and the Oklahoma Natural History Inventory

1 June 2017

## Dear OK Oders,

We're two months into dragonfly season, so it must be time for an update. Did we say two months? That seems a good deal of time considering that it's not even summer yet. But, yes, we had an early start to the flight season, again, this year. It's almost as if the climate is warming steadily. ;-)

The early flight season brought a spate of early dates, as summarized in this handy table, in which "SP" refers to our Smith-Patten/Patten collection, housed at the Oklahoma Biological Survey, "OC" refers to Odonata Central <a href="http://odonatacentral.org/">http://odonatacentral.org/</a>, "MAP" refers to Michael A. Patten, and "DA" refers to David Arbour, lord of the Red Slough Wildlife Management Area, McCurtain Co.

ENGLISH NAME	SCIENTIFIC NAME	COUNTY	New	OLD	SOURCE
Attenuated Bluet	Enallagma daeckii	Pushmataha	9 May	6 Jun	SP 2303
Burgundy Bluet	Enallagma dubium	Pushmataha	9 May	5 Jun	SP 2304
Fragile Forktail	Ischnura posita	McCurtain	1 Feb	18 Feb	OC 459404
Dusky Dancer	Argia translata	Bryan Carter	25 Mar 8 Apr	19 Apr	MAP sighting SP 2257
Gray Petaltail	Tachopteryx thoreyi	McCurtain	27 May	28 May	Wade Boys specimen
Harlequin Darner	Gomphaeschna furcillata	McCurtain	20 Mar	3 Apr	OC 461535, SP 2225
Swamp Darner	Epiaeschna heros	Bryan Le Flore	25 Mar 26 Mar	7 Apr	MAP sighting OC 461621
Springtime Darner	Basiaeschna janata	McCurtain	1 Mar	19 Mar	OC 461330
Ashy Clubtail	Gomphus lividus	McCurtain	20 Mar	23 Mar	OC 461536
Common Baskettail	Epitheca cynosura	McCurtain	1 Mar	25 Mar	OC 461332
Slender Baskettail	Epitheca costalis	McCurtain	8 Mar	16 Mar	OC 461386
Robust Baskettail	Epitheca spinosa	McCurtain	20 Mar	25 Apr	SP 2227, OC 461537
Blue Corporal	Ladona deplanata	McCurtain	1 Mar	10 Mar	OC 461331
Painted Skimmer	Libellula semifasciata	Le Flore	26 Mar	7 Apr	SP 2240
Great Blue Skimmer	Libellula vibrans	McCurtain	8 May	9 May	OC 462777
Banded Pennant	Celithemis fasciata	McCurtain	9 May 11 May	20 May	MAP sighting OC 462625

Halloween Pennant	Celithemis eponina	McCurtain	7 May	12 May	OC 462996
Seaside Dragonlet	Erythrodiplax berenice	Cleveland	30 May	19 Jul	OC 463299
Autumn Meadowhawk	Sympetrum vicinum	Coal	29 May	5 Jun	SP 2361
Checkered Setwing	Dythemis fugax	Harmon Grady	14 May 28 May	31 May	MAP sighting MAP photo
Swift Setwing	Dythemis velox	Carter	20 May	21 May	OC 463132
Hyacinth Glider	Miathyria marcella	McCurtain	2 May	3 Jul	DA sighting
Striped Saddlebags	Tramea calverti	Tillman	28 Apr	4 Jul	OC 462290
Black Saddlebags	Tramea lacerata	McCurtain	21 Mar	28 Mar	DA sighting

A few records in this table deserve special attention, the most notable being Oklahoma's second Robust Baskettail at Grassy Slough Wildlife Management Area, McCurtain Co., on 20 March, a netted by MAP and brought over to David Arbour for in-hand photographs. The only prior record for the state was of a that E. Hooper collected in Latimer Co. on 25 April 1931 (Sam Noble Museum at the University of Oklahoma, specimen OMNH 334), nearly 86 years earlier! This species is an enigma in that it can be common and widespread in the mid-Atlantic region, such as around Chesapeake Bay, but occurs only spottily, rarely, and perhaps irregularly west of the Appalachians.



Oklahoma's second Robust Baskettail (Epitheca spinosa), at Grassy Slough Wildlife Management Area, McCurtain Co., 20 March 2017. Note that raised "spine" on the dorsal side near the tip of the appendages, a distinctive feature unique to this species. Photo by David Arbour.

Also of note in the table are by far the earliest records of two scarce species in the state. First, a woefully lost  $\delta$  Seaside Dragonlet was photographed by Emily Hjalmarson at the "duck pond" at Brandt Park at the University of Oklahoma campus in Norman, Cleveland Co. The three previous documented records for the state, including of multiple individuals and a tandem pair, are from Jackson Co. in the southwestern corner, a

good deal away from Cleveland Co., which is almost dead-center of the state. Second, Bill Carrell photographed a lost Striped Meadowhawk at Hackberry Flat Wildlife Management Area, Tillman Co., which provided only the second record for the southwestern quadrant of the state and only the fourth record—after ones for Tulsa (the state's first record), Love, and Kiowa Counties—away from the Red Slough area in McCurtain Co., deep in the southeastern corner.



Two lost dragonflies, a ♂ Seaside Dragonlet (Erythrodiplax berenice), above, in Norman, Cleveland Co., on 30 May, photographed by Emily A. Hjalmarson, and a ♂ Striped Saddlebags (Tramea calverti), right, at Hackberry Flat Wildlife Management Area, Tillman Co., 28 April, photographed by Bill Carrell.



After this excitement it's perhaps difficult to say what is the next best highlight, as there are two or even three worthy contenders. Still, 2017's ultimate highlight so far must be Oklahoma's first Tezpi Dancer (*Argia tezpi*), a \$\int\$ photographed and collected at Lake Hall, Harmon Co., 14 May 2017 (OC 462696), an addition that brought the state list to 170 species, a total good enough for 10th best in the nation and only one behind Florida's 171 species. Let's shoot for 9th place this year!



Oklahoma's first Tezpi Dancer (Argia tezpi), at Lake Hall, Harmon Co., 14 May 2017. Note the shiny black eyes and wholly black abdomen (i.e., no blue), save for thin white rings at the base of the abdominal segments. In hand—the specimen is in the Smith-Patten/Patten collection (SP 2328)—the thorax shimmered a deep metallic violet and the wings had an amber wash. The nearest record to Oklahoma is from the Davis Mountains of far western Texas, roughly 600 km (370 miles) to the southwest!

## Other noteworthy records of 2017 have been:

- 1) the state's third Leonora's Dancer (*Argia leonorae*), a  $\circlearrowleft$  collected (SP 2327) at Altus, Jackson Co., 14 May, only an hour or so before the Tezpi Dancer was found;
- 2) the first Cocoa Clubtail (*Gomphus hybridus*) found away from McCurtain County: a  $\circlearrowleft$  collected at TNC's Hottonia Bottoms, Atoka Co., 30 March (SP 2241);
- 3) the first Sely's Sundragon (*Helocordulia selysi*) found away from Berlin Heck's property ~10 km southeast of Idabel in McCurtain County, which was the only locale that was known for the species in Oklahoma until a  $\delta$  was photographed at the Beech Creek National Scenic Area, Le Flore Co., 26 March (OC 461622);
- 4) a teneral Painted Skimmer (*Libellula semifasciata*) observed at a roadside beaver dam complex along a small creek 11 km east of Big Cedar, Le Flore Co., 28 April, to provide the first evidence of successful breeding in the state;
- 5) with additions to Choctaw (SP 2235, OC 461619) and Pushmataha (SP 2269), the Ashy Clubtail (*Gomphus lividus*) has now been recorded in four southeastern counties, suggesting either range expansion into the state or previously overlooked occurrence for this early-season flier (it's generally gone by the end of April);

6) at least five patrolling  $\circlearrowleft$  Pale-faced Clubskimmers (*Brechmorhoga mendax*) at McGee Creek State Park, Atoka Co., 29 May (SP 2364, OC 463291), the first record of the species for the Ouachita range. Bee had seen a patrolling clubskimmer at this same locale on 25 May, but could not secure documentation to nail down the identification, so it was pure serendipity that MAP visited the site four days later, unaware of Bee's sighting.

With regard to this last entry, this species appears to be sporadic in the state, in that it is not recorded every year. Indeed, sometimes there have been gaps of many years between records. In other years, such as in 2015, there were a scattering of records across the state. In addition to the new record for Atoka mentioned above, Emily Hjalmarson photographed one in Murray Co., Bill Carrell observed one or two in Cimarron Co., and poor Bee had another frustrating sight record of two clubskimmers in Ellis Co. while doing Black Rail surveys.

Two other species that occasionally stage incursions into the state appear to be having a banner year in 2017. The Great Pondhawk (*Erythemis vesiculosa*) is not recorded annually, although usually at least a couple of records for somewhere in the southern edge of the state. There already have been double digits recorded this year, including a new record for Garvin Co. (OC 463288). The Band-winged Dragonlet (*Erythrodiplax umbrata*) similarly waxes and wanes in Oklahoma. For instance, in 2014 MAP encountered 61 individuals across 16 counties, but in 2015 he saw only one all year, and in 2016 he encountered only three, all at one site on the same day. Thus far in 2017, he has seen nearly double digits across four counties, including new records for Pushmataha, Coal, and Garvin Counties, suggesting another boom year is underway.

To be fair, we need to mention another huge species-level highlight, even if it was one that got away. At Black Mesa State Park, Cimarron Co., on 14 May, Bill Carrell watched a 3 Giant Darner (*Anax walsinghami*) fly by, only to disappear without having the decency to make another pass so that the stunned observer could snap a few photos of the impressive species. Alas, we don't accept sight records to the state list—including our own, such as the 3 Amazon Darner (*Anax amazili*) we observed at French Lake in the Wichita Mountains Wildlife Refuge, Comanche Co., on 26 October 2014. Wow, what a record, Bill!

We'll wrap up with one last highlight, of a different sort and a big deal for us. When we began our statewide surveys nearly ten years ago, there was but one county with a species list in the triple digits, the venerable McCurtain, which, with the addition of the Robust Baskettail, sits at a whopping 119 species—a total exceeding the totals for 16 US states! We long wondered when (not if, really) another county would join the triple digit club. Some bet on Comanche Co., home of the biogeographically weird Wichita Mountains, which has been stuck at 98 species for several years with but one or two more-or-less obvious misses, by which we mean species recorded in neighboring counties but not in it. We long bet on a county in the southeast adjacent to or near to McCurtain, but we weren't sure which it would be. There was a good argument for both Le Flore (now at 94 species) or Pushmataha (now at 90 species) or Atoka Co. . . . which took the prize. With the addition of both the Kiowa Dancer (*Argia immunda*) and Pale-faced Clubskimmer (see above) on 29 May, Atoka's list now stands at 101 species. Yay!

For those interested in gory details on our project's progress, more than we possibly can provide here, please see our two recent papers in *Argia*, the news journal of the Dragonfly Society of the Americas, in which we published separate summaries for damselflies (*Argia* 28[4]:35–41, 2016) and for dragonflies (*Argia* 29[1]:1–10, 2017).

Until next time,

Michael and Bee