



# Nature's Remedies

## How Animals Self-Medicate

by Sandra Murphy

Every species embodies a solution to some environmental challenge, and some of these solutions are breathtaking in their elegance.

— Linda Bender

*Animal Wisdom: Learning from the Spiritual Lives of Animals*

From birds and elephants to dolphins, animals, whether by instinct or learned behavior, have discovered ways to cope with parasites, pests, aches and pains. This science of self-medication is called zoopharmacognosy (*zoo* for animal, *pharma* for drug and *cognosy* for knowing). At home, a dog or cat that eats grass is practicing it to eliminate parasites or hairballs.

Donald Brightsmith, Ph.D., of Texas A&M University, directs the Tambopata Macaw Project in the lowlands of south-eastern Peru, studying the many macaws and other parrots that gather clay to eat as a supplement. First thought to help remove toxins from their bodies, clay adds needed sodium to their diet, researchers now believe.

A pregnant elephant in Kenya's Tsavo Park was observed by ecologist Holly Dublin, Ph.D., to travel miles to find a tree not normally eaten. Four days later, the elephant gave birth. Dublin discovered that Kenyan women make a drink from the same leaves and bark to induce labor.

While studying Bornean orangutans (*Pongo pygmaeus*) in the Sabangau peat swamp forest in Central Kalimantan, Indonesia, primatologist Helen Morrogh-Bernard, Ph.D., of the University of Exeter, UK, observed an orangutan chew the leaves of a plant that were not part of its usual diet until it formed a lather. The orangutan spit out the leaves and used the lather much like humans apply a topical pain reliever.

While animals have been known to eat certain plants when ill, hers may be the first sighting of an animal creating a salve. Nearby villagers grind the leaves to make a balm for sore muscles and inflammation. Morrogh-Bernard believes humans learned this topical application from apes and passed it down through the generations.

In the Red Sea, bottlenose dolphins rub against bush-like gorgonian corals covered by an outer layer of antimicrobial mucus that may protect them from infection, according to dolphin researcher Angela Ziltener, of the University of Zürich, Switzerland.

"It's amazing how much we've learned, but forgotten," says

Ira Pastor, CEO at Bioquark Inc., in Philadelphia, a life sciences company developing biologic products to regenerate and repair human organs and tissues. “We live with other organisms which from a health and wellness perspective are much further advanced than humans. No other species tries to cure with any single solution. Nature employs multiple options. We’re not appropriately imitating nature yet. We need to do more.”

Cindy Engel, Ph.D., of Suffolk, England, author of *Wild Health: Lessons in Natural Wellness from the Animal Kingdom*, says, “Animals rely on plants to provide them with the essentials of life, making their health intimately dependent on plant chemistry to provide everything they need to grow, repair damage and reproduce.”

She continues, “Wild animals carry diseases that affect livestock and humans. It’s sensible to explore why they’re successful in fending off the worst effects in order to find ways to improve our own health, instead of just trying to eradicate the disease. We can learn from behavioral self-help strategies animals employ.” Accomplishing this is more difficult than ever, she believes, because today’s severely shrinking habitat makes it hard to find truly wild animals and plants.

“Over the last 100 years, we’ve done a horrible disservice to all life by destroying habitat and exploring only a small percentage of what nature has to offer,” agrees Pastor. “As patents expire, pharma has to change. It’s important to develop botanicals. We’re advised to vary our diet and exercise, yet take the same dose of the same pill daily. We’ve studied dead organisms under microscopes, but living organisms, even as small as microbes, can communicate helpful positive reactions.”

Western medicine has strayed from what nature offers to keep us healthy. Now is the time to take care of both the planet and all living beings on it. “We’ve discarded thousands of years of evidence,” says Pastor. “We cannot destroy the bounty of possibilities.”

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A cloudy day is no match for a  
**sunny disposition.**

—William Arthur Ward

