## Viewpoint: Climate change, pesticides endanger monarch butterfly populations

The life cycle of the monarch hinges on the availability of milkweed, but the prevalence of the herbicide Roundup has made milkweed very hard to find: Crops genetically modified to withstand herbicides can be carpet-sprayed, poisoning every wildflower in its wake. Milkweed, which once grew in great stands along the nation's roadsides and in the margins of farms, essentially disappeared from the American landscape overnight. In 1996, the year before Roundup-resistant soybeans and corn were first planted in the Midwest, the butterflies' primary migration corridor, there were a billion migrating monarchs in North America. This year there are roughly 109 million, and that number is down 27 percent from just last year.

Of all the assaults on the monarch population, climate change may prove the most pernicious. In summer, excessive heat stresses developing caterpillars already vulnerable to diseases and predators...Worst of all, climate change threatens the monarchs' wintering grounds,

where very specific environmental conditions keep them in a hibernation-like state. In winter, unstable temperatures in Mexico can wake the butterflies too early from hibernation, sending them north before the nectar flowers they feed on have bloomed. And by some estimates, that microclimate high in the mountains of Mexico will all but disappear by 2030.

The GLP aggregated and excerpted this article to reflect the diversity of news, opinion and analysis. Read full, original post: Meddling with Monarchs