



14 June 2013

Hi everyone,

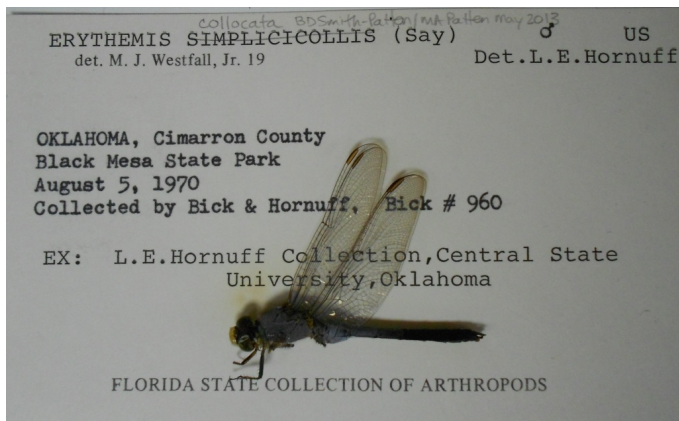
A lot has happened since our last update nearly a month ago. We again visited the International Odonata Research Institute (IORI) collection in Gainesville, gave an invited talk at a symposium on applied odonatology at annual conference of the Society for Freshwater Science (held this year in Jacksonville), and engaged in our usual hurtling around the state in an effort to plug holes in county lists and relocate “lost” populations.

The IORI visit was eventful in one key way: we added a species to Oklahoma’s state list. A male pondhawk collected 5 August 1970 at Black Mesa had long been labeled as an Eastern Pondhawk (*Erythemis simplicicollis*). After a hint from the late George Bick, on one of his note cards for this species, we opted to examine all of the pondhawks collected in the western panhandle. On his card, Bick has flagged two of these specimens as “*collocata?*” yet apparently made no further effort to reidentify them. One specimen, a female, is missing her abdomen tip and is, we feel, hopeless (i.e., there’s no reason to change the ID). And all other males and females from Cimarron County are pretty clearly Eastern Pondhawks . . . except for the one male mentioned above. This individual not only has black cerci, has a parallel-sided abdomen, and a yellow T atop S10. It’s a Western Pondhawk (*E. collocata*). We snapped some photos, relabeled the card, and sent photos around to the experts for confirmation. Dennis Paulson quickly concurred, and later Bill Mauffray, who works at IORI but was away during our visit, examined the specimen himself and agreed it is a Western Pondhawk.

Species limits remain a topic of debate in this group. As Nick Donnelly and John Abbott noted in their responses to us, there is an apparent hybrid zone in eastern Colorado, if not elsewhere in the central U.S., in which pondhawks have an intermediate morphology. The pattern may hold for Oklahoma, too. Since last autumn we have been collecting male specimens from across the state to send to Nick for a comprehensive analysis—send us your specimens if you’d like to contribute to this important project! We appreciate the taxonomic question, which amounts to whether the Eastern and Western Pondhawks are separate species or if there is one Common Pondhawk across the continent. Our view is that regardless of species limits, the taxon of *collocata* will not go away. If under the biological species concept the entities are thought to interbreed enough to be lumped, there is no reason they should not be considered valid subspecies given that a) they are diagnosably distinct across wide portions of their respective ranges and b) the hybrid zone is narrow relative to the respective geographic ranges of eastern and western entities. The very definition of a subspecies applies to a

population that is diagnosably distinct and has its own geographic range but is not reproductively isolated from other populations. Hence, we have documented *collocata* in Oklahoma, whether as a species or subspecies.

Our own visit to the panhandle over Memorial Day weekend turned up no interesting pondhawks. Indeed, we had no pondhawks in Cimarron County, and only a couple of others in Texas and Beaver Counties. It’s been a grim spring in this regard, with dragonflies, especially, quite delayed in their flight season. Still, we discovered a few nifty



things, including a new site for the red damsel (*Amphiagrion* sp.), this time at Schultz WMA in s. Texas County and added the Desert Whitetail (*Plathemis subornata*) to Ellis County, at the southern base of the panhandle. But the prize for the weekend was split between two contenders. On 26 May we were excited to collect a male Western Forktail (*Ischnura perparva*) on Carizzozo Creek west of Kenton and just barely east of the New Mexico state line. This record is only the second for Oklahoma, yet we may have been more excited to locate single male Rainbow Bluets (*Enallagma antennatum*), a teneral along North Carrizo Creek, Cimarron County, on 26 May and a stunning adult at Schultz on 27 May. This species had not been recorded in the state since 1975, but we now know a small population hangs on in the panhandle.

The following weekend found us adding a smattering of county records in Dewey and Blaine out west and in Coal, Atoka, and Pontotoc farther east, although we had nothing earthshattering to report.

That cannot be said of our extended trip to the southeast this past weekend. We were lured there, yet again, for two bird projects, but birds get rather quiet when the odes get really active, so it was win-win. We began at Schooler Lake, Choctaw County, on the afternoon of 7 June to search the bog-like habitat at its upper end. We confirmed the continued presence of the Southern Sprite (*Nehallania integricollis*), a species we had discovered there last year, and we had both Swamp (*Lestes vigilax*) and Elegant (*L. inaequalis*) Spreadwings. A short while later we visited nearby Raymond Gary State Park, where we nabbed a male Gray Petaltail (*Tachopteryx thoreyi*), a truly stunning and impressive species.

We spent much of the next day in McCurtain County for our bird work in the Ouachita National Forest. We began at Kulli Lake, a site where Sid Dunkle collected the Burgundy Bluet (*Enallagma dubium*) in 1992. Apart from a site near Antlers, Pushmataha County, where A. Earl Pritchard found the species in 1932, Sid's record was the only for the state . . . and the species had not been found in Oklahoma since. Sadly, the habitat at Kulli Lake doesn't look good for the species any longer: it's too open, and there's no floating or emergent vegetation. Later that morning we tried to locate Sid's "Bokhoma Camp," at which he collected the Attenuated Bluet (*E. daeckii*) on that same 1992 trip. What a stud! This species, too, was known only from Pritchard's site, although at least in this case Bick was able to re-find the species in the 1960s. Still, like the Burgundy Bluet, the Attenuated Bluet had not been recorded in the state since Sid's record. We could not find "Bokhoma Camp" and found no sign of a former CCC or Boy Scout camp in the area. There is a lovely, shaded pond on private property along the main road through "town." Perhaps this is the site?

Thoroughly disenchanted, we headed north into the Ouachita Mts. En route we decided to pop in to the lake in the city park in Broken Bow, a place we had visited in 2003 and 2004 and remembered fondly enough. Imagine our shock when we walked to the lily pads at the shaded north end of the lake and, separately—we were standing several meters apart—spotted our very own male Burgundy Bluet! We were almost too giddy for words. We secured a specimen and lots of photos. As we carefully searched this shore of the lake, we counted some 25 males, including a teneral, and found two tandem pairs. There's a population in the state after all!



Not great photos, but you get the idea. Here is a single male (above) Burgundy Bluet and one of the pairs (below).



Birds beckoned for a bit, but by late afternoon we had reached the Le Flore County portion of the National Forest. We opted to pop in to Well Hollow (officially the “Well Hollow Walk-In Turkey Hunting Area”), a promising site we had visited previously, including earlier this year. At a small forest pond we collected a male Comet Darner (*Anax longipes*), a county first, but then hustled to the fen-like beaver dam complex we had found below Crooked Branch Lake in late April. We had been there no more than a few minutes when we were shocked again, this time by a male Attenuated Bluet! We nabbed this first county record and quickly found a second male, which we photographed at length. We revisited this site in the mid-morning of 9 June and found three males and a female Attenuated Bluet, the female part of a tandem pair. And so we are happy to report that this species also persists in the state.



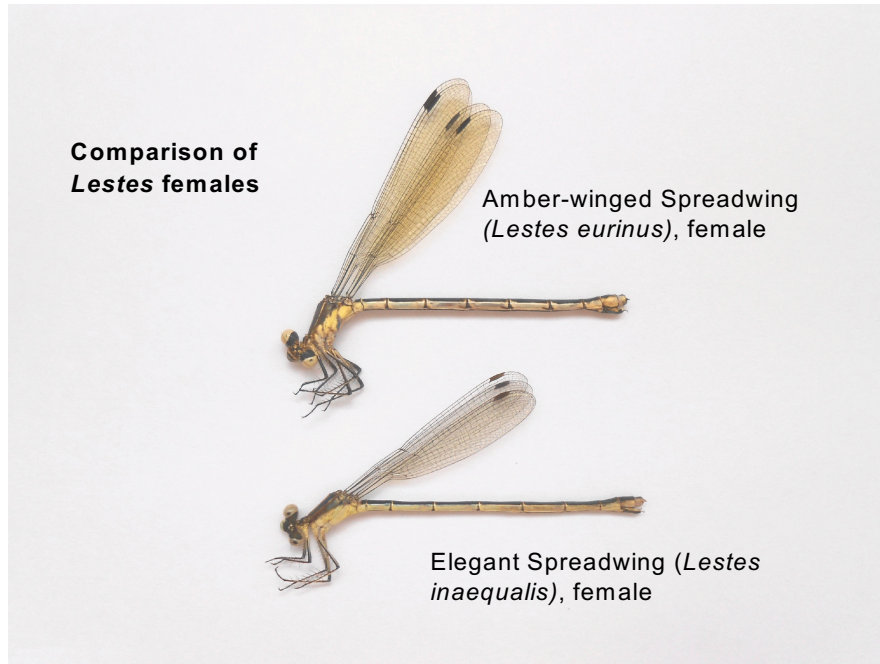
Our visit on 9 June got even better when we spotted an odd looking small spreadwing. Something looked amiss for it to be a Southern Spreadwing (*Lestes australis*), our ubiquitous species, and given its jagged, brownish antehumeral stripes, we knew it was not a Plateau Spreadwing (*L. alacer*). A quick scoop of the net later revealed straight paraprocts of rather equal width throughout their length. We knew we had either a Northern (*L. disjunctus*) or Sweetflag (*L. forcipatus*) Spreadwing, yet even though we leaned toward the latter we could not be certain until we got back to the lab. This ID is notoriously difficult, but the length and shape of the hamules (a.k.a. anterior laminae) and various aspects of S10 and the cerci convince us that it is indeed a Sweetflag, a first record for Oklahoma.

We meandered through the forest and into neighboring Latimer County later that day (we added the Elegant Spreadwing and Comet Darner to Latimer’s list), with a plan to stay the night near Clayton Lake in Pushmataha County. We visited the lake in the morning of 10 June and had a good time, but nothing to prepare us for our visit to the nearby Pushmataha Wildlife Management Area, where we were to spend the better part of the day. We added a shocking seven species to the county list, some overdue for a county in which 70 species had been recorded, such as the Comet Darner, Carolina Saddlebags (*Tamea carolina*), Stillwater Clubtail (*Arigomphus lentulus*), and Calico Pennant (*Celithemis elisa*). More surprising were a male Golden-winged Skimmer (*Libellula auripennis*; photos only in this case) and a male Atlantic Bluet (*Enallagma doubledayi*), along with a few Southern Sprites

and Double-ringed Pennants (*C. verna*). Neither of the last two was new for the county, but it was nice to find a new site for these scarce species. And as you know, the bluet was one we documented in Oklahoma for the first time only in September 2012, at McGee Creek WMA in Atoka Co. We found a single male 12 km north of there in the Atoka Public Hunting Area this past April, and given the habitat we figured Pushmataha WMA was a likely locale for the species. It was gratifying to have our hunch proven correct.

For those of you who kept track, that's only six new county records. The seventh was the weekend's *coup de grâce*: a lovely female Amber-winged Spreadwing (*L. eurinus*), another first for

Oklahoma. This beauty was a dead ringer for the image in Paulson 2011 eastern guide. Two first state records in one weekend! And two rediscoveries in the same weekend! We can't wait to get out again.



Happy ode-ing,

*Brenda and Michael*

*PS Glad to hear that some of you have already made it to Broken Bow to see Burgundy Bluet, and that you discovered an Elegant Spreadwing there, too!*