

Celithemis elisa Does It Again

By Sue and John Gregoire

The 2008 emergence period for *Celithemis elisa* (Calico Pennant) has come and gone and, once again, they did not disappoint.

A brief overview: For the past 4 years this species had emerged in very large numbers from a pond on our sanctuary. The property is located in the Finger Lakes Highlands of New York, and is 60 acres of field, forest and stream with 10 ponds of various sizes and depths. The pond at the center of all our studies is only 35X40 meters across, 18 feet deep and 8 years old. The bottom is covered with Chara, a plantlike alga that provides optimum habitat for aquatic animals of all descriptions, and the only fish are Fathead Minnows. During the years 2005 to the present, we have conducted daily counts of emerging *C. elisa* from the start of their season to the last day and beyond (Argia 19[1]:10-11; 20[1]:14-15).

The sheer numbers are rather impressive, almost to the point of being unbelievable, and their emergence strategy is very interesting. Although the emergence period is quite long, over about 2 months, in all 4 years the species has chosen a period of just several days during the first couple of weeks in June as the time for major emergence.

By major emergence I mean thousands within 5 days. Here are some numbers gained during our single daily counts around the pond:

Year	Top 5 Days	Total During Top 5 Days	Overall Total	Emergence Period
2005	7-11 June	2,028	2,455	N/A (late start)
2006	5-9 June	5,169	10,945	63 days
2007	2-6 June	4,892	6,497	61 days
2008	8-12 June	6,244	8,237	64 days

I can safely say they emerged in droves "come hell or high water." In 2006 we had heavy rain and flooding during the peak period but some came anyway. In 2007 we had a horrible drought that created an extensive beach, but that didn't stop them either. This year, 2008, was as perfect as perfect can be and we had the highest peak period count yet.

During our counts we notice behavior by not only these dragonflies but by other animals as well. Once the Cedar Waxwings make the discovery that there is a meal handy they work in unison to flush and snap up weak teneral as they flutter off on their maiden flight. This has become an annual event.

This year ants appeared to enjoy overcoming vulnerable emergers by boring a hole and cleaning them out from within. While watching that I timed a nearby *C. elisa* larva on another stem go from larva to maiden flight in an hour and a half!

As the pond ages we expect the phenomenon to subside, assuming *C. elisa* is undergoing a colonizing stage that will eventually level off. We intend to keep tabs on this species and continue to monitor their behavior. Personally I hope they entertain and dazzle us for many years to come.