Disclosure

of things evolutionists don't want you to know

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Strawberry Sex

The sex life of strawberries highlights problems for the theory of evolution.

Two of the best arguments against the theory of evolution are love and sex. There are so many reasons why love and sex are incompatible with the theory of evolution that we can't cover them all in a single issue. That's why we typically address just one aspect of love or sex in our February issue every year.

In general, love and sex are incompatible with the theory of evolution because the theory of evolution depends upon keeping your selfish genes alive by having as many descendents as possible who win the battle for survival. Lovingly, unselfishly helping your rival survive at your own expense makes no sense from an evolutionary perspective. Having to find a suitable mate to produce offspring, rather than doing it all by yourself, makes no sense, either. We've addressed these topics in past February issues, which are archived on our Newsletters page. [1]

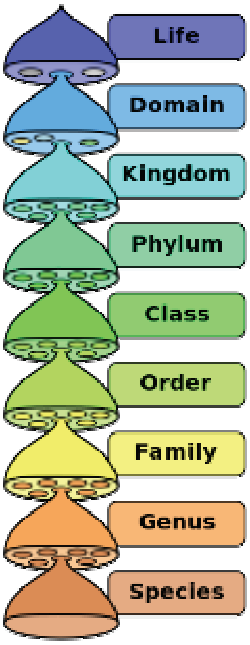
Last month, we told you, "The respected journal *Science* published a list of 'Our favorite science news stories of 2018.' " [2] One of those stories was, "The secret sex life of strawberries." [3] Since our "six-page newsletter" was already seven pages long last month, we just teased you by promising to address it this month. No more teasing now.

Classification Clarification

Before we get too deep into this discussion, we need to understand some terms (like sexual, asexual, phylum and species).

Individuals are classified as sexual if they need a partner of the opposite sex to reproduce. Asexual plants and animals can reproduce all by themselves.

Biologists have divided life into the categories shown below. [4]



Most people are familiar with the plant and animal kingdoms. Plants can make their own food (using photosynthesis or some other process). Animals can't make food, so they have to eat plants or animals to survive.

[1] http://scienceagainstevolution.info/newsletters.htm
[2] David Grimm, *Science*, 20 December 2018, "Our favorite science news stories of 2018", https://www.sciencemag.org/news/2018/12/our-favorite-science-news-stories-2018
[3] Carol Cruzan Morton, *Science*, 7 September, 2018, "The secret sex life of strawberries", https://www.sciencemag.org/news/2018/09/secret-sex-life-strawberries
[4] Diagram from https://en.wikipedia.org/wiki/Phylum

If evolution were true, plants would have had to have evolved first because the first plant could make its own food. The first animal would have starved if there were no other plants or animals to eat. Therefore (according to the theory) the first animal must have evolved from a plant.

A phylum (plural: phyla) is a major division of a kingdom. There are 35 animal phyla, and 14 plant phyla. The phyla are divided into classes. Each class is divided into orders, *et cetera*, as shown in the diagram.

For example, members of the *Mammalia* class (mammals) all have mammary glands and nurse their young with milk. One of the orders in that class is the *Carnivora* order (all of them eat meat). One of the families in the *Carnivora* order is the *Felidae* (felines), which is divided into genera including the *Felis* genus, which includes the species *Felis catus* (the domestic cat).

Linnaeus published his classification system, *Systema Naturae*, in 1735. Biologists have used it ever since, with some modifications. (For example, whales are no longer classified as fish. They are classified as mammals because the consensus opinion among those with academic power think that giving milk is a more important shared characteristic than living in the water.)

Linnaeus did not believe in evolution. He classified living things based on shared characteristics. For example, can they make their own food, do they have a backbone, do they nurse their young with milk, do they eat meat? Later biologists have turned his classification system into a Tree of Life based on the faulty assumption that shared characteristics are the result of common ancestry. They think that every mammal has mammary glands because it evolved from the first creature to have mammary glands.

Now, with that background out of the way, we can examine the strawberry story.

The Strawberry Story

Carol Morton began her story with this summary:

> Woman and man, hen and rooster, cow and bull—separate sexes may seem fundamental to nature, but they're an oddity for most plants. Now, scientists have figured out how strawberries, which have the youngest known sex chromosomes of any plant or animal, made their recent transition to male and female. The unusual "jumping" genes responsible could mean sex differences can change faster in plants than anyone realized. [5]

[5] Carol Cruzan Morton, *Science*, 7 September, 2018, 2

There is a lot to unpack from those three sentences.

First Sentence

The first sentence states that sexual reproduction is odd for plants but not for animals. Oddity is in the eye of the beholder. Perhaps her point is that asexual reproduction is more rare in animals than in plants. That seems true to us, but Wikipedia claims,

> Asexual reproduction is found in nearly half of the animal phyla. [6]

Don't be confused. Wikipedia did not say, "Asexual reproduction is found in nearly half of the animal SPECIES." The author of the Wikipedia article meant that in half of the 35 animal phyla, there is at least one species in that phylum which reproduces asexually.

Just to be clear, if you made a list of every animal species you could think of (dog, chicken, iguana, and so on) and put the letter S next to each animal that used sexual reproduction, and an A next to each animal that reproduced asexually, certainly there would be a lot more S's than A's. On the other hand, there are several different phyla of worms. If you examined every species of worm in a particular phyla, in half of those phyla you might find at least one species of worm that does reproduce asexually. In some animal phyla, all reproduce sexually. In other phyla all reproduce asexually. Some phyla contain some sexual species and some asexual species.

The troubling (for evolutionists) observation is that sexual reproduction must have arisen independently in 17 or 18 of the animal phyla. It is hard enough to believe that sexual reproduction evolved once. It is much harder to believe that sex evolved independently 17 or 18 times in the animal kingdom (and several times in the vegetable kingdom, too).

The other disturbing possibility is that if the classification system really does represent an evolutionary tree of life, they got it all wrong. That is, perhaps the animal kingdom should have been divided into two super-phyla called "sexual animals" and "asexual animals," and parts of each

"The secret sex life of strawberries", https://www.sciencemag.org/news/2018/09/secret-sex-life-strawberries.

[6] https://en.wikipedia.org/wiki/Asexual_reproduction#Examples_in_animals, quoting Minelli, Alessandro (2009). *Asexual reproduction and regeneration. Perspectives in Animal Phylogeny and Evolution.* Oxford University Press. pp. 123–127. ISBN 978-0198566205.

of the currently accepted phyla should be moved into the sexual and asexual super-phyla, which would completely rewrite the evolutionary tree.

Of course, saying that the highest divisions of the animal kingdom should be sexual and asexual is simply an opinion—which is exactly our point. The entire classification system is based on the opinions of academic authorities. There are no truly right or wrong classification criteria—there are only accepted classification criteria.

Here's the problem for evolutionists: According to their theory, all life evolved from the first living cell, which reproduced asexually through cell division. Therefore, sexual reproduction had to have evolved some time later. One would expect all the descendants of that first sexual creature to use sexual reproduction. The claim that, "Asexual reproduction is found in nearly half of the animal phyla," is inconsistent with that expectation. If sexual reproduction were an inherited trait, one should be able to pinpoint in which (one) animal phylum sexual reproduction first evolved, and all the lower classes, orders, *et cetera* should either be completely sexual or asexual—but that's not the case.

That means evolutionists either have to revise their classification system (as they did when they changed whales from fish to mammals), or come up with some other excuse to explain the contradictory evidence.

> A complete lack of sexual reproduction is relatively rare among multi-cellular organisms, particularly animals. It is not entirely understood why the ability to reproduce sexually is so common among them. Current hypotheses suggest that asexual reproduction may have short term benefits when rapid population growth is important or in stable environments, while sexual reproduction offers a net advantage by allowing more rapid generation of genetic diversity, allowing adaptation to changing environments. Developmental constraints may underlie why few animals have relinquished sexual reproduction completely in their life-cycles. Another constraint on switching from sexual to asexual reproduction would be the concomitant loss of meiosis and the protective recombinational repair of DNA damage afforded as one function of meiosis. [7]

Explanations "suggesting" certain "benefits" or "advantages" are not scientific explanations. They are philosophical explanations based on dubious logic and unwarranted assumptions. Specifically, the notion that evolution causes species with special genetic benefits or special advantages (that is, special characteristics) to drive inferior species to extinction is a philosophical belief, not a proven scientific fact.

Wikipedia says that sexual reproduction has a "net advantage" over asexual reproduction in some situations—but that doesn't prove it evolved. Furthermore, there are some situations in which asexual reproduction has "short term benefits" over sexual reproduction—but that doesn't prove "few animals have relinquished sexual reproduction."

Often, if you examine an evolutionary argument, it boils down to (1) this species has a beneficial characteristic; (2) evolution produces beneficial characteristics; (3) therefore this beneficial feature evolved, which proves evolution produces beneficial characteristics. That isn't valid logic. Evolutionists argue that in some species sexual reproduction evolved because it is advantageous, and asexual reproduction evolved in other species because it is advantageous. Having sex proves evolution is true, and not having sex proves evolution is true. What more proof do you need? ☺

Second Sentence

All of that discussion was in response to the first sentence in Carol Morton's three-sentence introduction to the strawberry sex story. Let's move on to her second sentence.

> Now, scientists have figured out how strawberries, which have the youngest known sex chromosomes of any plant or animal, made their recent transition to male and female. [8]

How do they know strawberries "have the youngest known sex chromosomes?" They don't know when or how sexual reproduction began, so they can't possibly "know" that strawberries made a "recent transition to male and female." It is just an unsubstantiated claim.

Third Sentence

Then she said,

> The unusual "jumping" genes responsible could mean sex differences can change faster in plants than anyone realized. [9]

The main point of the article is that the "unusual" jumping genes are really very common, and therefore not unusual at all.

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[7] https://en.wikipedia.org/wiki/Asexual_reproduction

[8] Carol Cruzan Morton, *Science*, 7 September, 2018, "The secret sex life of strawberries", https://www.sciencemag.org/news/2018/09/secret-sex-life-strawberries

[9] *ibid.*

The Body

Given that three-sentence introduction, let's look at some key paragraphs in the body of the article.

> Animals have ancient sex chromosomes with a common origin. But in plants, sex chromosomes have arisen only recently (in the last few million years), and most plants are generally hermaphrodites—which contain both male and female sex organs. Only about 6% have split into different sexes, including garden asparagus, papaya, hops, and marijuana. Strawberries, as one uneducated Ohio farmer discovered in the 1840s, come in three flavors: male, female, and combo. [10]

The more evolutionists look into genetics, the more they ignore the obvious. On the one hand, they think sex chromosomes in animals must be the result of common origin a long time ago, proving evolution through common descent; but in plants, sex chromosomes evolved independently recently proving that evolution doesn't depend upon common descent. No matter what the facts are, the conclusion is always the same: It happened because of evolution.

Flowering Plants

> Flowering plants are the dominant plant form on land and they reproduce either sexually or asexually. Often their most distinguishing feature is their reproductive organs, commonly called flowers. The anther produces pollen grains which contain the male gametophytes (sperm). For pollination to occur, pollen grains must attach to the stigma of the female reproductive structure (carpel), where the female gametophytes (ovules) are located inside the ovary. After the pollen tube grows through the carpel's style, the sex cell nuclei from the pollen grain migrate into the ovule to fertilize the egg cell and endosperm nuclei within the female gametophyte in a process termed double fertilization. The resulting zygote develops into an embryo, while the triploid endosperm (one sperm cell plus two female cells) and female tissues of the ovule give rise to the surrounding tissues in the developing seed. The ovary, which produced the female gametophyte(s), then grows into a fruit, which surrounds the seed(s). Plants may either self-pollinate or cross-pollinate.
>
> Nonflowering plants like ferns, moss and liverworts use other means of sexual reproduction. [11]

Just by chance, the male pollen grows on the anther. Then, by wind, birds, or insects, some of the pollen moves to the carpel where the pollen tube grows through the carpel's style, and then the sex cell nuclei from the pollen grain migrate into the ovule to fertilize the egg cell and endosperm nuclei within the female gametophyte. What could go wrong with that? ☺

This complicated process has the advantage of allowing cross-pollination, which is good. But just because it is good doesn't mean it evolved by chance.

Most flowering plants have both an anther and carpel so they can self-fertilize; but as Morton pointed out, "Only about 6% [including mulberries] have split into different sexes." If you plant a mulberry tree, you have to plant either a female (which will drop rotten mulberries all over your driveway, staining it) or a male ("fruitless") mulberry (which will drop pollen all over your car in the spring, making you sneeze whenever you go anywhere). It is a cruel trick of evolution no matter what choice you make. ☺

There's nothing really new here. It is still a mystery why flowering plants evolved. It is still astonishingly lucky that bees and flowers both evolved at the same time because bees need flowers, and flowers need bees, to survive. Creationists have been saying this for years.

Strawberries have flowers, which produce seeds in fruit; but they also reproduce through stolons (the stems between plants shown in the photograph below). [12]

Here's What's New

> "For the first time, we now have a view of sex chromosome evolution over space and time," says Alex Harkess, an evolutionary biologist at Donald Danforth Plant Science Center in St. Louis, Missouri, who was not involved in the study. "It's not just about the establishment of sex chromosomes, it's how the sex-determining regions continue to evolve." [13]

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[10] *ibid.*

[11] https://en.wikipedia.org/wiki/Sexual_reproduction#Flowering_plants

[12] Photo by Dr U at English Wikipedia, https://commons.wikimedia.org/w/index.php?curid=61873590

[13] Carol Cruzan Morton, *Science*, 7 September, 2018, "The secret sex life of strawberries", https://www.sciencemag.org/news/2018/09/secret-sex-

The new claim is that sex is continuing to evolve.

> Ashman's first stroke of luck came when she and her team found the first evidence of male- and female-determining regions in an East Coast variety of a common North American wild strawberry (*Fragaria virginiana*) some 10 years ago. But when they found the same sex region in a closely related Oregon beach wild strawberry, *F. chiloensis*, it was in an entirely different place on an entirely different chromosome. The same was true of a third variety of strawberry. What were these regions doing in different places? [14]

How do they know *F. virginiana* and *F. chiloensis* are "closely related?" They are very similar—but similarity does not prove common ancestry. The fact that the sex-determining region is on different chromosomes in each species would be incontrovertable proof that they aren't closely related—if that didn't contradict the consensus opinion. ☺

> What's more, with each jump, the number of female-specific genes on the sequence increased. Those traveling "souvenirs" increased the difference between the sex chromosomes, the researchers speculate. In humans and other animals, such sex-specific differences eventually became extreme. In strawberries, the short jumping sequence contained two genes with potential roles in pollen and fruit development. [15]

Let's separate fact from speculation. It is a fact that the number of female-specific genes is different in each species. To a creationist, that fact suggests that they were individually designed. To an evolutionist, that fact suggests the number of genes increased with each jump. In neither case is it proof that the suggestion is correct.

> The researchers caution that the functions of the two genes and details of how they "jump" still need to be confirmed. And Ashman says the findings set the stage for an even bigger question: Why do these regions bother jumping in the first place? Ashman and Liston will be following up. [16]

If, in the laboratory, scientists sequenced the genes of subsequent generations of a single, pure-bred population of strawberries, and discovered the genes on different chromosomes in subsequent generations, that would be proof that the genes "jumped." Finding similar genes on different chromosomes on similar species of strawberries which were not bred from a single ancestral population in the laboratory, and therefore not known to have common ancestry, does not prove that genes jumped. The genes could just as easily have been created on different chromosomes for good (or perhaps whimsical) reasons by an intelligent designer.

Determining why these regions bother jumping is another matter. You may observe genes jumping. You may even experimentally discover environmental conditions under which the genes jump. But WHY they jump implies volition or purpose, which is incompatible with the notion of purposeless evolution. If there is a reason for why genes jump, it implies a willful intention and suggests that there is a meaning to life—ideas which are contrary to atheism.

Science can measure the force of gravity—but science cannot explain WHY masses attract each other (or why a north pole attracts a south pole).

Adaptation is not Evolution

Don't confuse adaptation with evolution. Adaptation is like having a box full of Lego building blocks with dozens of different shapes, which all have standard-sized posts and holes with a common spacing. You can assemble them however you want to build whatever you want, adapting to the requirements of the intended structure. Evolution is like having two or three differently shaped building blocks and hoping that one of them breaks into the necessary shape whenever you can't build what you need with the existing limited set of blocks.

Geneticists have known for some time that there are lots of different genes. What they have learned more recently from a variety of studies (including this study about strawberries) is that these genes can move around on the DNA molecule more than previously known, resulting in a surprisingly greater amount of variation.

The Molecular Clock

Evolutionists have tried to use comparisons of chromosomes to try to determine when species diverged. To do this, they have assumed a constant mutation rate. They take the number of differences in chromosomes, assume that the differences are due to random mutations, and divide the number of differences by the assumed mutation rate to compute the time it has taken for that number of differences to have accumulated.

This has always been questionable because of all the assumptions involved. There is no reason to assume that mutations happen at a constant rate. Perhaps mutations happen in spurts. There

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life-strawberries
[14] *ibid.*
[15] *ibid.*
[16] *ibid.*

is no reason to believe that the mutation rate in one species is the same as it is in another species. If the mutation rate is determined by comparing the differences in chromosomes of two species which are "known" to have split a certain number of millions of years ago, that is totally bogus reasoning.

So, the molecular clock has always been questionable. The discovery that sex genes in strawberries jump from place to place in a single generation makes the comparison of differences in genes much more difficult, if not impossible, to compute divergence times. It might look like a gene has changed when it has simply moved to someplace else and another gene has taken its place.

For example, this article you are reading is the final draft of an essay which has taken a number of weeks to write. Suppose you wanted to figure out how long it took to write it by comparing the second paragraph of draft 3 to the second paragraph of draft 5 to see how many words had changed. You might assume that draft 3 and draft 5 were written four days apart—but you have no way of knowing that. Based on that assumption, you might estimate the number of days between draft 1 and draft 5—and you might be right, or you might be wrong. You don't know if the final draft was draft 6 or draft 15, so you really can't tell how long it took to write this essay. You know we mentioned the sex life of strawberries in last month's newsletter, but you don't know if we had already written it (but didn't have room for it last month) or just had the idea to write it last month.

Then, if it happened that in draft 4 we decided to swap one of the sentences in the second paragraph with a sentence from the first paragraph, it would throw off your comparison because the words didn't change—they just changed places. To determine the number of word changes between draft 3 and draft 5, you would have to compare the whole essay, not just the second paragraph.

Comparing genomes is like comparing drafts of this manuscript. If you just look at one chromosome and find a difference, there might not really be a difference because the gene in question moved to a different chromosome without changing. Not only that, the strawberry sex study shows the same gene in a different place can cause a different physical result.

There is great value in studying how genetics manifest the various sexual properties of strawberries. That study involves experimentation and observation. We might learn something about how to increase the number of strawberries a plant produces. Growing more strawberries is better! That's good science. Science goes out the window when scientists start speculating about things they did not observe—such as what the genome must have been like before the observations began, and how long it took for the genome to develop.

Evolution in the News

Joshua Trees

Joshua trees highlight some interesting aspects of classification and sexual reproduction.

Joshua trees were in the news this month because some were vandalized; but when *Science News* reported the vandalism, they included some interesting information that reinforces points we made in this month's feature article about sexual plants.

Classification Puzzles

> The [Joshua] trees' … two species belong to the same family as agave and, believe it or not, asparagus. …
>
> The moth pollinating the *Yucca brevifolia* species of Joshua tree, which occupies the western part of the Mojave Desert range, is considered a different species from the moth pollinating the *Y. jaegeriana* trees toward the east. …
>
> What gets biologists really excited about Joshua trees is their pollination, with each of the two tree species relying on its own single species of *Tegeticula* moth. [17]

Biologists want you to believe that Joshua trees are classified in the same family as "believe it or not, asparagus." Sometimes the arbitrary criteria biologists use to determine which species are closely related yield some surprising relationships, which you should not question, "believe it or not."

I was surprised to learn that the Joshua trees a few miles from my home here in the northwestern corner of the Mojave Desert are a different species from the Joshua trees in Joshua Tree National Park 170 miles southeast of here. I've been to Joshua Tree National Park a couple of

[17] Susan Milius, *Science News*, February 6, 2019, "Shutdown aside, Joshua trees live an odd life", https://www.sciencenews.org/article/shutdown-aside-joshua-trees-live-odd-life

times, and I never noticed any difference between those trees and "my" Joshua trees. Apparently there is some arbitrary criterion that subtlely differentiates the two. Perhaps the difference is that they are polinated by two different species of moths.

Pollination

> Typically, insects pollinate a flower "just by blundering around in there" as they grope for pollen and nectar for food, Smith says. But for the female moths that service the Joshua trees, pollination "does not look like an accident."
>
> The moth isn't sipping nectar. Joshua trees' glands no longer work. And moth offspring don't eat pollen. However, the moth will lay eggs that hatch into caterpillars that will need to eat the seeds that form inside the pollinated flowers. So the moth climbs into a Joshua tree blossom, unfurls long, semi-translucent tentacles from her mouthparts and collects tree pollen into a heavy, yellow wad that she tucks under her head. When she reaches another flower, her tentacles deliver some of the pollen load to fertilize that flower's ovules. [18]

Smith says the reproductive process "does not **look** like an accident." Does he really believe it is an accident (in spite of logic and common sense) or is he afraid to say definitely that **it is not an accident** (because that might damage his standing in the scientific community)?

Joshua tree flowers don't produce nectar now—but there is no evidence they once did. Apparently, he merely assumes they used to produce nectar, but since the nectar wasn't necessary, evolution caused them to stop producing nectar. Isn't it possible that the flowers never produced nectar in the first place because there never was a need for it?

The moth pollenates ovules so that they will grow into seeds which her caterpillar babies will eat. But if the caterpillars eat all the seeds, there eventually won't be any more Joshua trees. Isn't it lucky that the moth pollenates enough ovules so that there will be more seeds than her offspring can eat? ☺

The more you think, the more questions you have. That's why evolutionists don't want you to think!

[18] *ibid.*

Email

Marketing

You can help.

Last month we wondered if there is still a need for Science Against Evolution. We want to thank all of you who wrote to say that there is, and encouraged us to continue. Among the emails saying we do a good job of presenting evidence against evolution, there was one email which correctly pointed out that we don't do a very good job of marketing our information. Seppo wrote:

> The information on your site is extremely important for everyone to know. You could write an article like some kind of evolution leaflet/tract so that people can print that out and give away. Maybe churches could make copies of that tract to give away on the streets.
>
> You could put a small ad in a newspaper or magazine. Cards could be left at several places. The text on a card or in an ad could be something like:
>
> "If you want to keep believing in the theory of evolution don't visit scienceagainstevolution.info"
>
> "I dare you to visit scienceagainstevolution.info"
>
> "Why do teachers, and politicians hate scienceagainstevolution.info?"
>
> "The science is in, Darwin is out; scienceagainstevolution.info"
>
> I think a leaflet/tract should contain something about:
>
> -The worldview that someone has dictates how he or she interprets the facts.
> -The difference between operational science and historical science.
> -The difference between micro-and macro evolution.
> -Mutations cause genetic degeneration/ genetic entropy.
> -The impossibility of abiogenesis.
> -The problems with radiometric dating. (If the earth was created 10000 years ago then you probably measure now approximately the isotope ratio of that time)
> -Fossils are no evidence for macro evolution.
> -DNA contradicts evolutionary tree of life.

Seppo has a good idea—but it would be better if YOU did it. You can direct people to our website or our ScienceAgainstEvolution.info Facebook page.[19] You can put ads in your local paper or your church bulletin. We would really appreciate that!

[19] https://www.facebook.com/SscienceAgainstEvolution/

by Lothar Janetzko

EVOSKEPSIS

https://www.evoskepsis.nl/english/index.php

Association of Critical Scientists

This month's website review looks at another website recommended by a reader from the Netherlands. From the Welcome on the home page you learn that this is the "website of Evoskepsis, an association of critical scientists and practitioners who are skeptical over the empirical foundation of the 'innovation motor' of the theory of evolution. The objectives of Evoskepsis are the stimulation of the scientific debate over the tenability of the theory of evolution in its current formulation and the defense of science against misunderstanding and misuse."

The website presents the views of Evoskepsis by the following three topic areas:

1. Science and religion – Evoskepsis' view of the relation between science and religion
2. Vision – Evoskepsis' vision of the theory of evolution
3. Problems – Key and secondary problems in the theory of evolution

The different topic areas can be explored by selecting different tabs on the home page or by just selecting a topic from the bottom of the page and then selecting the Read more > link.

From the Science and religion topic, you learn that Evoskepsis believes "Science is a domain of knowledge containing testable theories, which continue to be open for criticism and falsification. Religion is a domain of knowledge containing theories that need not be testable and mostly aren't. They need not be open for debate either." Also, "Both science and religion are based on assumptions that cannot be proved."

The second topic area, Vision, presents how Evoskepsis believes the scientific debate and criticism over the theory of evolution should be addressed.

The third topic area addresses seven different key problems and twelve secondary problems in the theory of evolution. Each problem discussed makes for interesting reading.

In addition to the three topic areas presented on the website, on the home page of the site you will find a link to Publications of Evoskepsis. Here you can explore in more detail why Evoskepsis is so skeptical of many of the common beliefs held by evolutionists today.