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**Comets,
the Oort Cloud and
the Kuiper Belt**

**Weird and Wonderful
The Moloch and the Aardvark**

The Genesis 1 Creation Account

The Family—Basis of a Healthy Society

LUTHERAN SCIENCE INSTITUTE, INC.

4130 Harvest Lane
Racine, Wisconsin 53402-9562
<http://www.lutherscience.org>

The mission of the Lutheran Science Institute is to learn, share, and promote the glory of God as revealed in His holy Word and demonstrated in His created world, beginning with the pastors, teachers, and laity of the WELS (Wis. Ev. Lutheran Synod) and the ELS (Ev. Lutheran Synod).

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The Annual Meeting of the Institute is held the Saturday *after* Thanksgiving. At least three other meetings are held during the year at locations selected by the president. Meetings are open to the public and announced in the LSI JOURNAL and/or on our web site.

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MEETING SCHEDULE*

- ◆ 4th Saturday in January, 1:00 p.m.
- ◆ 2nd Saturday in June, 1:00 p.m.
- ◆ Last Saturday in October, 1:00 p.m.
- ◆ Saturday *after* Thanksgiving in November, 1:00 p.m.

*Dates, times, and locations subject to change. Additional meetings may be scheduled. Check with the president, secretary, or editor or see our web site for verification.

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Coming

A Review of Christopher Hitchens, *God is not Great: How Religion Poisons Everything* and Richard Dawkins, *The God Delusion*

If you wanted two big-mouth atheists to critique, you could not choose any better candidates than Christopher Hitchens and Richard Dawkins.

Redoing the Tree of Life, Again

According to the Tree of Life, life evolved in a linear fashion from the first life form and branched out into the separate kingdoms, phyla, and so forth that we see today. This famous image has proved incorrect.

Comets, The Oort Cloud and the Kuiper Belt



Astronomer Edmund Halley
for whom Halley's Comet was named.

By Warren Krug

The year was 1909. Reports started appearing in the nation's newspapers about an approaching celestial event of some importance. A well-known comet called Halley's was heading for Earth.

In September of that year, the New York Times carried several stories that the comet had been sighted by various observatories. Interest was building.

By the next year excitement about Halley's arrival was beginning to change—into fear. The Times in February of 1910 ran stories about possible fallout from the comet of the poisonous gas, cyanogen.

In April an unusual darkness over Chicago was blamed by some people on Halley's. Some also blamed the comet for the death in April of the famous hu-

morist Mark Twain. Twain had been quoted as saying, "I came in with Halley's Comet in 1835. It is coming again next year, and I expect to go out with it."

Although some people planned "comet parties" and astronomers were trying to reassure citizens that there was no danger from the comet, not everyone was convinced.

In May it was reported that Earth could pass through Halley's tail on the 18th or 19th. All-night services were held on the 18th in churches to pray for deliverance.

On May 21 it was reported by the Times that the tail had passed Earth and may have missed it by 197,000 miles. The excitement and hysteria soon died out.

The author is the editor of the LSI Journal. The cover illustration shows the Comet Hale-Bopp, taken in 1997.



Halley's Comet, March 8, 1986

The Nature of a Comet

Dirty snowballs! That's how these solid bodies of dust and frozen gases have been described. They are thought to have been around since the beginning of the solar system.

The body of a comet, called the nucleus, is small, ranging in size from only 1 to 30 miles in diameter. As a comet nears the Sun, some of the icy material evaporates and forms an envelope of gas and dust, called the coma, which may grow up to 600,000 miles or more in diameter and which hides the nucleus from view. Solar wind and radiation pressure from sunlight sweeps this material backward to form the "tail" of the comet. Actually, a comet has two tails, one of electrically-charged atoms called ions and the other of dust. Comet tails can span a distance greater than the distance between the Earth and the Sun and always point away from the Sun.

More than 1,500 comets have been identified, about 150 of them called "short-period" comets because they make an orbit

around the Sun in less than 200 years.

How did people in Mark Twain's Day know Halley's comet would make a repeat visit to Earth in 1910? It was Isaac Newton who first proposed that comets revolve in eccentric orbits around the Sun. And it was Edmond Halley who noticed that several comets seemed to make predictable orbits. He suggested that a comet seen in 1531 may be the same one seen in 1607 and which he himself observed in 1682. Halley confidently predicted that "Halley's Comet" would reappear in 1758, which, of course it did. With an interval of 75-76 years, Halley's has made reappearances in 1835, 1910, and 1986.

The visibility of a comet from Earth depends upon the size and composition of the nucleus, how close it gets to the Sun and how far from Earth it is traveling. Thus, to viewers on Earth Halley's Comet was spectacular in 1910 but a disappointment in 1986. In 1986 when the comet was at its brightest, it was on the opposite side of the Sun as Earth.

Comets and an Old Universe

Life for a comet traveling through the solar system is dangerous—especially for the comet.

The fact that ice in the nucleus of a comet partially evapo-

rates every time the comet nears the sun means that comets are slowly being destroyed. Many short-period comets have been observed to have grown dimmer each time they have been seen.

A second danger is that comets could be captured by a planet and crash to their deaths. This happened to Comet Shoemaker-Levy which broke apart and smashed into Jupiter in 1994.



Jupiter, showing impact marks from Shoemaker-Levy fragments that hit the planet.

Thirdly, comets can have their orbits altered by near-passes to a planet and be ejected from the Solar System.

Creationist astronomers, and evolutionists too, have done their calculations and determined that in a solar system of billions of years there should be no such thing as comets any more. Comets, especially the short-period variety, would have made thousands or millions of their dangerous trips through our neighborhood.

That leaves only two possible

solutions: either comets are coming into the solar system from beyond, or within the far reaches of the solar system there is a place where new comets can be born.

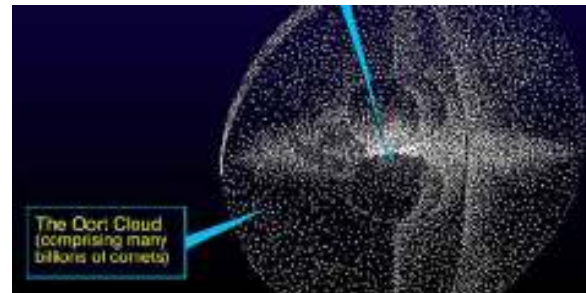
Almost no astronomer today believes in interstellar comets. A comet entering the solar system from outside it would be traveling much too fast to go into orbit around the Sun. Also, nobody has ever seen a comet outside the solar system.

The Oort Cloud

The Dutch astronomer, Jan Hendrik Oort (1900-1992) in 1950 came up with the idea that there is a kind of comet nursery or reservoir of comet nuclei lying far from the Sun, maybe extending three light-years out and a source of long-period comets (orbits of more than 200 years).

The idea is that passing stars, gas clouds, or galactic tides can knock these young comets out of the Cloud and into the inner solar system.

This theory though has problems. First of all, nobody has detected the Oort Cloud. Sagan and Druyan in their book *Comets* stated "Many scientific papers are written each year about the Oort Cloud, its properties, its origin, its evolution. Yet there is not yet a shred of direct observational evidence for its existence."



Artist's conception of the imagined Oort Cloud

In research on the Internet, one can find descriptions of this Oort Cloud on secular sites written with the same degree of certainty as one has for the existence of the moon or the planet Jupiter. Yet other secular sites do use modifiers such as "speculative," "postulated," "no confirmed direct observations," "is thought," and "are said" in discussing the Oort Cloud.

Another problem confirmed by a study in 2001 found a strong possibility that collisions over the hypothetical billions of years could have destroyed most of these Oort Cloud comets (Stern and Weissman, *Nature*, 409 (6820):589-591, 2001).

The Kuiper Belt

If the Oort Cloud is an unscientific explanation for the existence of long-period comets, what about the Kuiper Belt as the answer for the short-period variety?

Named after Dutch astrono-

mer Gerald Kuiper (1905-1973), the Kuiper Belt, said to lie beyond Neptune's orbit, is supposed to be a doughnut-shaped reservoir of billions of comet nuclei.

While many objects (651 as of January, 2003)

have been found in this area including the ex-planet Pluto, these objects tend to be much larger than comets. Many astronomers refer to these Kuiper Belt items as Trans-Neptunian Objects rather than as comet nuclei. So, the Kuiper Belt like the Oort Cloud is merely a hypothetical storage area for comets.

In Summary

Creationist scientists are often accused of *interpreting* evidence to fit their preconceived ideas. But here we have evolutionist scientists literally *fabricating* "evidence" to explain how short-lived phenomenon like comets could exist in a universe of billions of years. Creationists would rather stick to the Bible and common sense. ☞☞

Sources:

en.wikipedia.org
answersingenesis.org
<http://www.geocities.com/Athens/Olympus/6745/NYTimesHC.htm>

Weird and Wonderful: The Moloch (Thorny Devil)



Looking rather like a walking cactus, the moloch is a lizard which lives in the deserts of Australia. It is also known as the thorny devil, which is not surprising, since its body is covered with sharp, hornlike spikes. Although it is only 16 cm (6 inches) long, its spikes make it look quite scary, and most other animals leave it well alone. Yet the moloch is quite harmless, and hides its head between its front legs when it is frightened.

The Moloch's main food is

ants, which it eats with a sticky tongue, and will sometimes swallow thousands of ants in a single meal. In mid-summer, the female moloch digs a tunnel in which she lays about 8 eggs. The baby molochs are quite large when they hatch—about 6 cm long.

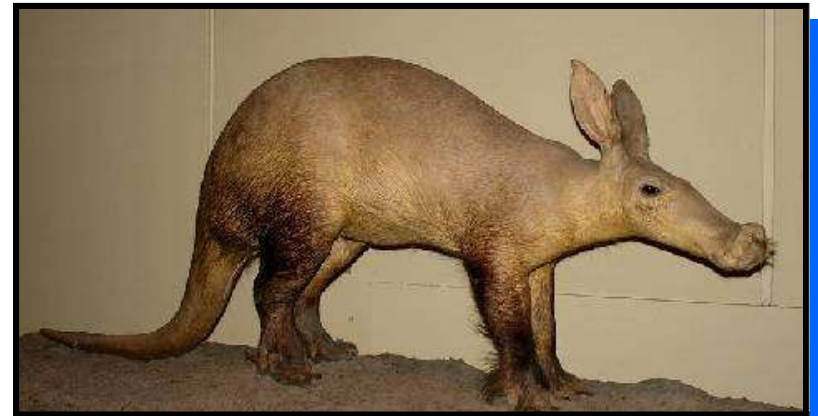
The spikes on the Moloch's body, which make it look so ugly, are designed for a purpose. In the desert, where it lives, there is very little water, but during the cool nights there is dew, which collects on the lizard's skin. The Moloch's body is covered with

tiny channels or groves, which lead to its lips. This means that it is able to drink the dew which is collected on its spiky body!

It seems impossible that the moloch could have got its spiky coat, and system of grooves, through gradual evolution.

How could it have managed to survive in the desert unless this was all complete from the start? This strange, prickly lizard is perfectly designed for living in the desert—another of God's weird and wonderful creatures! LSI

Weird and Wonderful: The Aardvark



The Aardvark is a strange mammal which lives in Africa. The name is a Dutch word, meaning "earth-pig." This describes them rather well, since

Aardvarks sleep in underground burrows. They are not often seen, as they sleep by day and come out at night. Their burrows are sometimes 12 metres (40 feet) long, and may have a number of

Different entrances. Aardvarks have spoon-like claws on their feet, which they use to dig their burrows. They live mainly on ants and termites, though they sometimes also eat wild fruit. Ants and termites live in nests made from earth, and aardvarks use their strong sharp claws to dig their way through the tough, outer shell, and then lick the insects up with their long, sticky tongue. The Aardvark's skin is so tough that insects can't sting them. In fact,

they sometimes sleep in a nest when they have had their fill. Their nostrils have lots of hairs and fleshy tentacles to prevent insects crawling into them.

Evolution can't explain where Aardvarks came from. The fossils show that they have always been much as they are today. These strange animals seem to have been specially designed for their way of life by God, their Creator. LSI

Reprinted from a publication of the Creation Resources Trust, England.



Some Snow Facts

- The largest snowflake ever recorded was a 15-incher found in Fort Keogh, Montana in 1887.
- Snow is a mineral, like diamonds and salt.
- A snow crystal can be 50 times as wide as it is thick and generally far thinner than a piece of paper.
- A snowflake most often is not just one of the symmetrical crystals we usually call snowflakes but a bunch of them stuck together.
- Freshly fallen snow is typically 90-95% air.
- It doesn't snow much at the poles. Blizzards there usually consist of old snow blowing around.
- Valdez, Alaska gets the most snow of any place in the U. S.—326 inches a year on average.

—*Discover magazine (January, 2008)*



The Genesis 1 Creation Account

By **Darrel Kautz**

According to the first chapter of Genesis, the universe in all its parts was brought into existence supernaturally by God within the space of six ordinary days. In this connection it is significant to note that there is a passage within the Ten Commandments which says the same thing. “For in six days the Lord made the heavens and the earth, the sea, and all that is in them, but he rested on the seventh day.” (Ex. 20:11) If the Ten Commandments were meant to be understood in their natural sense, then this statement about creation likewise can be so understood. Note Ex. 31:17: “It (The Sabbath) will be a sign between me and the Israelites forever, for in six days the Lord made the heavens and the earth, and on the seventh day he ab-

stained from work and rested.” The eternal, thinking God planned the universe in all its parts in His realm of timelessness (in eternity), and brought it into existence within a period of six days as we commonly understand a day. The following points are additional reasons why the word “day” (Hebrew *yom*), as it is used in Genesis 1, is to be understood as a rotational or 24-hour day:

1. It is a basic principle of biblical interpretation that a word is to be taken in its literal sense unless there are compelling reasons to the contrary. The arguments for macroevolution are

The late Darrel Kautz was an LSI member and former instructor. Reprinted from his book, *The Origin of Living Things*, with permission of the family.

neither compelling nor scientifically defensible.

2. Each of the six creation days is accompanied by the expression “and there was evening, and there was morning.” That expression disallows long periods of time such as ages or eras.

3. From what is said in Gen. 1:1-5, it can be assumed that the rotation of the earth on its axis was a part of God’s Day 1 creating activity.

4. In the Bible the occurrence of an ordinal number (first, second, third, etc.) before the word “day” always denotes a rotational day.

5. God’s almighty power is such that He can accomplish a staggering amount of work instantaneously. The entire work of creation was a miraculous event.



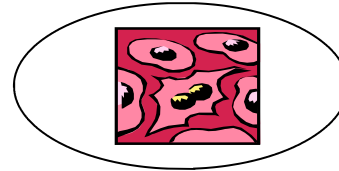
In understanding Genesis 1 it is necessary to see that on Day 1 the universe (the “heavens and the earth” in Hebrew terminology) was created in its *unfinished* form. Not until the end of Day 4 is planet Earth ready to sustain animals and human beings. God worked six days to bring the cosmos and living things into existence; on the seventh day He

rested, that is, He ceased from His work of creation. This explains why it is that people, generally speaking, follow the pattern of six days of work and one day of rest.

In Genesis 1:1 - 2:4a two Hebrew words are used in connection with God’s creating activity: *bara* (create) and *asa* (make). It is interesting to note that the verb *bara* occurs at three crucial points in the narrative: In 1:1 where *matter/energy* (heavens and earth/universe) is brought into existence, in 1:21 where *life* comes into existence — living creatures in the waters and in the air (sea life and fowl), and in 1:27 (three occurrences of *bara*) where *human beings* are brought into existence.

Thus the word “*bara*” (create) — used in the Bible only in connection with God — appears to point to the production of something which is uniquely new: matter/energy, life, and human beings. This sequence of one-time, supernatural events could never have occurred except for the prior existence of a Creator. Those three creation events correlate beautifully with the presently known scientific evidence mentioned elsewhere in this book, namely, that there could never have been 1. a spontaneous origin of matter/energy, 2. a self-organization of matter/energy into a living organism

— a cell, for instance, and 3. a subsequent transformation or evolution of lower forms of life into human beings through a series of intermediates.



That the word “*asa*” (make) also is used to indicate divine creativity, can be seen from 1:7, 16, 25-26, 31, and in 2:2-3. *Asa* is commonly used for human activity too, for Noah made (*asa*) the ark and the Israelites in Egypt made (*asa*) bricks.

Interestingly, in 2:3 both *bara* and *asa* are used. H. C. Leupold translates that verse like this: “And God blessed the seventh day and sanctified it, for on it He desisted from all His work which He had *created* by *making*.”¹ In Exodus 20:11 and 31:17 Moses speaks of all of God’s Genesis 1 creating activity by using the word “*asa*.” The colophon of the creation narrative (2:4a) uses the word “*bara*” in speaking of God’s creating work. ☞☞

1. Leupold, H. C. *Exposition of Genesis* (Wartburg Press, 1942), p. 103.

Creation Week

Day 1 *The origin of matter/energy (galaxies and our solar system — in their unfinished form). Planet earth covered with water and without distinguishing surface features. A non-sunlight type of light. The earth’s rotation initiating the normal day. The night-day cycle. Time and space.*

Day 2 *Atmosphere (the expanse or firmament). The upper waters — those above the atmosphere in pre-Flood times.*

Day 3 *Dry land (earth). Seas. Vegetation according to various kinds, each with the capacity of reproducing according to its kind.*

Day 4 *Luminaries (sun, moon, stars) — the light from those bodies, not the bodies themselves since they were created on day one.*

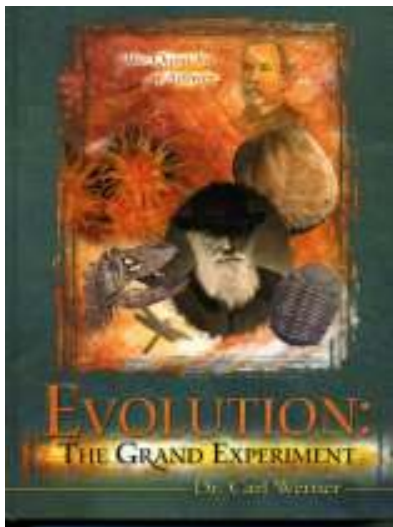
Day 5 *Various kinds of living creatures in the water and of birds — each with the capacity of reproducing according to its kind.*

Day 6 *Various kinds of land animals: domestic animals, creepers, and beasts — each with the capacity of reproducing according to its kind. Two human beings made in the image of God, one male and one female.*

Day 7 *God ceased from His creating work. He blessed the seventh day and made it holy.*

► Book Review

Werner, Dr. Carl, *Evolution: the Grand Experiment*, Green Forest, AR: New Leaf Press, © 2007, 262 pages.



This book contains no Bible passages or even any reference to the Bible. It rarely mentions God. It does not, at least overtly, try to advance or defend the concept of biblical or scientific creationism. Scientists who oppose evolution aren't called "creationists," but simply "scientists who oppose evolution." About the only places where any creationism creeps in at all are a few places where a creationist scientist is quoted.

Yet, Christians might well

want this book on their bookshelves. In a very attractive and interesting way it logically and thoroughly dissects and invalidates the theory of evolution. This might just be the book to give to an atheistic or agnostic acquaintance who somewhere along the line got turned off to religion. It might just be the book a brave college student could loan to an unbelieving professor.

With charts, photos, and quotations galore, the it begins with the outmoded ideas of spontaneous generation and acquired characteristics, proceeds to analyze natural selection and chance mutations and their inadequacies in regard to evolution, and reviews all major groups of plants and animals and the lack of support in the fossil record for their alleged evolution.

We have added this book to our library. I liked it despite its lack of an evangelical message which I think was intentional. LSI

—wk



An illustration from the book showing the alleged evolution of a whale. The book shows the difficulties of concluding that these are "intermediate species" in whale evolution.

► LSI News

Seeking a Tour Coordinator

At our recent Board of Director meetings we have discussed the possibility of organizing a trip next summer to the new Creation Museum in northern Kentucky. This museum is proving to be much more popular than almost anyone could have imagined. More than a quarter-million visitors have already toured the museum since its opening Memorial Day. In addition to the museum visit, we could also tour one or two other nearby attractions such as Mammoth Cave in Kentucky.



Opening Day at the Answers in Genesis Creation Museum

The only problem: we need a volunteer to head up the project. The coordinator would need to publicize the event, determine degree of interest, set dates, hire one or more buses, and determine fees (reduced rates for groups). If you are interested, please let us

know. We would greatly appreciate your assistance.

Special Rates on Gift Subscriptions

Special half-price rates are still available for any member who wishes to give a gift membership/subscription to a friend or relative. For instance, a normal \$18 or \$25 subscription is available for \$9 or \$12.50 if given by a member as a gift. Please consider this offer as a way of building our membership and spreading the news that through real science we can learn to appreciate all the more the wisdom and love of our Creator God and Savior.

Next Meeting

The next meeting of the Board of Directors is scheduled for Wisconsin Lutheran College in Milwaukee. The date is Saturday, January 26 at **5 p.m.** The location will be the private dining room off the main dining hall. Please note the change in time.



Intelligence Banned Says Ben Stein

Ben Stein's "Expelled: No Intelligence Allowed" is expected to be one of 2008's major box office releases. Scheduled for release in 2008, the film challenges evolutionary thought. Stein challenges viewers to think about and not simply accept evolutionary doctrines. The movie pictures America as being victimized by an elite group that has pushed the theory and refused to allow dissent.—*cbnnews.com* (10/2/07)

So Who's The Dodo Bird?

The movie *Flock of Dodos: The Evolution-Intelligent Design Circus* is now available in DVD format. Some evolutionists are concerned about the documentary because filmmaker Randy Olson attacks some evolutionists just as he does ID proponents. Because biblical creationists are not active in the Intelligent Design movement, they are largely excluded from the film.—*Answers* (October-December, 2007)

Neanderthals May Have Had Red Hair

Scientists think at least some of the ancient humans called Neanderthals could have had fair skin and red hair. Researchers studying Neanderthal DNA found a mutation that can affect skin and hair pigmentation. European and American scientists reported this discovery in an online edition of the journal *Science*.—(*Racine*) *Journal Times* (10/26/07)

Stem Cell Debate Over?

When scientists were able to make ordinary human skin cells act like embryonic stem cells, they may have provided a solution to the debate over stem cells. Laboratory teams working separately in the U.S. and Japan chose the same day to announce the breakthroughs that should allow embryonic-like cells to be created without the need to destroy embryos. Scientists inserted four genes into each skin cell which turned other genes on or off to mimic stem cells, but how the genes did it remains a mystery.—(*Racine*) *Journal Times* (11/21/07)

Like Creation Message

Creation scientist Dr. Werner Gitt has found more freedom to spread the message of creationism in Kazakhstan, a Muslim and former Communist country, than he has in the countries of western Europe. Speaking at universities in Kazakhstan, Gitt had no trouble dispersing thousands of free books and tracts to the interested students. Some students even committed their lives to Christ.—*Answers* (October-December, 2007)

Sweden Says 'No' To Creationism and ID

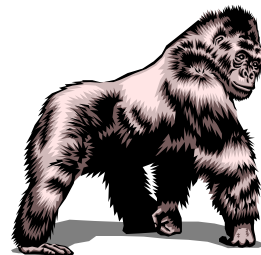
Sweden is planning to forbid the teaching of both creationism and intelligent design in the nation's schools—even independent ones. The education minister, Jan Bjorklund, has said, "Pupils must be protected from all forms of fundamentalism." Bjorklund plans to double the number of inspections in the schools and close those that break the rules.—*Christian News* (11/12/07)

Stop Christian Couple From Foster Children

A British couple with an excellent record of caring for almost 30 vulnerable foster children since 2001 may no longer legally be able to be foster parents. Their crime—they have refused to sign new sexual equality regulations that would have required them to promote homosexuality, which is against their Christian faith. Some religious campaigners say that gay rights now are trumping religious rights in Britain.—*Christian News* (11/12/07)

One-Third of Primates Face Extinction

Up to 1/3 of all primates (apes, monkeys, etc.) are in danger of extinction. Blame this situation on rampant habitat destruction, the commercial sale of primate meat and the trade in illegal wildlife, a report by Conservation International and a primatological society in China claims. There are 394 primate species and 114 are threatened. There is some good news—nine primates including the eastern gorilla and the black-faced lion tamarin were taken off a similar list produced in 2004.—*Milwaukee Journal Sentinel* (10/26/07)



Bears Face Extinction

As many as three-fourths of bear species are threatened with extinction. So says the World Conservation Union (IUCN), a global consortium of government agencies and environmental groups. Reporting on seven of the world's eight bear species, the group said only the Brown bear and the American Black bear are relatively healthy. Hunting and human encroachment are the main reasons for the declines.—*www.nature.com* (11/12/07)

Ladybugs Recruited To Do a Good Deed

More than 700,000 ladybugs were intentionally released on the 80-acre grounds of a large New York apartment complexes. Their mission: eat pests infesting the neatly landscaped property. The expectation was that the bugs would crawl into plants in search of insects such as leaf-sucking aphids and mites whose odor would attract them. Using ladybugs avoided the need for pesticides which can kill good insects as well as bad ones.—*Milwaukee Journal Sentinel* (10/22/07)



Carbon Dioxide Rate Rising Faster Than Ever

Carbon dioxide is rising in the atmosphere at a faster rate than ever, researchers have reported. In the 1990s, CO₂ emissions increased about 1.3% a year. Since 2000 the growth rate has been 3.3% per year. The researchers calculate that global carbon-dioxide emissions were 35% higher in 2006 than in 1990. Greenhouse gases such as carbon dioxide warm the planet by trapping heat in the atmosphere.—*www.usatoday.com* (10/25/07)

Fires Producing CO₂

The wildfires this autumn in southern California in just one week produced as much carbon dioxide as the state's power plants and automobiles did in the same period. And a Colorado study shows that U.S. wildfires each year pump enough of the greenhouse gas into the atmosphere yearly to surpass what Pennsylvania produces in a year. Forests can act as a sponge and absorb carbon dioxide but when burning can also produce it.—(*Racine*) *Journal Times* (11/1/07)

Discover Why Some Leaves Turn Red

Autumn leaves turn fiery-red in order to store up nutrients from the leaves and soil before settling down for the winter, concludes a researcher from the U. of North Carolina. She noticed the leaves of trees growing in poor soil tended to be red which those on trees in rich soil remained yellow. "The redder a leaf is, the more nutrients it is going to recycle," Emily Habinck said.—*www.nature.com* (11/30/07)

Oceans Soaking Up Less Carbon Dioxide

The amount of carbon dioxide being soaked up by the world's oceans is declining, scientists have said. Using more than 90,000 measurements from merchant ships equipped with automatic instruments, U. of East Anglia researchers found the absorption rate declined 50% between the mid-90s and 2005. Some of the scientists are worried that the ocean may be becoming saturated with carbon dioxide, although there is uncertainty over whether the decline is due to climate change or to natural variations.—*www.bbc.co.uk* (10/20/07)

Shingles Vaccination

Mayo Clinic doctors are recommending that adults over 60 who haven't yet been vaccinated against shingles consider the vaccine Zostavax. Approved 18 months ago, Zostavax has cut the chances of getting shingles by 50% or more in older adults. Shingles is caused by the virus that causes chickenpox and is often characterized by lingering pain.—*Mayo Clinic Health Letter* (October, 2007)

Extra Limbs Removed From Young Girl

A 2-year-old girl in Bangalore, India, born with four arms and four legs, underwent successful surgery that should enable her to lead a normal life. The extra limbs were removed, her organs were salvaged, and her pelvic area rebuilt in the 24-hour operation. Named Lakshmi, the girl had been joined at the pelvis to a "parasitic twin" that stopped developing in her mother's womb.—*Milwaukee Journal Sentinel* (11/8/07)

Cheney's Heart Shocked

Vice President Dick Cheney's heart was shocked back into a normal rhythm on November 26 during a 2½ operation. The procedure was described by doctors as a low-risk standard procedure. Cheney, 66, who has a history of heart problems, was found to have an irregular heartbeat when seen by doctors at the White House due to a lingering cough from a cold.—www.msnbc.com (11/26/07)

One-Third of Sick Days Due to Mental Issues

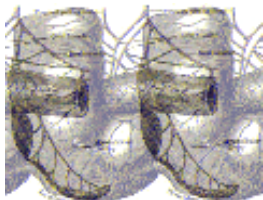
Each year adult Americans can be expected to miss 1.3 billion days of school and work due to depression, anxiety or other psychological disorders, according to a report in the Archives of General Psychiatry. That figure amounts to about a third of all sick days and is slightly more than the 1.2 billion days lost to back and neck pain. Experts say more needs to be done to treat mental disorders.—Milwaukee Journal Sentinel (10/8/07)

Statin Drugs Shown To Prevent Heart Attacks

Cholesterol-lowering statin drugs can help prevent heart attacks for at least 10 years after people stop taking them. This is the conclusion of the world's first long-term study of the leading type of medication. The research followed up a Scottish study that showed the drug Pravastatin substantially lowered the heart attack risk for five years. The new study appeared in the New England Journal of Medicine.—Milwaukee Journal Sentinel (10/11/07)

Discover Amoeba That Eats Brain Tissue

Six individuals have been killed this year by an amoeba that lives in lakes but can enter the body through the nose and attack the human brain where it feeds until it dies. The Centers for Disease Control and Prevention says the heat-loving amoeba does better in warm water, so is expected to become a more important pest as the climate warms. People become infected when they wade through shallow water and stir up the bottom. If they allow water to shoot up the nose, the amoeba can latch onto the olfactory nerve.— [\(Racine\) Journal Times](http://(Racine) Journal Times) (9/29/07)



Vermiform Appendix

Scientists Find a Role For the Appendix

Surgeons and immunologists at Duke University Medical School believe the appendix in humans produces and protects good germs in the gut. When diseases such as cholera or amoebic dysentery clears the gut of useful bacteria, the appendix can "reboot" the digestive system and cultivate the good germs. Once thought to be useless, the appendix needs to be removed from people when it becomes infected, but it is not needed as much in industrialized societies as it is in less developed countries.— [\(Racine\) Journal Times](http://(Racine) Journal Times) (10/6/07)

Prepared If Smallpox Makes a Comeback

Smallpox, which had killed countless people throughout history, was officially declared to have been vanquished in 1979, still the only disease with that distinction. An aggressive 12-year campaign of vaccination by the World Health Organization was credited with the happy results. However, after having been suspended in 1982, production of the vaccine resumed briefly a few years ago because of fears bioterrorists might be able to use smallpox as a weapon. If smallpox does reappear, scientists are confident they know how to stop it.—[Discover \(December, 2007\)](http://Discover (December, 2007))

Get Your Kids Their Shots or Go to Jail

A long line of parents lined up outside a Maryland courthouse in order to prove that their children had received required school vaccinations. They had been threatened with potential 10-day jail sentences. Two months into the school year, school officials in Prince George's County had discovered more than 2,000 students in the county did not have the required vaccinations, but many parents complained their children had been vaccinated but the officials had misplaced the records.—Milwaukee Journal Sentinel (11/18/07)



China Launches First Lunar Orbiter

China has launched its first lunar orbiter. The satellite, named Chang'e 1, blasted off from the Xichang Centre in China's Sichuan province, October 24, and was expected to enter lunar orbit in early November. China is in an undeclared space race with Asian rivals such as Japan and India. In 2003 China became the first Asian nation to use its own rocket to put an astronaut in space.—[\(10/24/07\)](http://(10/24/07))

Japan Launches A Lunar Orbiter

For the first time Japan has placed a satellite in orbit around the moon. The \$279 million Selenological and Engineering Explorer is the largest lunar mission since the U.S. Apollo program. The mission involves placing the main satellite in orbit at an altitude of about 60 miles and deploying two smaller satellites in polar orbits. Researchers hope the data will help answer questions about the moon's "origin and evolution."— [\(Racine\) Journal Times](http://(Racine) Journal Times) (10/5/07)

Evidence of Life On Mars?

A German researcher has taken another look at data obtained from a Viking Mars landed in 1976 and claims to have discovered evidence of possible life on the planet. Joop Houtkooper says 0.1 percent of Martian soil could be of biological origin. If confirmed, the "weird life form" would be based on hydrogen peroxide, which would act as a natural anti-freeze on the subfreezing Martian surface.—news.yahoo.com (7/23/07)

Antimatter Not Just Sci-Fi Any More

In science fiction antimatter has been used to power spaceships, but in real life physicists have struggled to create even fleeting particles of antimatter. However, a U. of California at Riverside scientist recently joined two positronium atoms (formed by the union of an electron and its antiparticle, the positron) into the first antimolecule. A short-lived molecule like that doesn't have any direct uses, but the technique may bring us closer to creating a powerful gamma-ray laser.—[Discover \(December, 2007\)](http://Discover (December, 2007))

New Spaceport to be Model for Environment

If all goes well, by 2009 tourists who have \$200,000 to spend can orbit the Earth on a 2½ hour flight aboard Virgin Galactic's *SpaceShipTwo*. And the project's spaceport, Spaceport America in New Mexico, is expected to be a model of efficiency and energy savings. The teardrop-shaped building will feature high-tech ventilation systems, solar panels, and massive windows, all deemed "ecologically sound" for a spaceport.—[Discover \(December, 2007\)](http://Discover (December, 2007))

Bacteria Genome Invades Fruit Fly DNA

When scientists discovered that the entire genome of a bacterial parasite had lodged itself in the DNA of a fruit fly species, they wondered if humans could be affected by bacteria in a similar way. So far, the answer appears to be negative. Scientists have thoroughly checked the human genome for bacterial genes without finding any.—[Discover \(December, 2007\)](http://Discover (December, 2007))

Musical Notes in Da Vinci's Masterpiece?

Are there musical notes encoded in Leonardo Da Vinci's "Last Supper"? An Italian musician and computer technician claims to have made this discovery, which suggests Da Vinci left behind a somber composition to accompany the 15th-century wall painting. "It sounds like a soundtrack that emphasizes the passion of Jesus," Giovanni Maria Pala said. Pala discovered the music by drawing the five lines of a musical staff across the painting and noticing the loaves of bread and Jesus' hands could represent musical notes. Pala eventually realized the score had to be read from right to left.—www.cnn.com (11/9/07)

Oceans May Cool Earth

Some scientists and businessmen think huge pumps could be used in the ocean to mix the waters and cool the planet. Large vertical pipes could mix nutrient-rich waters from hundreds of meters down with the more barren waters at the surface. This could help algae on the surface consume carbon dioxide, and when the algae dies, the carbon would sink into deep waters. The algae might also make chemicals to help clouds form and further cool the planet.—www.nature.com (9/26/07)

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Grain

“When Jacob learned that there was *grain* in Egypt, he said to his sons, “Why do you just keep looking at each other?” He continued, “I have heard that there is *grain* in Egypt. Go down there and buy some for us, so that we may live and not die.” Gen. 42:1-2 (NIV)

Readers will probably recognize this Bible passage as from the story of Jacob sending his sons to Egypt to buy grain which they couldn't grow in their own land because of a famine.

In Egypt the sons meet Joseph, their long-lost brother, whom they had sold into slavery. Joseph not only sells them grain but teaches them the importance of repentance over sins.

What is grain? Grains, which can also be called cereal crops, are mostly

grasses that are grown for their fruits or seeds which can be eaten.



wheat



oats



rice



Corn (maize)

What are some grains and where are they grown? They can be grown almost anywhere. Wheat, corn (called “maize” in some countries), rye, oats, and barley are among grains that grow well in cooler climates. Barley and rye can even be grown near the Arctic Circle and in Siberia. Rice and sorghum grow better in warmer climates.

What types of foods come from grains? Since grains are also called cereal crops, it is not surprising that our breakfast cereals are made of grains. Grains

can also be turned into flours which can be baked or cooked to make breads, buns, dumplings, pasta, and desserts. Grains such as rice and corn can be cooked and eaten as they are.

How good are grains for us? Cereal grains can provide us with energy, protein, fiber, vitamins and minerals. Whole grains are considered healthier or more nutritious than grain which has been milled. When a grain is milled, the seeds are crushed. Milled grain may taste better in some cases and keep longer without spoiling.

How is grain grown? Grains must be planted and harvested every year. Rice is usually grown in flooded fields. The other grains are either planted in the fall or spring, grow during the summer, and then are harvested. In our country, big machines are usually used to harvest the grains. To harvest means to cut the crops and to separate the

seeds from the straw. The harvested grain is then normally taken to a grain elevator for storage.



A big grain elevator in Texas

When we repent of our sins to God, as did Joseph's brothers, we show our hearts are ready to accept the forgiveness offered to us by our Savior, Jesus. Thank the Lord that He forgives us for Jesus' sake.

Activities

1. Learn more about corn by checking out the following Web site that has many fun activities such as videos and games:

<http://www.urbanext.uiuc.edu/corn>

2. How many different grains are in your kitchen cabinets? Look at the nutrition panels on the boxes for the information.

► My View



The Family — Basis of a Healthy Society

Bible-believing Christians have known all along the importance of the family unit in a strong society. It was God Who established the first “marriage” and blessed it with children.

As we have gotten away from biblical guidelines and allowed all sorts of temptations to creep into our world, the family and society have both suffered.

Several recent reports have hinted that people are beginning to look again at the value of strong parenting and strong families.

1. A Census Bureau survey from 2004 showed that parents are taking a more active role in raising their children than they did just a decade ago.

Parents are more likely to limit TV watching, more likely to spend quality time with their kids such as reading to the younger ones, and setting higher expectations for doing well in school.

2. Another report focused on comments at a Harvard University conference made by Karl Zinsmeister, President Bush’s

chief domestic policy adviser.

Zinsmeister said many of the nation’s social problems are rooted in the breakdown of the American family. He said the greatest single factor in whether a young person was happy or not was whether or not both parents were in attendance at home.

3. Expressing similar comments was Brad Wilson, a University of Virginia sociologist who has spoken out strongly against cohabitation and the increased risk of abuse to children when both biological parents are not present.

Studies have shown children in homes with unrelated adults are 50 times as likely to die of inflicted injuries; children living with stepparents or single parents face a higher risk of physical or sexual assault; and girls whose parents divorce are at a much greater risk of sexual assault.

God sometimes decides that some individuals are not meant to live in a traditional family unit, such as when a parent dies or a person has not yet found a suitable mate. Yet, everyone can and should work to strengthen the family as a foundation of a healthy society.

Best of all, of course, would be Christian families showing the love of Christ in their lives. Faith in the Savior can help greatly even in fragmented families. **LSJ**

—Warren Krug, editor

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