



# AMERICAN MUSEUM OF NATURAL HISTORY

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## TWELVE PARASITES OF CHRISTMAS

### CELEBRATING THE YEAR-END POSTINGS FROM *PARASITE OF THE DAY*, A BLOG INSPIRED BY THE INTERNATIONAL YEAR OF BIODIVERSITY

Mistletoe, figgy pudding, reindeer, and even turtle doves: who would pair any of these with parasites? Parasitologists, of course. The *Twelve Parasites of Christmas* heralds the end of *Parasite of the Day* for 2010, a blog created to celebrate the overlooked freeloaders of biodiversity during the International Year of Biodiversity. Check out 2010's 365 postings at [dailyparasite.blogspot.com](http://dailyparasite.blogspot.com).

“This blog started in January when I read a manuscript in which a colleague lamented the lack of flagship parasites,” says Susan Perkins, curator in the Division of Invertebrate Zoology at the American Museum of Natural History and who shepherded the blog all year. “I’d noticed that another museum had started a species of the day, so I had the idea of parasite of the day.”

The blog launched with *Plasmodium falciparum*, the most deadly malaria parasite that infects humans and that is part of some of the evolutionary trees developed in Perkins’ lab. Since then, the survey of some known parasites has ranged far and wide. Themes spurred readers and writers alike as the blog celebrated the parasites of whales, sharks, and crocodiles. *Pandarus rhincodonicus*, for example, lives on whale shark skin and is often found clinging to the shark's lips and fins. This crustacean’s morphology — adhesion pads, hooks and stream-lined shape — helps it adhere and minimizes drag forces. Fashion Week in New York City was celebrated with a description of the scale insect, *Dactylopius coccus*, that has been plucked from cacti and boiled to make carmine

red for thousands of years; this parasite is still used in the U.S. as a fabric dye and food coloring.

Perkins was helped by many contributors, including Bucknell University students who were required to contribute a unique blog posting for a course taught by biologist of Steve Jordan. Other scientists contributed often, highlighting interesting and fun parasites: Jessica Light, assistant professor at Texas A&M University, Mike Kinsella of HelmWest Laboratory, and Tommy Leung, lecturer at Australia's University of New England all wrote guest posts.

The *Twelve Parasites of Christmas* begins with mistletoe (*Viscum album*), a plant that adheres to the stems of other plants for structure and for some of its nutrients. Other parasites target Santa's reindeer and figs (for figgy pudding), and several have connections to the gifts of the magi.

"The end of this year will be bittersweet," says Perkins. "The 365 postings of this blog have been an unexpected experience. Not only did I learn tons of new parasites myself, but I met so many interesting and enthusiastic people through this blog."

The blog, which has had almost 100,000 unique visitors, will continue to be updated next year, although not at the once-daily rate.

"We calculated that it would take 300 years to write a daily blog about each known metazoan parasite (worms, ticks, and lice), and even more years if we included added all single-celled parasites like *Plasmodium* or parasitic plants and fungi," says Leung. "By then, thought, there will be hundreds of newly-described species to write about as well as a large number of species to lament the loss of. Many parasites are very host-specific, which means that loss of any visible and known biodiversity possibly entails the disappearance of an entire suite of hidden and unknown parasite species."

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