



HMANA Participates in the Migratory Dragonfly Partnership

Perched on ridges, lakeshores, river valleys and coastlines, hawk watchers are ideally situated to count more than just hawks. Dragonflies, migrating in spring and fall, have long been an awe-inspiring, but poorly understood, migrant at many of our most familiar hawk watches. Their speed and agility, along with the fact that they can concentrate in numbers rivaling the avian spectacle we seek each spring and fall is amazing. Plus, dragonflies occupy the same airspace and serve as food source for many migrant raptors. So, who better than the hawk watcher, already armed with binoculars that aid in identification and who are skilled at discerning fine detail, to collect important data related to dragonfly migration timing and abundance?

HMANA partnered with the Migration Dragonfly Partnership (MDP) in 2013 for a pilot study to get a better understanding of dragonfly migration across North America. The MDP is a pioneering citizen science-based study of dragonfly migration in North America that was launched by the US Forest Service International Programs and is chaired and coordinated by the Xerces Society, a nonprofit organization that protects wildlife through the conservation of invertebrates and their habitats. Regular monitoring and centralized reporting among participants across the US, Canada and Mexico helps to answer some of the many questions currently surrounding dragonfly migration and provides information needed to create cross-border conservation programs to protect and sustain the phenomenon.

Partnering in Action

Last year, HMANA and the Xerces Society developed a protocol and monitoring guidelines that were made available for any hawk watchers or any hawk watch site willing to help monitor dragonflies. Counts were set up to collect data in whatever time period was most convenient or possible: watchers counted throughout an entire hour, or performed a shorter, more intensive count (i.e. 5 to 10 minutes) from which hourly totals could be calculated.

In the fall of 2013, through the efforts of 21 participating hawk watch sites, migrating dragonfly observations were recorded and submitted either on paper forms or via HawkCount, HMANA's online raptor migration database. Observations were recorded in either daily or hourly format, and included reports of total dragonflies counted, dragonfly species seen, flight altitude and direction, and weather. Observers focused on the five most common migratory dragonfly species in North America – Common Green Darner (*Anax junius*), Variegated Meadowhawk (*Sympetrum corruptum*), Wandering Glider (*Pantala flavescens*), Spot-Winged Glider (*Pantala hymenaea*), and Black Saddlebags (*Tramea lacerata*).

Other species that appeared to be migrating also were noted, such as the Twelve-spotted Skimmer (*Libellula pulchella*). Sites reporting dragonfly observations via HawkCount submitted 636 dragonfly observation reports yielding over 11,000 individual dragonflies during this past pilot year of the project.

Additionally, reports are being submitted in paper form to the Xerces Society. Topping the list in numbers of reports were Hawk Ridge with 137 reports of over 1,600 individuals counted, and the Illinois Beach Hawk Watch with 129 reports of over 2,600 individuals in total. Lighthouse Point Hawk Watch takes the cake for tallying the highest number of dragonflies overall: an incredible 3,346 individual migrant dragonflies were counted in just 11 days! This dragonfly migration data has now been submitted to the Xerces Society for inclusion in their dragonfly migration database where trends can be further analyzed.

Thanks to the efforts of the 21 participating sites in 2013, these initial data will help address questions related to dragonfly migration across broad fronts of North America, helping to fill vast voids of knowledge about the timing and abundance of these particular species' migrations, and ultimately, addressing wetlands conservation challenges. Through MDP, these hawk watch sites and HMANA are combining research, citizen science, and education and outreach to better understand North America's migrating dragonflies, and to help conserve them for the future and the well being of us all.

Continued Monitoring Efforts

Based on this initial success, HMANA is excited to continue participating in the MDP in 2014. Work is currently underway to better integrate non-raptor counts into HawkCount (the pilot season of this program made use of HawkCount custom fields).

We are looking for spring monitoring sites willing to participate and collect data on dragonfly migration! Please consider taking part in this important citizen-science project. How much you'd like to be involved is up to you. A hawk watch may designate a special counter just for dragonflies or use current hawk watchers to collect the data. Either can work! Counts are timed for as many minutes as you can cover – one, five, ten, for each hour or whenever you can. Estimates of migrant numbers are also accepted (e.g., 500 plus, less than 10, etc.)

Fall hawk watch sites that participated during the fall of 2013 are also encouraged to continue to do so and to let us know if there are suggestions for improving the field data sheet or other aspects of the project.

Sites interested in participating should contact Monitoring Site Coordinator, Julie Brown (brown@hmana.org) for details. For more information about HMANA's involvement in MDP, monitoring guidelines and protocol, please visit the HMANA website: <http://www.hmana.org/>

Thank you again to all participating hawk watch sites and individuals for making this initial season of HMANA's MDP participation such a success!