

GOMPHIDAE

Common Sanddragon (*Progomphus obscurus*)

Pre-NYDDS Status: G5, S1

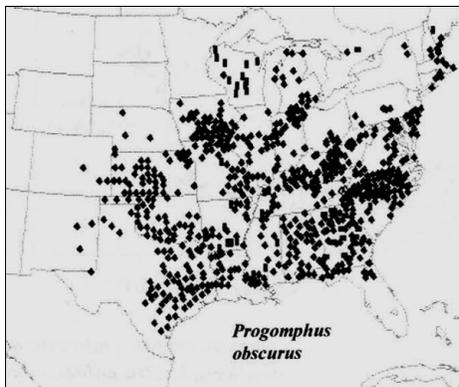
Special Concern

Draft Revised Status: S1

Habitat Characteristics: True to their name, Sanddragon larvae are burrowers (< 2 cm deep) found primarily in shifting sandbars in small streams and the sandy shallows of wide lakes. The nymphs show a preference for sand particle sizes from 0.625-1.0 mm (Huggins & DuBois 1982) and they emerge on sandy beaches (Phillips 2001). At breeding sites, males perch on sandy ground or in vegetation and hover very low over the water (Nikula *et al.* 2003). Both lentic and lotic habitats are occupied in different parts of New York. On Long Island, this species is found in small, shallow, sand-bottomed ponds (kettleholes) with shoreline beaches and emergent vegetation. In the upper Hudson watershed, forested medium-sized clean rivers with sandbars, moderate flow, and few boulders are the preferred habitat.



Jeffrey Phippen 2005



(Donnelly 2004c)

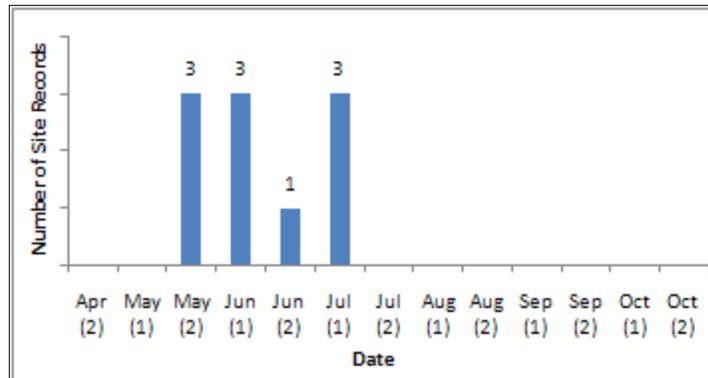
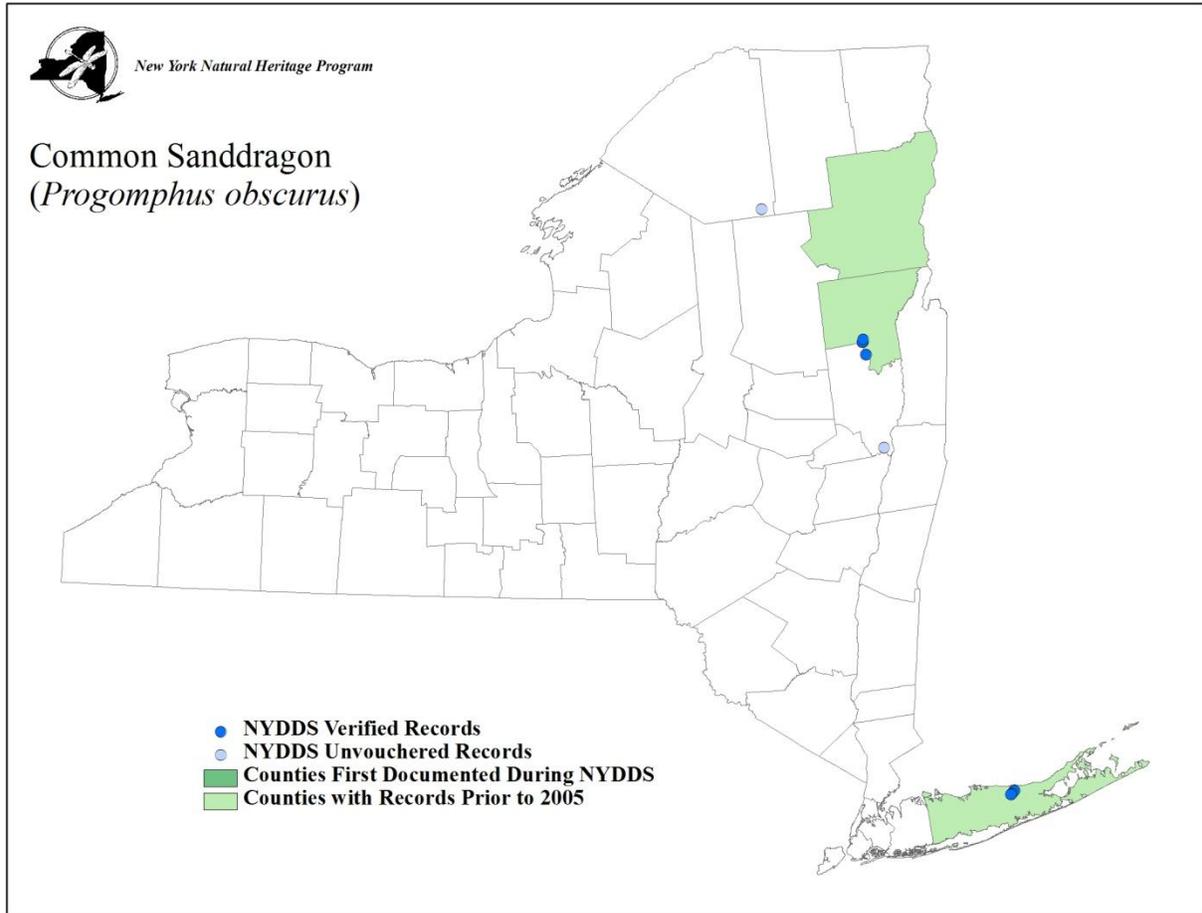
Distribution and Inventory Needs: The distributional center of *P. obscurus* lies along the Ohio River in southern Illinois in the Central Hardwood Forest ecoregion. The species ranges widely across the eastern US, west to Colorado, northwest to northern Wisconsin, east to the Maine/New Hampshire border and south to Florida and Texas (Donnelly 2004c). New York is near the northeastern range extent and it was known historically from Suffolk County Long Island and the Hudson and Schroon Rivers. Older occurrences were verified as extant in those watersheds during the NYDDS (and the Schroon River population was last documented in 1996), and an additional nearby pond in

Suffolk County was added. In general, adults were found at the Long Island Ponds, while exuviae and larvae were observed for the upstate river records (except on the Schroon River where adults were observed). There was one unvouchered sighting of an adult from the Mohawk River near its confluence with the Hudson, and an unvouchered record from the Bog River in the Northeast Lake Ontario-St. Lawrence watershed. Further surveys on any large, sandy tributaries of the Hudson, Mohawk, and Lake Champlain may prove fruitful, as well as further searching on the Bog River and nearby rivers, and any sandy kettlehole ponds on Long Island.

Phenology: Larvae that have been collected on the upper Hudson on May 22, emerge around the 9th or 12th of June, which may be earlier than can be expected in the wild. Adults on Long Island are mostly observed during July, with one record pre-NYDDS observed on July 29. Thus, the entire flight season in New York is about two months long from June to the end of July, possibly ending significantly sooner than in other northern states (The Ohio Odonata Society 2000;



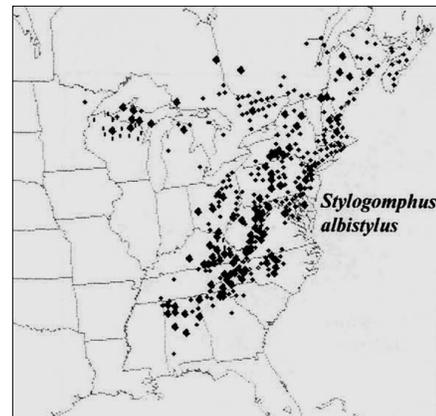
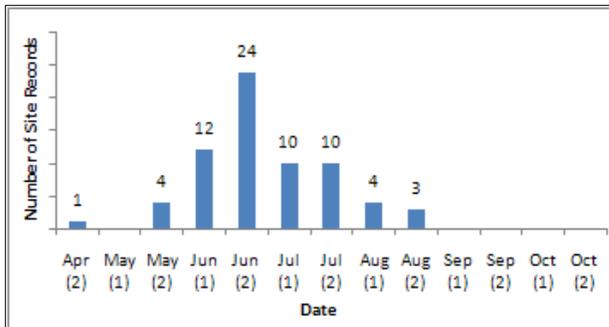
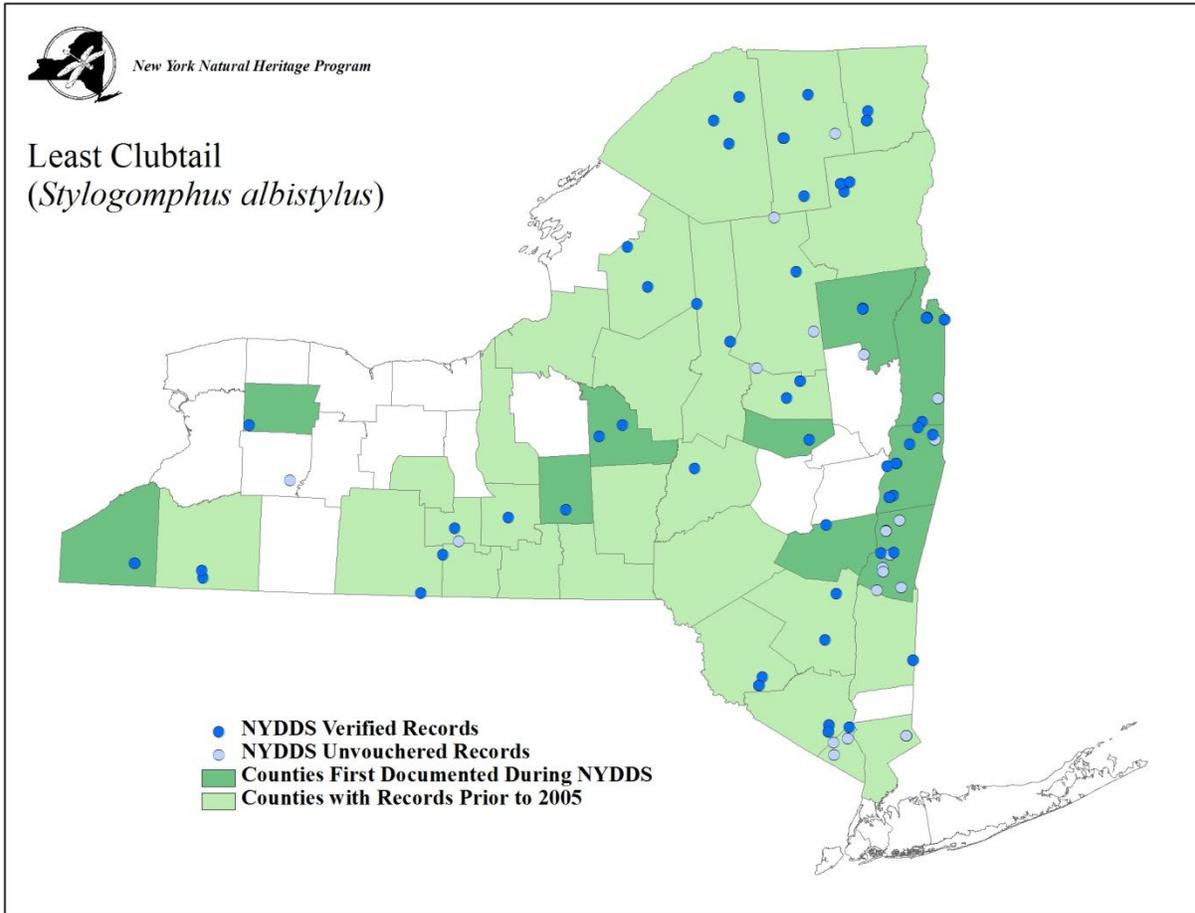
Brunelle & deMaynadier 2005; Wisconsin Odonata Survey 2009) where they can often be observed throughout August .



GOMPHIDAE

Least Clubtail (*Stylogomphus albistylus*)

Pre-NYDDS Status: G5, S5



(Donnelly 2004c)



GOMPHIDAE

Riverine Clubtail (*Stylurus amnicola*)

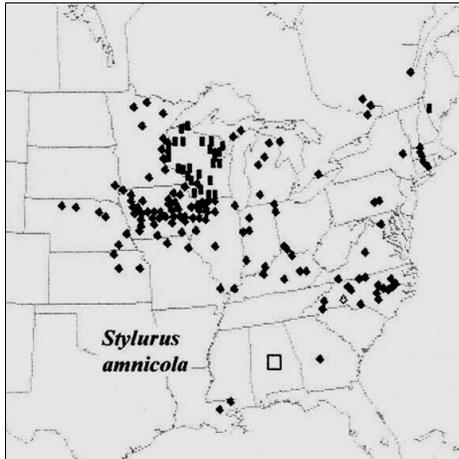
Pre-NYDDS Status: G4, SH

Draft Revised Status: SH

Habitat Characteristics: Habitat characteristics for this species are unknown in New York, but in nearby Connecticut and Massachusetts this species occurs only on the Connecticut River. Here, it emerges on fine sand/clay beaches on a very wide (500 m) tidal portion of the river. The adults are believed to spend much of their time high in treetops, and are seldom seen (Massachusetts NHESP 2003, Wagner *et al.* 1995). In Michigan the species is associated with clear, medium to large rivers of swift current with sand, gravel, or mud benthos, and adults are observed in vegetative undergrowth along the shoreline (Gehring 2006).



Tom Murray 2005



(Donnelly 2004c)

Distribution and Inventory Needs: *S. amnicola* has its distributional center in the southern Great Lakes forest ecoregion along the Illinois/Indiana border. New York is near the northeastern range extent (Donnelly 2004c), where the species is widely distributed, and quite rare. It has not been seen in New York for at least 80 years, when Needham (1928) reported a single specimen from the Hudson River at Bethlehem. The habitat at this general location is similar to the Connecticut River locales, but extensive searches for both exuviae and adults along the mid Hudson River during NYDDS, did not turn it up. Besides the Hudson, other large rivers with forested shorelines and fine sediment beaches such as the Delaware, St. Lawrence, Susquehanna, and Niagara would be good places to look.

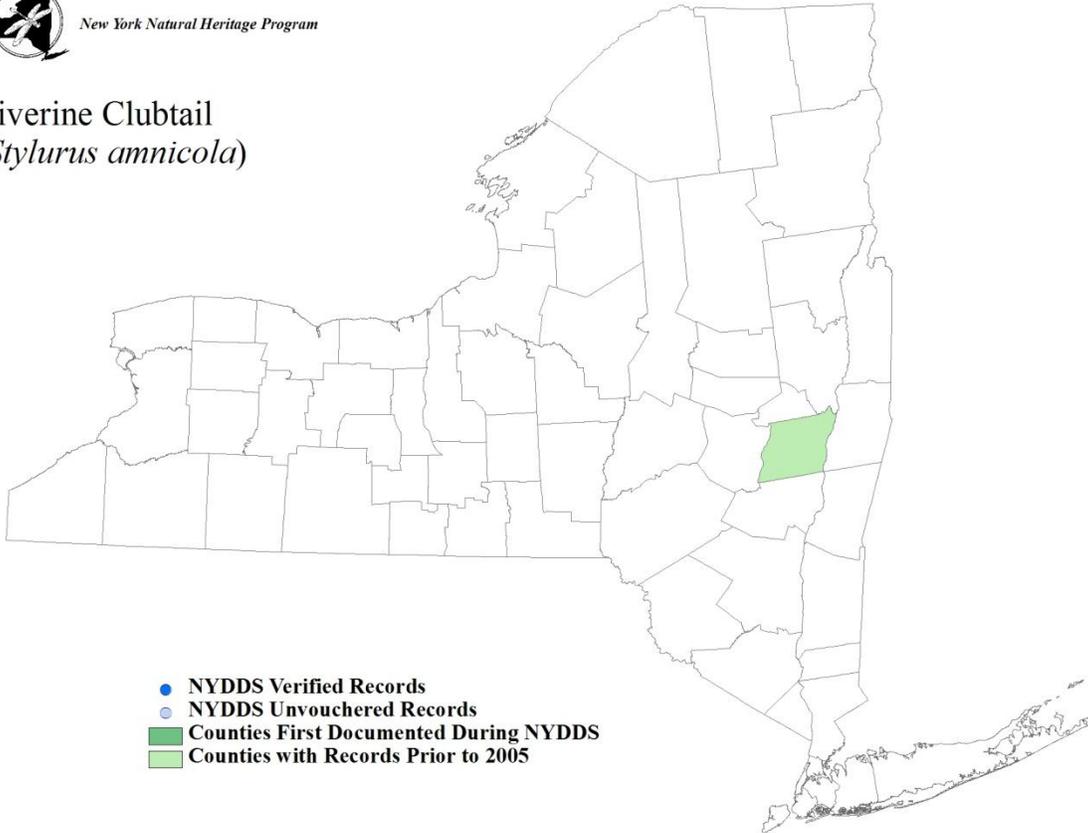
Phenology: In Connecticut and Massachusetts, larvae emerge from late June through late July and are on the wing for about five weeks until mid-late August (Wagner *et al.* 1995, Massachusetts NHESP 2003). In Michigan, adults can be found from late May through mid-September (Gehring 2006).





New York Natural Heritage Program

Riverine Clubtail (*Stylurus amnicola*)



GOMPHIDAE

Elusive Clubtail (*Stylurus notatus*)

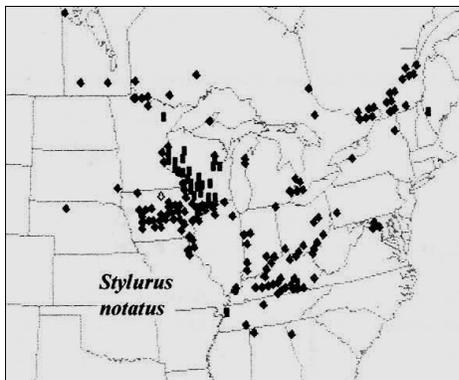
Pre-NYDDS Status: G3, SH

Draft Revised Status: SH

Habitat Characteristics: Habitat characteristics for this species are unknown in New York, but two old records were from lakes. In the midwest, it inhabits sandy-bottomed creeks, but more often large rivers and lakes with sandy, silty, and/or gravelly bottoms. Nymphs live in depositional firm sand, often where rivers deposit into a lake, and also in the rivers themselves (Iowa Odonata Survey 2010; Wisconsin Odonata Survey 2009). Along the Ottawa River in Quebec, large numbers of larvae emerged from heavily impacted areas with stone walls along the shoreline and some aquatic plants, debris, and sand/mud substrates (Hutchinson & Ménard 1999). It is not known where the adults reside, but like other hanging clubtails in the genus *Stylurus*, they probably take refuge high up in large trees along the shoreline where they feed and become sexually mature. However, Walker (1958) suggested that this species' seeming rarity may be attributed to its habit of remaining far out over open water, seldom coming to shore.



Tom Murray



(Donnelly 2004c)

Distribution and Inventory Needs: *S. notatus* has its distributional center in western lower Michigan in the southern Great Lakes forest ecoregion, extending northwest to Manitoba, east to Quebec and south to northern Georgia. New York is near the northeastern range extent (Donnelly 2004c), where the species is widely distributed, and extremely rare. It has not been seen in New York in recent years. There is an older record from Rochester, Monroe county (presumably the Genesee River) and Needham (1943) reported a copulating pair collected from the vicinity of Crown Point along Lake Champlain (this is the type

specimen). The species appears to be declining range-wide, and it has nearly disappeared from Kentucky where it was common in the 1940s and 1950s (Laudermilk 2002). Besides the Lake Ontario shoreline near the mouth of the Genesee River, the species might also be looked for along northern Lake Champlain and/or the St. Lawrence River since there are several records from the Ontario/Quebec border very close to New York. Schneider (1992) also mentions the Poultney River as a possible locale because of its sandy substrate.

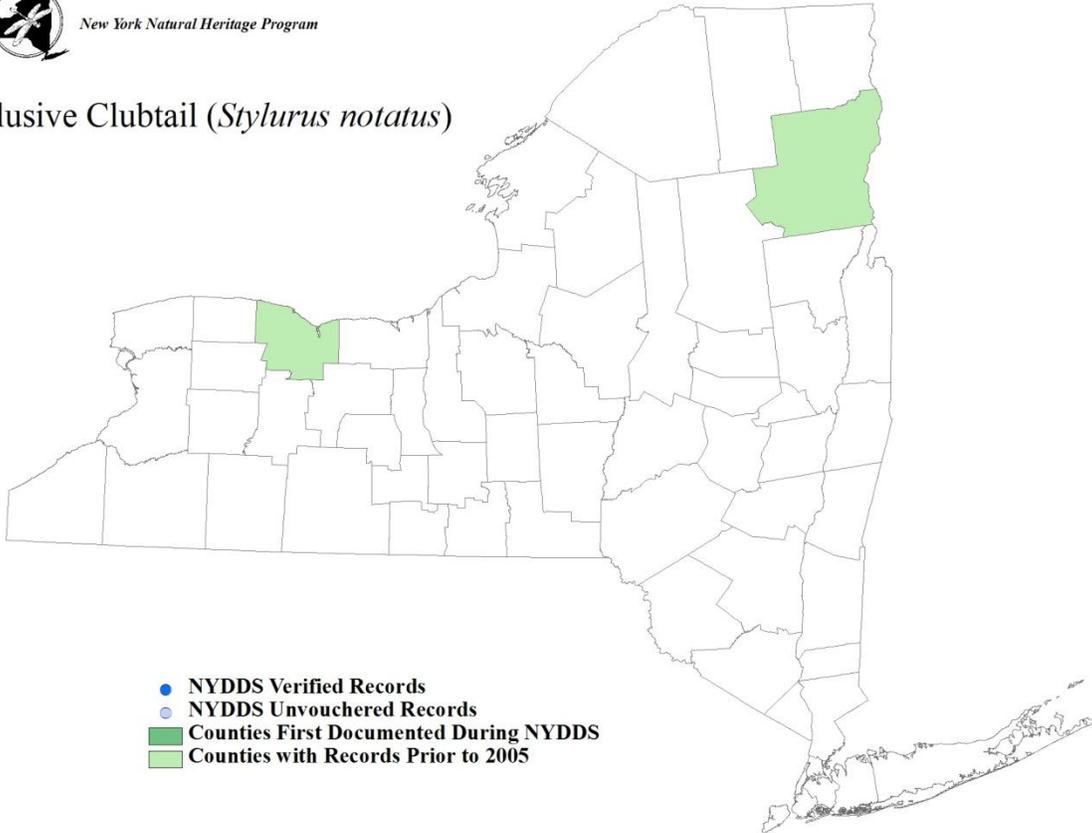
Phenology: The Crown Point breeding record was from July 30. In the upper midwest adults are most frequently encountered from mid July to mid August, with the entire flight season extending from mid June to mid September (Iowa Odonata Survey 2010, Wisconsin Odonata Survey 2009).





New York Natural Heritage Program

Elusive Clubtail (*Stylurus notatus*)



GOMPHIDAE

Russet-tipped Clubtail (*Stylurus plagiatus*)

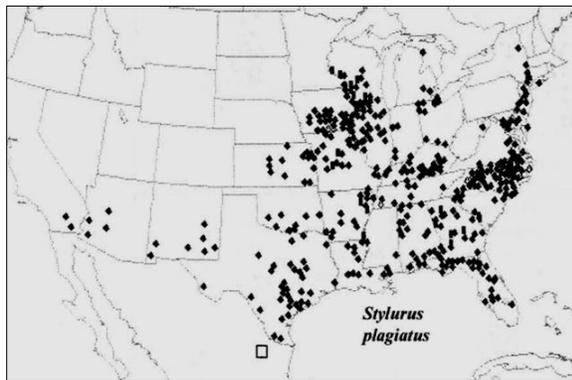
Pre-NYDDS Status: G5, S1

Draft Revised Status: S1

Habitat Characteristics: In the main part of its range, this species inhabits primarily larger rivers, but also smaller creek tributaries and even lakes and reservoirs with sandy and/or silty bottoms, into which the larvae burrow (Dunkle 2000). In New York, this species is an extreme habitat specialist, nearly exclusively inhabiting forested tidal mudflat communities along the Hudson River and short stretches of tidal tributaries (Corser 2010). Walker (1958) mentions that adults inhabit the tops of the tallest trees along waterbodies.



Jesse Javcox 2005



(Donnelly 2004c)

Distribution and Inventory Needs: *S. plagiatus*' center of distribution is in the southern forest/grassland ecoregion along the Kansas/Oklahoma border, and the species reaches its northern extent in eastern New York. The northeastern-most occurrence in its entire range lies on the Mohawk River very near its confluence with the Hudson (Hemeon 2007). Pre-NYDDS records (Donnelly 2004a) are known from here southward along the Hudson to its mouth, but the NYDDS records were concentrated in Greene, Columbia and southern Albany counties pointing to the existence of an important (meta)population in this vicinity. There is an older record from Lake George, but no recent records from that location, despite some searching. Further inventory is needed along southern Lake Champlain and westward along the Mohawk River where the habitat seems suitable for population expansion along the northern edge of this presumably temperature-limited species (Corser 2010).

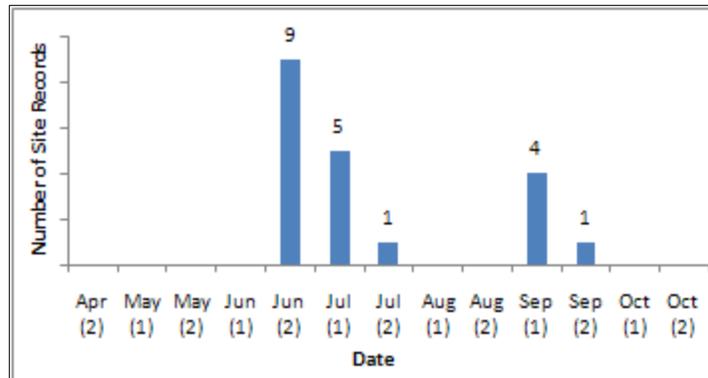
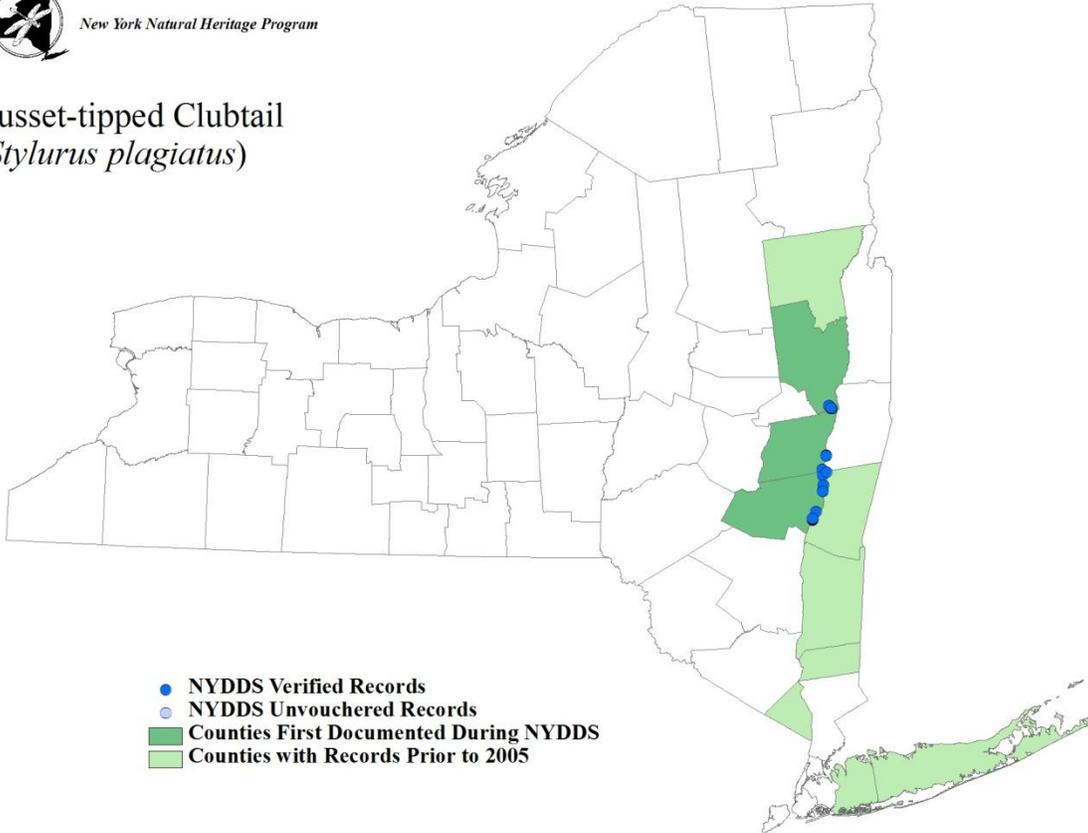
Phenology: In New York, the larvae usually emerge during mid-day in the last week of June and first week of July (Hemeon 2007). Adults, however, are not observed again until the breeding season during the month of September. The phenology chart reflects this, as exuviae were collected in June and July and adults were found in September. It is not known where they reside in the interim, but like other hanging clubtails in the genus *Stylurus*, they are believed to take refuge high up in large trees along the shoreline (Corser 2010) where they feed and become sexually mature.





New York Natural Heritage Program

Russet-tipped Clubtail (*Stylurus plagiatus*)



GOMPHIDAE

Zebra Clubtail (*Stylurus scudderi*)

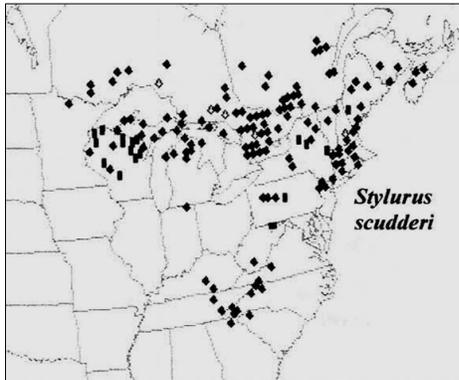
Pre-NYDDS Status: G4, S3

Draft Revised Status: S3S4

Habitat Characteristics: This species is found primarily on smaller rivers and medium-sized forested trout streams with intermittent riffles and rapids (Walker 1958) and sandy/mucky bottoms with slow to moderate flow. Larvae burrow deeply into sand/silt substrates in pools. Newly emerged adult males disperse to surrounding woodlands, and during breeding they patrol streams frequently landing on the banks, logs, rocks sand/cobble bars, and shoreline vegetation (Massachusetts NHESP 2003). Females are rarely observed (Walker 1958).



Denis A. Doucet



(Donnelly 2004c)

Distribution and Inventory Needs: *S. scudderi* has the center of its distribution in southwestern Ontario in the southern Great Lakes forest ecoregion. It ranges east to Nova Scotia, west to northern Minnesota and south to northern Georgia. New York is near the center of its range where it is widely distributed primarily in the upper Hudson watershed, but also occurring in the Lake Champlain and northeast Lake Ontario/St. Lawrence watersheds (Donnelly 2004c). It ranges from the Bog River in St. Lawrence County east to the Ausable and Schroon rivers in Essex County, south to the Roeliff Jansen Kill in Columbia County and northwestward to

the Jessup River and East Canada Creek in Hamilton County.

Cascadilla and Fall Creeks in Cayuga and Tompkins County in central New York should be surveyed because in the mid 1950s many larvae were collected and reared from the vicinity of McClean and Ellis (Donnelly 1999) and the species has been known from the upper Cascadilla since at least the 1920s (Needham 1928). It is important to know whether this species has disappeared from the southeast Lake Ontario watershed and if it still occurs west of the Adirondacks. Likewise, a pre-NYDDS record from Ward Pound Ridge in Westchester County (Donnelly 1999) indicates that the species may be more widely distributed in southern New York since it also occurs in the adjacent states of New Jersey, Connecticut and Massachusetts (Donnelly 2004c).

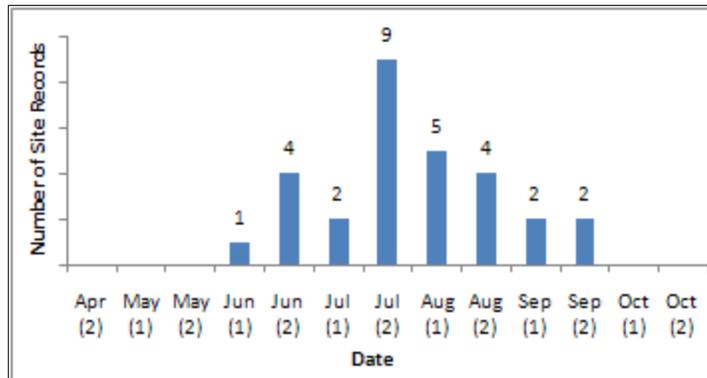
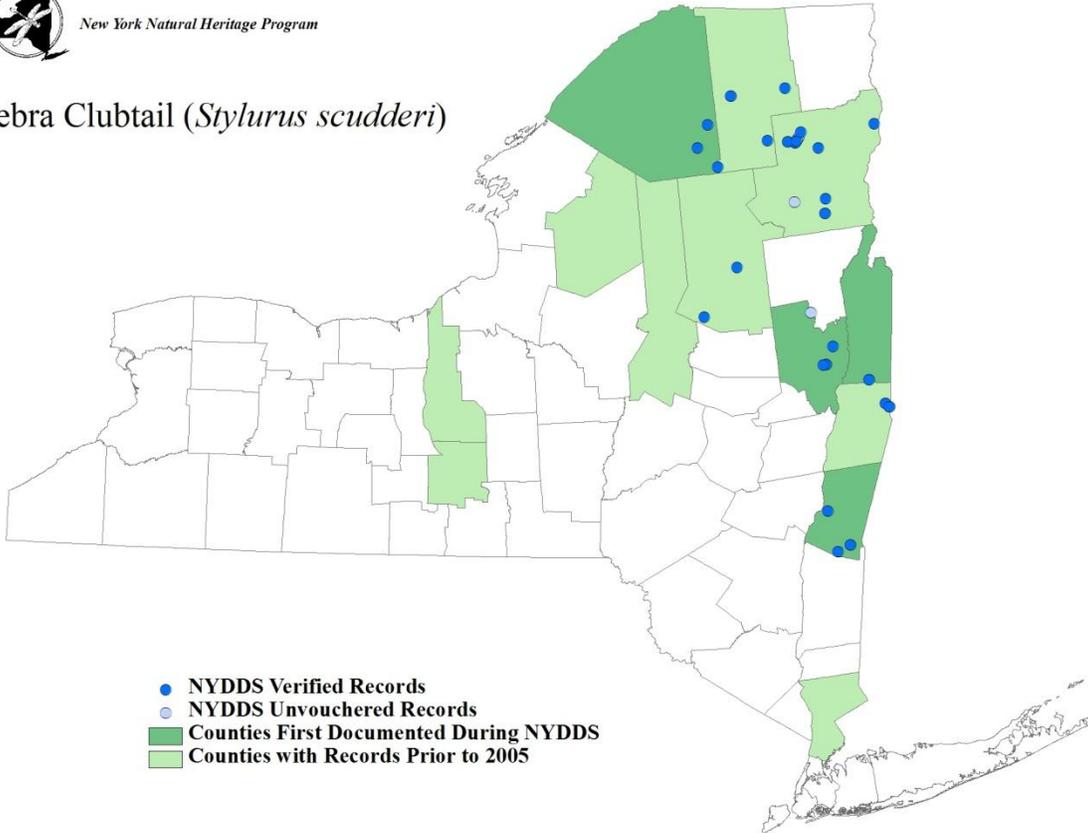
Phenology: The NYDDS records for this species were about evenly split between adults and exuviae, but adults apparently were not readily observed and most were found from mid-July to early September, often in late afternoon or early evening. The full flight season in New York is about 10 weeks; exuviae were found from June 30 through mid-September, which is similar to the flight season in Maine (Brunelle & deMaynadier 2005), Massachusetts (Massachusetts NHESP 2003), Wisconsin (Wisconsin Odonata Survey 2009) and Pennsylvania (Evans 2002).





New York Natural Heritage Program

Zebra Clubtail (*Stylurus scudderi*)



GOMPHIDAE

Arrow Clubtail (*Stylurus spiniceps*)

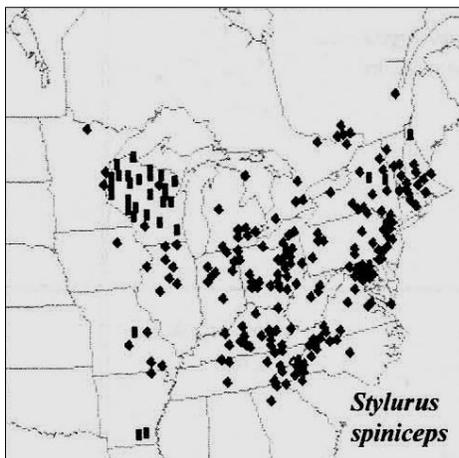
Pre-NYDDS Status: G5, S3

Draft Revised Status: S3

Habitat Characteristics: The nymphs of this species inhabit medium to large, swift, sandy-bottomed rivers and occasionally larger creeks where they burrow deeply into the sandy substrate, often emerging on sandy beaches. Adults are elusive and rarely encountered, likely spending most of their time high in the tree-tops in riparian areas and surrounding uplands, rarely perching on shoreline vegetation or protruding logs or rocks (Wagner *et al.* 1995, Massachusetts NHESP 2003).



Tom Murray



(Donnelly 2004c)

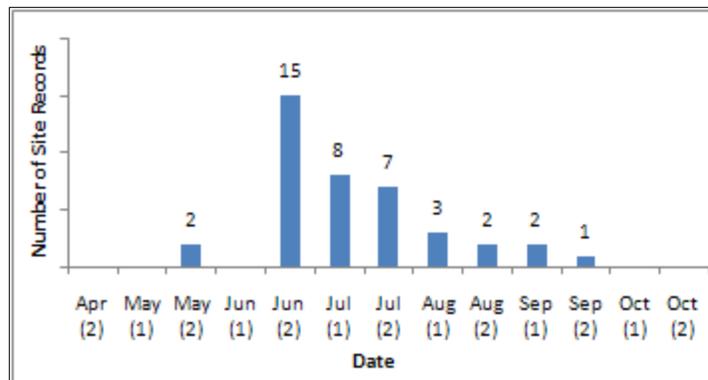
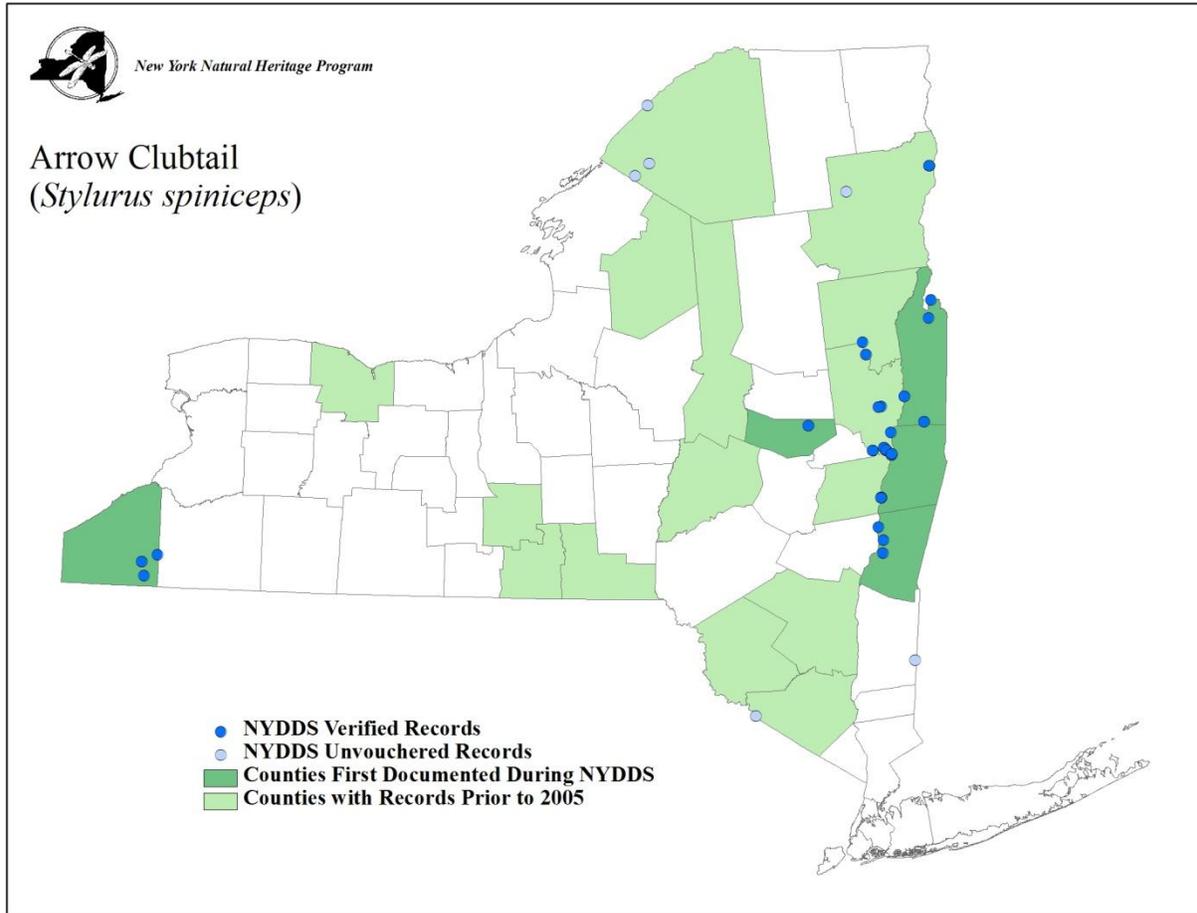
Distribution and Inventory Needs: The distributional center of *S. spiniceps* lies in northwestern Ohio in the southern Great Lakes ecoregion, extending northwest to northern Minnesota, south to southern Arkansas, and northeastward to southern Quebec and Maine (Donnelly 2004c). New York lies near the northeastern range extent and here the species is rather widely distributed, especially in the Hudson River watershed northward to tributaries of Lake Champlain (Boquet River), as well as the Delaware, Susquehanna, Allegheny, St. Lawrence and Genessee River systems. Pre-NYDDS county records for the Wallkill River in Ulster County and the Raquette River in St. Lawrence County did not show up in Donnelly (2004d), but were

gleaned from NY Natural Heritage files. As in other northeastern (Wagner *et al.* 1995; Brunelle & deMaynadier 2005) and midwestern states (The Ohio Odonata Society 2000; O'Brien 2010), this species seems to have undergone a notable range expansion during the 1990s and early 2000s in New York. By 2003, it was removed from the NY Natural Heritage Active Inventory List. Curiously, NYDDS surveyors did not uncover such a wide distribution of this species, with the vast majority of records coming from the Hudson River and nearby tributaries in the Capital District. This pattern may be due to the active collection of exuviae in this part of the state by skilled surveyors. Notable finds, however, did extend the known range to the Conewango Creek area in extreme southwestern New York. Additional inventory in southwestern New York and along the Canadian border could prove fruitful as there are numerous records from the adjacent states of Pennsylvania and Ohio and the provinces of Ontario and Quebec (Donnelly 2004c).

Phenology: Nearly all detections of this species in New York have been of exuviae, and the emergence and flight period indicated by these records extends over nearly three months from June 24 to September 15 (the May dates on the graph represent larval observations on the Upper Hudson River), with most of the records coming during the second half of June into the first half of July. This is similar to the flight season in Massachusetts (Massachusetts NHESP 2003), but is



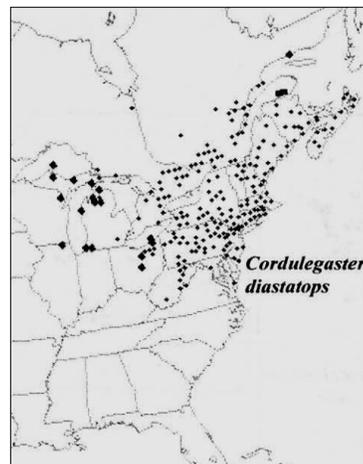
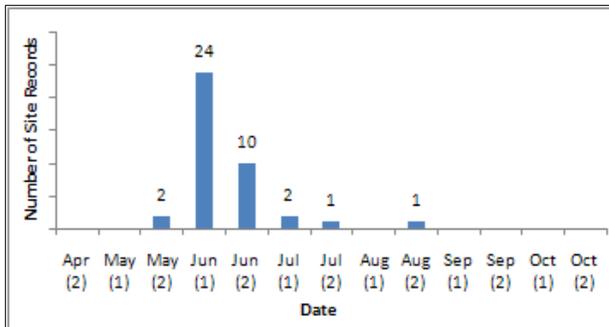
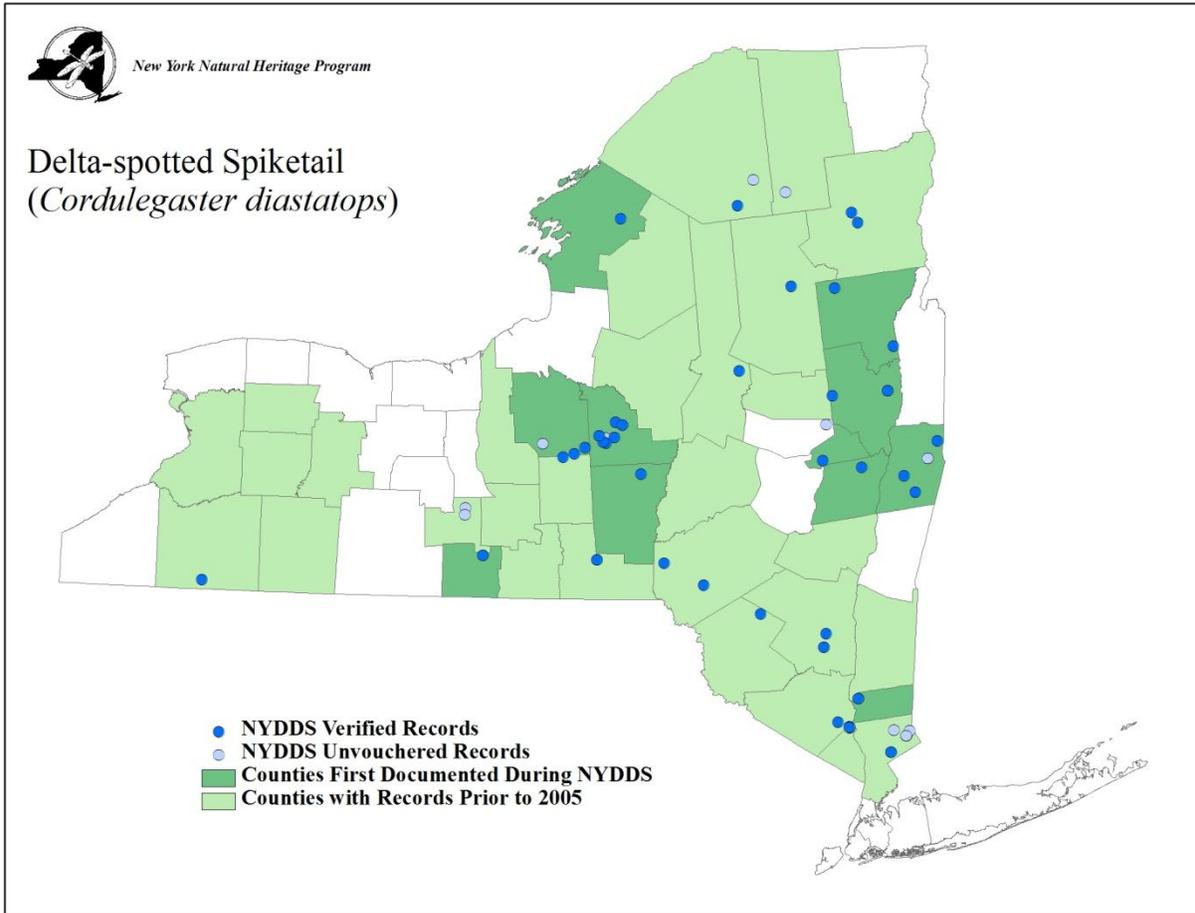
significantly earlier than in Ohio (The Ohio Odonata Society 2000), New Jersey (Bangma & Barlow 2010) and Connecticut (Wagner *et al.* 1995) where the species is most often detected in August.



CORDULEGASTRIDAE

Delta-spotted Spiketail (*Cordulegaster diastatops*)

Pre-NYDDS Status: G5, S5



(Donnelly 2004c)



CORDULEGASTRIDAE

Tiger Spiketail (*Cordulegaster erronea*)

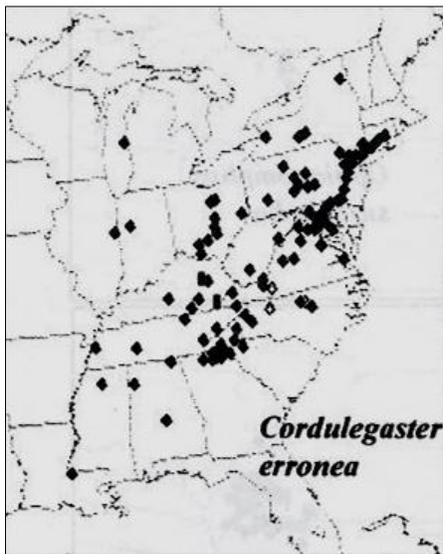
Status: G4, S1

Draft Revised Status: S1

Habitat Characteristics: Throughout their range, Tiger Spiketails are habitat specialists inhabiting tiny, forested, spring-fed coldwater streams, small spring trickles, or seeps in partial shade that are too small for fish where there is a constant, slight water flow and a sandy/gravelly substrate (Barlow 1995, Donnelly 1999; Dunkle 2000). In northern New Jersey, the species is limited to perennial low-to-medium-gradient forested cold water springs and trickles with a fine sand substrate that is relatively free of organic matter with a mix of skunk cabbage, jewelweed, sedges, and ferns (Barlow 1995). In Ohio, *C. erronea* use small headwater streamlets with persistent flow and good forest cover in steep ravines and adults spend significant time in the forest canopy and cruising the stream during the heat of the day (Glotzhober 2006). An informative distribution model found that environmental variables associated with topographic position (slope, topographic index) and surficial geology were the most informative parameters in defining suitable habitats for this species (New York Natural Heritage Program 2009b). Barlow (1995) also mentioned that geological areas conducive to the formation and maintenance of numerous permanent spring-fed seeps draining into deep, wooded glacial valleys were ideal locations. In Ohio, larvae inhabit sandy (less often silt or muck) stretches of very shallow streamlets upstream of obstructions that exclude fish (Glotzhober 2006).



Jesse Jaycox



(Donnelly 2004c)

Distribution and Inventory Needs: The distributional center of *C. erronea* lies in northeastern Kentucky in the Mixed Mesophytic Forest ecoregion and extends south to Louisiana and north to western Michigan and northern New York. New York forms the northeastern range extent and an older record (pre-1926) from Keene Valley in Essex County is the northernmost known occurrence of this species. Southeastern New York is the stronghold for this species in the lower Hudson River watershed in Orange, Rockland, Putnam and Westchester Counties and is contiguous with New Jersey populations (Barlow 1995, Bangma & Barlow 2010). These populations were not discovered until the early 1990s and some have remained extant since then, while additional sites were added during NYDDS. A second occupied area in the Finger Lakes region of central New York has been known since the 1920s (Needham 1928), and was re-discovered at

Excelsior Glen in Schuyler County in the late 1990s. During NYDDS, a second Schuyler County record was reported in 2005 as well as one along a small tributary stream of Otisco Lake in southwestern Onondaga County in 2008. The habitat in the Finger Lakes appears to be somewhat different from that in southeastern New York, as surveyors reported more exposed, silty streams



flowing from deep wooded ravines into large lakes, which is similar to habitats in Michigan (O'Brien 1998) and Ohio (Glotzhober & Riggs 1996, Glotzhober 2006). The rarity of this species in this portion of the state is highlighted by the low rate of detections from over 16 surveys in 2004 and 2005 in suitable habitats by experienced observers during the flight season who failed to find any additional sites. Nevertheless, Glotzhober (2006) reported that the acquisition of a positive search image and increased survey effort greatly expanded the number of known sites and overall range in Ohio. A single enigmatic record from Erie County was reported by Donnelly (2004d). A distributional model predicted that many of the tributaries feeding into the central Finger Lakes (especially Seneca, Cayuga, Keuka, and Canandaigua lakes) as well as along Eighteen Mile creek near North Evans in Erie County should have suitable habitat for this rare and elusive species (New York Natural Heritage Program 2009b).

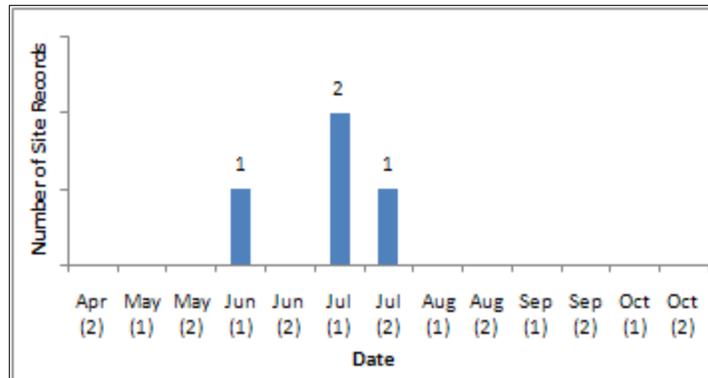
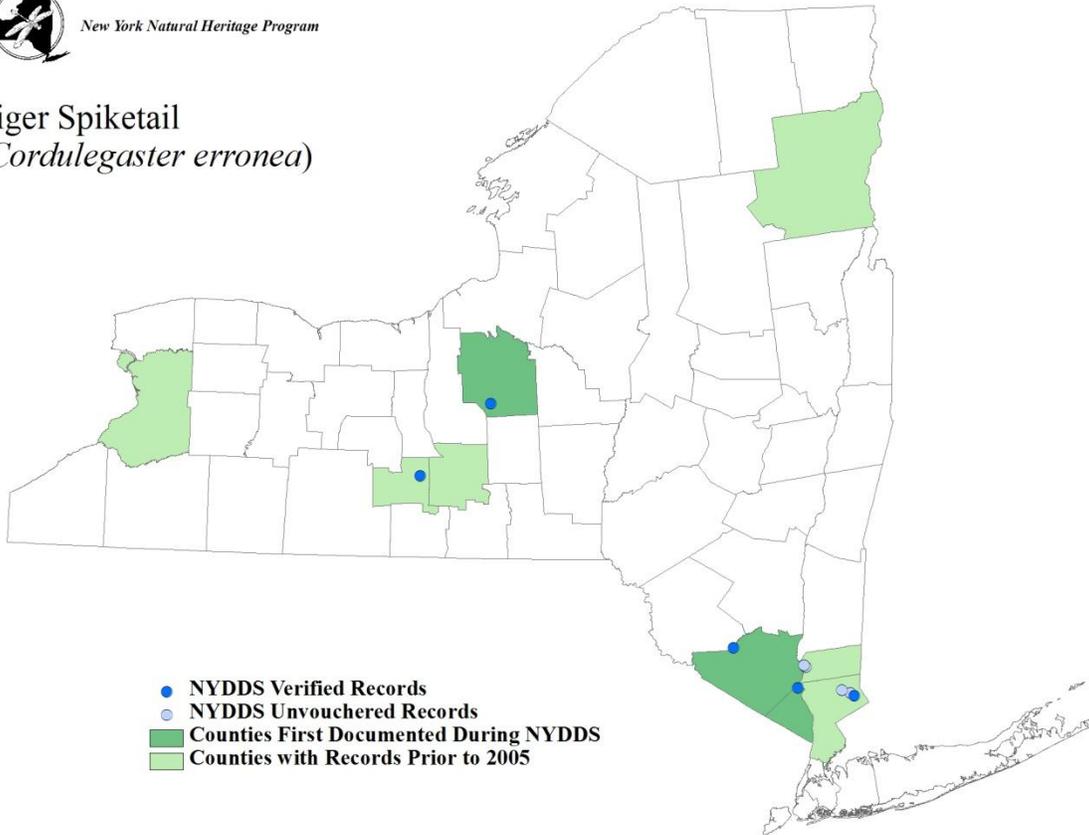
Phenology: Early June to mid- September (New York Natural Heritage Program 2009e) is the reported flight season in New York which is similar to Ohio (June 1-September 3, with 83% of the observations on or after July 16) (The Ohio Odonata Society 2000) and New Jersey (June 23-September 5, with a peak in August) (Bangma & Barlow 2010). Our phenology data, both from NY Natural Heritage database records, as well as the newer NYDDS sightings, supports a somewhat shorter two-month flight season in New York, from June 12 to August 12, with most records coming from the last week of June through July. In good habitat in optimum weather conditions (between 10:00 AM to 4:00 PM) during the flight season, an observer should be able to observe one or more patrolling males within 30-60 minutes (Glotzhober 2006).





New York Natural Heritage Program

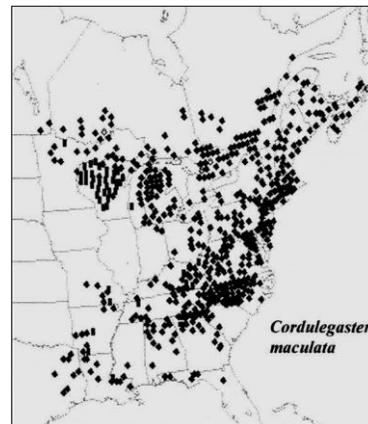
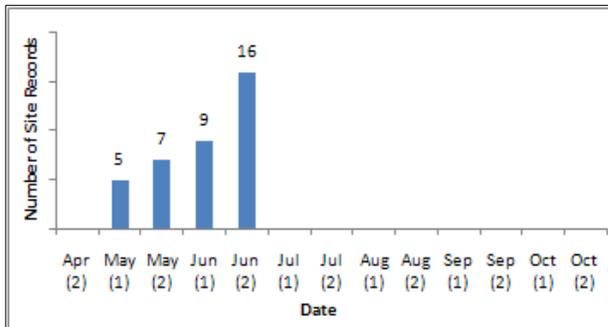
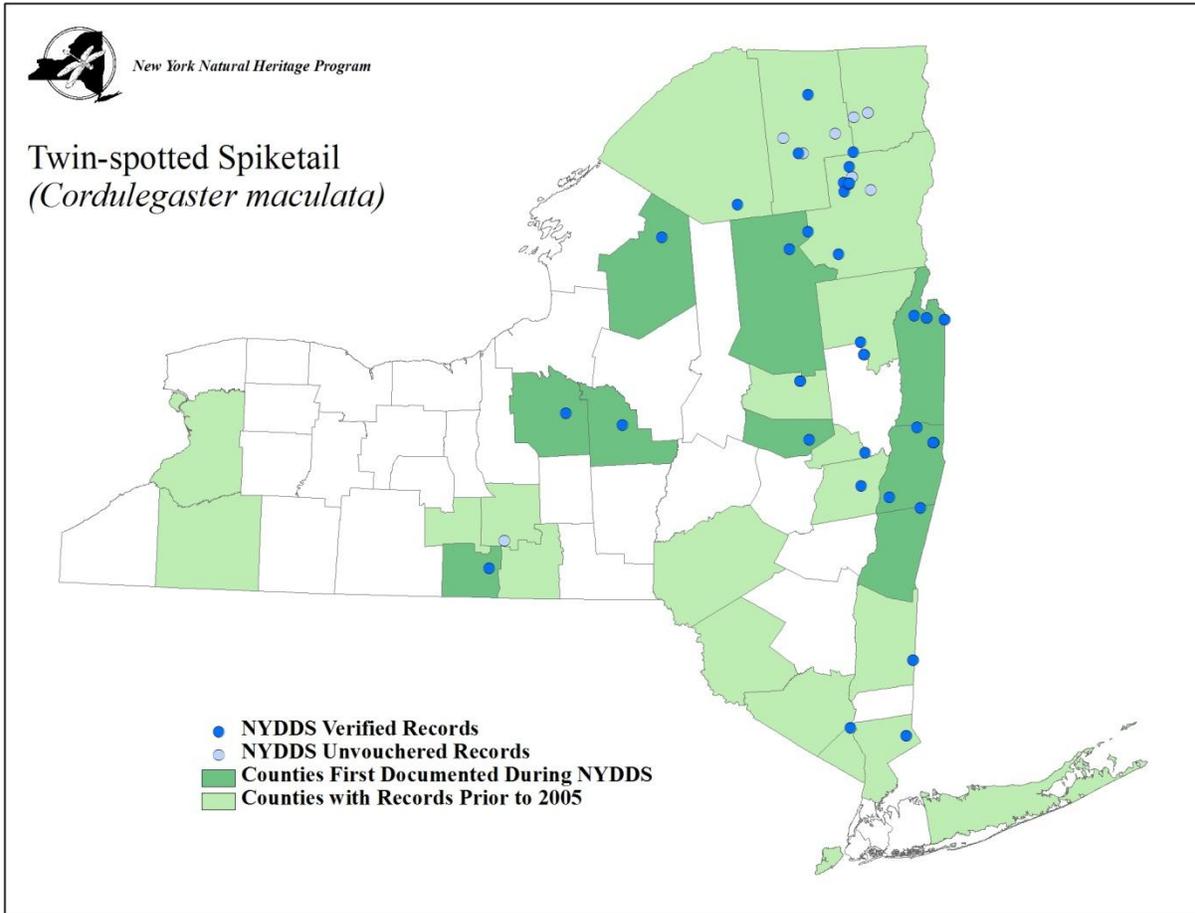
Tiger Spiketail (*Cordulegaster erronea*)



CORDULEGASTRIDAE

Twin-spotted Spiketail (*Cordulegaster maculata*)

Pre-NYDDS Status: G5, S5



(Donnelly 2004c)



CORDULEGASTRIDAE

Arrowhead Spiketail (*Cordulegaster obliqua*)

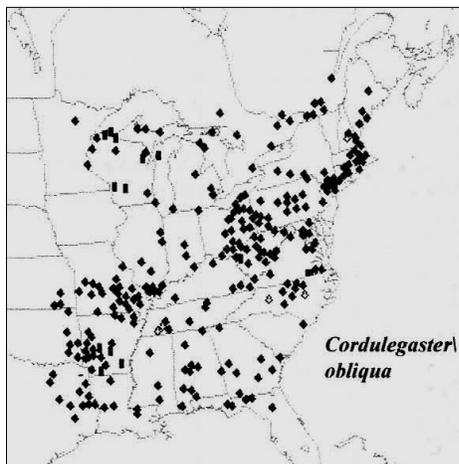
Pre-NYDDS Status: G4, S2S3

Draft Revised Status: S3

Habitat Characteristics: As elsewhere in the northeast and midwest (Nikula *et al.* 2003; Wisconsin Odonata Survey 2009, Bangma & Barlow 2010) Arrowhead Spiketails in New York oviposit and spend most of their time at small spring-fed streams and seeps with soft organic muck bottoms and sometimes rocky substrates. These streams are in forested areas although the seepages themselves may be in small areas of more open habitat types such as wet meadows or small cattail marshes and fields dominated by ferns and other moisture dependent herbaceous plants. Adults may feed in forest clearings in the vicinity of the principal breeding habitat (New York Natural Heritage Program 2009f). A somewhat informative distribution model (New York Natural Heritage Program 2009b) found that environmental variables associated with moderate degrees of canopy cover, topographic index and mild temperatures (average annual minimum temperature, and frost free days) were the most informative parameters in defining suitable habitats for this species. Lloyd (2005) noted that such seeps provide a unique habitat for macroinvertebrates such as *C. obliqua* by having smaller seasonal temperature changes and generally predictable year-round flows.



Alan W. Wells 2006



(Donnelly 2004c)

Distribution and inventory needs: The distributional center of *C. obliqua* lies in southwest Ohio in the Southern Great Lakes Forest Ecoregion, extending northwest to northern Minnesota, south to Texas and Florida and north to southern Ontario and Quebec (Donnelly 2004c). However it is likely that as with other *Cordulegaster*, this large range could comprise a species complex involving varying levels of hybridization (Pilgrim *et al.* 2002). New York lies near the northeastern range extent, and the species is rather widely distributed from the Finger Lakes region eastward. At the time of Needham (1928) *C. obliqua* was only known from extreme southern New York, but by the time of Donnelly (1999, 2004d) locales farther northward in the Hudson River Valley and in

Letchworth State Park in Livingston County had been reported. Likewise, NYDDS efforts since 2005 continued to expand the known range of this species, most notably with several additional sites in the central part of the state and northward to northern Washington and St. Lawrence Counties. This pattern probably represents a recent range expansion of this species, but could also arise simply from increased surveys efforts. Similarly, the range in Ohio has apparently expanded since 1990 (The Ohio Odonata Society 2000), but during recent atlas efforts in Maine (Brunelle & deMaynadier 2005), only one new locale was added. Several of the known sites in New York have been extant for nearly 20 years and often multiple individuals are observed



during surveys, suggesting good population viability of this species in the state and the discovery of additional populations is expected. More locales, particularly along the Canadian border counties, should turn up since there are many known sites nearby in Ontario and Quebec (Donnelly 2004c).

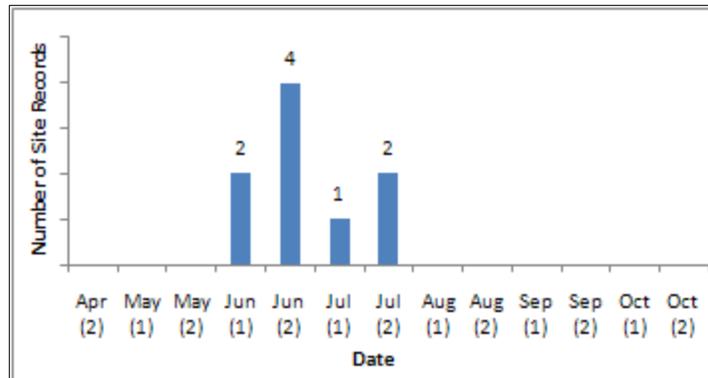
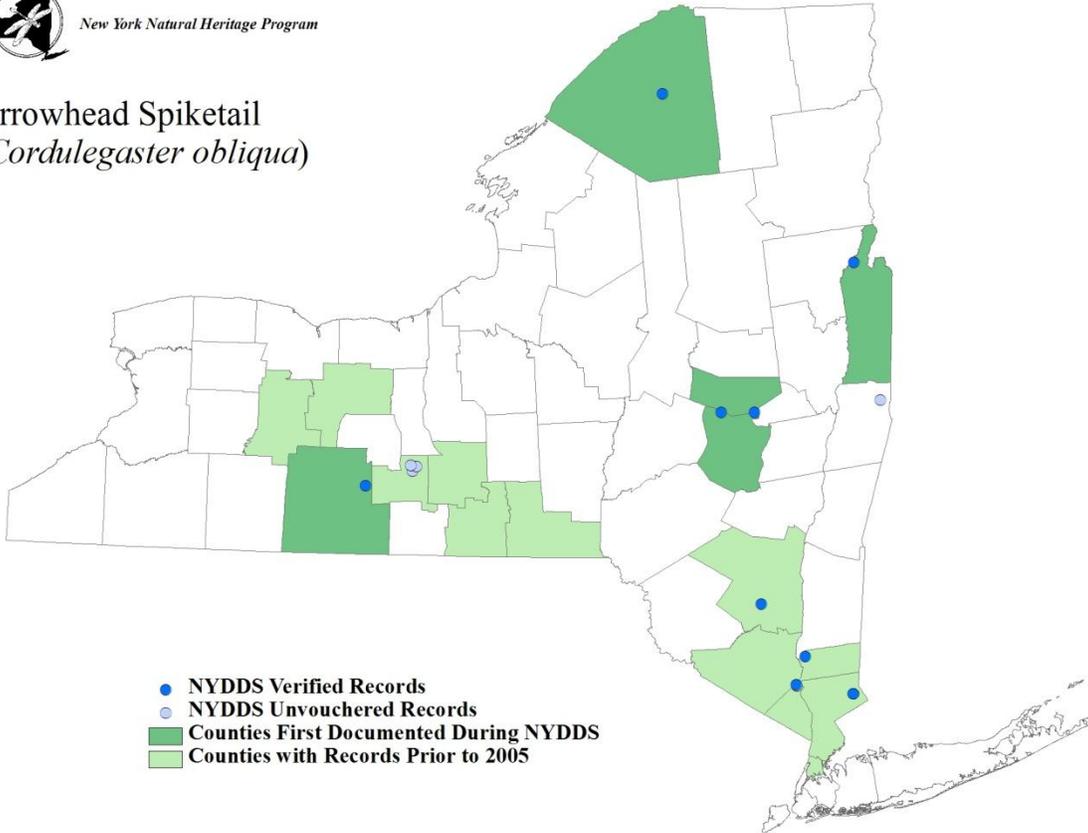
Phenology: Mid-May through July (New York Natural Heritage Program 2009e) is the reported flight season in New York which is similar to Ohio (The Ohio Odonata Society 2000), but longer than Massachusetts (Nikula *et al.* 2003) and New Jersey (Bangma & Barlow 2010). Our phenology data, both from NY Natural Heritage database records, as well as the newer NYDDS sightings, support a somewhat shorter two month flight season in New York, from June 2 to July 30, with 70% of the records coming during the month of June.





New York Natural Heritage Program

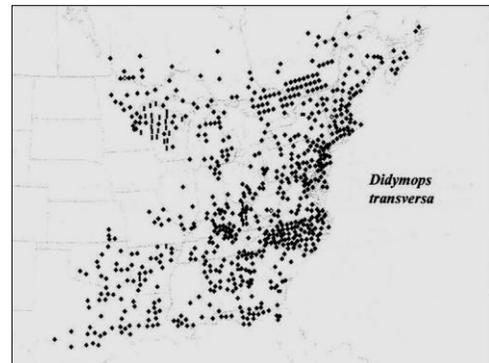
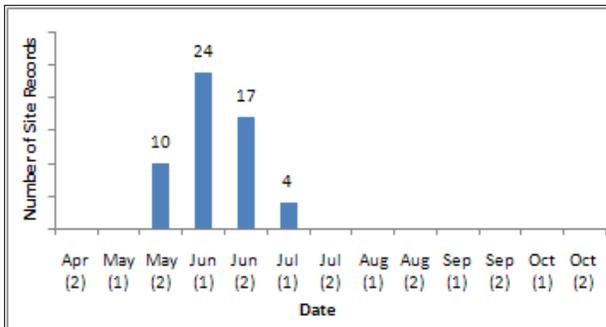
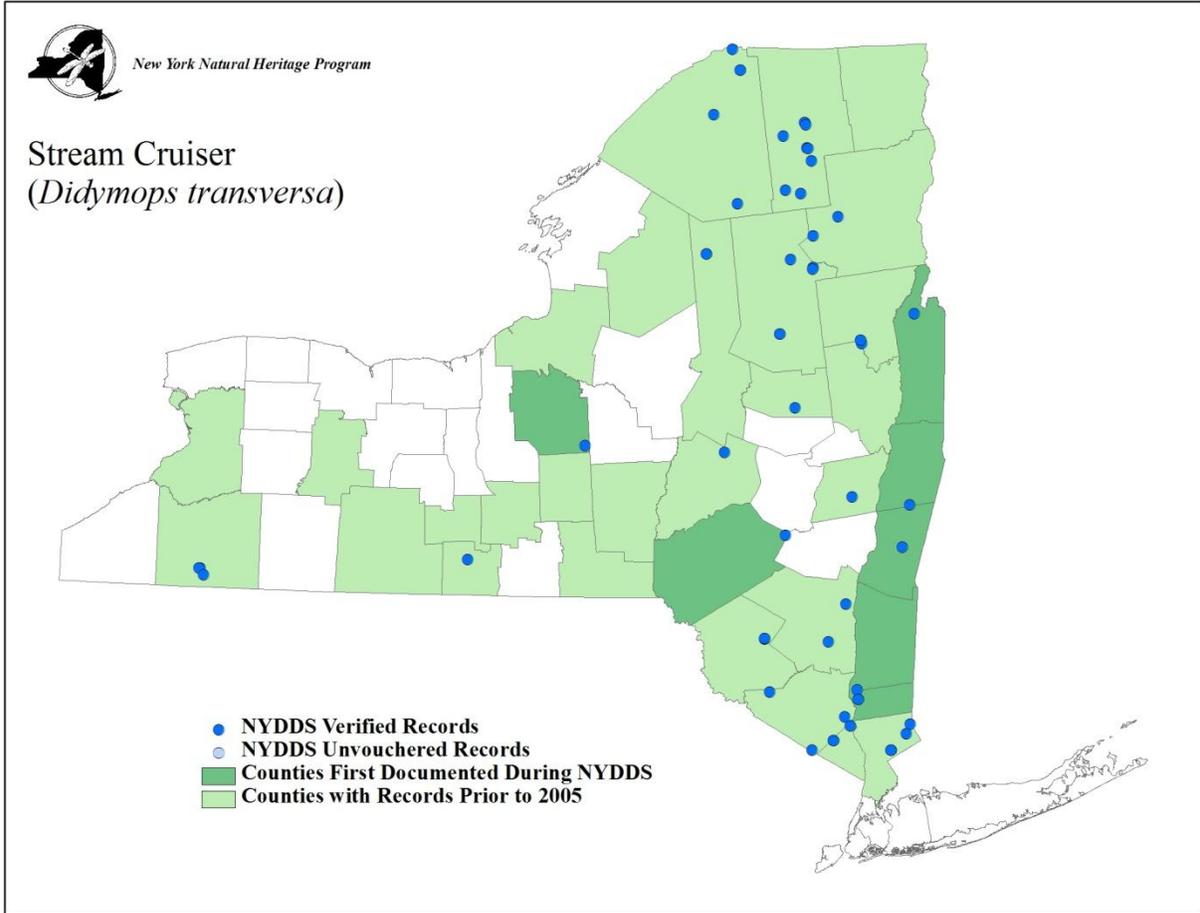
Arrowhead Spiketail (*Cordulegaster obliqua*)



MACROMIIDAE

Stream Cruiser (*Didymops transversa*)

Pre-NYDDS Status: G5, S5



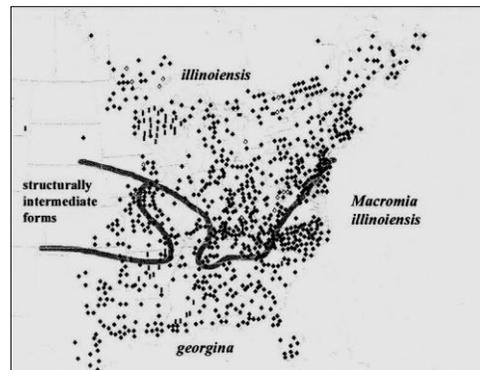
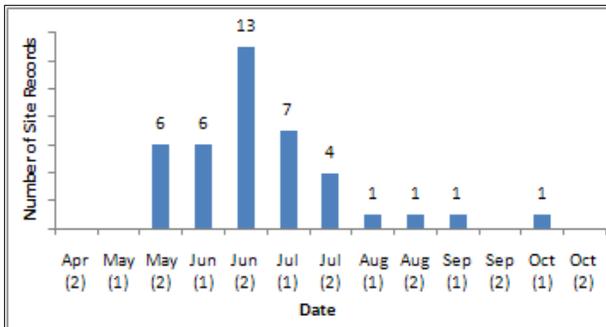
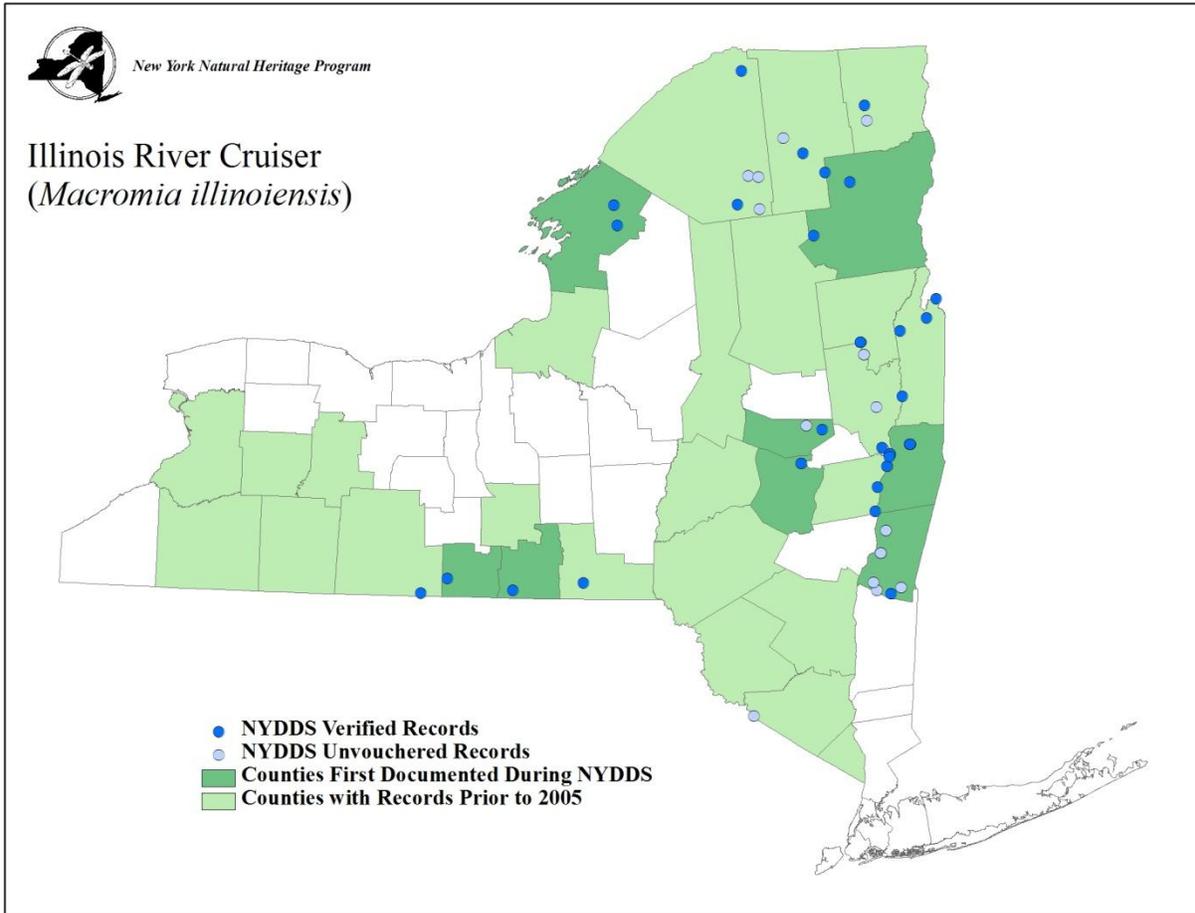
(Donnelly 2004c)



MACROMIIDAE

Illinois River Cruiser (*Macromia illinoensis*)

Pre-NYDDS Status: G5, S5



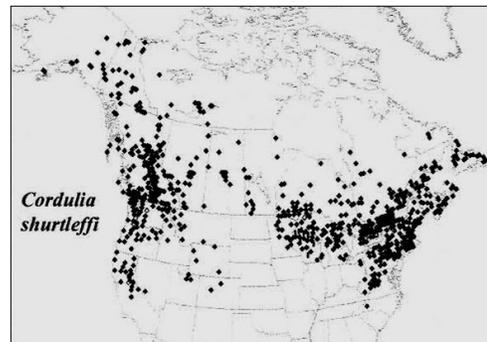
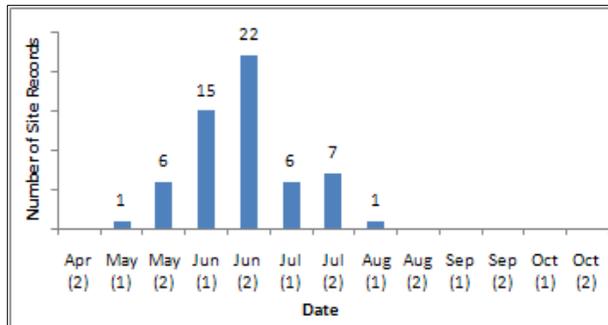
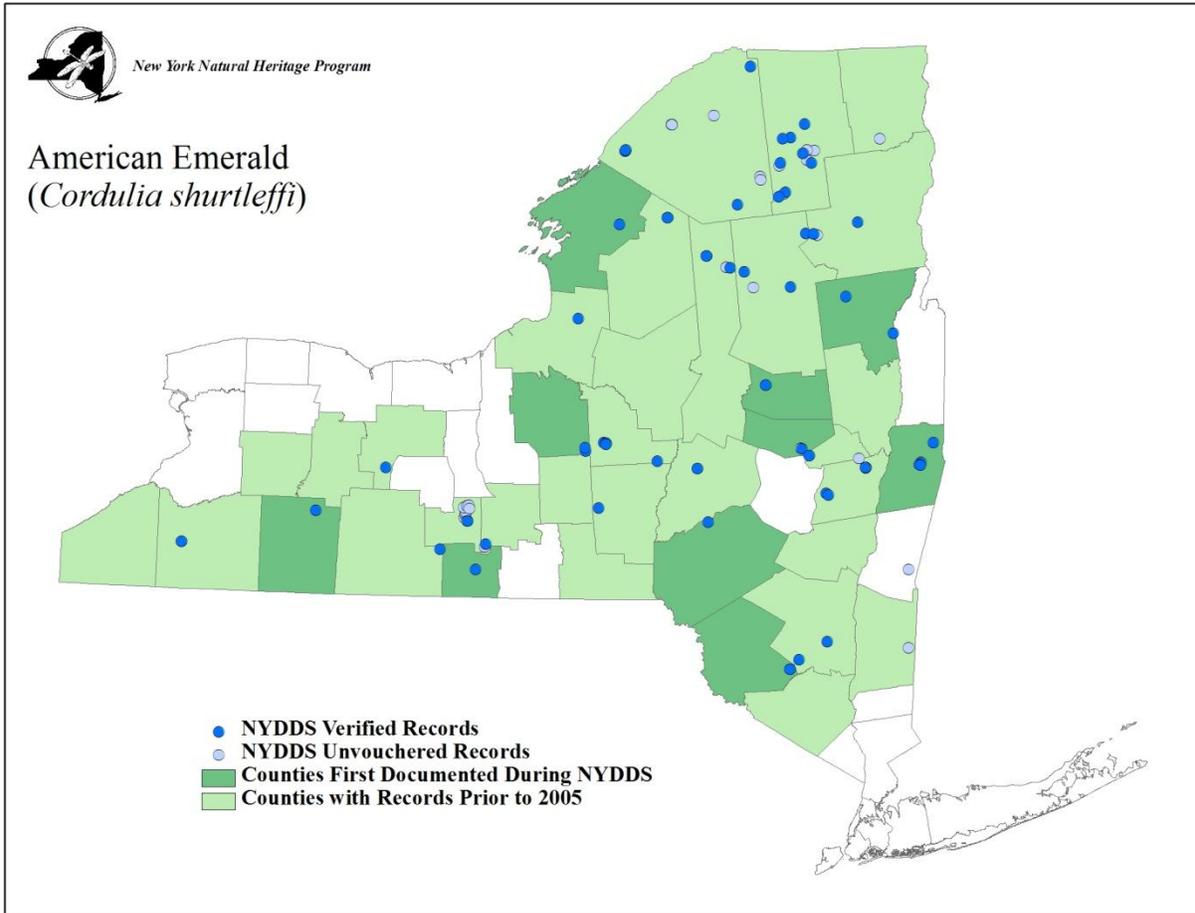
(Donnelly 2004c)



CORDULIIDAE

American Emerald (*Cordulia shurtleffi*)

Pre-NYDDS Status: G5, S5



(Donnelly 2004d)

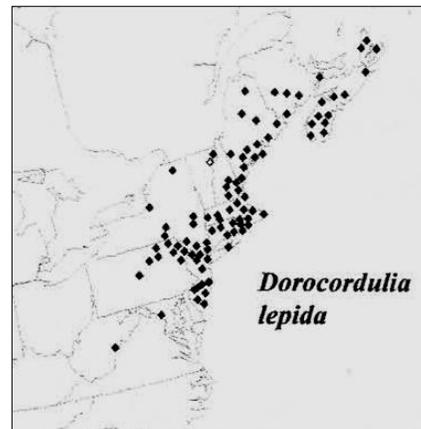
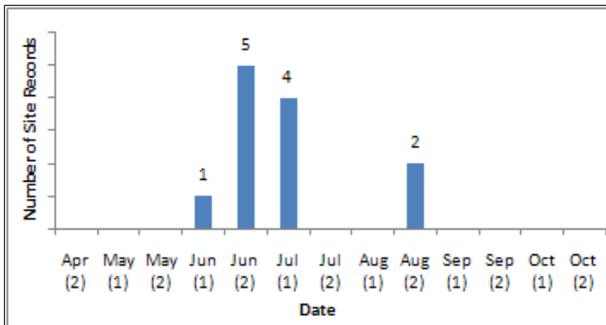
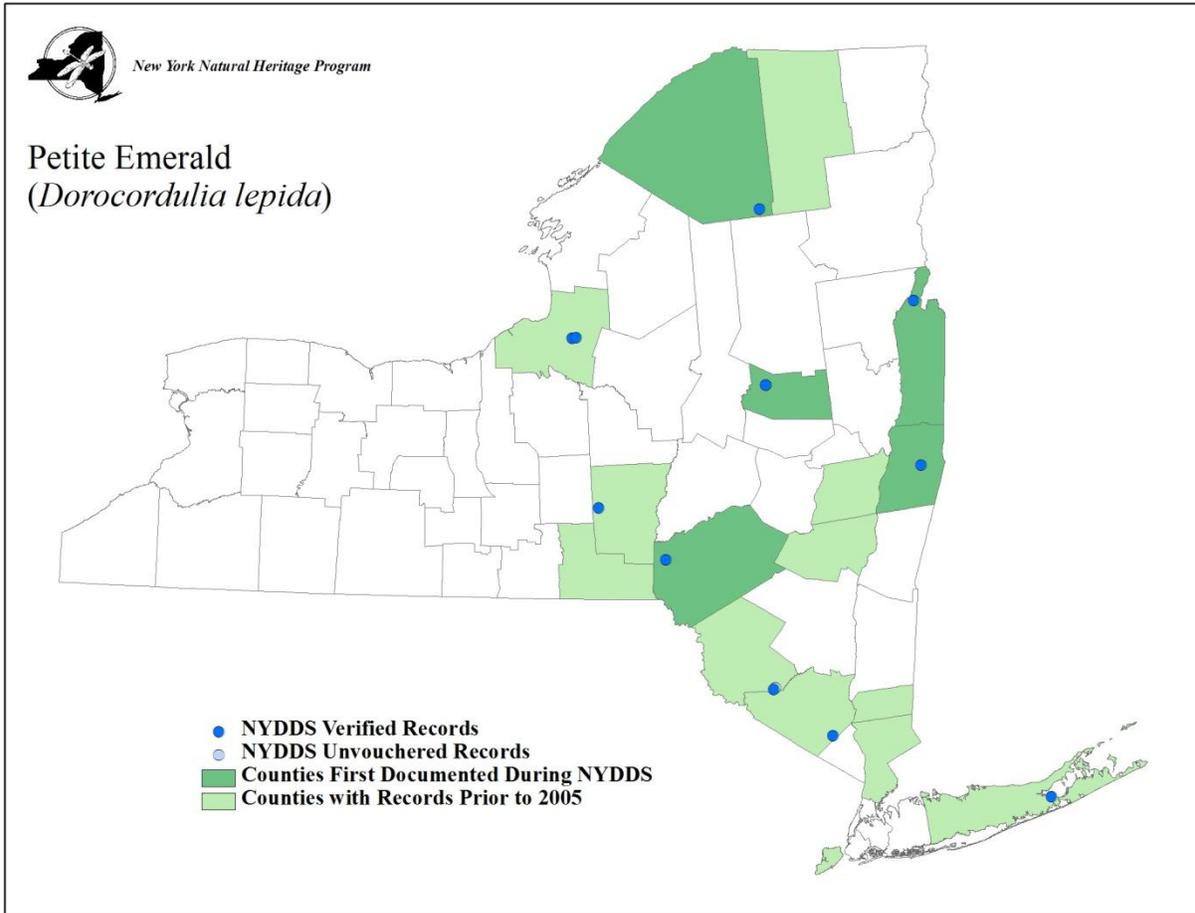


CORDULIIDAE

Petite Emerald (*Dorocordulia lepida*)

Pre-NYDDS Status: G5, S4S5

Draft Revised Status: S3



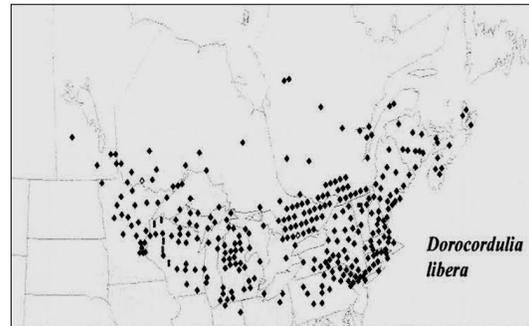
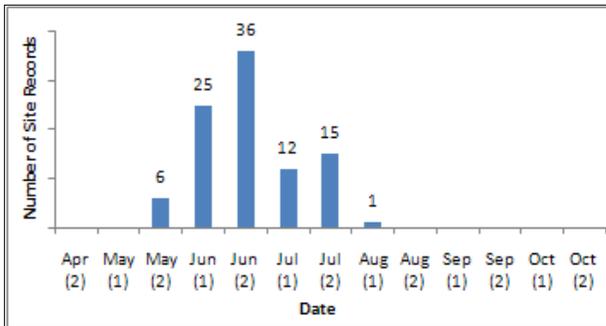
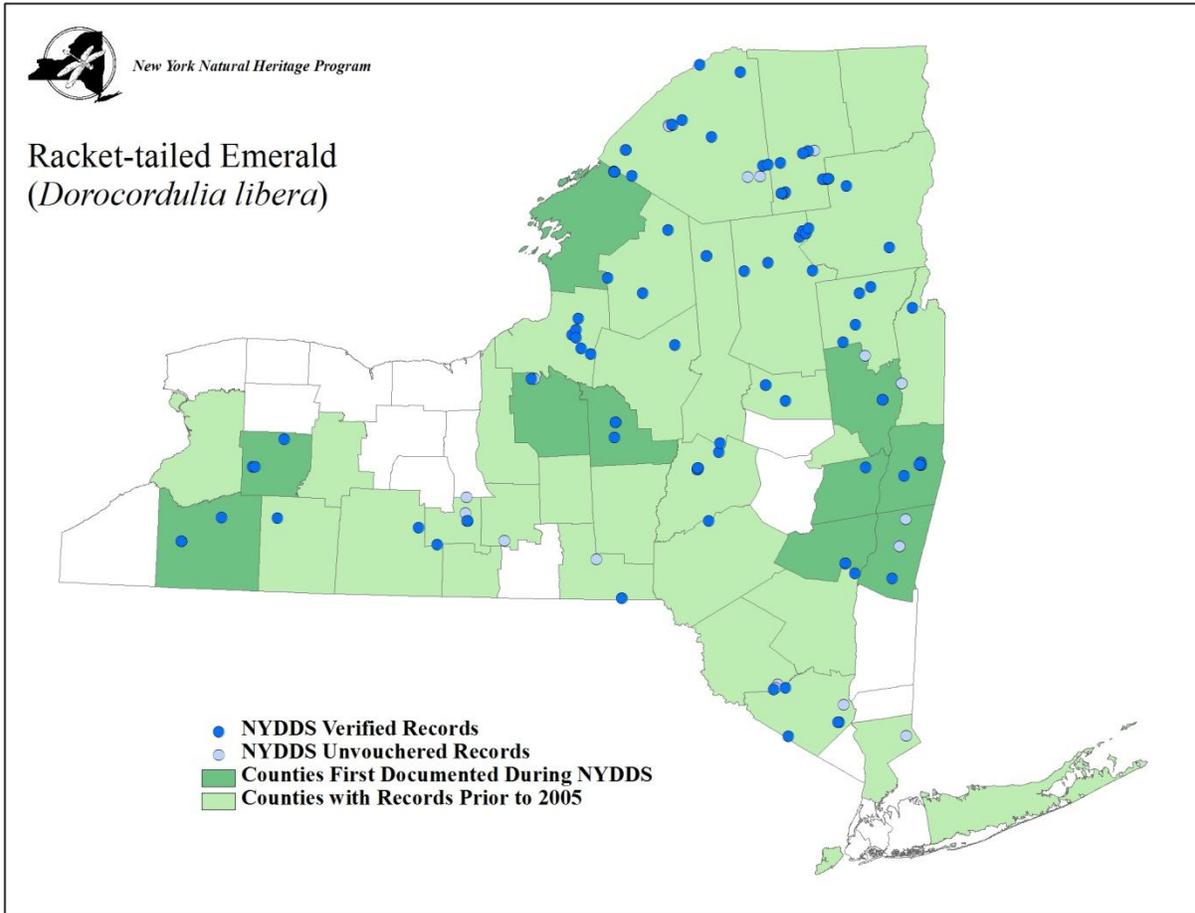
(Donnelly 2004d)



CORDULIIDAE

Racket-tailed Emerald (*Dorocordulia libera*)

Pre-NYDDS Status: G5, S5



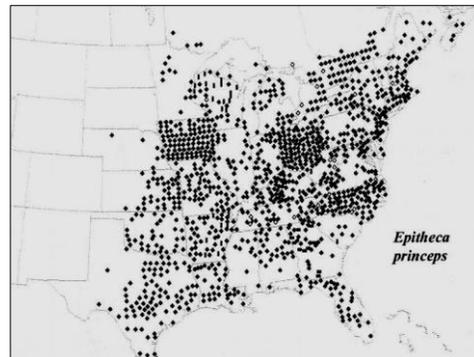
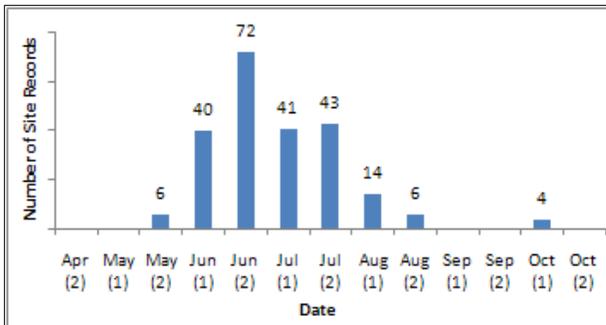
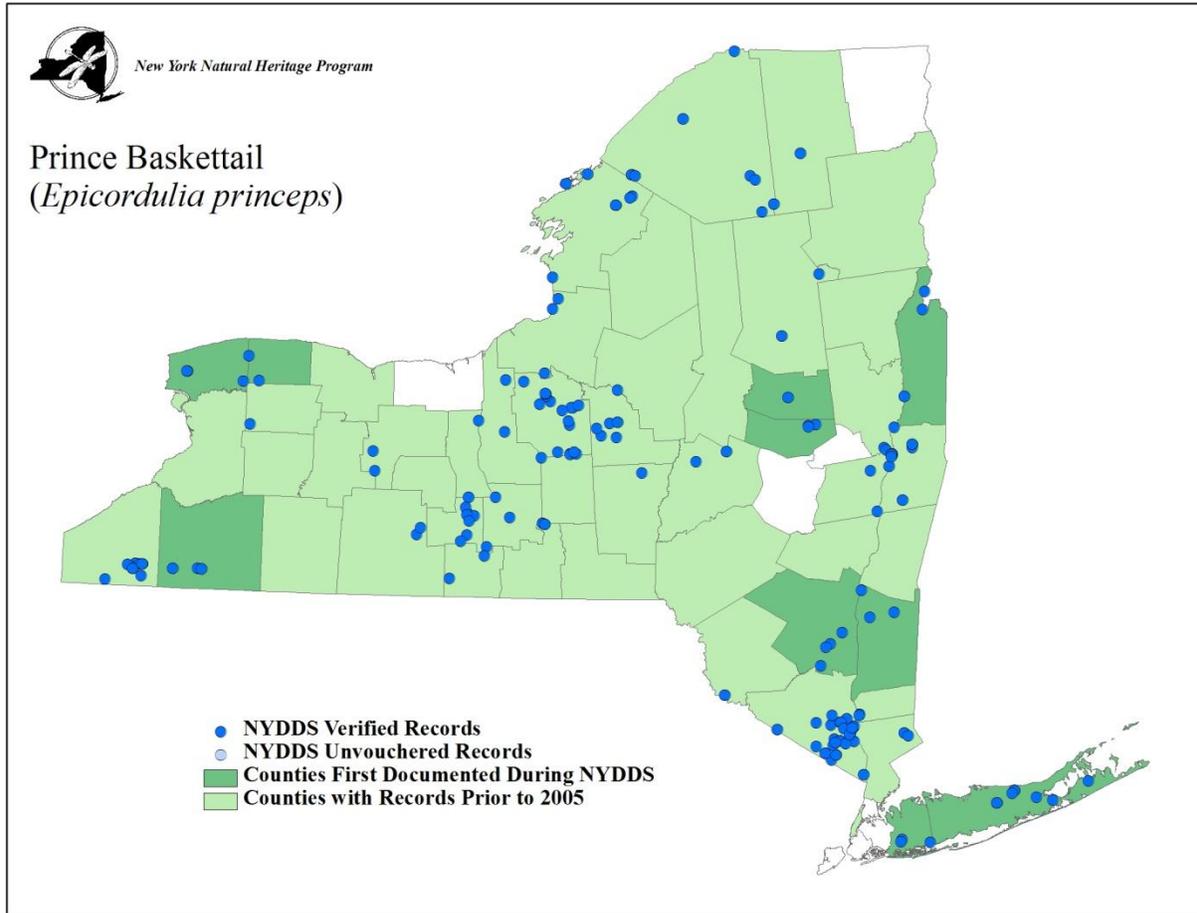
(Donnelly 2004d)



CORDULIIDAE

Prince Baskettail (*Epicordulia princeps*, syn. *Epitheca princeps*)

Pre-NYDDS Status: G5, S5



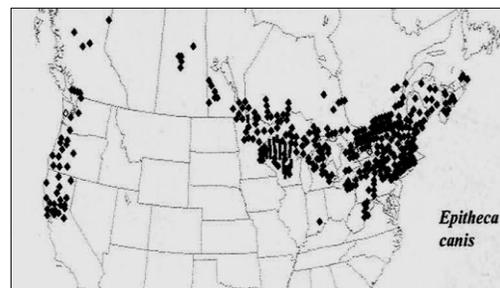
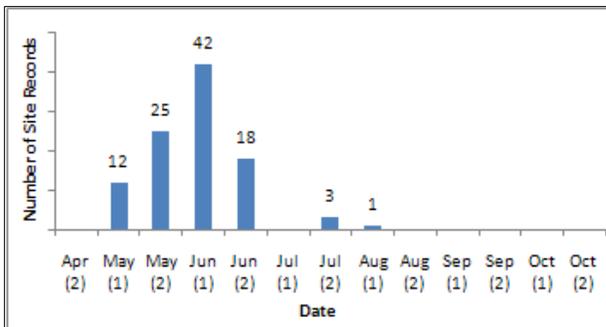
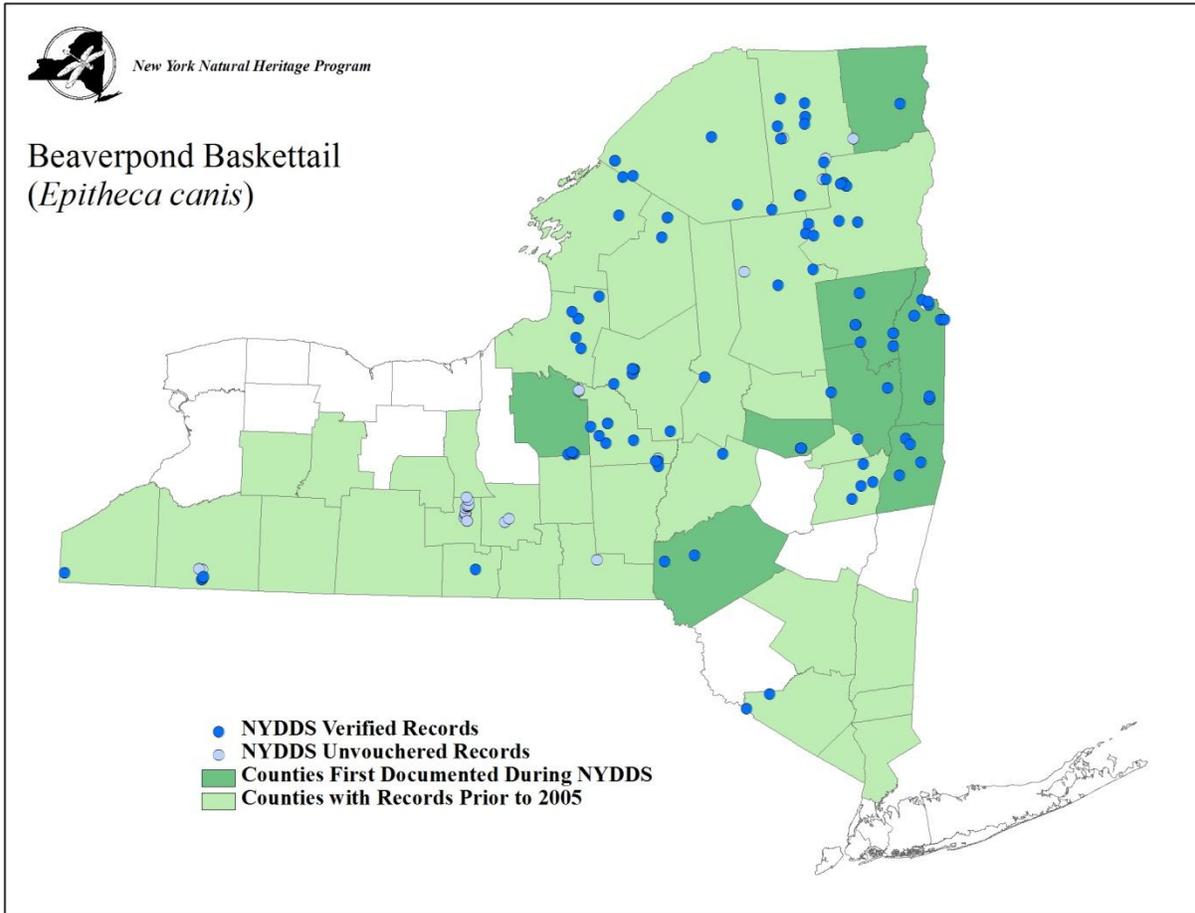
(Donnelly 2004d)



CORDULIIDAE

Beaverpond Baskettail (*Epitheca canis*)

Pre-NYDDS Status: G5, S5



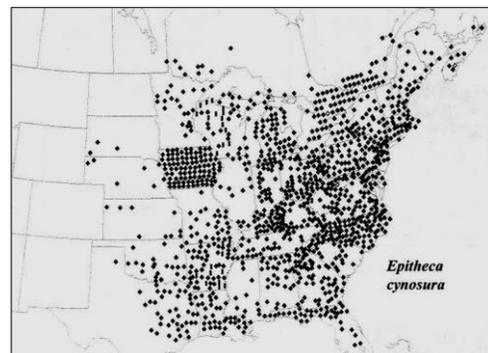
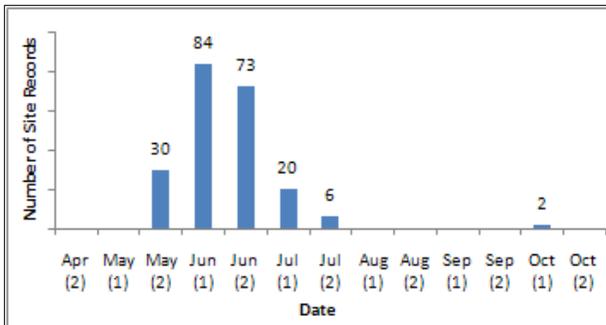
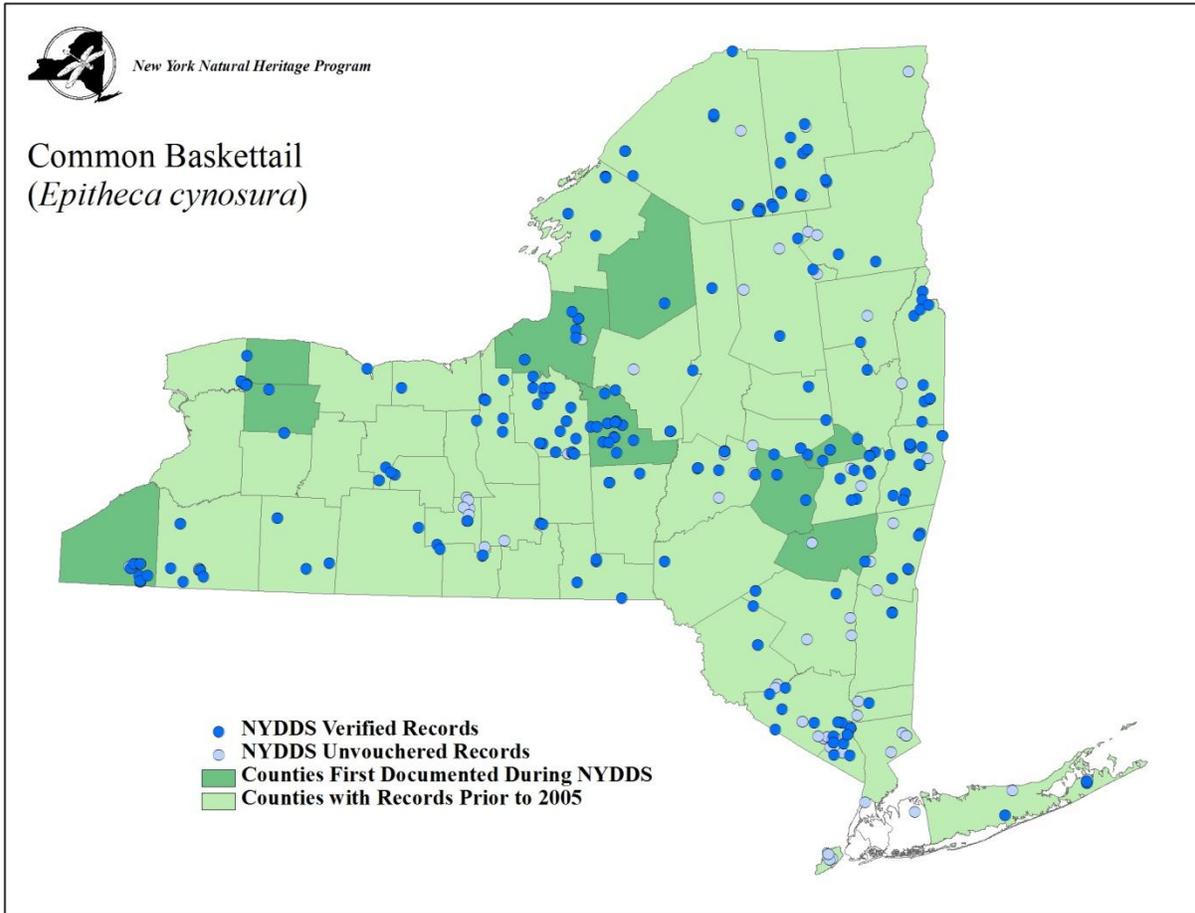
(Donnelly 2004d)



CORDULIIDAE

Common Baskettail (*Epitheca cynosura*)

Pre-NYDDS Status: G5, S5



(Donnelly 2004d)



CORDULIIDAE

Mantled Baskettail (*Epitheca semiaquea*)

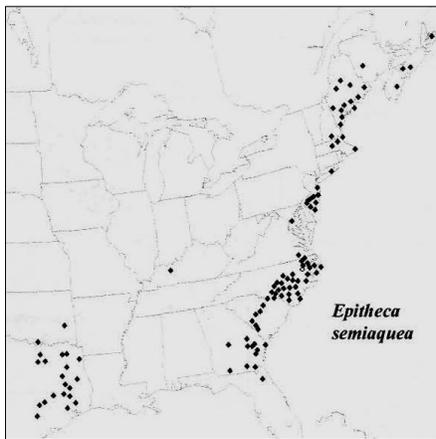
Pre-NYDDS Status: G5, SH

Draft Revised Status: S2

Habitat Characteristics: Mantled Baskettails are known to inhabit lakes, ponds, marshy wetlands, swampy beaver ponds, slow streams, and ditches with clear water (Nikula *et al.* 2003). In New York, they have been found recently at a large bog upstate as well as coastal plain ponds on Long Island.



Jeffrey Pippen



(Donnelly 2004d)

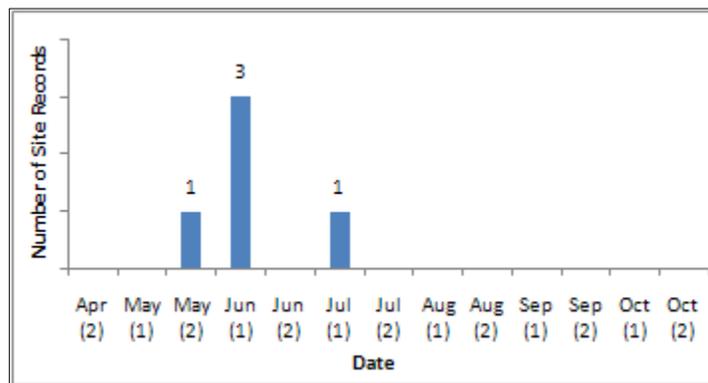
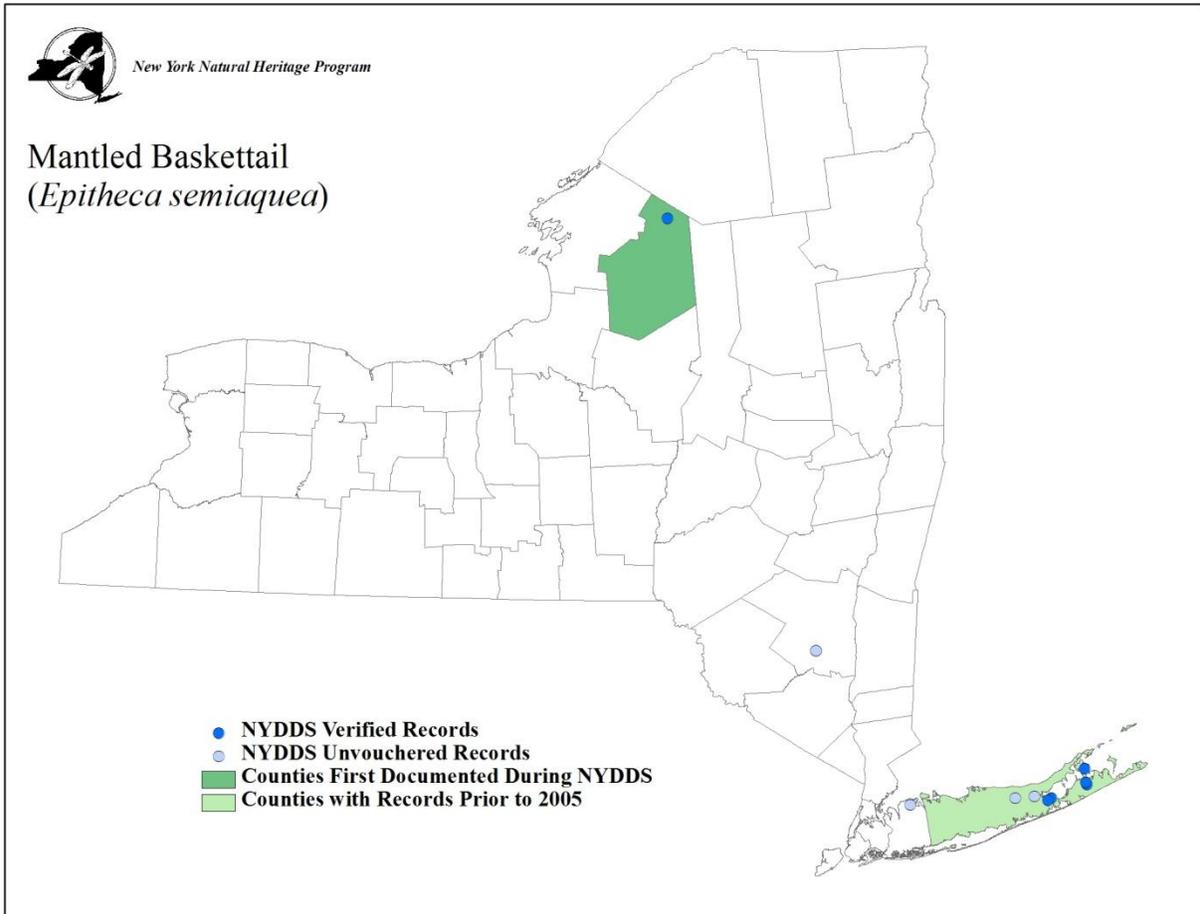
Distribution and Inventory Needs: *Epitheca semiaquea* are distributed from Texas and Oklahoma to the eastern coast of the U.S. from Florida northward to Maine and into New Brunswick and Nova Scotia (Donnelly 2004d, Abbott 2010). Older New York records were from Yaphank, North Sea, and Greenport in Suffolk county (Donnelly 1999). There was an apparent long absence of confirmed records in the state after the early 1950s (New York Natural Heritage Program 2010) until it was photographed on Long Island before Donnelly's 1999 publication (Donnelly 1999). It is possible it was confused with *Epitheca cynosura* in New York for many years, as *E. semiaquea* does not have the large basal wing markings that individuals have from southern New Jersey southward

(Donnelly pers. Comm.). Donnelly notes that from northern New Jersey to Massachusetts and Nova Scotia, the wing markings are generally much smaller or even absent (Donnelly pers. Comm.) and are identified instead by shorter and thicker abdomens than *Epitheca cynosura*, with a gentle tapering from front to rear (Donnelly pers. Comm.). Confirmed specimen records were taken from Sunday Swamp in Lewis county in 2006, and from the Mashomack Preserve on Shelter Island, and Crooked, Lily, Penny, and Sears Ponds in 2008 from Suffolk county. Slightly uncertain, but highly probable records include Lake Minnewaska in Ulster county, and Suffolk county locations of Cranberry Bog, a field off Line Road, and Shu Swamp. Future surveyors, especially within the known range for this species, should try to capture individuals of what appear to be either *E. semiaquea* or *E. cynosura*. A single specimen from a given site is recommended by for confirmation of ID to document further locations (Donnelly pers. Comm.) and known sites should be monitored for the persistence of the species with attention to numbers, breeding behavior, habitat quality, and any threats to the habitat. An informative distribution model developed by NY Natural Heritage highlighted several ponds on Long Island that would be worthy of survey effort near known locations, including Birch Creek Owl Pond County Park, Division Pond, Bellows Pond, and Grass Pond (New York Natural Heritage Program 2009a).

Phenology: New Jersey reports adults from April 24 through June 24 (Bangma & Barlow 2010), while Maine has documented Mantled Baskettails from mid-May to the third week in July (Brunelle & deMaynadier 2005). In New York, there are observations from the end of May



through the June 9, both pre-NYDDS and during (the chart shows only verified specimens), then one observation on June 22 and another on July 13 (Donnelly 1999).

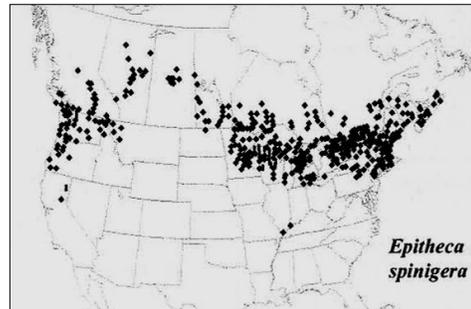
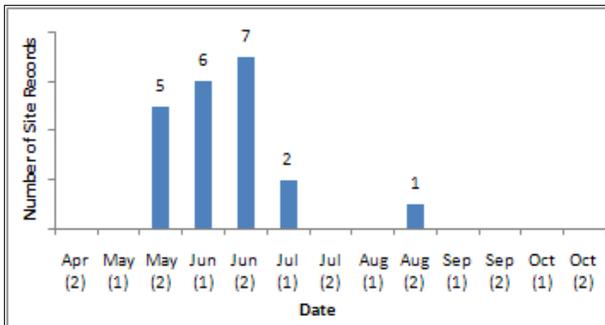
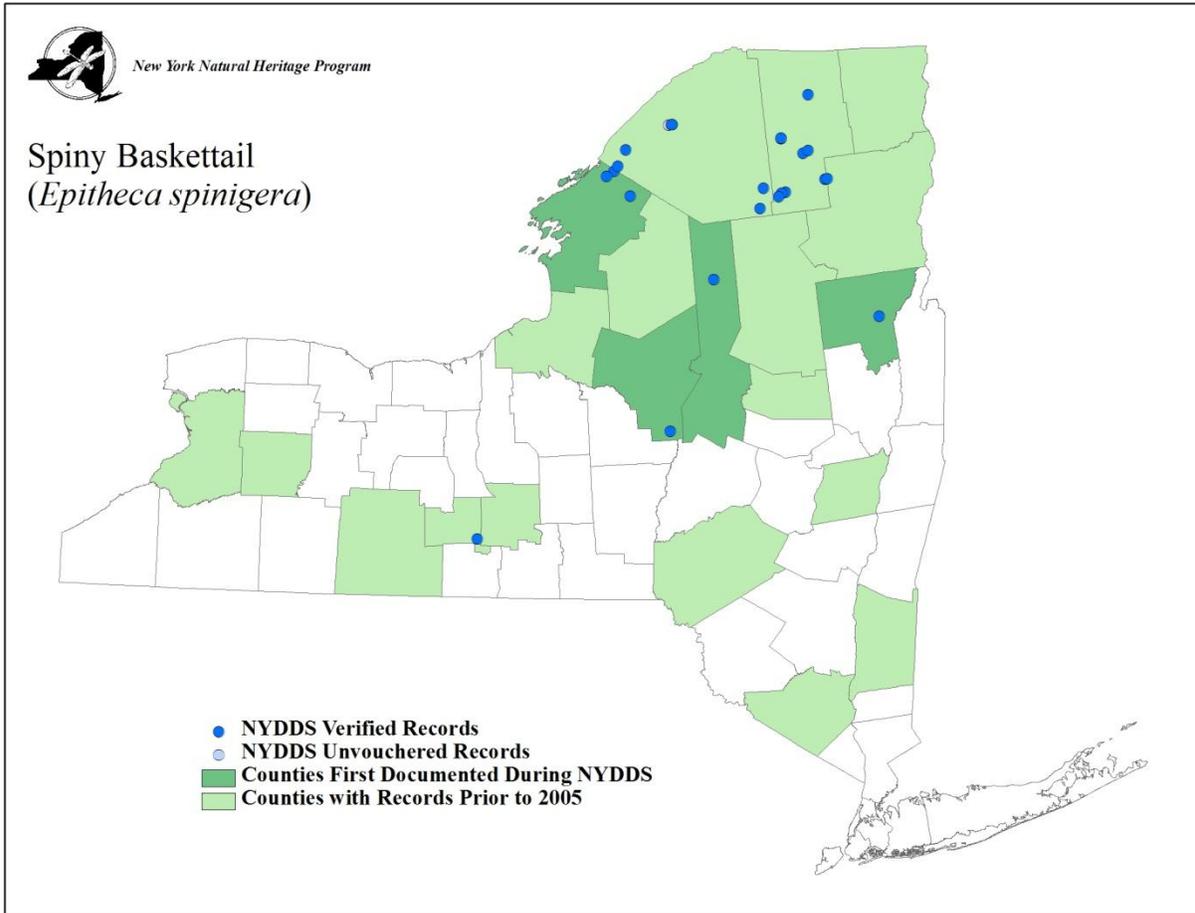


CORDULIIDAE

Spiny Baskettail (*Epitheca spinigera*)

Pre-NYDDS Status: G5, S4S5

Draft Revised Status: S3



(Donnelly 2004d)

