

Subject: Canadian Broadcasting Company w/ prominent Allison credit  
 To: "Michael F. Whiting" <michael\_whiting@byu.edu>

HOME : RADIO : TELEVISION : LOCAL

**CBC News**

WIRELESS E-MAIL NEWS FREE HEADLINES LIVE RADIO

- NEWS
- BUSINESS
- SPORTS
- WEATHER
- CONSUMERS
- ARTSCANADA
- KIDS
- FORUMS
- CBC ARCHIVES
- ON-AIR GUIDE
- ABOUT CBC
- CONTACT US
- SHOPS & SERVICES



CBC CORPORATE  
 RADIO-CANADA  
 PRIVACY

copyright © CBC 2003  
 All rights reserved

## Insects' wings pose challenge to evolutionary theory

Last Updated Wed, 15 Jan 2003 14:31:24

PROVO, UTAH - New DNA tests suggest a group of insects lost their wings and then re-evolved the ability to fly. The researchers say it's the first time an organism has been shown to re-evolve a complex trait.

Biology Prof. Michael Whiting of Brigham Young University in Provo, Utah, and his colleagues analyzed DNA from 35 species of walking sticks – insects that mimic twigs and leaves to evade predators.

The finding challenges the idea that for complex functions like flight or sight, organisms either "use it or lose it," said Whiting.

Many species of insects have lost the ability to fly. But scientists assumed that insects evolved wings only once, and that once a lineage lose their wings, their descendents would continue to be flightless.

The researchers collected samples of walking sticks from Australia, New Guinea and Chile that appeared to be the most primitive species. The team then used a supercomputer to sequence DNA markers from the samples.

"To our knowledge, this is the first example of a complex feature being lost and later recovered in an evolutionary lineage," the researchers wrote in Thursday's issue of the journal, *Nature*.

"It is possible that the reacquisition of complex



Walking stick native to Papua New Guinea  
 Courtesy: Allison Whiting/BYU

### EXTERNAL LINKS

- [Nature](#)

(Note: CBC does not endorse responsible for the content of - links will open in new window)

### YOUR TURN

WRITE TO US:  
 Send your comments to [letters@cbc.ca](#)

JOIN THE DISCUSSION:  
 Share your thoughts on this news stories!

- [Email This Story](#)
- [Printable Version](#)

features may have an important role in evolutionary diversification."

The researchers say the insects seem to retain the underlying genetics needed to construct wings over tens of millions of years, even though the wing is not physically present.

Whiting thinks some walking sticks may have lost wings to help blend into their surroundings. Wingless insects also tend to lay more eggs than their winged relatives.

Written by CBC News Online staff

#### **Headlines:Sci-tech**

- [Insects' wings pose challenge to evolutionary theory](#)
- [First-time spacewalkers begin their work](#)
- [Old clothes filter out cholera bacteria: study](#)