

Surprise emergence of the first cabbage white butterfly of 2017

23 January 2017, by Cody Kitaura



The first cabbage white butterfly of 2017, being held by Professor Art Shapiro. Credit: Kathy Keatley Garvey/UC Davis

The emergence of the first cabbage white butterfly of 2017 was a surprise even to the researcher who has been charting their flight since 1972.

Art Shapiro, distinguished professor of evolution and ecology, [captured the first *Pieris rapae* of the year Thursday afternoon](#) (Jan. 19) in the student gardens near the Solano Park Apartments, thus ending his annual beer-for-a-butterfly contest, where he offers to buy a pitcher of beer for anyone who catches a specimen before he does.

Earlier that day, he said he didn't expect to see one until February. The insect needs a series of warm days to fly, and the recent rainy weather had dampened the odds of seeing one.

"I never gave today a thought as a potential *rapae* day," Shapiro said.

He said it felt warm when he got out of class around noon, and he considered heading to one of his usual searching spots in West Sacramento. But instead, he got lunch and meandered over to

Solano Park.

"At 12:59 I saw—a *rapae*," he said. "It was sitting quietly, wings folded, on a cultivated Brassica. It had not opened its wings to body-bask (i.e. warm the body by exposure to [incoming solar radiation](#)). If it had it almost certainly would have flown and, being netless, I would have lost it. Instead it just sat there as I picked it off the plant. I always carry one glassine envelope in my eyeglass case. Into the envelope it went."

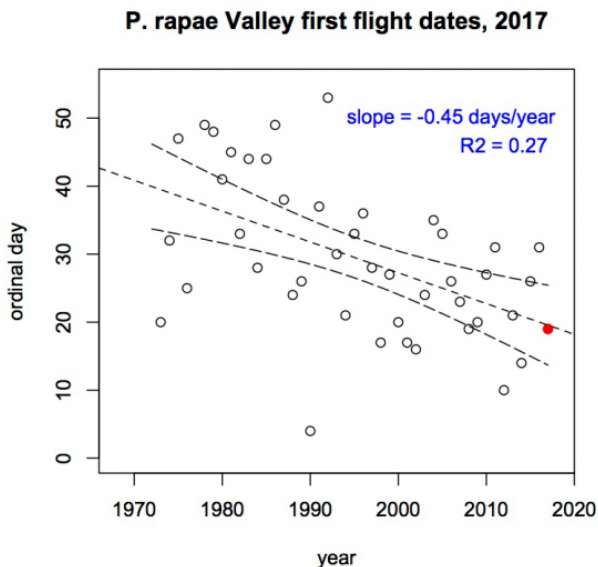


Art Shapiro holds the first cabbage white butterfly of 2017. Credit: Kathy Keatley Garvey/UC Davis

Shapiro studies the date of the butterfly's first flight as a way to measure biological response to climate change. As the climate has warmed, the date has

gradually moved earlier. But sometimes even Shapiro isn't quite sure how to interpret the data.

"This is the second year in a row that the first rapae was found in a garden rather than one of the conventional 'warm pockets,'" Shapiro said. "What does it all mean?"



Matthew Forister, McMinn Professor of Biology at the University of Nevada, Reno, has charted the date of the cabbage white's first flight and Art Shapiro's contest over the years. Credit: UC Davis

Provided by UC Davis

APA citation: Surprise emergence of the first cabbage white butterfly of 2017 (2017, January 23) retrieved 10 May 2021 from <https://phys.org/news/2017-01-emergence-cabbage-white-butterfly.html>

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