

INTERACTION OF EASTERN PHOEBE AND DRAGONFLY

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ABSTRACT — Interactions between an Eastern Phoebe (*Sayornis phoebe*) and Shadow Darner dragonflies (*Aeschna umbrosa*) were observed.

Late (8:25 pm) on the evening of August 6, 1996, my attention was drawn to the antics of an Eastern Phoebe (*Sayornis phoebe*) hunting from the top of a dead snag. I focused my 7 x 35 binoculars on the bird and discovered that it had company, 15 to 20 large dragonflies feeding on the same hatch of insects. This was an ideal opportunity to watch the interaction of these two species. For the next 40 minutes I closely watched the feeding frenzy of the flycatcher and dragonfly through my 40 power scope.

Both the flycatcher and dragonflies were observed at the edge of a clearing in the woods. Two small brooks (Jackson and Falls) here in the town of Elizabethtown (Essex County) flow out of the mountains and into The Branch, a tributary of the Boquet River. The edge of the clearing is ringed by large white pines, a few of which are now dead. The phoebe alternately used these tall dead snags as a perch from which it launched itself into a hatch of insects.

The dragonflies were of the genus *Aeschna*. These are the dominant blue darners of the Northern Hemisphere (Needham and Westfall 1975), *Aeschna umbrosa*, the Shadow Darner, the most widespread and abundant aeschnid species in the Boquet River watershed (Gretch, unpublished data). This large species measures between 64 and 73 mm in length (about 2 3/4 inches). It is widespread across New York State. In the Adirondacks the adult emerges in July and flies into the end of September.

The behavior of this swarm of Shadow Darners was typical of the species. Walker (1953) says, "In early summer [4.] *umbrosa* is most active later in the afternoon and in the evening. Its habit of ranging widely over roads and in clearings about dusk have often been noted." Holder (1996) says that Shadow Darners "frequently fly at dusk, extending their forays to more open areas as the risk of predation by kingbirds and other avian predators diminishes."

The question that immediately came to mind while I was watching the Shadow Darner, was whether the phoebe would also feed on these dragonflies? On many occasions they flew very close to the perched phoebe. If it was at all possible for the phoebe to catch one, it would be a meal equivalent to at least 10 or 20 of the more abundant smaller insects. The reward is great to go after a large dragonfly. But, this young phoebe had already learned the limits of its

ability. They are flycatchers, but not dragonfly catchers. A phoebe is no match for the speed and ability of these large dragonflies.

Watching the hunting behavior of the phoebe it became apparent that its hunting style was not suited to catch quick flying insects. Unlike swallows which are constantly on the wing, the phoebe hunts from a perch and sallies out from its snag to pluck an insect from the air. In watching the phoebe for some 40 minutes I never saw it chase or catch a dragonfly.

Aeshnid dragonflies are constantly on the wing and do not hunt from a perch like some other dragonfly species. They are aerialists of the first order. It would take the speed and agility of a swallow to catch one of the Shadow Darners in midair. Spada (1996) has in fact reported "barn swallows practicing aerial acrobatics by catching Aeschnid dragonflies."

Bent (1963) lists the major food sources of the Eastern Phoebe reported by Beal and it does not include dragonflies. Bent, however, goes on to say that, "As we see the phoebe in the field, the dragonfly appears to be a more prominent article of food than Professor Beal's examinations of stomachs indicate. Phoebes eat medium-sized dragonflies frequently and feed them to their young."

Shadow Darners are large, not medium sized, dragonflies.

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