

ISSN 1061-8503

ARGIA

THE NEWS JOURNAL OF THE DRAGONFLY SOCIETY OF THE AMERICAS

VOLUME 14

15 June 2002

NUMBER 2



PUBLISHED BY THE DRAGONFLY SOCIETY OF THE AMERICAS

THE DRAGONFLY SOCIETY OF THE AMERICAS

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ARGIA, the quarterly news journal of the **DSA**, is devoted to non-technical papers and news items relating to nearly every aspect of the study of Odonata and the people who are interested in them. The editor especially welcomes reports of studies in progress, news of forthcoming meetings, commentaries on species, habitat conservation, noteworthy occurrences, personal news items, accounts of meetings and collecting trips, and reviews of technical and non-technical publications. Articles for publication in **ARGIA** should preferably be submitted as hard copy and (if over 500 words) also on floppy disk (3.5" or 5.25"). The editor prefers MS DOS based files, preferably written in WORD, WORD for WINDOWS, WordPerfect, or WordStar. Macintosh WORD disks can be handled. All files should be submitted **unformatted and without paragraph indents**. Each submission should be accompanied by a text (=ASCII) file. Other languages should be submitted only as text (=ASCII) files. Line drawings are acceptable as illustrations.

T. Donnelly (address below) is the interim editor of **ARGIA**.

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The **BULLETIN OF AMERICAN ODONATOLOGY** is available by a separate subscription at \$15 for members and \$18.75 for non-members and institutions.

Cover: *Gomphus minutus*, Suwanee River, Georgia. The Southeastern DSA trip provided a fine opportunity to find the small southeastern species of *Gomphus*. Photo by Nick Donnelly

Entebbe airport about 36 hours after leaving New York (Cheap fares mean inconvenient connections.), where we were met by Ahmed, last year's cheerful and highly dependable driver. It is a tribute to our determination that, in spite of our exhaustion and antiquity, we went immediately to the field. Returning to the Mabira Forest near Kampala, we immediately spotted the beautiful *Umma* and *Chlorocypha* (beautiful green and red damselflies, respectively) that so delighted us last year. But this was the rainy season, and we found even more. Malcolm was delighted to net a lovely *Phyllomacromia aureozona*, a striking dragonfly which flies in small, clear forest streams, picking its way through vines and tangles. We found the brilliant green *Paragomphus viridior* sitting on concrete steps at a roadside spring, hardly moving out of the way when truck drivers came in a constant procession to fill their water cans. We also got very close views of red-tailed monkeys, which prowled the branches of trees right over our heads, making sounds like a feeding flock of birds. This set the tone for the remainder of the trip, which featured close views of several monkey species.

We repeated this visit a few weeks later with John Joseph Kisakye, who is doing a doctoral dissertation on the odonates of three areas in Uganda, including this forest remnant. I found *Chlorocnemis pauli* at a forest seep and managed to take several good pictures. *Notogomphus butoloensis* and *Paragomphus viridior* were ovipositing in the stream, but few were netted. A female of the very fat *Hadrothemis coacta* was ovipositing in a foul mud puddle in the path.

Our plan had been to leave Kampala, after two days recuperation from the flight, and drive to the southwestern corner of Uganda, where a mountain massif shared by Rwanda and the Congo has the world's largest population of mountain gorillas. Our first evening we stopped at a tented camp at Lake Mburo, which is one of the few places in Uganda where one can see zebras, impalas, and topies (another antelope type). The lake was a prime hippo place and teeming with fish eagles and a few crocodiles. It was here that we realized how fortunate we were to have a retired ornithologist with us. Fred Sibley showed us many bird species that we would have otherwise overlooked. After three weeks our list totaled well over two hundred species confirmed. We were especially delighted with the colorful songbirds, including weavers, sunbirds, and gonoleks.

The drive to Bwindi (home of the gorillas) was long and tiring, interrupted only for a few brief stops along the road where we found three of the so-called "*Enallagma*" species (*elongatum*, *subfurcatum*, and *pseudoelongatum*) that Mike

May is finally putting into genera of their own. At Bwindi we discovered that the "letter of recommendation" given to us by the Institute of The Environment and Natural Resources cut no ice with the local authorities. We could only wander around the park with a ranger and an armed guard at our side (they wanted no repetition of the 1998 incident when nearly a dozen tourists were killed by Rwanda bandits.) It is difficult to identify dragonflies this way, but we managed to find three species of *Chlorocnemis* (one of the prettiest protoneurid damselflies I have ever seen, with distinctively yellow-green tinged wings) along one path. One of these, *Chlorocnemis nigripes*, has a green and black striped thorax, a black abdomen with a thin blue dorsal line, and the terminal segments bright orange. We also found the tetrathemine dragonfly *Neodythemis fitzgeraldi*, which sits on vegetation and on the gravel path, and is quite fearless.

But Bwindi was our gorilla destination. The scheme is to make a booking months in advance, pray for good weather, and hike in a small group, which was just the five of us with two rangers armed with radios, four armed guards, and two trackers. The rangers spent most of their time on their radios conversing with who knows whom. We were "Mobile Strike Force Bravo". Towards the end of the hike, the ranger radioed in to report our imminent return. I distinctly heard the fragment, "... kind of old." As a bonus, our long hike was on a Sunday, and the tiny rural churches were crammed. Rural church services consist dominantly of spirited and very rhythmic group singing, accompanied only by a tireless drummer. The lovely sounds made our feet much lighter.

The aim was to visit a habituated gorilla band, which consists of a silverback, several other subsidiary males and females, and a few infants, which are nearly as big as you and me. These bands move only about a hundred meters a day, and they are visited every day (for one hour), which makes them easy to locate. Easy, except for the long hike. It was three hours each way, all of it up and down mountain paths, starting outside the park and passing through native villages and banana groves, and finally re-entering the park close to the gorillas themselves. Unlike chimps and orangutans, gorillas mainly eat leaves and bark. When we came upon our band, most of them were squatting in front of a huge rotten tree trunk, which they were happily devouring. We approached within about fifteen feet to watch them chow down. At one point one large male broke off a piece of rotten wood about the size of a few loaves of bread. They immediately had a fight over the luscious fragment, almost spilling into our laps.

Visitors are constantly cautioned about not approaching too close to the gorillas, and no flash pictures, please! The rangers are afraid that human visitors could pass on diseases, so if you have a sniffle, you stay home and get your fee refunded. Everyone knows that these are wild animals, and their future existence is possible only if truly wild habitat is preserved for them. But no one ever told the gorillas that. In fact, a splinter band visited the forest behind our tiny hotel the previous evening, and hung around for the four nights that we were there. The first evening one of the waiters mentioned that "They are here." Who are "they"? The gorillas, of course. So we drank our beer and watched them from about fifteen feet as they slowly munched vines just beyond the edge of the garden. The gorillas have found that the eucalyptus trees planted around the hotel are especially delicious, and they spend hours high up in these spindly trees stripping off long pieces of bark that they eat with great gusto. They tend to climb so high that the trunk breaks, thus explaining why all the eucalyptus appear to have been topped!

Leaving Biwindi, we traveled north to Jacana Lodge, in Queen Elizabeth National Park. We diverted briefly to look for tree-climbing lions (unsuccessfully), seeing more hippos, and skipping rocks across a very narrow river into the Congo. We traveled one of the worst roads in the country. Heavy trucks carrying cargo into the Congo use this road, and no one seems to be responsible for its repair. At one point we plunged into an especially deep pot hole and a vital piece fell off the van, which promptly stopped. Fred had fortunately stowed a roll of duct tape in his gear, and we were off again after a brief delay.

We stayed at Jacana for several days. One day we went to Kyambura Gorge to see chimpanzees. Malcolm and Fred crossed a treacherous tree over the wide river and got a very close look at the chimps, while Ailsa and I stayed on the far bank. This gave me a chance to spot an *Olpagastra lugubris*, a very thin-tailed riverine libellulid that was patrolling the river. At the top of the cliff, after we emerged from the gorge, we saw several the very large *Zygonyx regisalberti* patrolling in the sun.

We then discovered a new type of habitat – the village ponds from which clay is scooped to make bricks. (Brick making in primitive front-yard kilns seems to be a very widespread village industry in much of Uganda) At nearby Kyambura village the ponds were full of libellulids (several *Orthetrum*, blue and red *Trithemis*, the yellow-faced, gray *Chalcostephia flavifrons*, and the small, bright red *Aethriamanta rezia*) and damselflies (mostly two bright red *Ceriagrion* species). Watching us for

nearby shrubby trees were dozens of open-billed storks, which were feeding on the abundant large snails that also live here. Of course the villagers gathered and commented on the spectacle we provided.

Fred made an interesting observation while we were on a short boat trip in the Queen Elizabeth park. Looking for birds along the shoreline, we found a bushbuck, a mule-size antelope that usually is seen as a lone individual. Fred noted through his binoculars that several dozen *Brachythemis leucosticta* (The *Erythrodiplax umbrata* look-alike) seemed to be following the antelope as it ambled slowly through the grass. They stayed about two or three meters downwind of the animal and maintained their relative position as long as we watched. Whether they were feasting on other insects attracted to the bushbuck or were engaged in some other sort of behavior is not certain. Later we noticed that these dragonflies would cluster, a dozen at a time, about a meter or two from us as we ambled along the shorelines.

The Maramagambo Forest, in which the lodge is located, was a good, if not super, odonate place. We used a small boat to search for odonates on the Lake, finding the bright red *Pseudagrion massaicum* lurking in shadowy shallows along the shore. Fred and I managed to slip away from the hotel personnel, who in Uganda seem to be terrified that their guests might wander around in the forest without an armed guard. Fred had a chimpanzee encounter while poking around looking for small streams. Ailsa and I walked right into a troop of baboons while going back to the place where she had found a female *Heliaeschna cynthiae* the previous day. Colobus and red-tailed monkeys were seemingly everywhere, as curious about us as we were about them. I don't know whether we were following them or vice versa.

On our way back we stayed for a few days at Ndali lodge, perched on the rim of one of the many volcanic crater lakes in this part of Uganda. For those of you who are not geologists, the western rift of Africa is in an arrested early stage of continental rifting, which is featured by regional uplift and block faulting and is accompanied by abundant basaltic volcanism. (We were only a few miles from the recent destructive volcanic activity in the western Congo that you all saw on TV.) This rift zone is geologically very young and has oodles of endemic species of birds and everything else.

The surface of one of the crater lakes was covered by water lilies and lotuses, and Fred and I struggled to find a way to catch dragonflies without drowning. (The water depth is about ten feet just at the water's edge.) We were barely up to the

discovery of the last few years since this boreal species was unknown in the neighboring state of Washington until just one week prior to our discovery – and that was in the far northeastern corner of the state, about as far from Oregon as you can get!

The only other time that *A. subarctica* has been found since the initial discovery, was at the same location over a year later on 7 October 2000 when five males were collected by Jim Johnson. Drought conditions in 2001 left Little Crater Lake meadows virtually dry for that season, and very few odonates (and no *A. subarctica*) were found.

The apparent sporadic occurrence of *A. subarctica* at Little Crater Lake meadows suggests that the species may not regularly breed there, but rather visits from another location in the area.

***Aeshna sitchensis*:** Several (5-10) captured and released at the north end of Sparks Lake (5430 ft. elev.), Deschutes Co., on 13 September 1999, by John Davis and Jeff Dillon. Two males collected by Joe Engler at Little Crater Lake Meadows, Clackamas Co. (3230 ft. elev.), on 17 September 1999. Several (3-5) captured and released, one female collected at Strider Lake (5010 ft. elev.), about 1.5 miles west of Little Cultus Lake, Deschutes Co., on 26 July 2000, by John Davis and Jeff Dillon.

Despite numerous visits, this species has not been found at Little Crater Lake Meadows since the original find at that location. As with *A. subarctica*, *A. sitchensis* may not regularly breed there, but visits from another location.

***Paltothemis lineatipes*:** One male collected on 25 August 2001, and one male and one ovipositing female collected on the following day, 26 August, at Cottonwood Creek (4300 ft. elev.), Harney Co., about 8 miles SSE of the town of Fields, by Jim Johnson and Steve Valley. One or two additional males were observed. Most sightings were of males patrolling about a foot or two above the stream. This location is in a very arid and hot (during summer) area of the state, averaging only 8-10 inches of rain annually, with upland vegetation being mostly sagebrush and greasewood. Cottonwood Creek is a small, permanent stream with riparian vegetation composed of scattered cottonwood trees and a thick, shrubby under story over much of its length. The *Paltothemis*, however, were only found along the relatively barren lower one hundred yards or so of the creek, before it flows under Hwy 205.

Finding this species in Oregon was quite a surprise as the northwest extent of its range seemed to be

restricted to the Central Valley of California, and it was never imagined that it could be in Oregon. This find suggests that this species is likely to occur in Nevada as well, where *P. lineatipes* has thus far not been recorded. Cottonwood Creek is only about 12 miles north of the Nevada border.

The most interesting aspect of this find was the apparently narrow window of activity during our two days of observation. On each day we only saw *P. lineatipes* for about an hour, from about 11:00 a.m. to noon, despite intensive searching along the creek and in the adjacent sagebrush and greasewood. This may explain why this species was not found earlier on this stream which has been visited on numerous occasions.

Other Interesting Records; ANISOPTERA

***Aeshna walkeri*:** One male collected as it fed over small willows along the eastern shore of the John Day River at the Cottonwood Recreation Site (590 ft. elev.), Gilliam Co., on 29 August 1999, by Jim Johnson. The previous northernmost known location for *A. walkeri* was in south-central Oregon in Lake Co. (D.R. Paulson, pers. comm.), about 150 miles from the Gilliam Co. site, although the former has not produced any records in recent years (Eric Coombs, pers. comm.). Cottonwood Recreation Site lies in a deep canyon with sagebrush-dominated slopes, roughly 35 river miles from the John Day's confluence with the Columbia River. No other *Aeshna* were observed at this time.

One female collected along the southern shore of the Columbia River near Rufus, Sherman co., about six miles west of the mouth of John Day River, on 18 September 1999, by Jim Johnson. This individual was collected as it perched on the lower branches of a large tree.

These two records suggest that *A. walkeri* is more widespread, though perhaps local, east of the Cascades in Oregon where, in general, exploration has been lacking during the fall. Also, they indicate that the species likely occurs in south-central Washington, at least occasionally as wanderers, if not as breeders, and it is probably just a matter of time before it is recorded in that state. What still needs to be determined is where *A. walkeri* are breeding in north-central Oregon, or anywhere in Oregon for that matter since the Lake Co. site does not appear to support the species any longer.

***Somatochlora minor*:** Two males collected along Crescent Creek near Hwy 58 (4630 ft. elev.), Klamath Co., on 28 June 2000, and two more males collected at the same location on 26 July 2000, by Eric Coombs. Previously, this species was known in Oregon only from two locations in Deschutes

Co.: Todd Lake and near Little Cultus Lake (S. Valley, pers. comm.).

***Somatochlora semicircularis*:** Three males collected at Gearhart Bog, Clatsop Co., on 19 August 2001, by Jim Johnson. *S. semicircularis* is known to occur at higher elevations throughout Oregon above about 2800 ft., but this record is notable for its low elevation which is very close to sea level. Isolated individuals have been collected at low elevation sites in Oregon in the past, but they are believed to be wanderers. This was the first time that multiple individuals have been observed at what is presumed to be a low-elevation breeding site. Although no direct evidence of reproduction was observed at Gearhart Bog, the presence of multiple individuals and appropriate habitat makes it likely.

***Somatochlora walshii*:** Two males collected at a sedge marsh alongside Crescent Creek (4630 ft. elev.), Klamath Co., on 10 August 2001, by Eric Coombs and Jim Johnson. The known range of this species in Oregon was previously restricted to Little Crater Lake Meadows, Clackamas Co., about 120 miles to the north, where it was first found in 1998 (Johnson 1998).

***Libellula comanche*:** One female collected at Lower Borax Reservoir, just below Borax Lake (4070 ft. elev.), Harney Co., on 1 July 2000, by Jim Johnson. Many males and females collected at Borax Lake, and several more at Twin Springs (4545 ft. elev.), Harney Co., on 29 June 2001, by Steve Valley, Eric Coombs, and Jim Johnson. Breeding activity including copulation and ovipositing were frequently observed on the latter date. Prior to 2000 in Oregon, this species was only reported by Kormondy (1960) and Paulson (1992), however the latter report was determined to be incorrect (D.R. Paulson, pers. comm.).

Literature Cited:

Johnson, J. 1998. *Somatochlora walshii* Recorded in Oregon. **ARGIA** 10(4):25.

Kormondy, E.J. 1960. New North American Records of Anisopterous Odonata. *Ent. News* 71:121-130.

Paulson, D.R. 1992. Noteworthy Northwestern Odonata Records for 1992. **ARGIA** 4(3):8-9.

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A NEW DRAGONFLY FOR UTAH

John C. Abbott

Recently, Riley Nelson (Brigham Young University) sent me a shipment of dragonflies he and his students had collected in southern Utah. In addition to a number of expected species for the area there were three male and 1 female *Aeshna persephone* Donnelly (Persephone's Darner) in the lot. All were collected in the Grand Staircase Escalante National Monument (Kane Co.) between September 30, 1999 and August 8, 2000. To my knowledge this is the first report for this species in Utah. Needham et al. (2000) report it from Arizona, Colorado, New Mexico and Chihuahua, Mexico.

Literature Cited:

Needham, J.G., M.J. Westfall, Jr. and M.L. May. 2000. Dragonflies of North America. Scientific Publishers, Gainesville, FL: 939 pp.

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DOT MAP PROJECT - PATTERNS OF DIVERSITY ARE EMERGING

Nick Donnelly

I am going to call a halt after this summer to the data gathering phase of the dot-map project. I now have nearly 109,000 species / county records. The rate at which new data is arriving has slowed considerably, but in the last few months I have received several additional parcels of information.

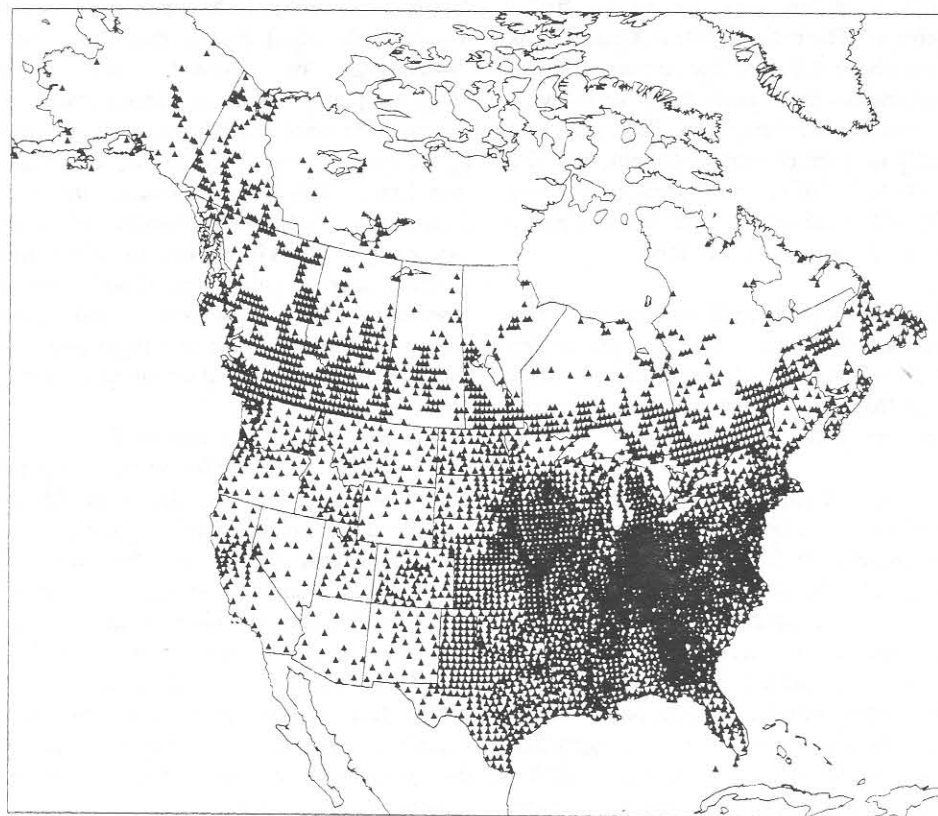
I have distributed state lists to many people, and have distributed complete data sets to Dennis Paulson, Sid Dunkle, and John Abbott. I am more than happy to distribute state lists to anyone who e-mails me requesting the information. The more information I can disseminate the better.

I have been exploring with John the possibility of making an interactive web site, from which you could obtain dot-maps that are upgraded automatically with the arrival of new data, rather than scanning maps all over again. So far we have not figured how to do that. If anyone out there has some hints, we would be happy to hear them.

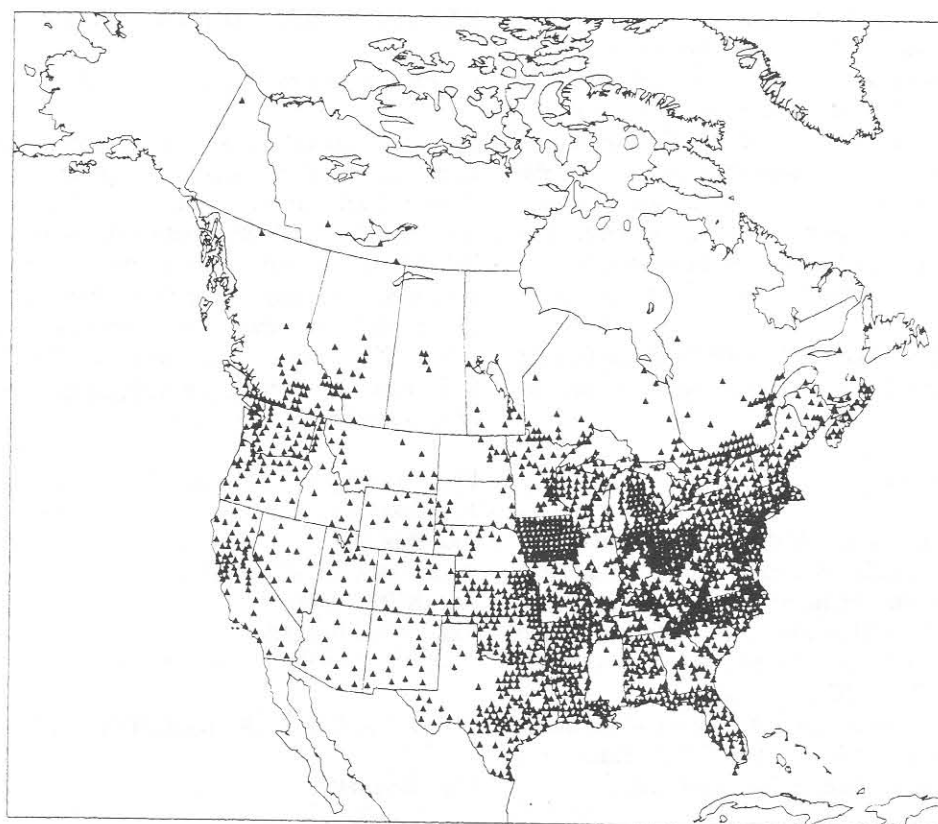
I have decided to make 1 October 2002 the cut-off date for the project. The maps will be printed after that. It goes without saying that making new maps to show additional data will be both difficult and expensive (unless we can devise that interactive scheme on the web).

Some states are poorly covered, and perhaps this season some of the holes can be filled in. Alaska stands out as having extremely thin coverage. Other states that seem to stand out as deficient (low average records per county) are: Mississippi, South

state/ province	species	records	records per county or 30' cell	counties lacking data
Alabama	174	2534	36.7	
Alaska	26	154	2.9	
Alberta	68	1129	7.7	
Arizona	116	595	39.7	
Arkansas	131	2339	29.6	
British Columbia	88	4067	11.8	
California	111	2337	40.3	
Colorado	104	957	16.5	5
Connecticut	147	816	102.0	
Delaware	109	222	74.0	
Florida	166	3124	45.3	
Georgia	166	1872	13.2	18
Idaho	72	622	15.6	4
Illinois	139	1621	16.9	6
Indiana	145	2438	27.7	4
Iowa	107	4093	41.3	
Kansas	125	2617	24.9	
Kentucky	148	2848	25.2	7
Louisiana	123	2110	33.0	
Maine	158	1568	98.0	
Manitoba	91	608	8.0	
Maryland & DC	163	1362	56.8	
Massachusetts	168	1276	91.1	
Michigan	164	4235	50.4	
Minnesota	131	1654	19.7	3
Mississippi	114	493	9.7	30
Missouri	140	2803	24.6	
Montana	82	843	15.9	4
Nebraska	97	842	14.0	33
Nevada	83	513	30.2	
New Brunswick	125	842	56.1	
New Hampshire	147	777	77.7	
New Jersey	180	1563	74.4	
New Mexico	130	1094	32.2	
New York	190	3096	52.5	
Newfoundland & Labrador	40	408	7.8	
North Carolina	182	7184	71.1	
North Dakota	56	642	12.3	1
Northwest Territory	33	188	5.7	
Nova Scotia	117	1048	58.2	
Ohio	159	4724	53.7	
Oklahoma	139	2199	28.9	1
Ontario, northern	141	2333	13.3	
Ontario, southern	157	2411	63.4	
Oregon	90	1239	34.4	
Pennsylvania	170	3392	50.6	
Prince Edward I	57	108	36.0	
Quebec	139	3209	17.2	
Rhode Island	130	393	78.6	
Saskatchewan	60	399	5.3	
South Carolina	150	1292	28.1	
South Dakota	80	552	12.3	21
Tennessee	151	1896	20.8	4
Texas	210	5440	25.2	38
Utah	85	657	22.7	
Vermont	133	328	23.4	
Virginia	185	2384	23.8	
Washington	78	1322	33.9	
West Virginia	127	1179	21.8	1
Wisconsin	160	2496	34.7	
Wyoming	70	590	24.6	
Yukon	32	518	6.0	



all counties and cells



counties and cells with 20 or more species

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Binghamton, New York

Vol. 14, No. 2, 10 June 2002

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