Other Information: They are solitary; males have a range of about 520 km² (no overlap with males) and females have a range of about 195 km² (overlap with males and females); they weigh 13-35 kg (females at the lower end of the scale); live about 12 years

Mosquitofish

Gambusia holbrooki

<http://www.iisgcp.org/EXOTICSP/Mosquitofish.htm>

Nutrients: Eats ants, flies, aquatic arthropods, and beetles; female can eat hundreds of mosquito larva in one day

Water: Surface water; will die in dried out water pools

Energy: From food

Shelter: Vegetation in water

Reproduction: Sexual reproduction between males and females

Other Information: About 2.5-5 cm long (females larger than males); prefers to be at the top of the water column in still or gently flowing warm water

Fishing Spider

Dolomedes triton

<http://departments.ozarks.edu/zooweb/spiders.htm>

Nutrients: Eats aquatic insects, small fish, and tadpoles; can eat up to 5x its weight in a day

Water: Surface water

Energy: From food

Shelter: Under vegetation and human built structures near bodies of water

Reproduction: Sexual reproduction between females and males

Other Information: About 2.5 cm; sits on water surface and waits for prey; mass is about 1 gram; hunts during the day; can dive under water; solitary

American Crocodile

Crocodylus acutus

<http://www.uta.edu/biology/campbell/herpetology/Crocodylians.html>

Nutrients: Eats birds, fish, and other aquatic animals

Water: Surface water

Energy: From food

Shelter: Freshwater, brackish water, and underground burrows

Reproduction: Sexual reproduction between males and females

Other Information: About 3.5-5 m long; mass of about 225-450 kg; active at night; will travel long distances to find new water holes if theirs dry up

Snail Kite

Rostrhamus sociabilis plumbeus

http://cars.er.usgs.gov/sofla/Snail_Kite/Current_Research/current_research.html

Nutrients: Eats apple snails; will eat some other snails if apple snails are not available

Water: Freshwater lakes and marshes

Energy: From food

Shelter: In low trees and shrubs near water

Reproduction: Sexual reproduction between males and females

Other Information: About 40-45 cm long; weighs less than a pound; females are larger than males; population declines in apple snails results in declines in kite populations

Schaus Swallowtail Butterfly

Papilio aristodemus ponceanus

<http://southeast.fws.gov/news/2001/r01-061.html>

Nutrients: Adults eat guava, tamarind, and cheese shrub nectar; larvae eat new growth on torchwood and wildlime plants

Water: From food?

Energy: From food

Shelter: Shady areas within tropical hardwood hammocks

Reproduction: Sexual reproduction between males and females

Other Information: Larvae can take up to a couple of years to develop and the adults live for one month; about 9-11 cm long

Cotton Mouse

Peromyscus gossypinus

<http://stkctr.biol.sc.edu/>

Nutrients: Eat seeds, fruits, nuts, buds, and invertebrates

Water: Surface freshwater

Energy: From food

Shelter: Dead trees, hollow trees, stone walls, and rock piles of mature, tropical, hardwood hammocks near water

Reproduction: Sexual reproduction between females and males

Other Information: About 18-20 cm long; weighs about 28-56 g; live about 5 months; active at night; home range is about 1,800-4,900 m²

Brown Bear

Ursus arctos

<http://www.photosphrases.com/birds/brown-bear-lean9898.jpg>

Nutrients: Eat grasses, roots, fruits, nuts, arthropods, fish, and mammals

Water: Surface water

Energy: From food

Shelter: Forested areas; dens in rock caves and hallowed trees

Reproduction: Sexual reproduction between males and females; only a few females are receptive in an area in a given year

Other Information: Weigh between 90-390 kg (females are smaller than males); up to 3 m long; live up to 25 years; solitary, but will congregate around food and have overlapping home ranges of 25-980 km²; active at dawn and dusk

Bald Eagle

Haliaeetus leucocephalus

http://www.jeffrichphoto.com/bald_eagles.htm

Nutrients: Eat fish, aquatic birds, small mammals, and carrion

Water: From food?

Energy: From food

Shelter: Nest at top of large, tall trees (nests can weigh more than 450 kg)

Reproduction: Sexual reproduction between females and males; pairs mate for life

Other Information: Weigh about 4-5.5 kg; up to 1 m tall; 2-2.5 m wingspan; live up to 30 years; build nests with sticks and moss; home range up to 7-40 km²

Arctic Tern

Sterna paradisaea

http://www.cranfordpub.com/machias/arctic_terns.htm

Nutrients: Eats mostly small fish and some insects, krill, and shrimp

Water: From food?

Energy: From food

Shelter: Builds nests for eggs in grassy, sandy, or rocky areas; spends most of its time in the air

Reproduction: Sexual reproduction between males and females during summer months in Arctic Circle

Other Information: Lives in groups of about 50; live about 20 years; about 30-40 cm long; weighs less than 450 g; migrates to Antarctica; active night and day

Sitka Spruce

Picea sitchensis

<http://www.focs.ca/images/sitka800hobsonmed.jpg>

<http://www.shgresources.com/ak/symbols/tree/>

Nutrients: Obtains water from soil and carbon dioxide from air to make food; obtains elements from soil

Water: From air (fog); nearby streams, and inlets

Energy: Light energy from the sun to make food

Shelter: Grows near water, on flood plains, in coastal fogbelts

Reproduction: Sexual reproduction between male and female cones on the same tree to produce seeds

Other Information: About 38-55 m tall; 1-1.5 m in diameter; lives up to 800 years

Sphagnum

Sphagnum papillosum

http://honeybee.helsinki.fi/users/korpela/sphagnum_papillosum_2.jpg

Nutrients: Elements from soil; uses carbon dioxide from air and water from soil and air to produce food

Water: Soil and air

Energy: Uses light energy to help make food

Shelter: Grows in wet and boggy areas where there is sunlight

Reproduction: Usually by asexual vegetative growth (pieces break off and grow into new “individuals”); also, sexual reproduction between male and female individuals

Other Information: About 6 mm long; grows in clumps; no roots; individuals may live up to 10 years

Chinook Salmon

Oncorhynchus tshawytscha

http://www.jjphoto.dk/fish_archive/freshwater/oncorhynchus_tshawytscha.jpg

Nutrients: Young eat plankton, insects, and crustaceans; adults eat zooplankton, fish, crustaceans, and squid

Water: Freshwater and saltwater

Energy: From food

Shelter: Eggs laid in gravel nests in cold, clear water; adults use gravel and aquatic vegetation in cold water

Reproduction: Sexual reproduction between females and males; die after spawning

Other Information: 17-45 kg; about 30.5-152 cm long; live 3-7 years; hatch in freshwater, migrate to ocean, spawn in freshwater (same place they hatched); may migrate thousands of miles

Beaver

Castor canadensis

<http://www.meyers-naturfoto.de/bilder/Amerika21.jpg>

Nutrients: Eat bark, tree leaves, aquatic plants, grasses, and roots; usually forage within 90 m of water

Water: surface freshwater

Energy: From food

Shelter: Builds dams (mud, stones, logs, vegetation) that create a pond at least 0.5-1 m deep in which they build a domed lodge up to 9 m at base; sometimes dig and build terrestrial dens

Reproduction: Sexual reproduction between males and females; probably mate for life

Other Information: About 18-32 kg; about 1 m long; live about 12 years; live in small family groups or alone; builds canals for transporting logs

Worm

Eisenia fetida

<http://www.amystewart.com/images/efetida-lg.jpg>

Nutrients: Eats organic detritus

Water: From soil

Energy: From food

Shelter: Soil; young develop in cocoons

Reproduction: Sexual reproduction between individuals (hermaphrodites); self-fertilization is possible

Other Information: Lives within top 25 cm of loose topsoil or litter with a lot of organic matter; about 35-130 mm long; about 3-5 mm in diameter; can eat its body mass in one day

Giardia

Giardia lamblia

http://www.biosci.ohio-state.edu/~parasite/giardia_sem.html

- Nutrients:** Absorbs digested food from surroundings in host's small intestine
- Water:** Absorbs from surroundings in small intestine
- Energy:** From food (by fermentation)
- Shelter:** Small intestine of animals; cysts (one stage in life cycle) are found in soil and water
- Reproduction:** Asexually by cell division
- Other Information:** About 15 μm long; cysts are dispersed by feces and find new hosts when the host ingests contaminated food or water

Fish Tapeworm

Diphyllobothrium latum

<http://home.austarnet.com.au/wormman/wlimages.htm>

- Nutrients:** Absorbs digested food from surroundings in host's small intestine
- Water:** Absorbs from surroundings in small intestine
- Energy:** From food
- Shelter:** Small intestine of final host; tissue of intermediate hosts
- Reproduction:** Sexual reproduction
- Other Information:** Four life stages: egg that is ingested by a copepod (crustacean) host, fish host (eats copepod), final host in whatever eats the fish; can grow up to 12 yards long; can live several decades; infection occurs by ingestion of cyst or egg; solitary