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**A Report to the Division of Natural Heritage,
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**The Status of the Cricket Frog, *Acris crepitans*,
in Northern Illinois: A Preliminary Report**



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Introduction

Blanchard's cricket frog, *Acris crepitans blanchardi*, is a small, rugose frog averaging 1.6 - 3 cm in length. It can be found in almost all aquatic habitat types throughout the state of Illinois. Open or partly vegetated mud flats or mud banks seem to be the preferred habitat. The cricket frog is short-lived with an average life expectancy of approximately four months (Burkett, 1984). Burkett (1984) also found in Kansas about 5% of the population survives the winter and complete population turnover occurs in about sixteen months. Chorusing commences around the last of April in Illinois and continues through the summer months. Metamorphosis occurs from July through September, depending on when the eggs were laid (Smith, 1961). Smith (1961) labeled the cricket frog as the most common and abundant amphibian in the state. To date, all Illinois counties except Lee and Mercer have cricket frog vouchers in museum collections.

It has been reported that the cricket frog has dramatically declined in Michigan (Harding and Holman, 1992) and Wisconsin (Casper, 1996) and has disappeared altogether from Minnesota and Ontario (Greenwell, et al, 1996). A paper by Dr. Martin Greenwell, Dr. Val Beasley and Dr. Lauren Brown was recently published by the Shedd Aquarium (Aquaticus 1996, Vol. 26, No. 1:48-54). In this paper, they reported that the cricket frog is nearly gone from the northern third of Illinois. A student of Dr. Beasley's presenting at the 1998 Midwest Declining Amphibian Conference stated that only three populations exist in the northern third of Illinois (pers. obs.). These statements are starting to become widely circulated as fact in publications and presentations. However, no rigorous, scientific surveys have been conducted to determine if the cricket frog is actually declining or disappearing in northern Illinois or not. Reporting speculation as fact can be potentially damaging to the credibility of amphibian biologists.

This project arose from three central points of interest. First and foremost: Is the cricket frog declining/dying out in the northern third of Illinois? Second: Baseline data for a "common" amphibian species in Illinois such as the cricket frog is sorely lacking. Third: No rigorous, scientific surveys have been conducted on the status of the cricket frog in Illinois. Initiating a statewide survey will provide baseline data on which to ground judgments of status and perhaps serve as an impetus for a long-term study. Other projects concerning cricket frog biology and distribution will be initiated by the author in the future. This report is the result of the first field season of the statewide cricket frog survey, conducted in May and early June 1998.

Study Areas

Historic localities, that is those localities with collection dates or observations made before 1980, were compiled from museum collections records, from the scientific literature and from field notes of reliable biologists. Sites with obscure data (i.e. "Chicago" or "near Quincy") or sites known to be destroyed or developed were not considered. A line of demarcation stretching from Cissna Park (Iroquois Co.) in eastern Illinois to Nauvoo (Hancock Co.) in western Illinois served to split localities in to either southern Illinois groups or northern Illinois groups. This line of demarcation was derived from cricket frog collections data and observations from Illinois herpetologists.

Individual sites were listed on pieces of memo paper and were drawn from a plastic storage container. First, all the southern sites were drawn from the box and assigned consecutive numbers according to the order in which they were drawn. This process was repeated for the northern sites. The pieces of paper were shuffled prior to each selection. Next, using a random number table, 20 southern sites and 10 alternates were selected from a pool of 82 southern sites. Similarly, 20 northern sites and 10 alternates were selected from a pool of 46 northern sites. Table 1 lists (in alphabetical order by county) the selected

southern sites and alternates along with each site's county and township, range, section and quadrangle information. Alternates are not listed alphabetically, but rather in the order they will be used if needed. Table 2 lists the same information for the selected northern sites and alternates. Localities are numbered 1 - 40 and refer to their placement in the site profiles (Results section) and to their placement on Figure 1. Figure 1 depicts the location of the original 40 survey sites in Illinois.

Table 1 Southern Illinois Survey Sites and Alternates

1) Adams County; Crabapple Lake in Siloam Springs State Park, 18 km SW Mt. Sterling	T02S, R05W section 24 NW, NW; Kellerville Quadrangle
2) Bond County; 0.5 km N of Reno at Yankee Creek	T06N, R04W section 11 NE, NW; Sorrento South Quadrangle
3) Clark County; 3 km SSW Marshall, Lincoln Trail Lake in Lincoln Trail State Park	T10N, R12W section 35; Snyder Quadrangle
4) Edgar County; N of Paris at the Twin Lakes	T14N, R12W section 25 SE; Paris North Quadrangle
5) Hamilton County; 2.75 km E of Broughton, North Fork Saline River at Co. Rd. 200N	T07S, R07E section 03 SW; Broughton Quadrangle
6) Hardin County; 2.8 km NE of Elizabethtown, tributary Hosick Creek/Ohio River at IL Rt. 146	T12S, R08E section 13 SW, NW; Rosiclare Quadrangle
7) Jackson County; NW of Aldridge, Big Muddy River at IL Rt. 3	T11S, R03W section 18 SE; Wolf Lake Quadrangle
8) Jefferson County; 3 km SW of Scheller at Scheller Lake West	T04S, R01E section 17 NW, SW; Tamaroa Quadrangle
9) Johnson County; S of Goreville at Ferne Clyffe State Park	T11S, R02E section 27; Goreville Quadrangle
10) McDonough County; 2.5 km N of Colchester, pond N of boat ramp/Argyle lake in Argyle Lake State Park	T06N, R04W section 36 SE; Colchester Quadrangle
11) Macoupin County; 1.25 km S Hettick, Otter Creek at Co. Rd. 600E	T10N, R08W section 06 NW, SW; Hettick Quadrangle
12) Madison County; Highland Lake at Silver Lake Park, 2.75 km NNW Highland	T04N, R05W section 19 SE, SE; Grantfork Quadrangle
13) Madison County; 2.75 km SSW Hartford, forested wetland in Lewis and Clark State Memorial Park	T04N, R09W section 16 NW; Wood River Quadrangle
14) Mason County; 5.6 km NNE Havana, Lake Chautauqua N of the Illinois Natural History Field Laboratory	T22N, R08W section 17 SE; Havana Quadrangle
15) Perry County; 2.2 km SSE DuBois, tributary Little Muddy River	T04S, R01W section 03 SW, SW; Tamaroa Quadrangle
16) Pope County; 5.25 km SE of Rosebud, Cave Creek at Co. Rd. 1700N	T14S, R06E section 27 SE, SE; Brownfield Quadrangle
17) Randolph County; 4.4 km N of Chester at the Randolph County State Conservation Area	T06S, R06W section 30 SE; Chester Quadrangle

18) Union County; 0.5 km W of Ware at Running Lake Ditch	T12S, R03W section 26 NE; Ware Quadrangle
19) Vermilion County; 7 km W of Danville, Middle Fork Vermilion River and S end Long Pond in Kickapoo State Park	T19N, R12W section 09 NW; Danville NW Quadrangle
20) Vermilion County; SE of Muncie at Muncie Pond (S side U.S. Rt. 150)	T19N, R13W section 16 NW; Oakwood Quadrangle
ALTERNATES	
Jersey County; Mill Creek near Elsayh	T06N, R11W section 15 SW; Elsayh Quadrangle
Johnson County; E of Cypress at Little Black Slough	T13S, R02E section 22; Karnak Quadrangle
Lawrence County; 2 km NE Sumner, Red Hills Lake in Red Hills State Park	T03N, R13W section 03 NE, NE; Sumner Quadrangle
Tazewell County; 6.4 km S of Green Valley, Main Ditch at IL Rt. 29	T22N, R05W section 14 SW, SW, SW or section 15 SE, SE, SE; Natrona Quadrangle
Pope County; 7.75 km SE Stonefort at Burden Falls	T11S, R05E section 15 NE; Stonefort Quadrangle
Alexander County; 2.5 km E of Miller City, dam Horseshoe Lake (Lake Creek)	T16S, R02W section 21 NE, SE; Cache Quadrangle
Pike County; 4.8 km W Pearl, Hill Creek along Co. Rd. 450N	T07S, R02W section 07 NE, SW; Pearl West Quadrangle
Champaign County; Busey Pasture (Busey Woods in Crystal Lake Park), Urbana	T19N, R09E section 08 NW; Thomasboro Quadrangle
Pulaski County; 4 km SW Olmsted, tributary Hodges Creek at IL Rt. 37	T16S, R01E section 04 NW; Olmsted Quadrangle
Calhoun County; 3.2 km N of Kampsville, Woods Branch at IL Rt. 100	T08S, R02W section 27 NE; Kampsville Quadrangle

Table 2 Northern Illinois Survey Sites and Alternates

21) Carroll County; 2.75 km SW Wacker, tributary Savanna-York Ditch at Scenic Bluff Rd.	T24N, R04E section 29 SW and 30 SE; Wacker Quadrangle
22) Cook County; W of Glenview at Beck Lake	T42N, R12E section 31; Park Ridge Quadrangle
23) Cook County; W of Palos Hills at Tuma Lake	T37N, R12E section 09 SW; Palos Park Quadrangle
24) DeKalb County; 1.75 km ENE Somonauk, Somonauk Creek at U.S. Rt. 34	T37N, R05E section 34 SE, NW; Somonauk Quadrangle
25) Henderson County; 1.75 km NE Gulfport at Crystal Lake at New Crystal Lake Club	T10N, R06W section 34 NE; Gladstone Quadrangle
26) Henry County; 8 km NNE Kewanee, Johnson Lake in Johnson Sauk Trail State Park	T16N, R05E section 35; Kewanee North Quadrangle
27) Kendall County; 0.5 km N of Millington at gravel pit	T36N, R border 05E & 06E section 30 NW, NW; Newark Quadrangle

28) Lake County; W of Fox Lake (town) at Pistakee Lake	T45N, R09E section 09 SE; Fox Lake Quadrangle
29) Lake County; 2.75 km NNW of Volo at Volo Bog (boardwalk trail)	T45N, R09E section 28 SW, NE; Wauconda Quadrangle
30) McHenry County; W of Island Lake at Cotton Creek	T44N, R09E section 20 SE; Wauconda Quadrangle
31) Marshall County; 5.5 km W of Sparland, Senachwine Creek at IL Rt. 17	T12N, R09E section 07 SE; La Prairie Quadrangle
32) Marshall County; 3.75 km NNW Sparland at Thenius Creek	T13N, R09E section 34 NW, SW; Lacon Quadrangle
33) Peoria County; 6 km SSW Laura, Swab Run at McClellan Rd.	T10N, R05E section 08 SE; Elmwood Quadrangle
34) Stephenson County; 3.75 km N of Lena, Lake Le-Aqua-Na in Lake Le-Aqua-Na State Park	T28N, R06E section 17 NE, SE; Lena Quadrangle
35) Warren County; 3.5 km S Alexis, Henderson Creek at Co. Rd. 1200E	T12N, R01W section 13 SE; Alexis Quadrangle
36) Warren County; 1.7 km N of Utah at unnamed stream	T12N, R01W section 27 SE; Galesburg West Quadrangle
37) Whiteside County; W of Penrose, Elkhorn Creek at Penrose Rd.	T22N, R07E section 16 SW and 21 NW; Hazelhurst Quadrangle
38) Whiteside County; 3.25 km N of Sterling, Sugar Creek at Freeport Rd.	T21N, R07E section 03 SE, NE & NE, SE; Sterling Quadrangle
39) Will County; 4 km SSE Wilmington, Forked Creek on the E side IL Rt. 102	T32N, R10E section 07 SE; Symerton Quadrangle
40) Winnebago County; 3 km E Machesney Park, Pierce Lake in Rock Cut State Park	T45N, R02E section 27 SE; Caledonia Quadrangle
ALTERNATES	
Warren County; 3 km S of Cameron, Slug Run at Co. Rd. 1400E	T10N, R01W section 17 NE & section 16 NW; Berwick Quadrangle
Iroquois County; 2.2 km N of Donovan, Beaver Ditch No. 2 at Co. Rd. 2700E	T28N, R11W section 16 SW, SW; Donovan Quadrangle
Cook County; 1.6 km S of Willow Springs at Bull Frog Lake	T37N, R12E section 07 SE; Sag Bridge Quadrangle
Woodford County; 9.5 km SSW El Paso, Six Mile Creek below Evergreen Lake	T25N, R01E section 01 SW; El Paso Quadrangle
Ogle County; 13 km S Oregon, Clear Creek at Lowden Rd.	T22N, R10E section 09 SE, SE, SE & section 10 SW, SW, SW; Daysville Quadrangle
Lake County; 3.2 km W of Deerfield, pond N of Deerfield Rd. between Des Plaines River and U.S. Rt. 45	T43N, R11E section 26 SW, SE, SW; Wheeling Quadrangle
Ogle County; 2 km NW of Rochelle and just E Flagg Center, Flagg Rd. at Gardeners Creek	T40N, R01E section 15 SW, SW, NE; Rochelle Quadrangle
Kane County; 3.2 km SW West Dundee, Jelke's Creek at Boncosky Rd.	T42N, R08E section 33 NW; Elgin Quadrangle
McLean County; 10 km N of Normal at Evergreen Lake	T25N, R02E section 07; El Paso Quadrangle

Methods

Decision rules were drawn up to provide direction on when a site could or could not be surveyed. A site could not be surveyed under the following circumstances: 1) rain, 2) when a site is flooded, 3) when a site had been recently scoured by high water and 4) when temperatures fall below 60°F. Sites were rejected if the habitat was unsuitable for cricket frogs or if the collection site was destroyed or developed.

Once at a site, a 15 minute time-constrained visual encounter survey (VES) was conducted. A visual encounter survey is one where a researcher walks through an area/habitat for a prescribed amount of time systematically searching for animals (Crump and Scott, Jr., 1994). The number of cricket frog individuals was recorded and used to estimate relative abundance. In this study, relative abundance is calculated as the number of cricket frogs(N)/person hour or the number of cricket frogs(N)/kilometer. A stopwatch was used to keep time and a pedometer was used to measure distance. Weather conditions, air and water temperature, wetland origin (natural or man-made), wetland description (stream, river, pond or lake), drainage characteristics (occasional or permanent), side of wetland surveyed and bearing was recorded for each site surveyed. Variables such as channel width and approximate maximum depth were recorded for some sites. Pictures were taken of all suitable sites.

Results

Six southern sites, two northern sites and one northern alternate site could not be surveyed because of flooding or scouring by high water levels. One other northern site was not surveyed as I wanted to gain landowner permission before I entered the property. Two southern sites, four northern sites and one northern alternate site were rejected because of unsuitable habitat or human development. Cricket frogs were present in 9 of 12 (75%) southern sites (not including sites rejected or flooded/scoured sites). Two other southern sites (Running Lake Ditch and North Fork Saline River) had cricket frogs present, but were not included in abundance estimates as both violated decision rules (flooding and recent flooding/bank scouring respectively). Five of 14 (36%) northern sites surveyed had cricket frogs present (not including sites rejected or flooded/scoured sites). Table 3 depicts relative abundance estimates and other pertinent information for the southern sites surveyed; Table 4 the same information for the northern sites. Following the tables each site is profiled in alphabetical order by county (southern sites first, then northern sites). Museums and their acronyms used in the text are as follows: Chicago Academy of Sciences (CA), Field Museum of Natural History (FMNH), Illinois Natural History Survey (INHS), University of Kansas (KU), Southern Illinois University - Carbondale (SIUC), Tulane University (TU), University of Illinois Museum of Natural History (UIMNH), and University of Michigan Museum of Zoology (UMMZ).

Table 3: Southern Sites and Corresponding Relative Abundance Estimates

Site	# of cricket frogs/person hour	# of cricket frogs/kilometer*
1	84	23
2	12	3
3	see text	see text
4	site rejected, habitat unsuitable	site rejected
5	see text	see text
6	0	0
7	not surveyed - flooded	not surveyed
8	100	36
9	384	107
10	see text	area not calculated
11	not surveyed - recent scouring/flooding	not surveyed
12	0	0
13	site rejected, habitat unsuitable	site rejected
14	not surveyed - flooded	not surveyed
15	0	0
16	not surveyed - flooded	not surveyed
17	188/240	67/86
18	not surveyed - flooded	not surveyed
19	see text	see text
20	12 (eggs observed)	17

* results rounded to the nearest whole number

Table 4: Northern Sites and Corresponding Relative Abundance Estimates

Site	# of cricket frogs/person hour	# of cricket frogs/kilometer*
21	0	0
22	0	0
23	0	0
24	0	0
25	4	2
26	20	5
27	site rejected - habitat unsuitable	site rejected
28	site rejected - habitat unsuitable	site rejected
29	not surveyed -flooded boardwalk	not surveyed
30	site rejected - habitat unsuitable	site rejected
31	40	14
32	not surveyed	not surveyed
33	4	2
34	site rejected - habitat unsuitable	site rejected
35	not surveyed	not surveyed
36	12	3
37	0	0
38	0	0
39	0	0
40	0	0
ALT	site rejected - habitat unsuitable (Bull Frog Lake, Cook Co.)	site rejected

* results rounded to the nearest whole number

Site Profiles

1) Adams County, Illinois, 18 km SW of Mt. Sterling, Crabapple Lake in Siloam Springs State Park; T02S, R05W section 24 NW, NW; UTM Zone 15: N4416700m, E676540m; Kellerville Quadrangle.

Weather conditions: hazy from smoke from Mexican wildfires, humid, air temperature (shade): 21.4° C (70.5° F), water temperature (shade): 23° C (73.2° F), light winds.

Crabapple Lake is a permanent man-made body of water. I surveyed this site on 15 May 1998. Dr. Robert Gray surveyed this site on 21 May 1970. The distance he traveled is unknown. Dr. Gray observed 145 cricket frogs at the time of his survey. I walked 0.9 km (0.55 mi) on the east side of the lake bearing north. I observed 21 cricket frogs and heard two males calling (relative abundance estimate: 84 cricket frogs/person hour; 23 cricket frogs/km). Suitable habitat is patchy - general habitat consists of steep, mossy, forested banks. Suitable habitat occurs in the form of vegetated mud flats where streams flow in to Crabapple Lake. Other amphibian and reptile species observed are as follows: gray treefrog (*Hyla versicolor-chrysosecelis*), 2 individuals calling; green frog (*Rana clamitans*), 1; painted turtle (*Chrysemys picta*), 2.

2) Bond County, Illinois, 0.5 km N of Reno at Yankee Creek; T06N, R04W section 11 NE, NW; UTM Zone 16: N4318230m, E282050m; Shoal Creek Township; Sorrento South Quadrangle.

Weather conditions: mostly sunny, air temperature (shade): 21.4° C (70.5° F), water temperature (shade): 20.1° C (68.2° F), light winds.

Yankee Creek is a natural stream that is likely intermittent in dry years. Substrate is sand, the banks are forested and extensive sand bars are present. Site width is approximately 4.5 m (15 feet), the approximate maximum depth is 0.3 m (12 inches) and the water is clear. I surveyed this site on 14 May 1998. The last collection of a cricket frog (UIMNH 821 - 826) at this site was on 24 April 1948 by Max Hensely of the University of Illinois Herpetology Class. The east side of Yankee Creek flows through an open pasture which contains goats. I surveyed the west side, which is forested along the banks. Evidence of past cattle use of the stream was apparent. I observed three cricket frogs in 1.2 km (0.74 mi.) (relative abundance estimate, 12 cricket frogs/person hour; 3 cricket frogs/km). One other cricket frog not included in the survey was observed by the bridge. Other amphibian and reptile species observed are as follows: gray treefrog (*Hyla versicolor-chrysosecelis*), 2 calling; bullfrog (*Rana catesbeiana*), 10; eastern box turtle (*Terrapene carolina*), 1; eastern garter snake (*Thamnophis sirtalis*), 1 dead on the road.

3) Clark County, Illinois, 3 km SSW Marshall, Lincoln Trail Lake in Lincoln Trail State Park; T10N, R12W section 35; UTM Zone 16: N4355650m, E439060m; Snyder Quadrangle.

Weather conditions: sunny, clear, hot, air temperature (shade): 22° C (71.2° F), water temperature (shade): 26.4° C (79.5° F), light winds.

Lincoln Trail is a man-made lake which holds water permanently. The water is slightly cloudy. I surveyed this site on 18 May 1998. Dr. Robert Gray surveyed this site on 19 May 1998 and he observed 52 cricket frogs. He surveyed to both sides of the boat dock; the distance he traveled is unknown. I followed his first survey trip to the right of the boat dock (east side of the lake bearing north-northeast) covering 0.8 km (0.5 mi.). The

suitable habitat is patchy. Rounded, vegetated, semi-steep slopes are the predominant bank feature in the habitat I surveyed. I observed 5 cricket frogs (relative abundance estimate, 20 cricket frogs/person hour; 25 cricket frogs/km), all in mud flat areas. However, near the stopping point of my survey, a large mud flat and a cattail stand occurred where a stream was flowing in to Lincoln Trail Lake. I walked 0.2 km (0.11 mi.) around the mud flat "peninsula" and was overwhelmed with the number of cricket frogs. I was able to count 51 cricket frogs, but with the large numbers on this mud flat, I estimate that there were 75 - 100 cricket frogs on the perimeter alone, not counting any individuals on the interior of the mud flat "peninsula". I also heard 4 or 5 males calling from the cattail area. Since the habitat has probably changed since Dr. Gray surveyed the site, in the future I will change my survey area to start at the mud flat area instead of at the boat dock. Other amphibian and reptile species observed are as follows: Fowler's toad (*Bufo woodhousii fowleri*), 2; unidentified ranid frogs, 10 - 15; either five-lined or broad-headed skink, (*Eumeces fasciatus* or *laticeps*), 1; and red-eared slider (*Trachemys scripta elegans*), 1 shell.

4) Edgar County, Illinois, N of Paris at the Twin Lakes (Twin Lakes Park); T14N, R12W section 25 SE; UTM Zone 16: N4387510m, E440810m and N4387250m, E440340m; Paris Township; Paris North Quadrangle.

Weather conditions: sunny, clear, warm, air temperature (shade): 23° C (73.0° F), water temperature (partial to mostly shaded area): 24.4° C (75.9° F).

Twin Lakes are permanent man-made lakes. The water is turbid, being a dark brown color. I surveyed this site on 18 May 1998. The last cricket frog to be collected from this site was on 25 April 1948 by M. Eyster (UIMNH 813 - 814) from the 1948 University of Illinois Herpetology Class. I first surveyed in Twin Lakes Park on the east side of US 150/IL Rt. 1. The banks were mostly covered with a thick layer of rip-rap (large limestone rocks). I covered 0.9 km (0.59 mi.) of lakeshore and most of it was covered by rip-rap. Next, I went to the park on the west side of the road. More exposed lakeshore was present here, but not much more than the first site. At both survey sites looking across the lake, numerous sea walls and other developments had effectively destroyed potential habitat. I rejected this site because the habitat is not suitable for cricket frogs. It is quite possible that cricket frogs inhabit the Twin Lakes in areas where human development has not yet encroached. The only amphibian or reptile to be observed was a hatchling red-eared slider (*Trachemys scripta elegans*).

5) Hamilton County, 2.75 km E of Broughton, North Fork Saline River at Co. Rd. 200N; T07S, R07E section 03 SW; UTM Zone 16: N4199540m, E374685m; Broughton Quadrangle.

Weather conditions: sunny, clear, air temperature (shade): 20.2° C (68.4° F), water temperature: 16.5° C (61.7° F), moderate winds.

The North Fork Saline River is a natural but modified river with permanent flow. Site width is approximately 20 m (65 ft.). The water is extremely turbid. I visited this site on 10 May 1998. The last cricket frog (SIUC 2888) to be collected here was on 7 July 1969 by T. Gholson. Recent heavy flooding had piled debris at the bridge and the banks had been swept by the high water. I could not survey this site as conditions violated decision rules. However, since this was the last site of my first trip and since it was early in the morning, I decided to conduct a mock survey. The habitat is excellent for cricket frogs with large expanses of exposed, sloping mud bank. Along the river, I observed one cricket frog (*Acris crepitans*), one southern leopard frog (*Rana sphenoccephala*), one common snapping turtle (*Chelydra serpentina*), one red-eared slider (*Trachemys scripta*) and five northern water snakes (*Nerodia sipedon*). I also observed four cricket frogs in

water-filled ruts in an agriculture field access road on the east side of the river and one eastern box turtle (*Terrapene carolina*) on the east side of the bridge.

6) Hardin County, Illinois, 2.8 km NE of Elizabethtown, tributary Hosick Creek/Ohio River at IL Rt. 146; T12S, R08E section 13 SW, NW; UTM Zone 16: 4148040m, E386760m; Rosiclare Quadrangle.

Weather conditions: mostly cloudy to overcast, air temperature: 19° C (66° F), water temperature: 16.5° C (61.7° F), moderate winds.

The tributary of Hosick Creek/Ohio River is a natural stream with occasional flow. Substrate is sand, gravel and cobble and the water is clear (no turbidity) Site width is 3-5 m (10 - 15 ft.) and the approximate maximum depth is 0.6 m (2 ft.) in the pools. The last cricket frogs (UIMNH 16189-16191) collected at this site were on 29 April 1950 by Bert H. Marx. I surveyed this site on 9 May 1998. I walked south from Rt. 146 for 0.7 km (0.48 mi.). This part of the creek has forested banks and numerous sand bars. No cricket frogs were observed in this section of the creek. Other reptile and amphibian species observed in this part of the survey are as follows: unidentified ranid frogs, 10; green frog (*Rana clamitans*), 3; and northern water snake (*Nerodia sipedon*), 1. I also walked the stream north of Rt. 146. At first, I thought this section was in a fenced off horse pasture. Instead, it flows on the western side of Sycamore Spring Driving Range. The stream at this point flows through an open field and is occasionally bordered by willows and sycamores. The substrate is primarily cobble and the water is clear. No cricket frogs were observed in 0.5 km (0.3 mi.) (7 min. 30 secs.) when I had to stop the survey. Other species observed or heard are as follows: gray treefrog (*Hyla versicolor-chrysosecelis*), 1; and green frog (*Rana clamitans*), 3. A cricket frog was heard calling from a nearby pasture pond.

7) Jackson County, Illinois, NW Aldridge, Big Muddy River at IL Rt. 3; T11S, R03W section 18 SE; UTM Zone 16: N4160120m, E281630m; Wolf Lake Quadrangle.

Weather conditions: sunny, air temperature (shade): 22.4° C (72.3° F), moderate winds.

The Big Muddy River is a natural river with permanent flow. The substrate is mud and the water is very turbid. I visited this site on 9 May 1998. I could not survey this site as recent heavy rains had caused the Big Muddy to overflow its banks to the levee. Large logs and debris were piled along the base of the levee. One ribbon snake or garter snake (*Thamnophis*) was observed, but identification could not be verified.

8) Jefferson County, Illinois, 3 km SW of Scheller at Scheller Lake (east); T04S, R01E section 17 NW, SW; UTM Zone 16: N4427020m, E313440m; Tamaro Quadrangle; Bald Hill Township.

Weather conditions: mostly cloudy to overcast, air temperature (shade): 23° C (73.2° F), water temperature: 17° C (61.9° F), moderate winds.

Scheller Lake is a permanent man-made wetland. The water is clear but stained. There are two lakes in close proximity to one another, both bearing the name Scheller Lake. Cricket frogs (SIUC 516) were last collected at this site on 21 July 1963 by C. S. Adams. I surveyed the west Scheller Lake on 8 May 1998. I gained access by walking the Union Pacific railroad tracks east from an unnamed county road. Open mud banks provided suitable habitat for cricket frogs. I walked 0.7 km (0.41 mi.) and observed 25 cricket frogs (relative abundance estimates: 100 cricket frogs/person hour; 36 cricket frogs/km). Two male cricket frogs were heard calling. Other reptile and amphibian species observed are as

follows: Fowler's toad (*Bufo woodhousii fowleri*), 1; bullfrog (*Rana catesbeiana*), 5; southern leopard frog (*Rana sphenocephala*), 6; and northern water snake (*Nerodia sipedon*), 3. Seven other cricket frogs were observed in a ditch along the railroad tracks to the west of the lake.

9) Johnson County, Illinois, S or Goreville, lake in Ferne Clyffe State Park; T11S, R02E section 27; UTM Zone 16: N4155470m, E325310m; Goreville Quadrangle, Goreville Township.

Weather conditions: mostly cloudy to overcast, air temperature: 21.2° C (70.2° F), water temperature: 20.1° C (68.2° F), light winds.

The lake is a permanent man-made wetland and the water is clear. Cricket frogs (SIUC 517) were last collected at this site on 6 July 1963 by T.D. Rohde. I visited this site on 9 May 1998. The bank along the dam was steep and heavily vegetated. Very few cricket frogs were observed here. As one rounds to the southeast, the banks become level with open or sparsely vegetated mud flats. I walked 0.9 km (0.58 mi.) bearing south and observed 96 cricket frogs (relative abundance estimates: 384 cricket frogs/person hour; 107 cricket frogs/km). I also heard three to four males calling. Other species observed are as follows: two unidentified ranid species, red-eared slider (*Trachemys scripta*), 1; and northern water snake (*Nerodia sipedon*), 4.

10) McDonough County, Illinois, 2.5 km N of Colchester, pond north of boat ramp, Argyle Lake in Argyle Lake State Park; T06N, R04W section 36 SE, UTM Zone 15: N4480750m, E686790m; Colchester Quadrangle.

Weather conditions: overcast, hazy, humid, air temperature (shade): 23° C (73.4° F), water temperature (shade): 21.4° C (70.5° F), light to moderate winds.

Small pond created by impounding an unnamed tributary of Argyle Lake. This pond is bordered by a concrete dam and parking lot on its south side. The overflow flows in a channel on the east side of the parking lot in to Argyle Lake. There are open mud banks and mud flats around the entire pond. The water is very turbid. I surveyed this site on 15 May 1998. I walked around the entire pond covering 0.5 km (0.33 mi./10 min. 05 sec.) and observed one cricket frog (relative abundance estimates: 4 cricket frogs/person hour; area not calculated) This low number may be due to the numerous adult bullfrogs (*Rana catesbeiana*, 25-30) observed at the pond. However, seven cricket frogs were observed (two of these seven were calling) in the cove of Argyle Lake by the concession stand/boat dock area. Other reptile and amphibian species observed are as follows: leopard frogs (either *Rana blairi* or *Rana sphenocephala*), 2; two unidentified turtles and one northern water snake (*Nerodia sipedon*). Other reptile and amphibian species observed in the cove of Argyle Lake are as follows: leopard frog (either *Rana blairi* or *Rana sphenocephala*), 1; painted turtle (*Chrysemys picta*), 1; and northern water snake (*Nerodia sipedon*), 1.

11) Macoupin County, Illinois, 1.25 km S Hettick, Otter Creek at Co. Rd. 600E; T10N, R08W section 06 NW, SW; UTM Zone 15: N4358400m, E755420m; Hettick Quadrangle.

Weather conditions: No weather variables were recorded as site was not surveyed.

Cricket frogs (INHS 3651-3654) were last collected at Otter Creek on 2 October 1948 by P.W. Smith, W.L. Burger and R.C. Schroder. I visited this site on 14 May 1998. This site could not be surveyed as recent scouring by high water was evident. Habitat is suitable

for cricket frogs, with ample sloping, open mud banks. Two bullfrogs (*Rana catesbeiana*) and one southern leopard frog (*Rana sphenoccephala*) were observed at this locality.

12) Madison County, Illinois, 2.75 km NNW Highland, Highland Silver Lake; T04N, R05W section 19 SE, SE; UTM Zone 16: N4294730m, E265940m; Grant Fork Quadrangle; Saline Township.

Weather conditions: mostly sunny to clear, hot, air temperature (shade): 27° C (80.1° F), water temperature (shade): 23° C (73° F), light winds.

Highland Silver Lake in Silver Lake Park is a permanent man-made lake. Water turbidity is cloudy. Dr. Gray surveyed this site on 21 May 1970 and observed 61 cricket frogs. I surveyed this site on 14 May 1998. I walked 1 km (0.6 mi.) on the southeast side of the site, bearing north. No cricket frogs were observed or heard. The lake has been high in the recent past, as evidenced by debris washed up on parts of the shoreline. The lake may still have been high at the time of the present survey. Cricket frog habitat is present in the form of mud flats and exposed level banks. These habitats alternate with more vertical banks. Shoreline is dominated by locust trees. Other reptile and amphibian species observed are as follows: common musk turtle (*Sternotherus odoratus*), 1; northern water snake (*Nerodia sipedon*), 1; and eastern garter snake (*Thamnophis sirtalis*), 1.

13) Madison County, Illinois, 2.75 km SSW Hartford, forested wetland in Lewis and Clark State Memorial Park; T04N, R09W section 16 NW; UTM Zone 15: N4298660m, E751290m.

Weather conditions: sunny, clear, hot, air temperature (shade): 27° C (79.9° F), water temperature (shade): 24° C (75.2° F), moderate winds.

Forested wetland pond probably of natural origin; it appears to be periodically flooded by the Mississippi River. Cricket frogs (KU 125075-KU125081) were last collected from this site on 19 May 1967. I surveyed this site on 14 May 1998. This site is rejected because the habitat is unsuitable for cricket frogs. The banks of the wetland were literally covered with logs, branches, bark and other woody debris. Woody debris was also prevalent in the wetland itself. The large amount of woody debris deposited in the wetland is probably due to seasonal flooding from the Mississippi River.

14) Mason County, Illinois, 5.6 km NNE Havana, Lake Chautauqua N or the Illinois Natural History Survey Field Lab (Forbes Station); T22N, R08W section 17 SE; UTM Zone 15: N4471170m, E752830m; Havana Quadrangle; Havana Township.

Weather conditions: No weather variables were recorded as site was not surveyed.

I visited this site on 15 May 1998. I could not conduct a survey as the site was flooded.

15) Perry County, Illinois, 2.2 km SSE DuBois, tributary Little Muddy River; T04S, R01W section 03 SW, SW; UTM Zone 16: N4230330m, E307175m; Tamaroa Quadrangle, RD 1 Township.

Weather conditions: mostly cloudy, air temperature (shade): 23.1° C (73.6° F), water temperature: 17° C (61.9° F), light winds.

The tributary is a stream with occasional flow. Approximate maximum depth is between 0.3-0.6 m (1-2 ft.). The tributary ranges from 0.9 m to 1.8 m (3-6 ft.) up to 4 m to 5 m (12-15 ft.) wide. The water is slightly cloudy to clear. I surveyed this site on 8

May 1998. This stream is bordered by forest until close to the Little Muddy River, where it flows through open pasture. Substrate consists of sand, mud and exposed slab rock. I was only able to walk 12.21 minutes/0.9 km (0.53 mi.) as a herd of cows was standing in the stream. Ten ranid frogs were observed, but identifications could not be verified. No cricket frogs were observed.

16) Pope County, Illinois, 5.25 km SE of Rosebud, Cave Creek at Co. Rd.1; R14S, R06E section 27 SE, SE; UTM Zone 16: N4124895m, E364410m; Brownfield Quadrangle; RD 1 Township.

Weather Conditions: No weather variables were recorded as site was not surveyed.

A cricket frog (UIMNH 56537) was collected from this site on 1 April 1964 by Frank Robinson. I visited this site on 9 May 1998. The site could not be surveyed as Cave Creek was flooded well beyond its banks.

17) Randolph County, Illinois, 4.4 km N of Chester, Randolph County State Conservation Area; T06S, R06W section 30 SE; UTM Zone 16: N4206745m, E253850m; Chester Quadrangle, RD 2 Township.

Weather Conditions: mostly cloudy, air temperature (shade): 26° C (78.3° F), water temperature (shade): 24° C (75° F), light winds.

Permanent man-made lake. The water is clear. I surveyed this site on 8 May 1998. Dr. Robert Gray had surveyed this site on 20 May 1970 and I followed his directions. I walked west from the dock first. Mud flats and algal mats were present in abundance. The caretakers of the property leave strips of vegetation between the mud flats and the mowed areas. Forty-seven cricket frogs were observed (relative abundance estimates: 188 cricket frogs/person hour; 67 cricket frogs/km) in 0.7 km (0.43 mi). I also walked to the east of the dock for 0.9 km (0.55 mi). Sixty cricket frogs were observed during this survey (relative abundance estimates: 240 cricket frogs/person hour; 86 cricket frogs/km). Three males were heard calling. Other reptile and amphibian species observed are as follows: three unidentified ranid species, southern leopard frog (*Rana sphenocephala*), 4; painted turtle (*Chrysemys picta*), 1; eastern box turtle (*Terrapene carolina*), 1 dead on road; red milk snake (*Lampropeltis triangulum*), 1; and northern water snake (*Nerodia sipedon*), 5.

18) Union County, Illinois, 0.5 km W of Ware at Running Lake Ditch; T12S, R03W section 26 NE; UTM Zone 16: N4147020m, E287590m; Ware Quadrangle.

Weather conditions: sunny

Permanent natural stream with cloudy water. Cricket frogs (UIMNH 23702 - 23703) were collected at this locality on 23 June 1936 by D.D. Davis. I visited this site on 9 May 1998. I could not survey this site as recent heavy rains had caused Running Lake Ditch to flood well out of its banks. I heard one cricket frog calling.

19) Vermilion County, Illinois, 7 km W of Danville, Middle Fork Vermilion River and S end of Long Pond; T19N, R12W section 09 NW; UTM Zone 16: N4442020m, E437440m (Middle Fork Vermilion River), N4442020m, E437585m (Long Pond); Danville NW Quadrangle.

Weather conditions: clear, sunny, air temperature: 22.2° C (72° F), water temperature: 19.4° C (66.9° F), light winds.

The Middle Fork Vermilion River is a natural river and is a federally recognized Scenic River. The substrate is sand and shale. It has permanent flow regime and is slightly turbid. Dr. Gray surveyed the Middle Fork and several adjacent ponds on 19 May 1970. Long Pond is just east of the Middle Fork Vermilion and is a reclaimed strip-mine pond. The pond has vegetated mud banks with open flats. I encountered two cricket frogs prior to the start of my survey of the Middle Fork. I walked 1 km (0.64 mi.) and observed no cricket frogs. However, on return to my start point, two cricket frogs were present that were not on the sand bar at the onset of the survey. Hearing cricket frogs calling and observing them at various ponds close to the river, I decided to conduct a survey of Long Pond. I surveyed the edge that borders the north edge of westbound I-74. Open or sparsely vegetated banks (cropped low by Canada Geese) provided habitat for cricket frogs. I walked 0.9 km (0.57 mi.) and observed 34 cricket frogs (relative abundance estimate, 136 cricket frogs/person hour; 38 cricket frogs/km). Amphibian and reptile species observed at the Middle Fork are as follows: American toad (*Bufo americanus*), 2; Fowler's toad (*Bufo woodhousii fowleri*), and northern water snake (*Nerodia sipedon*), 1. Amphibian and reptile species observed at Long Pond are as follows: green frog (*Rana clamitans*), 10; and painted turtle (*Chrysemys picta*), 1.

20) Vermilion County, Illinois, Muncie Pond, SE of Muncie; T19N, R13W section 16 NW; UTM Zone 16: N4440420m, E428450m; Oakwood Quadrangle, Oakwood Township.

Weather conditions: clear, sunny, air temperature (shade): 21.4° C (70.5° F), water temperature (partial sun): 25° C (76.3° F), light winds.

Muncie Pond is a permanent man-made pond. The water is slightly cloudy. Abundant algal mats line the shoreline. I surveyed this site on 17 May 1998. The last cricket frogs (UIMNH 69617-69636) collected from this site were by F.A. Shannon in 1948. I walked counterclockwise around Muncie Pond, surveying the west, north and east sides and covering 0.7 km (0.43 mi.). The south side of Muncie Pond is steep sided and heavily vegetated. The rest of the sides are more level close to the water, and mud flats and open banks offer suitable habitat for cricket frogs. I observed no cricket frogs but heard three calling (relative abundance estimate: 12 cricket frogs/person hour; 4 cricket frogs/km). I also observed 2 egg clusters in algal mats, one on the east side of the pond and one on the west side. Other amphibian and reptile species observed are as follows: green frog (*Rana clamitans*), 1 calling.

21) Carroll County, Illinois, 2.75 km SW of Wacker, tributary of the Savanna-York Ditch at Scenic Bluff Rd; T24N, R04E section 29 SW and section 30 SE; UTM zone 15: N4657900m, E742240m; Wacker Quadrangle.

Weather conditions: sunny, clear, air temperature (shade): 26° C (78.6° F), water temperature (shade): 26° C (79° F), moderate winds.

The unnamed tributary is a natural stream with most likely occasional flow. Substrate is sand and gravel and the water is clear. Site width ranges from 0.9 - 1.5 m (3-5 ft.) and the approximate maximum depth is 0.3 - 0.5 m (1-1.5 ft.). Cricket frogs were observed in the tributary to the east of Scenic Bluff Rd. in 1979. Commonwealth Edison once owned the land, but it was sold in recent years to Ron and Terry Novak. Signs and gates made it clear that no one was to come onto their property. Attempts were made to locate the owners but to no avail. Instead, I surveyed the tributary to the west of Scenic Bluff Rd. on 28 May 1998. Tree removal was evident along part of the stream. Most of the stream was lined with a strip of trees. I walked 1 km (0.65 mi.) and no cricket frogs were observed.

Suitable habitat was available in the form of sand bars and open sand/mud banks. Other amphibians and reptiles observed are as follows: gray treefrog complex, (*Hyla versicolor-chrysocephala*), 2 calling; one unidentified ranid frog and one northern water snake (*Nerodia sipedon*).

22) Cook County, Illinois, W of Glenview at Beck Lake; T42N, R12E section 31; UTM Zone 16: N4658370m, E428050m, Northfield Township; Park Ridge Quadrangle.

Weather conditions: mostly sunny to clear, hot, air temperature (shade): 25.2° C (77.4°F), water temperature (sun): 25° C (76.3° F), light to moderate winds.

Beck Lake is a permanent man-made lake. Ken Mierzwa of TAMS Consulting Firm in Chicago, Illinois related to me his observations of cricket frogs in Beck Lake in the 1970's and 1980's. I surveyed Beck Lake on 12 June 1998. No cricket frogs were observed in 1.3 km (0.82 mi.). Beck Lake is heavily used by the public but suitable habitat exists in the form of open, flat to gently sloping banks. Other amphibian and reptiles observed are as follows: bullfrog (*Rana catesbeiana*), 5; common musk turtle (*Sternotherus odoratus*), 1 shell; In a stream flowing in to Beck Lake, 20-25 bullfrogs (*Rana catesbeiana*), one common snapping turtle (*Chelydra serpentina*).

23) Cook County, Illinois, W of Palos Hills at Tuma Lake; T37N, R12E section 09 SW; UTM Zone 16: N4617165m, E427400m, Palos Township; Palos Park Quadrangle.

Weather conditions: mostly sunny-clear, humid, air temperature (shade): 23.6° C (74.5°F), water temperature (sun): 21.1° C (70°F), light winds.

Tuma Lake is a large, permanent man-made pond. Numerous cricket frogs were collected in 1942 by W.T. Stille and in 1946 by Ed Lace (specimens are located in the Field Museum of Natural History, Chicago, IL). I surveyed Tuma Lake on 12 June 1998. The pond was much reduced because the dam broke, leaving large expanses of open or partially vegetated banks. Encircling the entire pond, I observed no cricket frogs. Bullfrogs (*Rana catesbeiana*) were abundant with 30-35 adults observed. One garter snake (*Thamnophis radix* or *Thamnophis sirtalis*) was also observed along the pond margin.

24) DeKalb County, Illinois, 1.75 km ENE Somonauk, Somonauk Creek at US Rt. 34; T37N, R05E section 34, SE, NW; UTM Zone 16: N4610830m, E362390m; Northville Township; Somonauk Quadrangle.

Weather conditions: overcast, cool, air temperature: 17.4° C (63.3 °F), water temperature: 15.4° C (59.7°F), light winds.

Somonauk Creek is a natural stream with permanent flow, possibly occasional in dry years. Side width is 9 m (30 ft.) and the approximate maximum depth is 3 feet. Cricket frogs were last collected in this area on 29 April 1956 by H.D. Walley (HDW 366-372). The landowner refused permission to survey the original site, so I surveyed the next road crossing south (US Rt. 34). I walked 0.7 km (0.48 mi.) and observed no cricket frogs. Abundant suitable habitat is present in the form of sand bars, gravel bars and mud banks.

25) Henderson County, Illinois, 1.5 km NE Gulfport, Crystal Lake at the New Crystal Lake Club; T10N, R06W section 34 NE; UTM Zone 15: N4520400m, E663230; Gladstone Township; Burlington Quadrangle.

Weather conditions: overcast, air temperature: 19° C (66° F), water temperature: 20.5° C (68.9° F), moderate winds.

Crystal Lake is a permanent floodplain lake. Turbidity is slightly cloudy. A cricket frog (UMMZ 277919) was last collected at this site on 3 July 1934 by C.L. Hubbs. Crystal Lake is now owned by a private sporting club. I surveyed this site on 22 May 1998. I walked 0.6 km (0.4 mi.) and observed one cricket frog (relative abundance estimates: 4 cricket frogs/person hour; 2 cricket frogs/km). Suitable habitat was available in the form of mud flats and level banks. The caretaker, Brent Nelson, said that they have sprayed chemicals to control the lotus and lilies over the last few years. He also remarked that he hasn't observed many frogs during this time period. No other amphibians or reptiles were observed during this survey.

26) Henry County, Illinois, 8 km NNE Kewanee, Johnson Lake in Johnson Sauk Trail State Park; T16N, R05E section 35; UTM Zone 16: N4578840m, E258540m, Kewanee North Quadrangle.

Weather conditions: mostly sunny, air temperature (shade): 23.2° C (73.8° F), water temperature (shade): 24° C (74.8° F), light to moderate winds.

Johnson Lake is a permanent man-made lake. Maximum depth is 21 ft. Turbidity is slightly to moderately cloudy. Dr. Robert Gray surveyed this site on 27 May 1970. He surveyed to both sides of the boat dock, observing 42 cricket frogs. The distance he covered is unknown. I walked 1 km (0.61 mi.) on the west side of the lake bearing south from the boat dock. I observed five cricket frogs (relative abundance estimates: 20 cricket frogs/person hour; 5 cricket frogs/km). Suitable habitat exists in the form of mowed banks and occasional mud flats and other open areas. Algal mats were numerous as was pond weed (*Polygonum*). A cricket frog was heard calling from the opposite side of the lake. Other amphibian and reptile species observed are as follows: bullfrog (*Rana catesbeiana*), 10-15; painted turtle (*Chrysemys picta*), 1.

27) Kendall County, Illinois, 0.5 km N of Millington at a gravel pit; T36N, R border 05E and 06E section 30 NW, NW; Fox Township, Newark Quadrangle.

Weather conditions: overcast.

I rejected this man-made gravel pit because the habitat is unsuitable. The gravel pit is overgrown with cattails (*Typha*) and willow trees. I visited this site on 8 June 1998.

28) Lake County, Illinois, W of Fox Lake (town) at Pistakee Lake; T45N, R09E section 09 SE; UTM Zone 16: N4693270m, Fox Lake Quadrangle.

Weather conditions: no weather variable were recorded as the site was deemed unsuitable for cricket frogs.

I visited this site on 12 June 1998. this site is rejected as almost all of the lake front is developed in the form of sea walls, marinas and residential housing. Cricket frogs (UIMNH 69569-UIMNH 69572) were last collected from Pistakee Lake on 15 October 1948 by F. A. Shannon. Their continued existence at Pistakee Lake if doubtful.

29) Lake County, Illinois, 2.75 km NNW Volo at Volo Bog; T45N, R09E section 28 SW, NE; UTM Zone 16: N4689170, E402250m, Grant Township; Wauconda Quadrangle.

Weather conditions: overcast, intermittent light rain changing over to partly sunny skies, air temperature (shade): 22° C (71.6° F), water temperature: 19.2° C (66.6° F) light winds.

Volo Bog is a permanent, natural bog. A cricket frog (INHS 6143) was collected at this site on 12 September 1951 by L.J. Stannard. I did not survey this site as light rain was falling and a major portion of the boardwalk was under water. Walking 0.3 km (0.18 mi.) of the boardwalk accessible to the public, I observed four bullfrogs (*Rana catesbeiana*) and six green frogs (*Rana clamitans*). I also observed a painted turtle (*Chrysemys picta*) returning to Volo Bog after nesting.

30) McHenry County, Illinois, W of Island Lake, Cotton Creek at IL Rt. 176; T44N, R09E section 20 SE; UTM Zone 16: N4680780m, E400820m; Wauconda Township.

Weather conditions: overcast, storm clouds moving into the area.

Cotton Creek is a natural stream with permanent flow. Cricket frogs (FMNH 162214-162233, FMNH 162260) were last collected at this site on 4 July 1942 by W.T. Stille. I visited this site on 12 June 1998. This site is rejected as the habitat is unsuitable for cricket frogs. The vegetation was dense and interwoven along the bank, and at times growing across Cotton Creek, erasing any possible cricket frog habitat. One northern leopard frog (*Rana pipiens*) was observed in a marshy area close to Cotton Creek.

31) Marshall County, Illinois, 5.5 km W of Sparland, Senachwine Creek at IL Rt. 17; T12N, R09E section 07 SE, UTM Zone 16: N4545060m, E289020m; La Prairie Center Quadrangle.

Weather conditions: mostly cloudy, humid, air temperature (shade): 28° C (82.6° F), water temperature (shade): 25° C (77° F), light winds.

Senachwine Creek is a natural stream with permanent flow, possibly occasional in dry years. Site width is 3-6 m (10-20 ft.) and approximate maximum depth is 0.6-0.9 m (2-3 ft.). The water is slightly cloudy. Substrate consists of mud and cobble. I surveyed this site on 21 May 1998. The last cricket frogs (INHS 9307-9312) were collected from this site on 9 July 1960 by the University of Illinois Vertebrate Zoology Class. This site is owned by James Riddell of Riddell Polled Herefords. Despite access by cattle, Senachwine Creek is in fairly good condition with excellent habitat consisting of mud flats and open banks. I walked 0.7 km (0.45 mi.) bearing north from IL Rt. 17. I observed 10 cricket frogs (relative abundance estimates: 40 cricket frogs/person hour; 14 cricket frogs/km). In addition, I observed one cricket frog past my end point and another six on a bank side that I didn't cover during the survey. Two cricket frogs were heard calling. Other amphibian species observed are as follows: plains leopard frog (*Rana blairi*), 1; green frog (*Rana clamitans*), 1 adult and 5-10 bullfrog tadpoles (*Rana catesbeiana*).

32) Marshall County, Illinois, 3.75 km NNW Sparland at Thenius Creek; T13N, R09E section 34 NW, SW; UTM Zone 16: N4548860, E 292930m; Lacon Quadrangle.

Weather conditions: not recorded.

Thenius Creek is a natural stream that is likely occasional in flow. The water is clear and the substrate is gravel and sand. Many houses are located along the length of Thenius Creek, yet it remains mostly forested along the banks. At the point of the survey site, the stream is divided among several property owners. I visited the site on 21 May 1998. I drove north to find a section of Thenius Creek that was owned by only one person and that

was similar in habitat characteristics to the original site. A site was located upstream but was marked and permission was needed to enter the property. The landowner will be contacted and the site surveyed in the fall of 1998.

33) Peoria County, Illinois, 6 km SSW of Laura, Swab Run at McClellan Rd.; T10N, R05E section 08 SE; UTM Zone 16: N4527830m, E251660m, Elmwood Quadrangle.

Weather conditions: mostly sunny, air temperature (sun): 27° C (80.2° F), water temperature (sun): 15.2° C (59.4° F).

Swab Run is a natural stream that is probably occasional in flow during dry years. Site width ranges from 1.2 -2/1 m (4-7 ft.) and approximate maximum depth is 0.5-0.6 m (1.5-2 ft.). Cricket frogs (TU 29639-29640) were last collected at this site on 21 May 1966 by W.B. Rhoten. I walked 0.6 km (0.4 mi.) along Swab Run on the Walt Herrmann property. At this site, Swab Run flows through a cow pasture and is partially fed by drain tile from adjacent fields. Suitable habitat exists in the form of open mud flats, vegetated mud flats and sloping mud banks. I observed one cricket frog (relative abundance estimates: 4 cricket frogs/person hour; 2 cricket frogs/km). Other amphibian and reptile species observed are as follows: one unidentified ranid frog, and one common snapping turtle (*Chelydra serpentina*).

34) Stephenson County, Illinois, 3.75 km N of Lena, Lake Le-Aqua-Na in Lake Le-Aqua-Na State Park; T28N, R06E section 17 NE, SE; UTM Zone 16: N4700180m, E267220m; West Point Township; Lena Quadrangle.

Weather conditions: sunny, clear, air temperature (shade): 28.4 ° C (83.1° F), light to moderate winds.

Lake Le-Aqua-Na is a permanent man-made lake. The water is slightly cloudy. Algal mats are abundant along the shore. Dr. Robert Gray surveyed this site on 28 May 1970. He observed a total of 58 cricket frogs; the distance he traveled is unknown. I surveyed Lake Le-Aqua-Na on 28 May 1998. This site is rejected because the habitat is unsuitable for cricket frogs. The shore of the lake is lined with large rocks and thick vegetation. Other amphibians and reptiles observed are as follows: American toad (*Bufo americanus*), 1 calling; gray treefrog complex (*Hyla versicolor chrysoscelis*), 2 calling; green frog (*Rana clamitans*) 2 calling; northern leopard frog (*Rana pipiens*), 2; painted turtle (*Chrysemys picta*), 1; and one eastern garter snake (*Thamnophis sirtalis*).

35) Warren County, Illinois, 3.5 km S of Alexis, Henderson Creek at Co. Rd. 1200 E; T12N, R01W section 13 SE; UTM Zone 15: N4544250m, E705840m; Spring Grove Township; Alexis Quadrangle.

Weather conditions: mostly cloudy.

Henderson creek is a natural stream with permanent flow and very turbid water. A cricket frog (INHS 1069) was last collected in 5 May 1900 by J. P. Stewart. I visited this site on 22 May 1998. I stopped the survey as it was almost physically impossible to walk with high water, deep mud and, at times, steep banks. I resolved to survey the site in the fall when the water level recedes and the mud consolidates. I observed one northern leopard frog (*Rana pipiens*) and one hatchling common snapping turtle (*Chelydra serpentina*).

36) Warren County, Illinois, 1.7 km N of Utah at unnamed stream; T12N, R01W section 27 SE; UTM Zone 15: N4541610m, E711375m; Galesburg West Quadrangle.

Weather conditions: overcast, air temperature: 20° C (67.3° F), water temperature: 14° C (56.5° F), light to moderate winds.

This unnamed stream is natural and probably is occasional during dry summers. Side width is 0.9 m (3 ft.). The water was slightly cloudy and I could see the bottom of the channel. Cricket frogs (INHS 6971-6972) were last collected in this area on 3 April 1953 by D. Hare. I walked 1.1 km (0.71 mi.) bearing south-southeast along this stream on the Ed Adcock property. At this site, the stream flows through a cow pasture. I observed three cricket frogs (relative abundance estimates: 12 cricket frogs/person hour; 3 cricket frogs/km) during the survey. An additional three were observed past my survey end point. Suitable habitat is present in the form of mud flats and banks with close-cropped vegetation (by cattle). Other amphibians observed were seven unidentified leopard frogs.

37) Whiteside County, Illinois, W of Penrose, Elkhorn Creek at Penrose Rd.; T22N, R07E section 16 SW and section 21NW; UTM Zone 16: N4640600m, E275900m; Jordan Township; Hazelhurst Quadrangle.

Weather conditions: sunny, clear, air temperature (shade): 26.2° C (79.2° F), water temperature (shade): 20° C (68.2° F), light winds.

Elkhorn Creek is a large, natural stream with permanent flow. The water is slightly cloudy, the site width is approximately 33.5 m (110 ft.) and the maximum depth of where I surveyed was 0.3-0.5 m (1 - 1.5 ft.). A cricket frog (INHS 1090) was collected at this site on 27 December 1929. I surveyed this site on 28 May 1998. I walked along the west side of the creek by the bridge and around an "island" in the middle of Elkhorn Creek. No cricket frogs were observed but suitable habitat exists in the form of gently sloping, exposed mud banks positioned between the water and the bank vegetation. I observed two green frogs (*Rana clamitans*) at this site.

38) Whiteside County, Illinois, 3.25 km N of Sterling, Sugar Creek at Freeport Rd.; T21N, R07E section 03 SE, NE and NE, SE; UTM Zone 16: N4635140m, E278400m; Sterling Township; Sterling Quadrangle.

Weather conditions: sunny, clear, air temperature (shade): 24.6° C (76.3° F), water temperature (shade): 17.4° C (63.3° F), light winds.

Sugar Creek is a natural stream that may dry up during the summer. Site width is 2.4 m (8 ft.) and the approximate maximum depth is 0.3-0.6 m (1-2 ft). The water is moderately cloudy. The stream flows through a cattle pasture and is owned by Lila Ebersole. A cricket frog (INHS 1077) was last collected from this area on 26 August 1927. I surveyed this site on 28 May 1998. I walked 0.9 km (0.54 mi.) bearing west and I observed no cricket frogs. Suitable habitat is patchy but is available in the form of mud flats and exposed bank. Much of the stream is steep-banked and heavily vegetated. If cattle are allowed to graze this area again, more habitat may be created. I observed eight unidentified ranid frogs.

39) Will County, Illinois, 4 km SSE of Wilmington, Forked Creek on the E side of IL Rt. 102; T32N, R10E section 07SE; UTM Zone 16: N4568660m, E406390m; Welsley Township; Symerton Quadrangle.

Weather conditions: overcast, humid, air temperature: 17° C (62.2° F), water temperature: 16° C (60.1° F), light winds.

Forked Creek is a natural stream with permanent flow. The water is clear and the substrate is mud. Side width is approximately 12.2-15.2 m (40-50 ft.) and approximate maximum depth is 0.9-1.2 m (3-4 ft.). Cricket frogs (CA 15322, lot of 12) were last collected at this site on 5 May 1949 by T.I. Wright and F.H. Jaeger, Jr. I surveyed this site on 8 June 1998. I walked 0.7 km (0.43 mi.) bearing north. No cricket frogs were observed. Suitable habitat in the form of gently sloping, open mud banks predominates the site. A known population of cricket frogs exists in proximity to this site on the Joliet Arsenal. One green frog (*Rana clamitans*) was observed.

40) Winnebago County, Illinois, 3 km E of Machesney Park, Pierce Lake in Rock Cut State Park, T45N, R02E section 27 SE; UTM Zone 16: N4689640m, E336580m; Harlem Township; Caledonia Quadrangle.

Weather conditions: mostly sunny, rained the previous evening, air temperature (shade): 23° C (73.4° F), water temperature (shade): 21° C (69.8° F), light to moderate winds.

Pierce Lake is a permanent man-made lake. The water is clear and the substrate is mud and sand. Algal mats are present along the shoreline. Dr. Robert Gray surveyed this site on 8 June 1970. He observed one cricket frog and remarked that the habitat was suitable. He also questioned if the cricket frogs were experiencing summer die-off. I walked 1.1 km (0.71 mi.) on the southwest side of the lake bearing west. I observed no cricket frogs. Suitable habitat occurs in the form of a vegetated mud flat where a stream flows into Pierce Lake and exposed banks that have some incline. I observed two bullfrogs (*Rana catesbeiana*) at this site.

Discussion & Conclusion

The spring 1998 field survey initiates a three year study of the status of the cricket frog in northern Illinois, and in the state as a whole. Flooding or scouring by recent water prevented the survey of six southern sites and two northern sites. Central and southern Illinois experienced frequent, heavy rains - especially in April and May. This problem should be absent or reduced in the fall survey, when rains are more sporadic. Four northern and two southern sites were rejected. Only two of these sites (Pistakee Lake and Twin Lakes) were unsuitable because of human development or alteration of the habitat. Excluding sites not surveyed or rejected, cricket frogs occurred at more southern sites (9 out of 12, 75%) than northern sites (5 out of 14, 36%). However, multiple seasons of data are needed to make comparisons and to draw inferences.

In conclusion, subsequent field surveys are needed to compile data in order to make definitive statements on the status of the cricket frog in Illinois. Funding has been obtained for a Fall 1998 and a Spring 1999 statewide survey to further this goal.

Acknowledgments

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Lila Ebersole, Walt Herrmann and James Riddell granted access to their property. Brent Nelson, caretaker of the New Crystal Lake Club, granted access to survey Crystal Lake.

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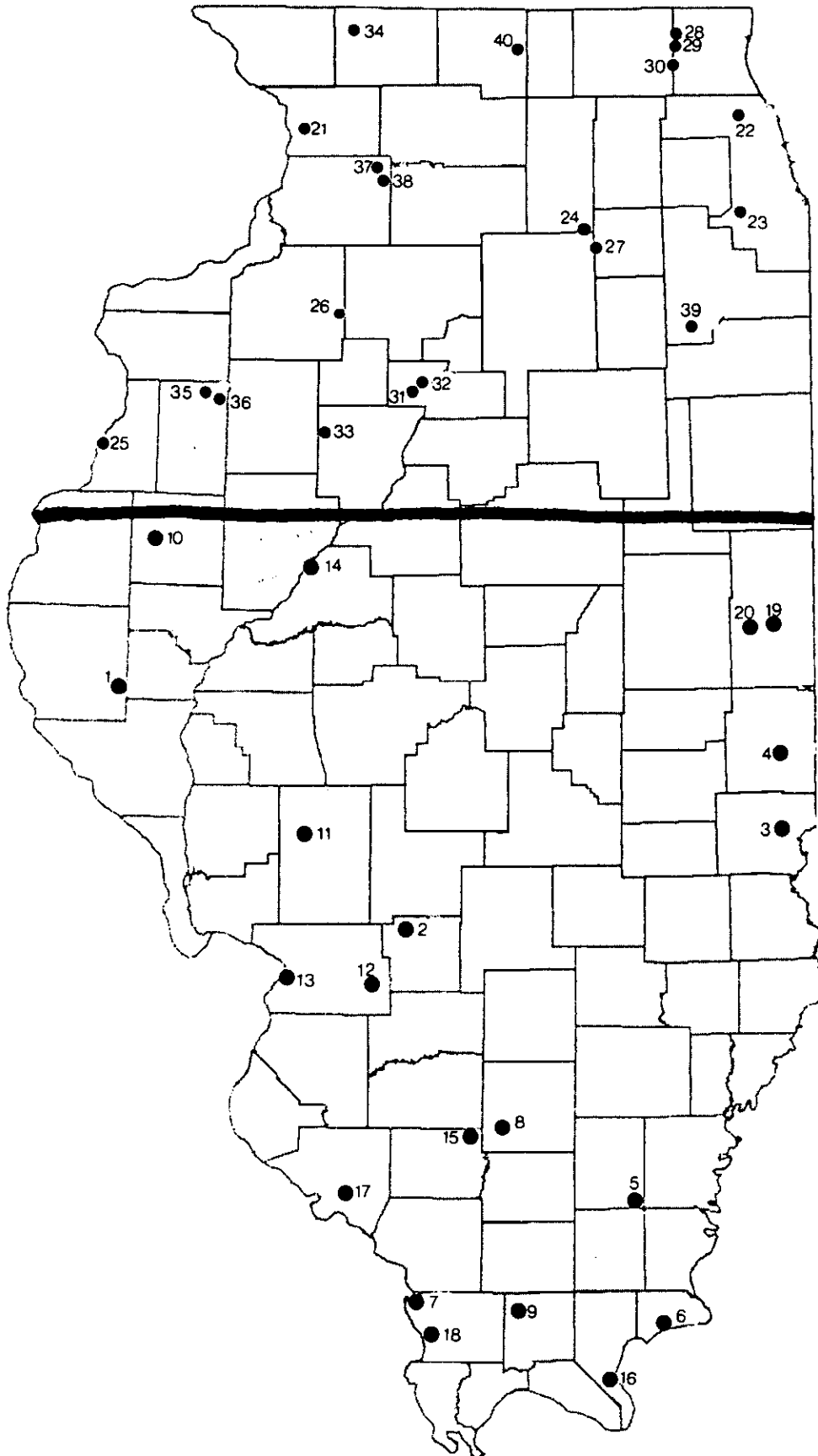
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FIG.1

Location of Study Sites

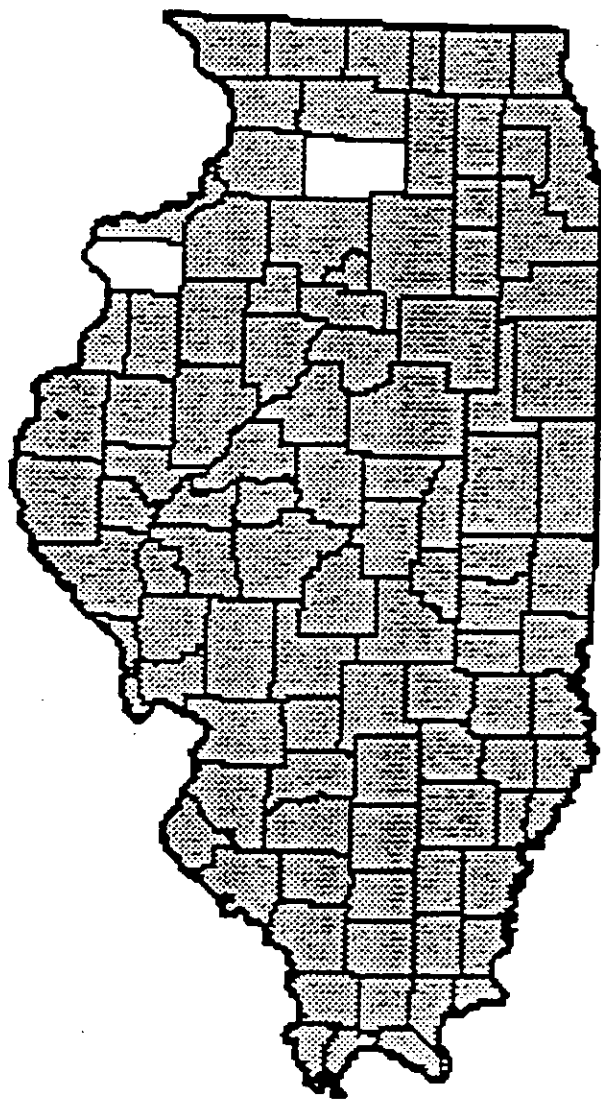


Numbers reflect tables and site profiles found in text.



Map of Illinois, showing counties

ILLINOIS DISTRIBUTION OF THE CRICKET FROG



SHADING INDICATES VOUCHERED SPECIMENS

Examples of Study Sites



**Tuma Lake
Cook Co., IL**



**Scheller Lake West
Jefferson Co., IL**



**Trib. Little Muddy River
Perry Co., IL**



**Senachwine Creek
Marshall Co., IL**