

THE HERPETOFAUNA OF MINNESOTA:  
II. RARE AND RESTRICTED AMPHIBIANS

R. Earl Olson  
Museum Services Associates

a progress report  
prepared for the  
MINNESOTA NATURAL HERITAGE PROGRAM

June, 1980

## Introduction

A question of paucity of or restricted nature of range regarding a particular amphibian species in Minnesota must evoke a response which is, each in its part, attached to specifics as to uncertainties. Observations during the nearly four decades following the appearance of Breckenridge's (1944) data on the herpetofauna of Minnesota, although a few published records exist from them, indicate the necessity of more in-depth and current work.

It has been the task of this project to set about to investigate this matter. With that in mind, the writer has begun the effort to 1) clarify the records as they presently exist, 2) substantiate questionable reports, 3) define ranges of particular species within the state, and 4) determine whether some peripheral species occur here at all. Hopefully some substantial ground has been gained in this regard.

Inasmuch as this report is preliminary, and a part of a more comprehensive investigation of the entire herpetofauna of the state, references to such items as literature and various museum collections are only cursory.

At various times, I have been aided in the field by my brother, Wendell Olson, Lyle Kruse, and various students in ecology. Dr. William S. Brooks has been an encouraging field companion over the years of work in Minnesota. His field knowledge of the fauna has

been of tremendous help in work within the state. Work for the study has been funded by the Minnesota Natural Heritage Program.

#### Field Notes

Efforts were concentrated in the southeastern portion of Minnesota, that area being visited during the dates of May 8-10 and May 20-22, 1980. Several sites along the Mississippi River bottomlands and farther west were visited without encountering any of the species concerned. As has been mentioned at the end of this report, there are several good reasons why this has been so. It was suggested that the area be visited again in mid-June for the purpose of later season checking. For details of areas visited during the field work mentioned above, refer to the reports concerning Hyla versicolor and related species, and to the report on the survey of the Minnesota herpetofauna.

June 14, 1980 -

### Suggestions for further study

The question of the rare and restricted amphibians can be approached by systematic, specific effort. The particular species concerned in the goals of this season - Rana palustris, Rana catesbeiana, and Acris crepitans - were difficult of reliable assessment, each for its specific reason. Rana palustris breeds early, and is of local occurrence; we arrive in the field late for this frog. Acris crepitans, on the other hand, is one of the last choristers to appear: for this species, our season was early, and restricted by time.

In order to approach this problem favorably, two aspects should be considered: seasonal preparedness, and intense inspection. It is apparent from the comments above that it is necessary to be in the field at the proper time. What is further necessary is that a considerable time be spent afield, since very rare and/or local species are not to be chanced upon in brief encounter. Within this framework, it will be necessary that the investigator be thoroughly acquainted with the species in the field, regarding habitat, behavior, and other peculiarities.

pond (see notes of May 23).

This has been the fullest congress of calling anurans I've heard this year, a chorus including balls of *Hyla excrucians*, *Hyla versicolor*, *Pseudacris triseriata*, *Bufo americanus*, *Rana pipiens*, and, I thought, momentarily, *Hyla chrysocephala*.

June 14 - July 14, 1980  
Latin America Expedition

July 14 - Eastern Minnesota  
A medium-sized *Pitheophis melanoleucus* picked up 1 mi. S Bethel, Anoka Co.

ish late afternoon.

It was still writhing when collected.

Houston Co. - Jouglet in southern Minnesota I made efforts to locate *Acris* and *Rana catesbeiana* populations. Winds are quite heavy from the north - buffeting at times.

2.3 mi. NE Hokah - stopped at the site of an extensive open pond - but shallow (shelly, deep in the middle), with

## ITINERARY

extensive flooded grassy fields. Among the choruses, an *Acris crepitans* calling from across the pond. *Rana clamitans* in full chorus, and many *Hyla versicolor*, *Pseudacris triseriata*, and *Bufo americanus* calling.

I collected a ♀ *Rana clamitans* as I entered the pool. Most frogs calling across the pond.

Walked across - about 50 ft. Tried finding the calling *Acris*.

After several minutes I sighted it - calling from a perch on a floating grass blade. I missed it on the first try.

As usual with *Acris*, this one seemed to be aware of my

grab - even with the light shining in the eyes. Long

wait - but it began calling again - it seemed to move

from one place to another during its calling. This time I caught it, but only by

the foot as it tried to escape me! No other frog I can think

of is as easy to brighten

as this one. To brighten

Clamitans are calling. They are in full chorus now. Late in the season. Diphylabic calls several, but some tri- or even mono-syllabic. Bendire's are in strong chorus, and *Hyla versicolor* are calling throughout the marshy back country. Duds americans choruses are large, but a definitely warning here.

~~Alto~~

June 15 - 1 a.m.

Reno, Houston Co., & drove to the Mississippi backwaters for bullfrogs. At Reno, Sam Clamitans in loose chorus along

an extensive open pool. It is very windy, churning up the water. Among the chorus, bullfrogs are heard across the pool and back at some distance. Found a narrow

fisherman's path through the undergrowth along the bank. A long walk, sometimes through large-leaved poison-ivy 6-7 ft high, but 3 or 4 *Rana* *estesbeiana* are calling out along the shore at various calling stations. After

some attempt I located a calling male; it was sitting in 1-inch of water right at the edge. It remained motionless as I maneuvered to collect it.

June 16 - Eastern Oklahoma - South much heavy rain in mid-afternoon 1939.0 Vinita,

1940.8 Regina Graham; picked up DoR

1940.3.8 large Lampyris Calligast DoR

1940.9.7 ADAR

1956.2.5 *Masticophis flagellum* juv DoR - much black on dors