



Iowa's Frog and Toad Call Survey 2007



2007 Survey Results

2007 was the 17th year for Iowa's frog and toad call survey. A total of 54 routes in 38 counties were surveyed. The routes surveyed contained a total of 287 sites, which were visited 743 times in the course of 3 runs (Table 1). Thanks in part to the Volunteer Wildlife Monitoring Program (VWMP) workshops, participation in the survey was up from 2006 with 15 more routes being done in 7 additional counties. Under the traditional habitat codes the top three wetland communities surveyed were permanent open water, open marsh, and timbered riverine. These descriptions characterize over half of the sites surveyed (Table 2). The top three habitat types for sites characterized under the VWMP codes, were wetlands with emergent vegetation (WTCT, 22.7%), timbered riverine (RIVR, 17.5%), and ditches (DICH, 13.1%).

The average weather conditions were well within the parameters of the survey. No major weather irregularities were reported. Water temperatures for over half of the records were reported and the average for each run was well above the recommended levels. Surveys were generally run on calm (low wind) clear nights. Only 6% of the surveys were done within 24 hours of a rain event (Table 3).

Chorus frogs are consistently the most reported and abundant species and in 2007 they were heard at the most sites (67 % of total sites) and came in a close second in abundance (to cricket frogs) with the highest average call index (2.12, Table 4). They were especially dominant during the first run. American toads and Eastern gray treefrogs were the second and third most reported species and they along with cricket frogs clearly dominated the middle run. Chorus frogs were especially abundant this year as they not only were heard at the most sites, but were also heard on the most surveys.

Five species were not heard on this year's survey: wood frog, crawfish frog, southern leopard frog, fowler's toad and Great Plains toad (Table 4). Part of the reason the number of species not heard went up is that volunteers trained in the VWMP are asked to distinguish between the 3 species of leopard frogs and the two species of Woodhouse's toad. On the plus side, this is the first report of a plains spadefoot since 2000. The absence of southern leopard frogs can be explained by its range being restricted to Lee County, a county in which we have only one active route and it is not VWMP route. The wood frog is an unverified state resident, which has been reported variably throughout the years.

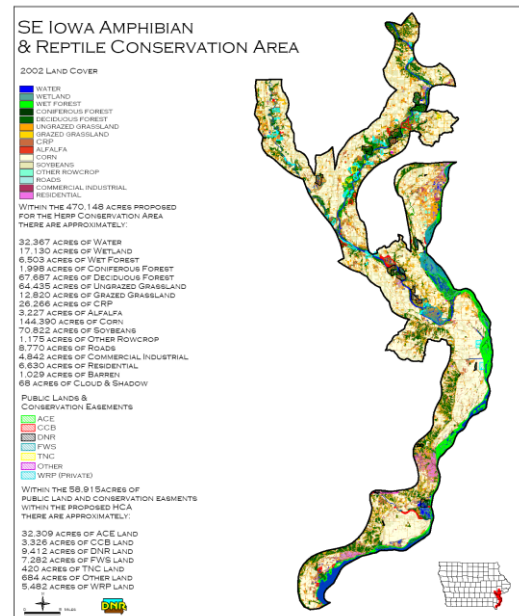
Overall, the 2007 data was consistent with recent years. The coarse trend data presented here suggest that all three toads besides the American Toad have been declining over the last 10 years. Please refer to range of these species and if within the range keep an ear out for them. A more detailed and comprehensive look at this data is still in the works.

In the Coming Year

We are in the midst of a second round of VWMP Frog and Toad survey workshops which this year are being held in Palo Alto (March 1), Jones (March 15), and Polk (March 29) counties. The workshops last year were a success and have helped increase awareness and participation in the survey. As mentioned briefly above, volunteers who go through training are expected to do slightly different things than the traditional volunteers (such as distinguish between the leopard frogs, and having different habitat codes) but in most particulars the surveys are the same.

One thing I should mention that is not an upcoming event but was a very exciting event of the past year was the designation of the nation's first Amphibian and Reptile Conservation Area (ARCA) in Iowa. It was designated in Southeast Iowa in the Mississippi Alluvial Plain. This area was chosen because of the diversity of Amphibians and Reptiles (50 of 72 total species in the state) and its prime herp habitat. By being designated an ARCA the lands within the boundaries are priority for Herp management.

Partially in honor of the nation's first ARCA the Iowa is hosting this year's Midwest meeting of Partners in Amphibian and Reptile Conservation (PARC) in Muscatine County on September 4-6. All members of PARC are welcome to attend. Things are still in the planning stages but Thursday will be a Bioblitz style herp search in the ARCA with teams competing to observe the most reptile and amphibian species, Friday will be devoted to presentations and Saturday morning will be working group meetings. For more info on PARC visit: <http://www.parcplace.org/index.html>.



Thank You!

There are not very many surveys that span 17 years. That Iowa's frog and toad survey has is a tribute to your dedication and willingness to spend several nights each summer driving around and listening for frog and toad songs. Finding a night that fits the weather parameters, fits into your schedule, and that won't totally disrupt your sleep patterns is a challenge which many of you have admirably conquered for many years. We say it every year and it's still not enough but once again THANK YOU!

Table 1. 2007 Route and Site Data

Num. of Active* Routes	66
Num. of Active Routes Run in 2007	54
Routes visited Run 1	49
Routes visited Run 2	48
Routes visited Run 3	41
Num. of Active Sites	353
Num. of Active Sites Run in 2007	287
Sites visited Run 1	255
Sites visited Run 2	261
Sites visited Run 3	222
Total Num. of Visits made in 2007	743
Total Number of Counties Surveyed	38
Number of Empty Sites	8 (3%)

* Active = Site/route visited within the last two years.

Table 2. Type of Wetlands Surveyed

Wetland Type	Num. Sites in 2007	% of Total
<u>Traditional Codes</u>		
Permanent Open Water	56	26.5%
Open Marsh	36	17.1%
Timbered Riverine	31	14.7%
Cattail Marsh	21	10.0%
Open Riverine	20	9.5%
Wet-Meadow	17	8.1%
Ephemeral Flooded Area	15	7.1%
Shrub Marsh	9	4.3%
Unknown	6	2.8%
<u>VWMP Codes</u>		
Wetland with Emergent Veg.	52	22.7%
River/stream bordered by trees	40	17.5%
Drainage ditch	30	13.1%
Pond/impoundment	24	10.5%
Open water	21	9.2%
Wetland/dry	16	7.0%
Open riverine	15	6.6%
Seasonally flooded lowland deciduous-Woodland	14	6.1%
Shrub marsh	5	2.2%
Sedge meadow	4	1.7%
Wetland with floating leaved plants	3	1.3%
Lake shore	3	1.3%
Fen	2	0.9%

Table 3. 2007 Weather and Timing for each Survey Run

Weather and Timing	Runs		
	1	2	3
<i>Average Date</i>	4/23/2007	5/27/2007	7/2/2007
<i>Water Temp (F)</i>	53.8	61.9	75.1
<i>Average Beginning Air Temp (F)</i>	59.70	67.05	76.60
<i>Average End Air Temp (F)</i>	55.70	63.83	72.35
<i>Average Wind (combined Begin and End)*</i>	1.47	1.59	1.00
<i>Avg Cloud Cover (combined Begin and End)**</i>	0.25	0.77	0.72
<i>Num. Surveys within 24 hours of Rain</i>	11	22	11

* Wind Codes: 0: 0 mph, 1: 1-3 mph, 2: 4-7 mph, 3: 8-12 mph, 4: 13-18 mph, 5: 19-24 mph

** Cloud Codes: 0: Clear, 1: Partly Cloudy, 2: Cloudy, 3: Fog, 4: Drizzle, 5: Rain Shower

Table 4. 2007 Frog and Toad Survey Species Data

Number of Records Per Run
 (count of the num. of site surveys
 during which species was detected)

<i>Species</i>	<i>Sites on which species detected</i>	<i>% of Total Sites</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>Total Num. Visits</i>	<i>Average call index 1=Single to 3=Full Chorus</i>
Chorus Frog	193	67.2%	174	69	8	251	2.12
American Toad	174	60.6%	99	121	27	247	1.91
Eastern Gray Treefrog	152	53.0%	43	128	58	229	1.91
Cricket Frog	132	46.0%	7	103	85	195	2.13
Leopard Frog*	97	33.8%	88	25	6	119	1.45
Bull Frog	93	32.4%	4	48	79	131	1.41
Spring Peeper	74	62.2%	69	11	1	81	2.07
Green Frog	57	27.9%	5	28	40	73	1.27
Cope's Gray Treefrog	46	16.0%	13	34	11	58	1.62
Woodhouse's Toad	6	13.3%	4	1	1	6	1.5
Pickeral Frog	2	2.8%	0	2	0	2	1
Plains Spadefoot	1	9.1%	1	0	0	1	1
Wood Frog	0	0.0%	0	0	0	0	NA
Crawfish Frog	0	0.0%	0	0	0	0	NA
Great Plains Toad	0	0.0%	0	0	0	0	NA
Fowler's Toad	0	0.0%	0	0	0	0	NA
So. Leopard Frog	0	0.0%	0	0	0	0	NA
Northern Leopard Frog**	36	23.2%	33	7	3	43	1.29
Plains Leopard**	5	3.2%	4	3	0	7	1.28

* Combination of Leopard Frog field from surveyors who have not been through a VWMP training and the split out species field those surveyors who have been through a training.

** Northern and Plains leopard frog records separated out of the Leopard Frog category. These records collected by VWMP volunteers.

Fig 1. These graphs show the percent of wetlands where the frog or toad was found at any time during the given year between 1997 and 2008. The data was restricted to occurrences which were recorded within the historic range of the animal based on the Iowa GAP analysis project.

