



sperm whale learns to embrace her fellow travelers. A macaw casts a covetous eye on his beautiful neighbor. A chimpanzee learns to pay to play. For ecologist and conservationist Carl Safina, humans are not the only ones with unique social cultures. In his new book, Becoming Wild: How Animals Raise Families, Create Beauty, and Achieve Peace, he explores the fascinating cultural lives of sperm whales in the Caribbean, scarlet macaws in the Amazon forest of Peru, and chimpanzees in Uganda's Budongo forest.

Originally from Brooklyn, Safina grew up in an apartment filled with singing canaries, his father's hobby and passion. He spent weekends visiting the Bronx Zoo, The New York Aquarium, the American Museum of Natural History, and aboard his uncle's boat. All this sparked a fascination with animals, and by age seven he was raising homing pigeons. A love for camping in his teen years eventually lead to adventures in Kenya, Nepal, Greenland and eventually to travels and investigations in all the continents and oceans of the Earth.

Safina earned a Ph.D. from

Rutgers University based on his study of seabirds, and then spent a decade overhauling fishing policies and restoring ocean wildlife. In the 1990s he led campaigns to ban high-seas driftnets that entrapped endangered fish and helped improve international management of fisheries targeting tunas and sharks. Along the way, he became a leading voice for conservation on planet Earth.

Safina spoke with Animal Mind contributing writer Heidi Hutner with urgency and a melancholic undercurrent, emphasizing that now, more than ever, protecting animals and their habitats matters. He wants us to appreciate the complexity and beauty of animal cultures in what he calls the "real world." We may be in the midst of a pandemic for humans, but back in that other world, species with unique relationships, cultures and ways of teaching their young also struggle to survive.

# What inspired you to write Becoming Wild?

Writing my previous book, Beyond Words, led me to the question of culture and its evolutionary implications. I wanted to learn more about animal social groups, how they teach their young. I have a tremendous passion for observing animals in their habitats. Even in my own home, I love watching our animals and what they do. We have three dogs, nine laying hens, a rescued parrot, and in our yard lives an orphan hand-raised owl who found a mate and is about to hatch her first chicks. They are all beautiful, interesting, and amusing. They teach the one-ness of all living things, daily.

In Becoming Wild, you suggest that the older animals train and teach the young ones their group's "culture." Could you explain this further? Culture is what you learn socially about how to live, where you live—that can be passed along to subsequent generations. Take human language: We all learn to speak a language, but which language we learn is purely cultural. Animal cultures vary a great deal depending on location and group. Their cultures are taught and learned.

# You look primarily at sperm whales, chimpanzees, and macaws. Why these animals in particular?

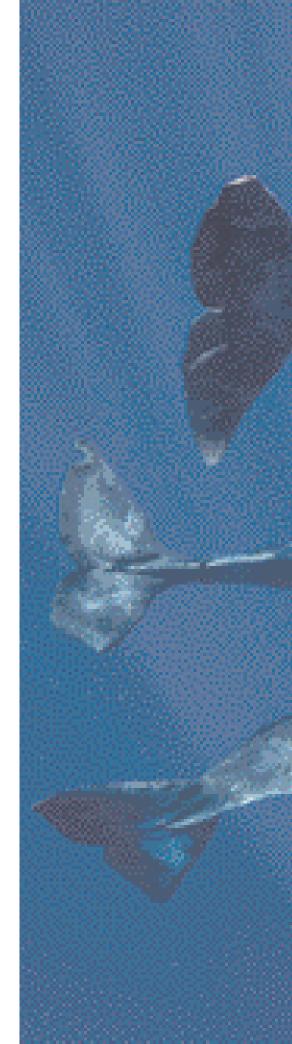
Sperm whales have a unique culture, as do chimpanzees. With wild macaws in Peru, I was very struck with the fact that they live in pairs. I wanted to uncover more about these relationships and the animals' interactions.

### What surprised you the most about the sperm whales?

Sperm whales live in female-led groups that are organized like elephants. The males leave when they become adolescents. The females remain with their mother, their aunts, their sisters, and their babies. The reason for female-centered grouping is that their food source is often 2,000 feet below. Babies would not survive in those depths, so they wait at the surface with their babysitters, while their mothers dive below. The group is always in vocal contact. They live in families that are part of a clan.

Sperm whales have the ability to announce who they are as an individual, what family they belong to, and what clan they belong to. They do so with a series of clicks that are like simple codes that are specific to the clan. The families within a clan get together, travel together, socialize together, but different clans avoid one another.

Sperm whale clans may be made up of thousands of whales over many thousands of square miles of ocean. When they meet, they can tell by perceiving their vocal codes whether a whale is from their own clan or not.







#### There was a moving quote in Becoming Wild about how the discovery of whale song changed our human understanding of animals. Humpback whales sing elaborate

songs and some other whales have much simpler songs. Before the public heard the songs, they thought of whales as lumbering animals that were of value only for the products produced from their bodies. The discovery that the haunting sounds the whales make are actual songs—that they repeat, with patterns of sounds that the whales sing over and over again, changed how humans view whales. This change happened around the first Earth Day in 1970. When the people first heard recordings of whale songs, they burst into tears.

From sperm whales to macaws, that's a big leap! What did you learn from observing macaws?



Pay it forward: A baby humpback whale learns feeding techniques from peers and then passes that information on to others.

### humans are not superior to nonhuman animals. Please explain.

Humans tend to think that they are a perfect form of life. We look at other beings that are similar to us—apes and monkeys— and think "they are creatures in arrested development." That's wrong. Humans often act unwisely, stupidly, destructively. We pass

physical violence and killing are part of life, similar to human societies. An animal will suddenly change his character and kill others inside his social group. Humans do the same thing. Very few other animal species behave this way.

## Are other primate species more reliably peaceful?

Bonobos are closely related to chimpanzees. They live in a totally different area. They never overlap. The bonobo females are the dominant figures and they are peaceful. This peacefulness is common in many animal species where females are dominant.

# Clearly, it's urgent that we take better care of the animals and the habitats in which they live.

Yes. Most living things are at their lowest population levels ever. We have taken over animal habitats, turned them into farmland and cities. Humans have polluted the earth's water and air. We are acidifying the oceans. We are in the midst of an extinction crisis.

#### It's especially scary because, as Becoming Wild makes clear, once we lose these animal cultures, they cannot be restored.

That's the whole point about culture. Animals have to learn it from their elders. You can't just let a zoo animal out into its natural habitat and expect that it will survive. It will, most likely, die. Leaving enough room for other animals to continue to exist in their habitats is the only hope.

#### It's a challenge, because the closest many of us come to species in the wild is through works like yours.

I also think about the fantastic filmmaking of the animals that we love that has gone on in the last few decades. I fear that, one day, these films will be our only record of how they lived. I hope this doesn't come true. The thought of it is horrifying.

# The discovery that whales produce beautiful and intricate songs propelled the "Save the Whale" movement.

Macaws learn survival techniques from their parents. They also have significant pairing relationships. A pair bond lasts throughout the non-breeding season. They nest in the hollow of trees, which are in short supply, for the most part. The pairs assess the ability of competing macaw pairs to obtain these nests. This assessing takes a lot of cognition. There is also cognition and care involved in their mate relationships. For example, there was a hawk that was headed straight for one of the macaws. The mate flew in, knocked the hawk sideways, and stopped the hawk from causing harm.

In *Becoming Wild*, you write, "chimpanzees are ... not half-baked humans." You make the point that

our biases on to future generations. We often lack compassion and act with cruelty, enslave others, don't care for those in need. Humans have a long way to go.

# Speaking of imperfections--you discuss the aggression of male chimpanzees, which you call a culturally learned trait. Are all male chimps violent?

In most areas and groupings, [chimpanzee] dominance is won through an aggressive physical contest. However, only a tiny percentage of the males contend for the top spot, and so many males don't engage in violence.

### What about the literal act of murder among chimpanzees?

In many chimpanzee groups,