

brad.balukjian

Like 541k Member Center Alerts & Newsletters Jobs Cars Real Estate Rentals Weekly Circulars Local Directory Place Ad

# Los Angeles Times | SCIENCE

WE TOOK THE DRAMA OUT OF CAR SHOPPING [SHOP >](#)

LOCAL U.S. WORLD BUSINESS SPORTS ENTERTAINMENT HEALTH LIVING TRAVEL OPINION **SHOP**

BREAKING PHOTOS VIDEO CRIME OBITUARIES WEATHER TRAFFIC CROSSWORDS SUDOKU HOROSCOPES APPS

TRENDING NOW ▲ OBAMA ON SPYING | AMBER ALERT | SILVER FIRE | ALBERT PUJOLS | 'JEOPARDY' | SCIENTOLOGY

Search

NEW BRANCHES IN ORANGE COUNTY. FIND ONE NEARBY.

**CHASE**

[Learn more](#)

## SCIENCE NOW

DISPATCHES FROM FRONT LINES OF SCIENCE, MEDICINE, HEALTH AND THE ENVIRONMENT

### New species of assassin bug found sniping in cave

Comments 0 Email Share 42 Tweet 42 Like 151 4



The spelunking labyrinth bug assassinates a spider. (Robert Pape/Zootaxa)



Just when you thought spiders couldn't get creepier



By Brad Balukjian  
June 18, 2013 | 3:34 p.m.

Cool things are found in caves: stalagmites, [Christian Bale](#), [Goonies](#) and now a new species of assassin bug that snipes spiders, according to a [new study](#).

The labyrinth bug, named for its cave habitat ([and not the David Bowie movie](#)), was formally described last week in the journal Zootaxa. These spindly killers use their spiny front legs to seize small insects and other prey, and then pierce their catch with a sword-like snout in order to suck up its

Connect

Recommended on Facebook Like 541k

- 'Five Easy Pieces,' 'Easy Rider' actress Karen Black dies at 74  
7,442 people recommend this.
- Online game League of Legends star gets U.S. visa as pro athlete  
790 people recommend this.
- Stephen Colbert and celebrity

advertisement

**1.25%<sup>\*</sup> APY**  
Guaranteed thru 12.31.13

PacTrust One Account

Simplify your banking.  
Maximize your returns.

**pacTrust** BANK<sup>®</sup>

Annual Percentage Yield (APY) effective as of 2.25.13

- 16 state schools flagged for possible cheating
- Amber Alert suspect's car found in Idaho
- Opinion:** Bad habits die hard

Could secret of nasty fire ant tunnels help design rescue robots?



Missing the cicada invasion? Check out Cicada Cam

Ads by Google



### Glow-in-the-dark cockroach among top 10 new species of 2012

Pape noticed some other aspects of the bug's body design that make it well-suited for specializing on spiders, such as a brush-like set of hairs on its front legs that may be used to manipulate spider silk. The brush is the longest ever recorded in the genus *Phasmatorcoris*.

While in the cave, Pape also observed an adult labyrinth bug playing with the remains of an old spider web, wrapping the silk strands around its legs and creating tension that could be used to trap spiders or to signal the arrival of a potential meal.

More field observations are needed to explicitly test these ideas.

"We've only seen this animal maybe eight to 10 times ever," Pape said.

One of the most surprising aspects of the new species is that it lives far away from its closest relatives; all but one of the other bugs in the genus *Phasmatorcoris* are found in the New World tropics, where they live in rain forests and other non-cave habitats. How it got separated from the pack is a biogeographic puzzle that needs sorting out.

However, there are some clues that the labyrinth bug may not have always lurked in the underworld.

At the end of the last ice age 11,000 years ago, the climate in Arizona was much wetter and cooler, a far cry from the semi-desert that exists there today. The bug's lack of any obvious cave adaptations (such as blindness or lack of pigment) and its preference for more humid parts of the cave suggest that it may have once roamed the outside world before retreating into the cave.

"I think they were probably living in rock shelters and cave entrances," Pape said.

The bug's discovery underscores the importance of basic field surveys to document biodiversity. Sixteen other new species, including a stay-at-home millipede (it is confined to a 20-foot area of the cave), a scorpion and several beetles were also found as part of the Arizona State Parks survey.

"And I'm sure there are things there that we haven't found yet," Pape said.

Caves are hotspots for finding new species and are attracting increasing attention from taxonomists and evolutionary biologists.

Joel Ledford, a research associate at the California Academy of Sciences, earned his doctorate by studying a group of blind cave-dwelling spiders in the genus *Tayshaneta*. He spent lots of time between a rock and a hard place looking for organisms.

"There's a lot of mystery there — caves are usually remote and difficult to access, and so there's a pretty high likelihood of seeing things that nobody has ever seen before," Ledford said. "There is no light. There are no plants. Everything is a predator. It's sort of like a secret little world."

You can read a summary of the study [here](#).

Return to [Science Now](#).

[brad.balukjian@latimes.com](mailto:brad.balukjian@latimes.com)

juices.

The new species (*Phasmatorcoris labyrinthicus*), part of the assassin bug family Reduviidae, was discovered in Kartchner Caverns State Park in Cochise County, Ariz. It was first noted during a survey in 1990, but was not studied in-depth until a two-year invertebrate survey in 2009-2011 conducted by the Arizona State Parks.

Robert Pape, a research associate with the University of Arizona in Tucson, conducted several searches of the cave in order to describe the species and document its behavior and natural history.

The bug proved elusive. For the first 11 months, Pape could find only corpses.

Then, on Aug. 10, 2010, Pape noticed two dead wasps and a dead ant lying on the floor of the cave. Looking up, he scanned the cave walls. In a small fissure tucked below a mound of soil built by termites lay his quarry, ready to ambush.

To test the labyrinth bug's palate, Pape guided a spider toward an adult female and watched as she stepped back, grabbed the spider and impaled it with her snout.



Slaying suspect's awful self-help books

Ads by Google



### Photos of the Week

[More »](#)

Most Viewed Latest News

U.S. stocks slide as market heads for weekly loss  
*08/09/2013, 11:18 a.m.*

PGA Championship live updates: Webb Simpson just misses course record  
*08/09/2013, 11:18 a.m.*

Roku tries keeping up with Apple TV, Google Chromecast with update  
*08/09/2013, 10:50 a.m.*

Huntington Beach riots: 20 new photos of possible suspects released  
*08/09/2013, 10:45 a.m.*

Amber Alert extended to Idaho for missing San Diego County teen  
*08/09/2013, 10:23 a.m.*

### Video

Follow on Twitter: [@BradBalukjian](#)

Copyright © 2013, Los Angeles Times

Comments 0 Email Share 42 Tweet 42 Like 151 4

« Previous Story

More Science Now - science, medicine, biotechnology, research, health

Next Story »



Tainted steroid injections linked to ischemic stroke



Trove of video, photos of California seabed available online

**MORE FROM THE TIMES**

Goldie Hawn and Kurt Russell bail out of their Malibu beach house

Goldie Hawn and Kurt Russell bail out of their Malibu beach house

Watch Robin Thicke sing 'Blurred Lines' with Jimmy Fallon, Roots

'Lovelace': Sharon Stone really disappears into a role

PGA Championship live updates: Jason Dufner has a two-shot lead

**FROM AROUND THE WEB**

Surprising Abraham Lincoln Descendants Discovered | [Ancestry.com](#)

8 Landscaping Ideas To Fix A Boring Backyard | [HGTV Gardens](#)

9 Types of Medications That Can Lead to Chronic Fatigue | [AARP](#)

Every Cancer Patient Needs to Know These Five Revolutionary Treatments | [Envita](#)

Finally, One Link Established- Chronic Fatigue Syndrome (CFS), Lupus, Fibromyalgia, Autoimmune disease and Chronic Lyme Disease | [Envita](#)

Recommended by

Ads by Google

**Looking to Ship Your Car?**

[budgetautoshipping.com](#)

The Most Affordable Way to Ship Your Car! 888-301-4285

**"Canon vs Nikon:"**

[UglyHedgehog.com](#)

Which is better? Here is the truth one of them doesnt want you to know

Comments (0)

Add comments | Discussion FAQ

Currently there are no comments. Be the first to comment!

Comments are filtered for language and registration is required. The Times makes no guarantee of comments' factual accuracy. Readers may report inappropriate comments by clicking the Report Abuse link next to a comment. Here are the full [legal terms](#) you agree to by using this comment form.

Chicago cop swims for families o...  
WGN - Chicago Aug 9, 2013



Premium content. Unique experiences. Exclusive offers. Only with Membership Start now

Reader Travel Photos »



Share your summer travel photos. We'll publish the best in print and online. Above, Mono Lake.

---

### In Case You Missed It...



**Photos:** Downtown's Grand Park



**Photos:** Lighthouse Day celebrates bright past



**Photos:** Richmond, Canada's foodie scene



**Photos:** Expensive SoCal homes



**Photos:** Ryan Seacrest's media empire

---

[Corrections](#)

[Digital Services](#)

[Media Kit](#)

[About Us](#)

[Contact Us](#)

[Site Map](#)

---

## Los Angeles Times

[Burbank Leader](#) | [Coastline Pilot](#) | [Daily Pilot](#) | [Huntington Beach Independent](#) | [News Press](#) | [Valley Sun](#) | [KTLA](#) | [Hoy](#)  
[Baltimore Sun](#) | [Chicago Tribune](#) | [Daily Press](#) | [Hartford Courant](#) | [Los Angeles Times](#) | [Orlando Sentinel](#) | [Sun Sentinel](#) | [The Morning Call](#)  
[Terms of Service](#) | [Privacy Policy](#) | [About Our Ads](#) | [Copyright 2013](#)

*A Tribune Newspaper website*