BEST PRACTICES

Worldly Wonders: The Flight of Migrating Dragonflies

Along with billions of butterflies, moths and other insects, dragonflies migrate across every continent except Antarctica. Researchers actually radio tag dragonflies and track them from planes! Using transmitters, they have found that dragonfly migration is similar to that of songbirds. How so? Prior to migration dragonflies build up their fat reserves for the long flight, wait for favorable winds, fly during the day, take rest breaks and can reorient themselves if they lose their way.

What isn't known is where they end up, but some species, such as the green darner dragonfly, migrate as far south as Mexico. Among 5,200 dragonfly species worldwide, green darner dragonflies number among the 25–50 species of dragonflies thought to be migratory. Each summer, the green darner migrates north to the northern U.S. and Canada and returns in the fall to southern climates with their offspring.

In the Pacific Northwest, dragonflies are seen moving southward during the months of August and September. Dragonflies have been correlated with the migration of hawks. Many scientists and citizens track and record their observations during hawk migrations. Not only do the citizens note the number of hawks seen, they also keep track of the numbers of dragonflies observed. A 1995 study done by Frank Nicoletti showed that kestrels (our smallest falcon) migrated most when dragonflies where in migration. He noted that when the kestrels were flying at midday, they were not eating dragonflies. Later in the afternoon, when the kestrels flew lower, a majority of the birds were observed eating dragonflies.

To better understand dragonfly migration, the Migratory Dragonfly Partnership (MDP) was launched by US Forest Service International Programs. MDP was developed so participants would have a centralized process for reporting monitoring results. MDP uses research, citizen science, education and outreach to understand North American dragonfly migrations and promote conservation of dragonflies and their wetland habitats. MDP has partnered with the Hawk Migration Association of North America.

Participants with MDF track five main migratory dragonfly species in North America during their fall and spring flights, as well as monitoring at local ponds throughout the year. Data gathered in 2013 spanned from Saskatchewan and British Columbia in Canada to as far south as Mexico. Information gathered by volunteers is providing an understanding of the relationships between migrant and resident populations of different species and their relationship with migrating hawks.

If you are interested in contributing to migration monitoring or collecting information on local ponds, visit http://www.migratorydragonflypartnership.org.

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