

TERRESTRIAL INVERTEBRATE ENDANGERED SPECIES TECHNICAL ADVISORY
COMMITTEE

MINUTES OF THE MAY 15, 2017 MEETING

ILLINOIS NATURAL HISTORY SURVEY

1816 SOUTH OAK STREET, CHAMPAIGN, IL 61820

Approved by the Illinois Endangered Species Protection Board at the 187th meeting, October 9,
2020

COMMITTEE MEMBERS PRESENT: Dr. Tim Cashatt, Dr. Ken Cramer, Dr. Chris Dietrich,
Dr. Alexandra Harmon-Threatt, Dr. Michael Jeffords, Dr. Ken McCravy, Ms. Angella
Moorehouse, Dr. Douglas Taron, Mr. James Wiker

COMMITTEE MEMBERS ABSENT: none

OTHERS PRESENT: Dr. Joyce Hofmann (ESPB), Dr. Tracy Evans (ESPB)

1. Call to Order, Roll Call of Terrestrial Invertebrate ESTAC Members, and
Introduction of Guests

Dr. Hofmann called the meeting to order at 10:31 AM. She conducted a roll call of
committee members and announced that a quorum was present. No members of the public
were in attendance.

2. Adoption of Agenda

Dr. Dietrich moved that the agenda be adopted as presented. The motion was seconded by
Dr. Cramer and carried by a unanimous vote.

3. Review of Listed Terrestrial Invertebrate Species

Common Striped Scorpion: This species was last seen in 2016. Dr. Cashatt asked if there
has been a genetic study of the species. Ms. Moorehouse mentioned that she would like to
see more invertebrate species on the list of Species in Greatest Need of Conservation
(SGNC) and that species on the list should get priority for grants.

Hine's Emerald Dragonfly: Dr. Cashatt pointed out that this species is federally listed so it
must stay on the Illinois List. It has been found at numerous locations in three counties, but
in two counties the sites are in the middle of industrial areas. There is a recently discovered
population in the Fox River drainage in northwest Cook County, but not enough is known
about it.

Athysanella incongrua (leafhopper): Dr. Dietrich stated that there is one historic record, but
the species may have been seen more recently. He recommended no change in status.

Redveined Prairie Leafhopper: Dr. Dietrich mentioned that this species is abundant where it
occurs, but is vulnerable to fire. It was removed from the Illinois List during the previous
revision.

Elfin Skimmer: Dr. Cashatt mentioned that there have never been more than two populations of this skimmer in Illinois – both in Nature Preserves. Ms. Moorehouse raised the question of whether its status should be changed from threatened to endangered. Dr. Taron said that there had been a hydrology problem at Bluff Spring Fen Nature Preserve for a couple of years, with water levels fluctuating due to gravel removal, but water levels are now stable. There was a consensus to change the status of this species from threatened to endangered.

Swamp Metalmark: Mr. Wiker stated that it is not uncommon for this species to disappear for years and then appear again; there is a need for research on this phenomenon. Dr. Jeffords expressed the opinion that it is a fugitive species. Dr. Taron and Mr. Wiker agreed that it is gone from Spring Bluff. Mr. Wiker said it has been seen in Iroquois County within the last five years. Mr. Wiker thought no change in status necessary.

Cobweb Skipper: Mr. Wiker pointed out that this species has an odd life history. It is said to be a prairie endemic, but is found in glades that have been burned. There are not many places in the state that could support persistent populations. It is a transient species and he hasn't seen one of these skippers in 20 years. He saw no reason to change its status in Illinois. It is not endangered throughout its range.

Ottoo Skipper: Mr. Wiker said that the species was last seen in 2008 at Revis Hill Prairie. Dr. Taron asked about the Rock River populations. Mr. Wiker said that they are gone and the habitat is now surrounded by development. Ms. Moorehouse pointed out that the species used to occur in Morgan County, but is gone from there. Mr. Wiker said the species had once been common, but is now virtually gone from the state. He and Ms. Moorehouse concurred that the species should remain on the list as endangered.

Hoary Elfin: Dr. Taron pointed out that the Butterfly Monitoring Network found 45 individuals at Illinois Beach in 2017. Mr. Wiker mentioned that there is only one suitable place for the species in Illinois. Dr. Jeffords said it has always been at Illinois Beach because of the presence of bearberry. Mr. Wiker said the population is secure, but never going to expand.

Karner Blue Butterfly: Mr. Wiker stated that the species has been in and out of Illinois for 150 years. He has seen it at Illinois Beach. The species needs lupines and Dr. Taron pointed out that lupines occur at Illinois Beach. Mr. Wiker noted that lupines are not common elsewhere in the state. Dr. Taron and Mr. Wiker agreed that the northern Indiana population was gone, but Dr. Jeffords said there are hundreds in southern Indiana.

Eryngium Stem Borer: Mr. Wiker stated that the species has been studied in Missouri and Iowa. It was only known from Illinois and Iowa until 1990, but has been found in other states since then. There are 20 large populations in Missouri. It occurs in six or seven counties in southern Illinois. There are good-sized populations and some are protected. There was a consensus to leave the species listed as threatened for now.

Regal Fritillary: Ms. Moorehouse is writing conservation guidelines for this species. It is crashing in southern Illinois, but may be doing well in northern Illinois. Mr. Wiker said it had decreased in northern Illinois, but is coming back. Ms. Moorehouse pointed out that

fire will destroy the larvae from September to May and recommended no change in status. Dr. Taron agreed. Ms. Moorehouse also said that she had found many regal fritillaries in unburned areas along the Green River, but only one in a burned area. There was a general discussion about the effects of fire on terrestrial invertebrates. Dr. Evans stated that it is not easy to get information about the deleterious effects of fire published.

Rusty Patched Bumble Bee: This species is now federally listed so it is automatically on the Illinois List. Ms. Moorehouse stated that it occurs mostly in the northern third of Illinois and we do have some historical information.

4. Discussion of Potential Additions of Terrestrial Invertebrate Species to the Illinois List of Endangered and Threatened Species

Dr. Jeffords stated that cypress katydids are vulnerable to weather, which could blow them out of the canopy. He didn't know how common they are. Dr. Dietrich pointed out that the species is on the northern edge of its range in Illinois. Dr. Jeffords mentioned that the southern pine katydid is another canopy-dwelling grasshopper. Mr. Wiker stated that he sees lots of them.

Dr. Jeffords mentioned that the Ozark Baltimore Checkerspot relies on turtlehead. The Shawnee National Forest burns glades and the butterfly has disappeared from places where he had known it to occur. Dr. Taron stated that the northern population is gone.

According to Mr. Wiker, the Purplish Copper has all but disappeared in states near Illinois. Dr. Taron said that all known populations have blinked out. Mr. Wiker stated that he was not sure what had caused the problem for this species.

Dr. Harmon-Threatt read a list of several bee species provided by Ms. Moorehouse that may be of concern: *Bombus vagans*, *Bombus fraternus*, *Dieunomia nevadensis*, *Dieunomia heteropoda*, *Calliopsis nebraskensis*, *Florileius condignus*, and *Megachile fortis*. Ms. Moorehouse stated that the two species of *Bombus* are quite rare. She pointed out that there are now bee spotters so there are data for the last few years. Dr. Harmon-Threatt said that *C. nebraskensis* seems to be common. Ms. Moorehouse agreed that there isn't evidence for listing it, but it might be a candidate for the SGNC list. Dr. Harmon-Threatt mentioned that some bees are seen in highly disturbed sites, but that Illinois insect samples are often depauperate of bees.

Ms. Moorehouse provided members with the Species in Greatest Need of Conservation (SGNC) List and the Watch List. The SGNC and watch lists are lengthy and some groups (leafhoppers, butterflies and moths, dragonflies and damselflies) have more coverage than others (flies, beetles, and hymenopterans other than bees are not included). While the consensus among committee members twas that data were lacking to make significant changes (especially additions) to the Illinois List at this time, they wanted to promote more research and information gathering. Dr. Cashatt said that he would check the Odonata databases, look at the current list of Illinois Odonata, and review their status to recommend a new list of species of concern. Dr. Taron stated that the U.S. Geological Survey lists two species of tiger beetles in Illinois as species of concern. Mr. Wiker mentioned that nobody in the state is studying tiger beetles. Ms. Moorehouse brought up bee flies, which are pollinators of some of Illinois' endangered and threatened plants. She asked Dr. Taron

about the Silvery Blue and Purplish Copper butterflies. He thought the Silvery Blue is gone and that it is time to conclude that a problem exists with the Purplish Copper.

Mr. Wiker asked about a comprehensive list of species of concern. Dr. Dietrich pointed out that no formal meeting is necessary to work on the SGNC list. Mr. Wiker felt it should be a priority that species on the list be studied.

There was a general discussion about the petition process used by the ESPB. Dr. Harmon-Threath pointed out the importance of negative data for determining a species' status. Ms. Moorehouse asked how long a period should elapse before a species is considered extirpated. Dr. Hofmann stated that the ESPB has no hard and fast rule about that and it would vary with the type of species.

5. Approval of Recommendations for Changes to the Invertebrate Section of the Illinois List of Endangered and Threatened Species

Dr. Dietrich made a motion that the Terrestrial Invertebrate ESTAC recommend changing the status of the Elfin Skimmer from threatened to endangered and leave the status of the other species as currently listed. Dr. Cashatt seconded the motion. There was no further discussion of the motion and it was passed by a unanimous vote.

6. Assignment of ESTAC Members to Complete Petition Forms for Changes or Additions to the Illinois List of Endangered and Threatened Species

Dr. Cashatt volunteered to complete the petition for changing the status of the Elfin Skimmer and Dr. Evans offered to help him.

7. Public Comment Period

There were no public comments.

8. Other Business

Dr. Dietrich pointed out that individuals could fill out additional petitions if they thought it necessary.

9. Adjournment

There being no further business, Dr. Hofmann adjourned the meeting at 12:31 PM.

Submitted by Joyce Hofmann