

How do animals catch their zzz's?



ILLUSTRATIONS BY KAREN SCHNEIDER - STAFF

WHERE does a lion sleep? Anywhere it wants. It's an old joke, but still true. When a lion wants to sleep, it can just flop down

on the ground or even hang out in a tree. And male lions especially get plenty of practice, since they sleep as much as 22 hours a day. Other animals have to be a little more careful about where they sleep, so they don't end up as someone's dinner.

How would you like to build a new bed every night? Do you think you could sleep standing on one leg? How would you sleep if you lived underwater but had to come up to the surface to breathe? Different creatures have developed some pretty creative ways to get their rest and stay safe.

The basilisk lizard likes to sleep at the far end of small branches hanging out over a pond or lake in the rain forest.

If a snake tries to slither up the branch to eat it, the snake shakes the branch and knocks the lizard off, and it falls safely into the water. Chameleons can change color to match their surroundings in order to hide - even while sleeping.

Gorillas and orangutans like to sleep high in the trees. They build a new nest every night, sometimes taking up to half an hour to

pile branches, twigs, and leaves into a comfortable bed. Birds also find it safe to sleep in the trees, but unless they have eggs or young chicks, they don't use a nest.

They just lock their feet around a branch and hang on. A special tendon in their legs is automatically tight when they are at rest, so they won't let go and fall.

Floating ducks in a row

Other birds find it safer to sleep on water. Mallard ducks will line themselves up in a row, with the ducks on each end keeping an eye out for danger. Perhaps the strangest way that birds sleep is when they stand on one leg. You may have seen a flamingo sleeping this way at the zoo.

They stand in shallow water, tuck one leg under their bodies, put their heads under their feathers, and go to sleep on one leg like big pink puffballs on sticks. Herons and other birds can also sleep this way. Their bodies are designed so that they can center their balance perfectly over one leg and relax that way.

Water presents its own sleeping problems. Sea otters, which live in the water, float on their backs to sleep. Baby otters may lie on their mothers' stomachs. To keep from floating away, the otters wrap seaweed around their bodies to anchor themselves. Occasionally, a young otter will sleep next to its mother and they will hold paws to stay together.

Dolphins live underwater, but must come to the surface to breathe. Scientists now believe that dolphins may sleep with only half their brain, while the other half stays awake to keep them safe and breathing. Seals also do this, lying on their sides on the surface of the water with one flipper underwater paddling to keep their noses above the surface. Some ducks may also have this ability, and actually sleep with one eye closed and one eye open.

So big, they sleep standing up

Some animals face a different sleeping challenge. They are just so big that lying down for long isn't comfortable. You may have heard that horses sleep standing up. They can lock their knees and sleep while standing, but the deepest sleep still comes when they lie down. Elephants may lie down and sleep for a few of the coolest hours in the morning, but the weight of their bodies makes this uncomfortable after two or three hours, and they will stand up and nap a little

longer on their feet. They also snore.

Even giraffes sleep standing up, and their bodies are balanced so that their long necks support their heads without much effort even in a standing position. Very young giraffes may fold their legs under them to sleep, but still don't lay their heads down.

When animals hibernate, they sleep for a very long time, perhaps even for an entire winter. But some sleep more deeply than others. If you were to find a squirrel hibernating in its nest in a hollow tree, you could probably pick it up and carry it around without waking it.

It might be several hours before the squirrel woke up. But walk into the den of a hibernating bear and he'll know you're there right away and invite you to leave. Animals that hibernate pick places where they aren't likely to be disturbed, such as caves or holes.

Other animals, such as moles, shrews, rabbits, and chipmunks, also find holes a nice place to sleep.

Warthogs, with their long tusks, climb backward into their holes to sleep. That way if an intruder climbs into the hole, the first thing it will

find is a pair of tusks facing it.

The octopus sleeps in an underwater cave. Sometimes it will wedge a shell in front of the opening to serve as a door.

Upside-down snoozers

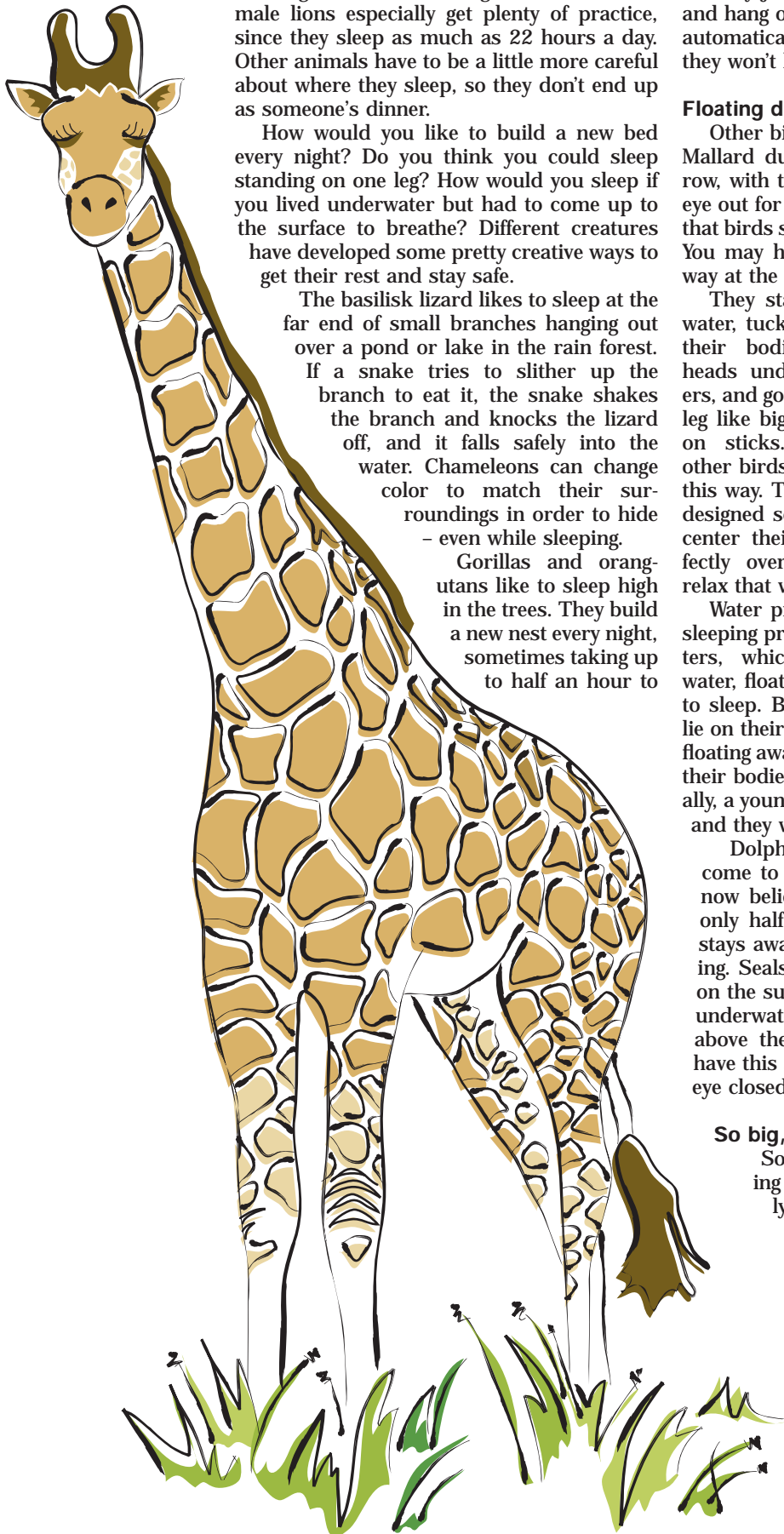
Deer find that hiding is a good way to sleep safely. A mother deer will tuck her fawn into a grassy or leafy spot to sleep. The fawn lies still, so as not to give away its position.

Other animals sleep on the ceiling. Bats hang upside down from the tops of caves or from tree branches. Some bats never use their feet for walking, but their curved claws help them to hang from branches or rocks. Sloths sleep hanging upside down in trees, hooking their clawed toes around branches. They sleep about 20 hours a day and may spend their entire lives in the same tree.

Do fish sleep? It's hard to tell, since they never close their eyes. But sharks have been noted to go through resting phases when they slow down their movements. They keep swimming, though, and will notice if prey or predators come near. Other fish also seem to slow down for a period, so they do rest, whether or not we would call it sleep.

Some students feel pretty sure, though, that fish sleep. After all, they travel in schools, and sometimes it can be pretty hard to stay awake in class.

Sharon J. Huntington



BEHIND SHELL DOORS
OR SHARP TUSKS,
CREATURES SEEK
COMFORT WHEN
THEY SLEEP.

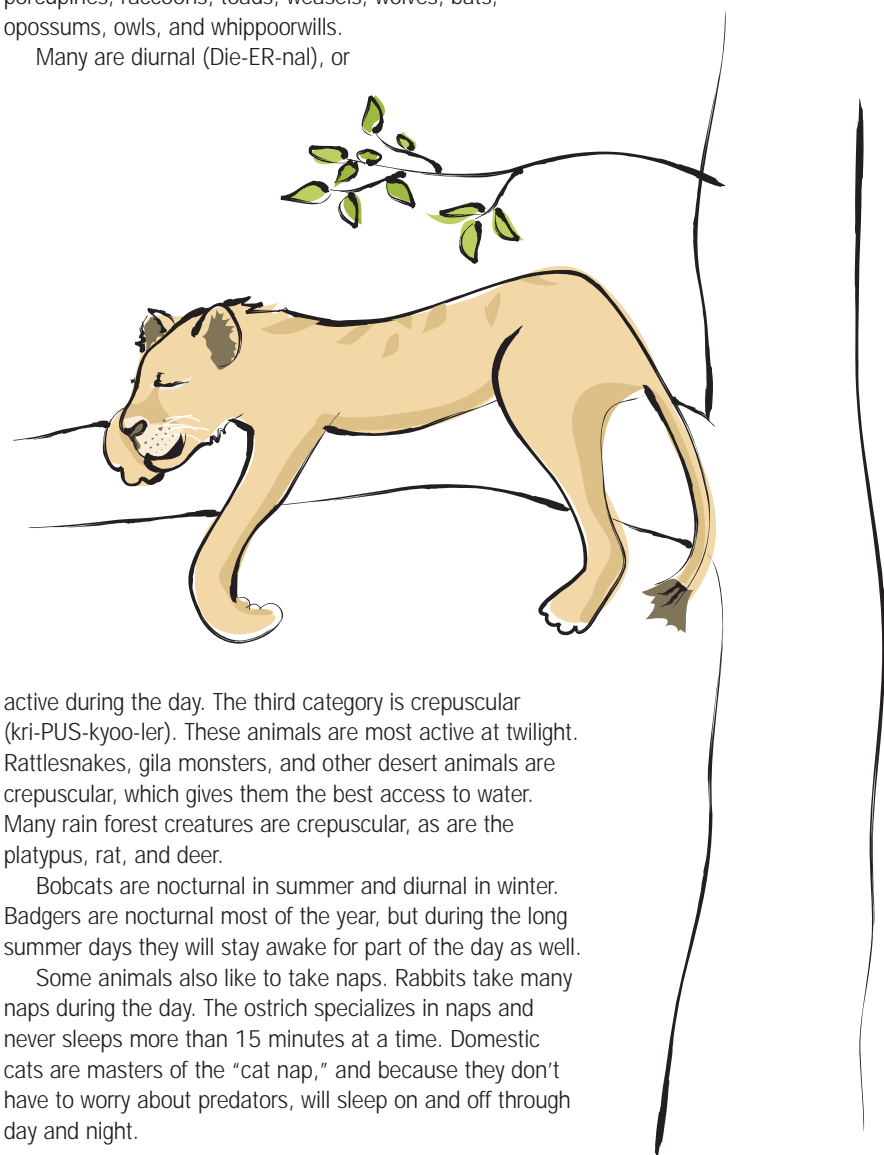
Why giraffes sleep 10 times less than lions

The amount of time animals spend in sleep is related to their size and their metabolic rate, or how fast their body systems work. Here are some average amounts of sleep per day:

2 hours or less:	giraffe
3 to 4 hours:	elephant, sheep, cow
5 to 6 hours:	goat, older human
7 to 8 hours:	dolphin, pig, guppy, rabbit, adult human
9 to 10 hours:	chimpanzee, squirrel monkey, hedgehog
10 to 11 hours:	baboon, mole, duck, jaguar, dog
12 to 13 hours:	mouse, cheetah, cat, gerbil
14 to 15 hours:	hamster, toad, squirrel
16 to 18 hours:	python, opossum, human infant
20 hours or more:	sloth, bat, lion

Some animals are nocturnal, which means they are active at night and sleep during the day. These include porcupines, raccoons, toads, weasels, wolves, bats, opossums, owls, and whippoorwills.

Many are diurnal (Die-ER-nal), or



active during the day. The third category is crepuscular (kri-PUS-kyoo-ler). These animals are most active at twilight. Rattlesnakes, gila monsters, and other desert animals are crepuscular, which gives them the best access to water. Many rain forest creatures are crepuscular, as are the platypus, rat, and deer.

Bobcats are nocturnal in summer and diurnal in winter. Badgers are nocturnal most of the year, but during the long summer days they will stay awake for part of the day as well.

Some animals also like to take naps. Rabbits take many naps during the day. The ostrich specializes in naps and never sleeps more than 15 minutes at a time. Domestic cats are masters of the "cat nap," and because they don't have to worry about predators, will sleep on and off through day and night.

S.J.H.

Books for young readers:

Sleepy Book, by Charlotte Zolotow
HarperCollins, 2001

A Time For Sleeping, by Ron Hirschi
Cobblehill Books/Dutton, 1993

Sweet Dreams: How Animals Sleep, by Kimiko Kajikawa
Henry Holt, 1999

TODAY'S ARTICLE ON CHRISTIAN SCIENCE

Bringing a spiritual perspective to daily life

Saved from suicide

THE REPORT WAS heartbreaking: women setting themselves on fire to find freedom from their domestic problems. These women felt there was no other way out. Then, the other day there was a report of a woman who jumped into a crocodile pit. Bystanders commented to the authorities that she seemed to welcome the violent death. My heart went out to these women.

While attending a small college years ago, I felt that there was no place in the world for me. As I sat in my room trying to decide how I would take my life, I said out loud, "there has to be a way out of this." But instead of taking my life that evening, I went to a church service on campus, offered by a local minister.

He spoke about God being at the rudder of the ship of life, steering this ship of life and happiness though the storms of unhappiness, abuse, meanness, sadness, and whatever else felt threatening in your life. He said that prayer is a life raft. He promised that God hears and answers every prayer.

Suicide would fool us into believing that it could place us on that "ship," but prayer, he shouted, is the only way to this ship of life. He asked each of us to close our eyes and pray to be on that ship of life and to be thankful to be free from the storms. I walked away from that meeting completely free from thinking that any answers could be found in taking my life.

Remembering this incident as I read reports of recent suicides, I wondered how I could share what I learned about suicide - that it provides no solutions.

In the book "Science and Health with Key to the Scriptures" by Mary Baker Eddy, the chapter called "Prayer" asks, "Dost thou 'love the Lord thy God with all thy heart, and all thy soul and with all thy mind'? This command includes much, even the surrender of all merely material sensation, affection, and worship" (pg. 9).

Starting prayer with love is primary. God is Love. We love God. Just quietly knowing that God loves and knows you, and that you know and love God, can clear the trouble from your thoughts. And you can feel this love extinguishing fear and grief.

The heart is usually associated with love, and we can think of our heart as

the center of love. Each beat of our hearts can be a symbol of the continuous love God expresses to us and the love we desire to express in our lives. I sometimes think of each beat as a fresh view of love that is being offered to me. This has awakened me to realize my worth.

As we pray to be aware of the "all of God" in our actions and activities, this prayer assures us that there is no grip of slavery or abuse in our everyday lives. The Scriptures say that all God sees is good, and nothing good is withheld from anyone. I see more good in my life as I focus on the all of God.

Prayer can open the door that no one can close, to seeing the natural beauty and holiness in ourselves, because we are the expression of Soul, God. As we see our own worth, beauty, and holiness, our thoughts are free. This change in thought will allow ideas to come to us that will bless us and others.

As we recognize the power of God as Love, even for a moment, lack of worth, lack of affection, the cycles of abuse, and oppression that has ruled our lives will begin to dissolve.

Each beat of our hearts can be a symbol of the continuous love God expresses to us.

The scriptures offer us proof that we are entitled to goodness, happiness, and productive lives. Here are a few statements that illustrate this: "You are always with me, and everything I have is yours" (Luke 15:31); "Seek ye first the kingdom of God, all these things shall be added unto you" (Matt. 6:33); "Listen to me and you will fare well, you will enjoy the fat of the land. Come to me and listen to my words, hear me and you will have life: I shall make an everlasting agreement with you to love you faithfully" (Isa. 55:2-3). This is where our prayer takes us.

Just as I was led to that meeting on campus so many years ago instead of taking my life, may you be led to behold the power of prayer to steer you. God does love you, and you can live.

You have rescued me from death, my eyes from weeping, my feet from stumbling. I shall walk in the presence of the Lord in the land of the living.

Psalm 116:8-9

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