These results are expectable since butterfly abundance can vary among months within the growing season. All counts used in these calculations were held each year listed in the graph.

Last issue’s column looked at the big picture of what the count program indicates about Monarch fluctuations and trends generally throughout eastern North America. This graph shows that among subregions, there are lots of ups and downs from year to year. It’s somewhat jumbled among subregions too. That is, one subregion is up when another is down, especially in the 1990s. These results are expectable since butterfly abundance strongly relates to climatic patterns, and these can vary a lot among subregions and among years. Perhaps more surprising is how much the ups and downs agree among the subregions from 2000 through 2005. However, climatic perturbations such as drought can extend over large areas, and the Monarch’s migratory behavior could also contribute to spreading similar patterns of abundance widely throughout the landscape.

What about trends? Last issue’s column looked further back in time, to the 1980s. Monarch abundance throughout eastern North America was higher in the 1990s and similarly lower in this decade and the 1980s. So it is no surprise that in the graph here, higher numbers occurred in the 1990s than more recently. However, this short-term decline in more recent years is statistically significant (non-random) only in Ohio-Michigan. Just a few high enough years in the next decade would reverse this decline. But if the next 5-8 years continue like the last 5-8 years, that decline could strengthen into a significant long-term trend.

In the other subregions, a few high enough years in the next decade would result in a stable long-term trend. But if the next 5-8 years continue with lower numbers, then their declines could become a “real” (statistically significant and non-random) decline, not just part of the pattern of up and down and up again.

How will Monarch abundance in the East fare in the future? Keep counting and we’ll find out!