A BREATHTAKING JOURNEY INTO THE LIVES AND MINDS OF ANIMALS FROM PRIZE-WINNING AUTHOR AND MACARTHUR FELLOW CARL SAFINA:

BEYOND WORDS
What Animals Think and Feel
By Carl Safina

Advance Praise for Beyond Words

“Captivating…A profound, scientifically based appeal for recognition of the kinship of all living things.”—Kirkus Reviews, *STARRED REVIEW*

“In this mind-bending book, Safina takes the reader along with him on his adventures, enlightening and educating at each of his stops.”—Publishers Weekly

“Well-researched…fascinating and thought-provoking.”—Library Journal

“A beautifully written, provocative case for seeing animals through their eyes.” —Discover Magazine

“Carl Safina shows there is indeed intelligent life in the universe, and it's all around us. At once moving and surprising, Beyond Words asks us to reexamine our relationship to other species—and to ourselves.”—Elizabeth Kolbert, Pulitzer Prize winning author of The Sixth Extinction

“This book breathes love of and respect for animals and is rich with observations and extraordinary travel experiences. It is a delightful and enlightening account of both how we relate to them and how they relate to each other.”—Frans de Waal, author of The Bonobo and the Atheist

Prize-winning author and MacArthur Fellow Carl Safina weaves decades of field observations with exciting new discoveries in brain science that delivers enlightening insight into animal cognition in his landmark new book BEYOND WORDS: What Animals Think and Feel (Henry Holt/A John Macrae Book; on sale: July 14, 2015).
In **BEYOND WORDS**, readers witness elephant families navigate the pervasive drought and incidents of poaching in Kenya’s Amboseli National Park, see a free-living wolf pack sort out the aftermath of tragedy in Yellowstone National Park and finally plunge into an astonishingly peaceful society of killer whales living in the waters of the Pacific Northwest. These animals are treated as the individual characters they are, with distinct personalities and unique roles within social structures not unlike our own. Taking us into the animals’ lives and minds, Safina reports on the surprising similarities between our minds and theirs while thoughtfully tackling issues that affect us all, including habitat conservation and extinction.

**BEYOND WORDS** offers powerful and illuminating insight into the unique personalities of animals through extraordinary stories of animal joy, grief, jealousy, anger and love. Ultimately a graceful examination of humanity’s place in the world, Safina calls on us to re-evaluate our relationship to the other species around us.

**ABOUT THE AUTHOR**

Carl Safina is author of seven books, including *Song for the Blue Ocean*, which was a *New York Times* Notable Book of the Year, *Eye of the Albatross, Voyage of the Turtle*, and *The View From Lazy Point*. Safina is founding president of The Safina Center at Stony Brook University, where he also co-chairs the University's Alan Alda Center for Communicating Science. A winner of the 2012 Orion Award and a MacArthur Prize, among others, his work has been featured in outlets such as *The New York Times*, *National Geographic*, CNN.com and The Huffington Post, and he hosts “Saving the Ocean” on PBS.
Praise for BEYOND WORDS

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“Each of Carl Safina’s books contains a crucial jewel that refracts the experience of nature in a new and truthful way. The particular gem of Beyond Words is the animal brain itself and the many ways that non-humans thoughtfully experience the world. In this emotional and scientific adventure Safina somehow manages to leap over soppy anthropomorphists and cold-eyed academic doubting Thomases alike, producing a view of animal intelligence that is genuinely new and truly enlightening.”—Paul Greenberg, author of American Catch and Four Fish

“Beyond Words is a must-read. Animals think, mourn, dream, make plans, and communicate complex messages in much the same way that we do. Readers who knew this already will rejoice, others will learn the truth, and the more of us who capture the message, the sooner we will change the world.”—Elizabeth Marshall Thomas, author of The Hidden Life of Dogs

“Beyond Words is a great read, seamlessly weaving scientific data with wonderful stories. People will feel ‘rewilded’ and motivated to do more on behalf of the innumerable animals who need our help. By expanding our compassion footprint we not only help other animals but also ourselves.”—Marc Bekoff, author of Rewilding Our Hearts and The Emotional Lives of Animals

“Safina offers a rich and often heart-touching account of his journeys with scientists exploring the minds and emotions of elephants, wolves, and dolphins. His compassion and empathy for animals shines throughout, and he uses both to illuminate the booming field of animal cognition. A beautifully written, accessible, and compelling read.”—Virginia Morell, author of Animal Wise: How We Know Animals Think and Feel

“Beyond Words is such a beautiful book, deep and tender, and will make you stay up all night reading. Carl Safina has a rare gift for imparting scientific insight with a storyteller's grace, and he writes with great knowledge and compassion. This vivid, far-ranging, and compassionate work is destined to become a classic.”—Luanne Rice, author of The Lemon Orchard and Dream Country

For more information or to request an interview with the author, please contact: Caroline Nitz | 612-867-1809 | Caroline.Nitz@gmail.com
Carl Safina can speak about…

- How humans—with our friends, families, enemies, alliances, and career arcs—are similar to other animals that live in stable, structured groups, such as elephants, great apes, wolves, killer whales, and certain dolphins.

- How civilization has apparently dulled human senses and actually reduced our brain size, when many other animals are superhumanly alert, with ultra-fast response times and herculean physical abilities.

- How humans have inherited consciousness, thought, and feelings of fear, joy, grief, and emotional bonds from other animals, similar to the way we inherited our skeleton, organs, and nervous systems, and how it’s only a difference of degree.

- Why humans, dogs, and even crustaceans respond similarly to the same anti-anxiety and obsessive-compulsive drugs.

- What it means that humans and other animals share a remarkable capacity for grief.

- How human brains differ from those of whales and elephants, despite a relatively similar number of neurons in the brain’s cortex.

- Why humans and apes who view emotionally charged images respond with similar changes in brain and peripheral skin temperature.

- How orcas—whales born and built for a complex world of long-distance sound and long-distance travel—are affected by living in captivity.


- Why humans’ strong tendency to act irrationally, to base decisions, beliefs, and actions on ideologies and things that cannot be seen, makes us different from other animals.

- How human language impacts the possibility of planetary catastrophe (and why animals that don’t communicate via human language may have the upper hand).

- Why species that have the most complex societies develop the most complex brains.

“At once moving and surprising, Beyond Words asks us to reexamine our relationship to other species—and to ourselves.”—Elizabeth Kolbert, winner of the 2015 Pulitzer Prize for General Nonfiction for The Sixth Extinction
Animal Fun Facts

- Certain jays will re-hide food if they realize another jay has watched them stash it.

- Elephants seem better than apes—even humans—at keeping immediate track of hundreds of individuals.

- Ravens can solve certain puzzles that chimpanzees’ much heftier brains cannot, and their insightful problem solving has been dubbed “primate-like intelligence.”

- Elephant families split and merge with other families, just as humans do. Similarly, the cause of family fissures is usually a difference in personalities.

- Octopuses use tools and solve problems as skilfully as most apes, but they have no spinal cord.

- Killer whales may spend several years teaching their young how to catch seals by surging through the surf onto a beach, where getting stranded could kill a whale. They start by giving their children lessons on steep beaches with no seals.

- Elephants, killer whales, hyenas, and bonobos live in remarkably peaceful societies led by females.

- Chimpanzees live in male dominated groups and continually fight for political status.

- Baby elephants must learn trunk management. They often experiment by swinging or tossing or whirling it around. Sometimes they step on their own trunk and trip. Often they suck their trunk for comfort, the same way a human child sucks its thumb.

- Wolves travel between five and forty miles in a day—not only to hunt, but to maintain territory.

- Honeybees’ coded dance informs hive-mates of the location, direction, distance, and richness of a nectar source, and whether there’s been trouble there.

- Adult elephants sometimes play games against imaginary enemies, thrashing through tall grass and exhibiting the kind of behavior they might actually use to chase away lions.

- Killer whales in a group can be spread out over 150 miles and all be in vocal contact.
- When a poacher kills an elephant, the family often loses the crucial memory of their elder matriarch who knew where to reach food and water during the very toughest years of drought.

- Almost all animals—including worms and insects—make chemicals similar or identical to those that drive mood and motivation in humans.

- Wolves’ prey is often five to ten times their weight, which is why wolves live in groups. Hunting is a team effort.

- Dogs are actually just domesticated wolves, little-changed genetically from their wild wolf ancestors. They appear to have self-domesticated from wolves who’d begun hanging about human habitations thousands of years ago.

- Like human babies, infant dolphins babble sequences of whistles that become more organized as they grow.

- Wolf “packs” are simply families whose alphas are the breeding pair. The rest of the pack is their children. Alphas lead by example, creating order, loyalty, and cohesiveness by instilling confidence. But like humans, wolves follow and break rules—like “hooking up” with wolves outside their own “relationship.”

- Elephants can hear rumbles inaudible to humans over distances of several miles. Their sensitivity to low frequencies derives from their ear structure, bone conduction and nerve endings. In many cases elephants are receiving information through their feet.

- Wolves know who to protect, who to attack, and how to defend to the death. That obsession for distinguishing friend from foe is a trait we as humans share with them.

- Elephants respond to death by silently and cautiously extending their trunks, touching the body gently as if obtaining information—a ritual for every elephant corpse they come across. When wolves lose their mate, they will react by taking time to wander apart from the pack until they eventually feel ready to return.

- When jays store perishable and nonperishable foods, they use up the perishable food stashes first.

- Some whales produce sounds as loud as a medium-sized ship. They can be heard by other whales hundreds of miles away, but not humans because the frequency is too low.
Beyond Words: What Animals Think and Feel
Safina, Carl
John Macrae/Henry Holt (480 pp.) $32.00 | Jul. 14, 2015
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Award-winning ecologist Safina (Nature and Humanity/Stony Brook Univ.; The View from Lazy Point: A Natural Year in an Unnatural World) explores, through anecdotes and scientific information, nonhuman animals and their sense of self. He believes that animals have an inner life; that they can think and feel, experience joy and grief, and recognize and communicate with family and friends; and that they are capable of empathy, reasoning, cooperation, and deception, among many other attributes. Safina interviews and accompanies in the field the foremost researchers of the behavior of elephants, wolves, and killer whales, learning about these creatures' lifestills and relationships and observing how they experience their lives (he also includes examples from the lives of dolphins, apes, monkeys, birds, and even fish to support his premise). Following families of elephants, packs of wolves, and pods of whales, Safina introduces us to individuals and their myriad relationships. He shares information on the species' status in the wild and the conservation challenges they face. **VERDICT** This well-researched book is a fascinating and thought-provoking investigation of different ways of viewing nonhuman creatures and their inner lives and is recommended for everyone who is interested in those beings and their behavior. [See Prepub Alert, 2/2/15.]—Sue O'Brien, Downers Grove P.L., IL

Considering the fascination human beings have with animal behavior, it's little wonder so many books on the subject exist. Yet so many of these resources compare animal behavior with human behavior—apples to oranges—rather than comparing one type of animal behavior with another. Safina (Song for the Blue Ocean) chooses to concentrate on the latter approach to animal behavior, meeting up with animal behavior researchers in the field: first observing elephant families in Kenya, then the wolves of Yellowstone, and, finally, killer whale pods in the Pacific Northwest. In between his on-site adventures, Safina discusses the higher-intelligence characteristics of lemurs, chimpanzees, and domestic dogs, among others. In this mind-bending book, Safina takes the reader along with him on his adventures enlightening and educating at each of his stops. Those interested in animal behavior, as well as anyone who has ever wondered about higher animal intelligence, will feel as if they're right next to the author, learning along with him. B&H illus. (July)
Tapping Your Inner Wolf

By Carl Safina

Men often face pressure to measure up as alpha males, to “wolf up” as it were. Alpha male connotes the man who at every moment demonstrates that he’s in total control in the home, and who away from home can become snarling and aggressive.

This alpha male stereotype comes from a misunderstanding of the real thing. In fact, the male wolf is an exemplary male role model. By observing wolves in free-ranging packs in Yellowstone National Park, I’ve seen that the leadership of the ranking male is not forced, not domineering and not aggressive to those on his team.

“The main characteristic of an alpha male wolf,” the veteran wolf researcher Rick McIntyre told me as we were watching gray wolves, “is a quiet confidence, quiet self-assurance. You know what you need to do; you know what’s best for your pack. You lead by example. You’re very comfortable with that. You have a calming effect.”

The point is, alpha males are not aggressive. They don’t need to be. “Think of an emotionally secure man, or a great champion. Whatever he needed to prove is already proven,” he said.

There is an evolutionary logic to it. “Imagine two wolf packs, or two human tribes,” Mr. McIntyre said. “Which is more likely to survive and reproduce? The one whose members are more cooperative, more sharing, less violent with one another; or the group whose members are beating each other up and competing with one another?”

Thus, an alpha male may be a major player in a successful hunt but then, after the takedown of the prey, may step away and sleep until his pack has eaten and is full.

Mr. McIntyre has spent 20 years watching and studying wolves in Yellowstone for the National Park Service. He rises early, uses radio telemetry to pinpoint the location of a pack with a radio-collared member, then heads out with his spotting scope to observe them, keeping careful notes of their activities.

In all that time, he has rarely seen an alpha male act aggressively toward the pack’s other members. They are his family — his mate, offspring (both biological and adopted) and maybe a sibling.

This does not mean that alpha males are not tough when they need to be. One famous wolf in Yellowstone whose radio collar number, 21, became his name, was considered a “super wolf” by the people who closely observed the arc of his life. He was fierce in defense of family and apparently never lost a fight with a rival pack. Yet within his own pack, one of his favorite things was to wrestle with little pups.

“And what he really loved to do was to pretend to lose. He just got a huge kick out of it,” Mr. McIntyre said.

One year, a pup was a bit sickly. The other pups seemed to be afraid of him and wouldn’t play with him. Once, after delivering food for the small pup, 21 stood looking around for something. Soon he started wagging his tail. He’d been looking for the sickly little pup, and he just went over to hang out with him for a while.

Of all Mr. McIntyre’s stories about the super wolf, that’s his favorite. Strength impresses us, but kindness is what we remember best.

If you watch wolves, it’s hard to escape the conclusion that perhaps no two species are more alike behaviorally than wolves and humans. Living as we do in families, we can easily recognize the social structures and status quests in wolf packs. No wonder Native Americans recognized in wolves a sibling spirit.

The similarities between male wolves and male humans can be quite striking. Males of very few other species help procure food year-round for the entire family, assist in raising their young to full maturity and defend their packs year-round against others of their species who threaten on their safety. Male wolves appear to stick more with that program than their human counterparts do.

Biologists used to consider the alpha male the undisputed boss. But now they recognize two hierarchies at work in wolf packs — one for the males, the other for the females.

Doug Smith, the biologist who is the project leader for the Yellowstone Gray Wolf Restoration Project, said the females do most of the decision making” for the pack, including where to travel, when to rest and when to hunt. The matriarch’s personality can set the tone for the whole pack, Dr. Smith said.

Or, as Mr. McIntyre put it: “It’s the alpha female who really runs the show.”

Clearly, our alpha male stereotype could use a corrective makeover. Men can learn a thing or two from real wolves: less smart, more quiet confidence, leading by example, faithful devotion in the care and defense of families, respect for females and a sharing of responsibilities. That’s really what wolfing up should mean.