***Curriculum Vitae***

Dr. Catherine Loudon

Dept. of Ecology and Evolutionary Biology

University of California/Irvine

Irvine CA USA

**EDUCATION - DEGREES**

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| --- | --- | --- |
| 1981-1986 | Ph.D. Zoology  (Minor: Mechanical Engineering) | Duke University |
| 1980 | Sc. B. Honors in Biophysics | Brown University |

**EDUCATION - POSTDOCTORAL POSITIONS**

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| --- | --- | --- |
| 1990-1992 | Postdoctoral Research Associate  Sponsor: Dr. Mimi A. R. Koehl | Dept. of Integrative Biology U. of California,Berkeley |
| 1989-1990 | NSF Postdoctoral Fellow  Sponsor: Dr. Thomas Eisner | Dept. of Neuro. and Behav.  Cornell University |
| 1986-1988 | Postdoctoral Research Associate  Sponsor: Dr. Don Alstad | Dept. of Ecol. Behav. Biol.  University of Minnesota |

**ACADEMIC POSITIONS**

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| --- | --- | --- |
| 2012-present | Professor (T), Vice Chair (2019-present) | Dept. of Ecol. & Evol. Biol.  U. of California,Irvine |
| 2006-2012 | Associate Professor (T) | Dept. of Ecol. & Evol. Biol.  U. of California,Irvine |
| 2002-2006 | Associate Professor | Dept. of Ecol. & Evol. Biol.  University of Kansas |
| 1996-2002 | Assistant Professor | Dept. of Entomology;  Dept. of Ecol.& Evol. Biol.  University of Kansas |
| 1993-1995 | NSF Visiting Professor | Dept. of Entomology  Kansas State University |
| 1988-1990 | Assistant Professor (on leave 1/1/89 - 8/31/89 to take NSF Fellowship at Cornell University) | Dept. of Biology  Ithaca College |

**PATENTS**

2021 Lead inventor on US patent RE48,657 “Microfabricated Surfaces for the Physical Capture of Insects”

2018 Lead inventor on US patent 9,930,877 “Microfabricated Surfaces for the Physical Capture of Insects”

2016 Lead inventor on US patent 9,468,203 “Microfabricated Surfaces for the Physical Capture of Insects”

**HONORS/AWARDS** (since 2016)

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| 2020 | Elected Fellow of the Entomological Society of America |
| 2018-2020 | University of California, Office of the President, Innovative Learning Technology Initiative |
| 2018 | Kairos Ventures/ UCI Proof of Product grant  ("Physical Insecticides: Entrapment of Bed Bugs") |
| 2017-2018 | Selected for Provost's Leadership Academy (UCI) |
| 2016 | Entomological Society of America Distinguished Achievement in Teaching Award (Pacific Branch) |

**PUBLICITY ABOUT NONCHEMICAL APPROACHES TO BED BUG CONTROL**

2021

Research was featured on AAAS (American Association for the Advancement of Science) website on Oct. 29, 2021

<https://www.aaas.org/membership/member-spotlight/finding-better-pest-control-solutions-through-interdisciplinary>

2019

Research was featured in "Deep Look" (KQED, San Francisco PBS station documentary) released July 9, 2019

<https://www.kqed.org/science/1944245/watch-bed-bugs-get-stopped-in-their-tracks>

Research was featured in NPR's health blog "Shots" released July 9, 2019

<https://www.npr.org/sections/health-shots/2019/07/09/739473492/how-best-to-snag-and-destroy-bedbugs>

2017

Research was featured in "The Loh Down on Science" (89.3 KPCC, Southern California Public Radio) on Feb. 28, 2017

<http://www.scpr.org/programs/loh-down-on-science/2017/02/28/15159/>

Research featured on UCI Applied Innovation website ("Faculty spotlight" March 29, 2017) and in "Tech Currents" (April/May 2017)

<http://innovation.uci.edu/2017/03/2017321building-a-better-bedbug-trap/>

**REPRESENTATIVE PUBLICATIONS** **on bed bugs (\* lead author)**

Loudon\*, C. 2022. Perspectives on bioinspired product development: Entrapping surfaces based on leaf microstructures. *Integrative and Comparative Biology* icac051, https://doi.org/10.1093/icb/icac051

Bustamante Jr., J., J. F. Panzarino, T. J. Rupert, and C. Loudon\*. 2017. Forces to pierce cuticle of tarsi and material properties determined by nanoindentation: The Achilles’ heel of bed bugs. *Biology Open* 6(10), 1-11 DOI:10.1242/bio.028381.

\*Loudon, C. 2017. Rapid killing of bed bugs (*Cimex lectularius* L.) on surfaces using heat: application to luggage. *Pest Management Science* DOI: 10.1002/ps.4409.

Szyndler, M.W., K. F. Haynes, M. F. Potter, R. M. Corn, and \*C. Loudon. 2013. Entrapment of bed bugs by leaf trichomes inspires microfabrication of biomimetic surfaces. *Journal of the Royal Society Interfac*e 10: 20130174.