
NEWS FOR THE DEDICATED ZOOLOGIST

Featured Animal Thorny Devil

A native of Australia's deserts, the thorny devil is certainly a marvel of the animal kingdom. They have so many awesome adaptations that allow them to survive in the continent's most extreme environments. Let's take a closer look!

The thorny devil (*Moloch horridus*) is a species of lizard that is characterized by their thorn covered bodies, slow, jerky movements, and their adaptations for survival. Despite their intimidating sounding name, thorny devils are considered be harmless to humans. They grow to be only 4 to 6 inches in length, and weigh 2.5-3.4 ounces, with females being larger than the males. In the wild, Thorny devils can live to be up to 20 years old. The thorny devil's only source of food is ants, which they can eat up to 3,000 of at a time. They use their sticky tongues to grasp the ants and use specialized teeth to chew the ants' hard exoskeletons. What's up with the bump on their neck? It's a false head, used to trick predators (such as monitor lizards and brown falcons) if they think about making the thorny devil into a meal.

To cope with limited water sources, the thorny devil has a couple tricks up its sleeve. One such solution is their grooved bodies, which are used to channel water into the thorny devil's mouth via capillary action. In addition, thorny devils are able to suck up moisture in sand.

Thorny devils are some pretty awesome animals, appearance wise and adaptation wise.



Surviving in the Deep Sea

The deep sea is the largest habitat on Earth, and is unsurprisingly the least explored. However, from what we do know, living in the deep sea is tough. Animals, bacteria, and other life must be very well adapted to living in such conditions. Cold temperatures, very low depths, and underwater volcanoes are just some of the challenges the deep sea presents.

The deep sea is any part of an ocean that is 200m below sea level. This is where sunlight begins to disappear, hence the fact that no plants survive at such depths. By the twilight zone (1,000m), no sunlight is visible. At these depths, animals begin to exhibit bioluminescence, the production of light via the reaction of luciferin (an organic compound) and oxygen. There are many forms of luciferin. The most common type used among jellyfish, shrimp, and fish is called *coelenterazine*.

The deep sea finally ends at the abyssal zone, which starts 3,000-6,000m below sea level. Temperatures here are almost freezing, at around 3° Celsius. Pressure at these depths is extremely high. If considering depths of 5,000 meters, the amount of pressure being exerted equals 500 atmospheres, or 500x greater than that at sea level. Believe it or not, life still manages to thrive here. Angler fish, pelican eels, viperfish, dumbo octopus, goblin shark, marine hatchetfish, to name a few.

In addition to bioluminescence, animals that live here have adapted to eating detritus as a food source, are cold blooded, have slower metabolisms, require less oxygen to survive, and can go longer periods without food than their euphotic counterparts.

Backyard Sightings

Need help with wildlife identification?
Look no further!

Try...

iNaturalist

All kingdom identification app (website available as well @ <https://www.inaturalist.org>)



Audubon

Bird identification app



Song Sleuth

Bird song identification app



Apps listed above are free on the App Store.

National Park Spotlight

Badlands National Park

Badlands National Park gets its name from the Lakota people, who called it “mako sica” or “land bad”.

They called it this because of the park’s extreme temperatures, rugged terrain, intense winds, and limited rainfall. Badlands National Park is best known for its rock formations and paleontological significance. In fact, finding fossils is not an uncommon occurrence, with new specimens being discovered daily!

Fossils from million of years ago, such as those of mosaurus and oreodont, can be found in the many layers of rock that form Badlands’ landscape. Animals such as pronghorn antelope, two-tailed swallowtail butterflies, rattlesnakes, bison, and burrowing owls are just a handful of Badlands’ inhabitants.

Buffalograss, northern water plantain, and tufted evening primrose are some of the plants that are able to grow at Badlands.

Interesting Reads

Geology and Paleontology of Badlands National Park

<https://www.nps.gov/badl/learn/nature/geology-paleontology.htm>
<https://>

Beyond Red: The Colors of Blood
allyouneedisbiology.wordpress.com/2019/03/17/color-blood/

California Academy of Sciences-Academy Breakfast Club

<https://www.calacademy.org/academy-breakfast-club-livestreamed>

Don't Miss:

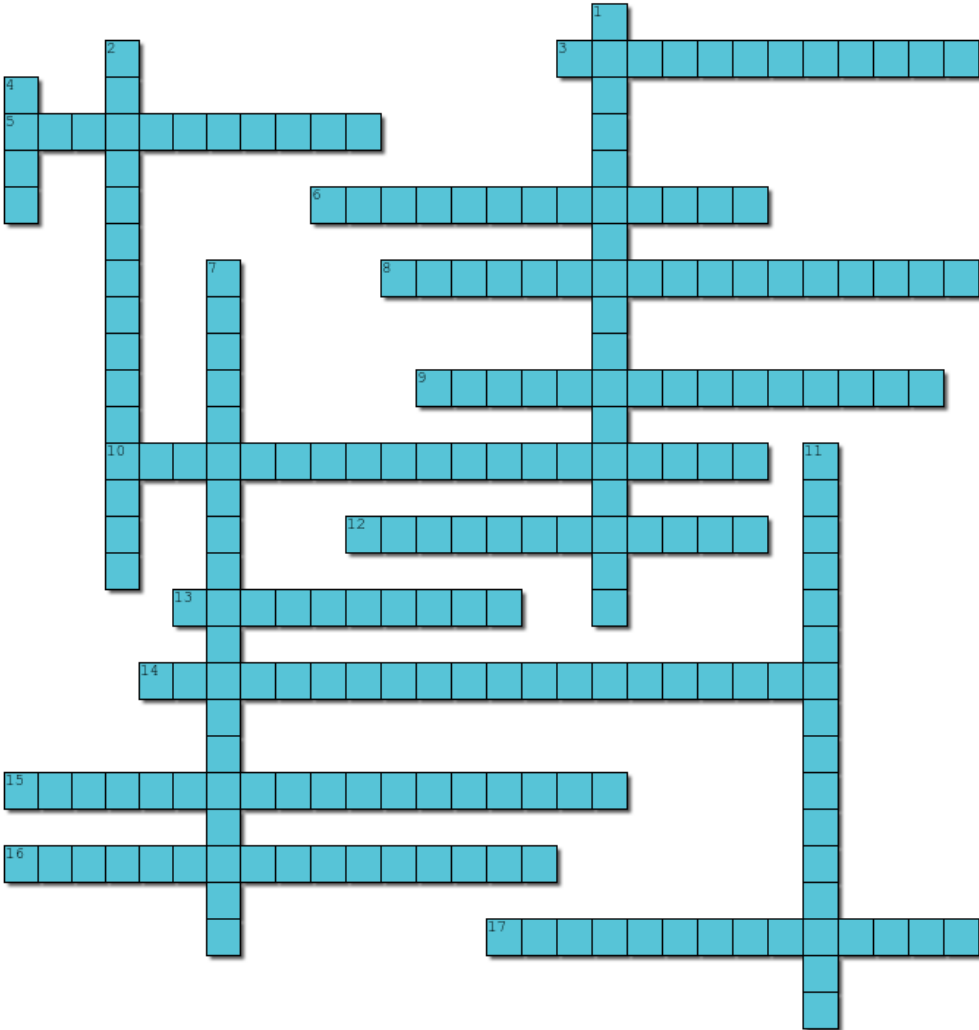
The Full Documentary of “Saving ‘Ohi’a”
Multi-award winning documentary
(as briefly mentioned in issue #11)

<https://savingohia.com/full-documentary/>

Games

Pacific Northwest Animal Crossword

*spaces and special characters are their own square



Created using the Crossword Maker on TheTeachersCorner.net

Pacific banana slug Ribbed limpet River otter Black oyster catcher Clouded sulphur

Garter snake Dunn's salamander Pacific harbor seal Nuttall's cockle American dipper

Bald eagle Orca Common wall lizard Pacific tree frog Chinook salmon Common

raven Northern goshawk

Across

- 3. Most widespread snake of North America, nonvenomous
- 5. Have water proof fur and webbed feet, genus *Lontra*
- 6. Species name 'digitalis' means 'fingered', referring to the ribbed shell
- 8. Larvae of this animal are exclusively terrestrial
- 9. Have yellow wings with 2 black and 2 orange spots
- 10. One of the most common pinnipeds of the Pacific Northwest
- 12. A focus of many west coast Indigenous myths
- 13. Named after their white head, has a wingspan of 6.6 feet
- 14. named after their main source of food (hint: a bivalve)
- 15. Species name means 'wall' in Latin
- 16. Shell as >30 distinctive radial ribs
- 17. Species name 'tshawytscha' means 'hooked nose' in Greek, referring to this animal's hooked jaw during mating season

Down

- 1. Most common frog in the Pacific Northwest, emphasis on 'Pacific'
- 2. The only aquatic songbird of North America
- 4. A common cetacean of the Pacific Northwest
- 7. A common gastropod that is yellow in color and grows to be 10' long
- 11. largest member of the genus *Accipiter*



Nature Trivia

Which of these animals are cannibals?

- A. Acorn woodpecker
- B. Golden hamster
- C. Sand shark
- D. Australian redback spider
- E. All of the above



Find the answer on the bottom of the page!



What animal is this?

See bottom of page for answer.

Get ready for quarantine issue #3 of *News For the Dedicated Zoologist!*

Website Coming Soon at dedicatedzoologist.com

Stay tuned and stay safe!