

STEMazing NEWS



SNAKE BIT!

Almost 3 million people a year are bitten by venomous snakes. About 100,000 of those die and almost half a million lose an arm or a leg because of the bite. To combat snake bites, anti-venom is administered as soon as possible. Until now, anti-venoms have been made by milking the snake of its venom and then administering it in small doses to lab animals who create the anti-venom. This is an expensive and time consuming process. Also, rare poisonous snakes are not covered by this protocol. To solve this problem, scientists have been able to synthesize molecules that mimic venoms. This may be a fast track to producing a larger quantity and range of anti-venoms and new types of medicines. See and read more at: <https://www.sciencenews.org/article/biologists-snake-venom-glands-organoids>



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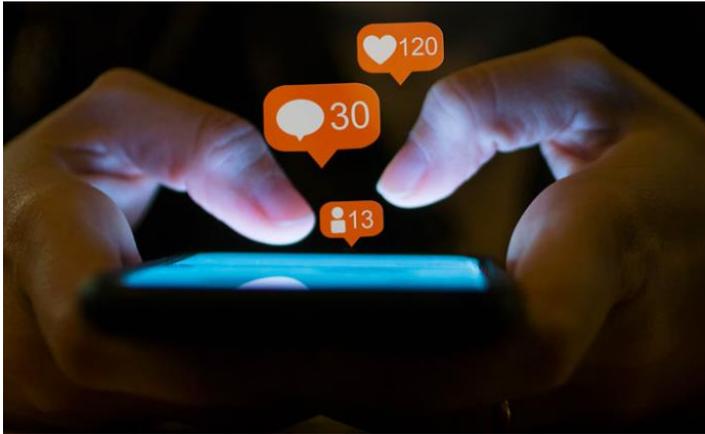
On Porpoise!

How could you stay alive in chilly ocean waters? One consideration for humans is our rate of metabolism. Humans eat food, digest, and use the carbohydrates to produce energy including body heat. We don't generate enough heat to combat the cold water. Porpoises generate about three times the amount of heat that humans do in order to stay warm enough to stay in the icy waters. How did scientists figure that out? They listened for porpoise breaths! Porpoises rescued from fishermen's nets were equipped with sensors that recorded breathing rate. The amount of oxygen an animal uses is related to energy consumption. Of course, porpoises must also chase after a lot of fish to burn with all that hot breath! See and read more at:
<https://www.sciencenews.org/article/counting-breaths-wild-porpoises-reveals-their-revved-metabolism>



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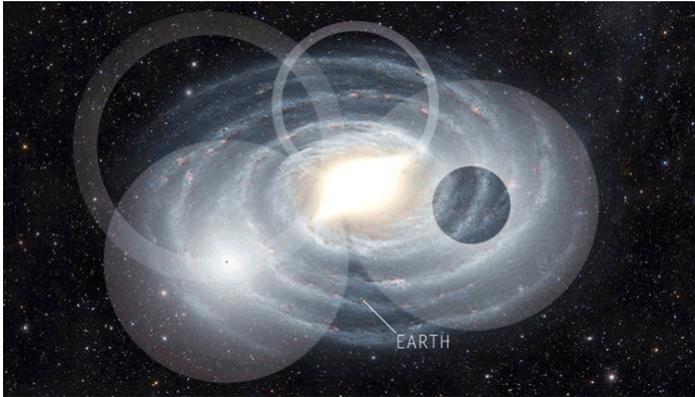
Twitter Bots!

Fake news is in the news. (Is that in itself fake news?) Researchers have found that almost anything can be trending, popular, and therefore influential if it has enough initial following. Experiments with fake news planted by the researchers showed that within seconds, the story had received hundreds of “likes.” Since it would have been humanly impossible to process and respond so quickly, computer scientists have maintained that these responses must be “bots” or automatic sites set-up to like any post with a particular key word or content. Getting rid of these sites will require human testing online to make sure you are not a robot! See and read more at: <https://www.sciencenews.org/article/twitter-bots-fake-news-2016-election>



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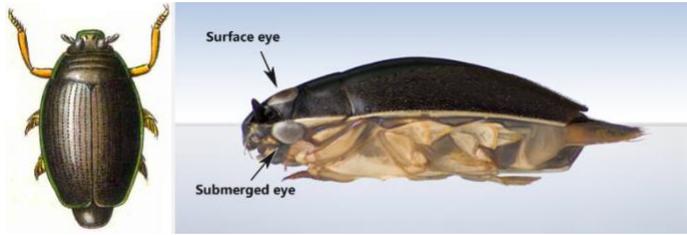
The Aliens are Dead!

When astronomers finally do hear a signal from an alien planet, their civilization is probably long gone. This theory is based on an assumption that alien civilizations would be somewhat like earth civilizations and last for less than 100,000 years. Since the size of the galaxy is about 100,000 light years across, those who sent the signals are long gone! ET probably can't phone home after all. See and read more at:
<https://www.sciencenews.org/article/drake-equation-alien-extraterrestrial-civilizations>



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Whirligigs!

If you ever watched a pond you would have likely seen a little black beetle on the surface whirling about looking for food. And that is how they got their name, whirligigs beetles. What is amazing about these beetles is that they have two surfaces on their eyes, one for seeing below water for prey and one above water for detecting predators. Air and water react differently to light so eye lenses must compensate for the differences. Ben Franklin might have thought he invented the bifocal, but the whirligig beetle had it long before! See and read more at: <https://asknature.org/strategy/eyes-allow-clear-vision-in-both-air-and-water/#.XBWWeBNKhmA>

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