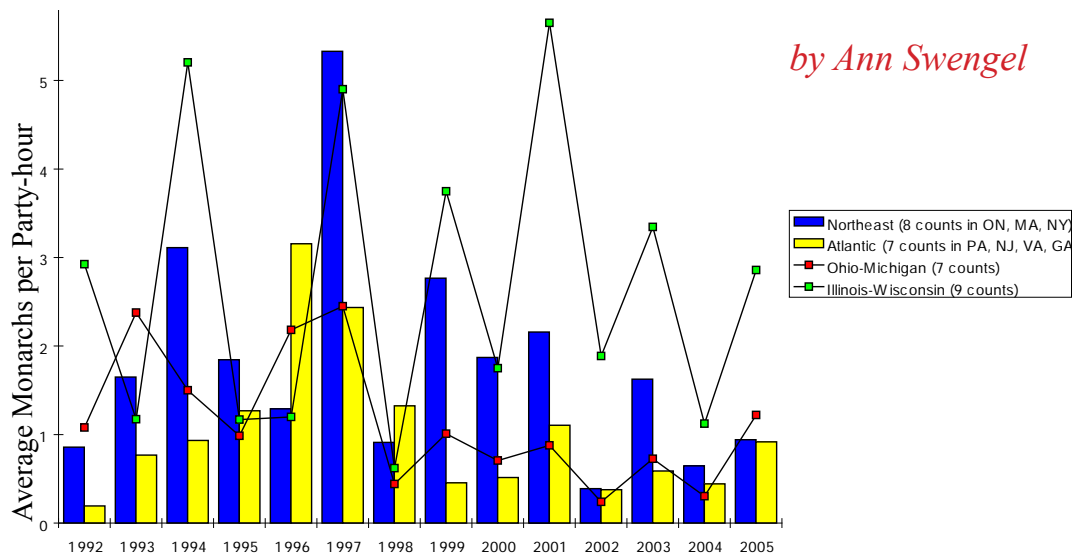


NABA Butterfly Count Column 1

by Ann Swengel



SUBREGIONS OF EASTERN MONARCHS

This graph plots Monarch abundance on butterfly counts in four subregions of eastern North America for 1992-2005. Only counts ever reporting a Monarch are analyzed, as including all counts would dilute patterns. Monarch abundance is expressed as individuals observed per party-hour per count. (A party-hour is an hour spent observing by counters working together as a party, or group.) This calculation makes results comparable among counts. Only counts held within a four-week span (within count) are included, because Monarch 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 looks at several smaller subregions of eastern North America to see how similar their patterns are. Subregions were selected to be geographically logical but also to have at least seven counts (since local conditions on a few counts may not correspond to regional patterns).

Within each subregion, 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

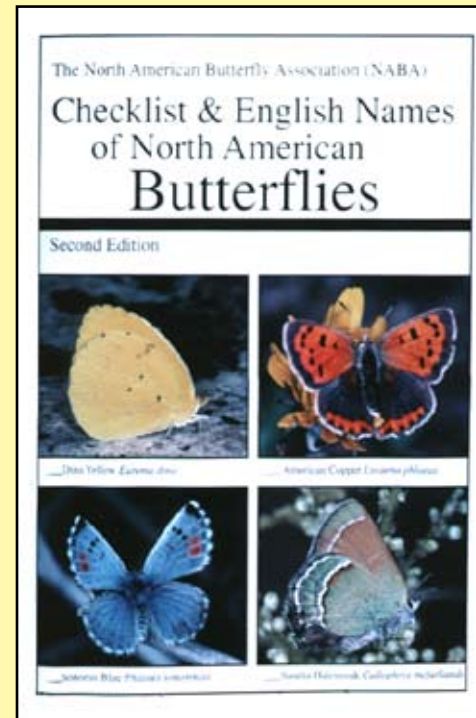
these can vary a lot among subregions and among years. Perhaps more surprising is how much the ups and downs agree among the subregions from 2000 through 2005. However, climatic perturbations such as drought can extend over large areas, and the Monarch's migratory behavior could also contribute to spreading 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!

NABA Checklist & English Names of North American Butterflies



Invaluable to everyone interested in butterflies! All 722 species of butterflies recorded in North America north of Mexico (and in Hawaii) are listed, giving both the English and scientific names. In front of each species' name is a line for a checkmark. Following each name a space is provided to allow you to write in date and locality information.

Also included is an introductory section, explaining the formation, deliberations, and policies of the NABA Names Committee and a commentary section, in which the reasons why particular names were chosen are explained and the votes of the Committee are given.

Price is \$5/copy (+ shipping & handling of \$2.00 for first copy, \$1.00 for each additional copy).

To order
send your check (in U.S. dollars, made out to NABA) to: NABA, 4 Delaware Rd., Morristown, NJ 07960.

Naming Opportunities at NABA Butterfly Park

Plans for NABA International Butterfly Park are proceeding apace. Now is the time to both help us create the world's foremost center for education, research and conservation of wild butterflies and to have your name, or the name of a loved one, associated with this beautiful and important facility. Naming opportunities — on buildings, gardens and exhibits — currently range from \$2,500 to more than \$1,000,000. If you are interested in exploring a naming possibility at NABA International Butterfly Park, please contact us via telephone at 973-285-0907, via email to naba@naba.org, or via letter to NABA, 4 Delaware Road, Morristown, NJ 07960. We will be pleased to discuss the possibilities with you and to send you brochures about the Park, including one discussing naming opportunities.

