#### FCSal Funding Update



**Grant Recipient**

**Matt McCann, Delaware Riverkeeper Network, matthew@delawareriverkeeper.org**

**Date Funding Awarded**

**02/18/2020**

**Date of Update**

**04/03/2023**

**Photos**

*Please insert a few pictures of your project here, or include them as attachments when you submit this report via email. Pictures of researchers, salamanders, and/or study site are best.*

Attached to email.

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| Project Title: | **Status assessment of the eastern mud salamander in New Jersey** |
| Principal Investigator (PI) name:Job title:Institution:Address:Phone:Fax number:Email address: | Matt McCannScience, Research, and Policy AssociateDelaware Riverkeeper Network925 Canal St215-369-1188 ext. 114215-369-1181matthew@delawareriverkeeper.org |
| Amount of Grant Award: | $500 |
| Collaborator name:Job title:Institution:Address:Phone:Fax number:Email address: |  |
| Collaborator name:Job title:Institution:Address:Phone:Fax number:Email address: |  |
| Collaborator name:Job title:Institution:Address:Phone:Fax number:Email address: |  |

**Project Description**

For decades, there were only two records of eastern mud salamanders (*Pseudotriton montanus montanus*) in New Jersey (one in 1953 and one in 1988). The 1953 specimen is currently preserved at the American Museum of Natural History. The 1988 specimen was observed as it was regurgitated from the mouth of an eastern garter snake and escaped in a pond. The absence of sightings has led many to believe that this species is extirpated from the state. With funding from FCSal, the Delaware Riverkeeper Network surveyed the two historic sighting locations in coordination with the New Jersey Division of Fish & Wildlife. A variety of methods were utilized, including funnel traps with glow sticks, plywood cover boards, muck raking, leaf litter bags, and dip netting.

**Progress Report to Date**

Surveys at the 1953 sighting location yielded only four-toed salamanders (*Hemidactylium scutatum*) and eastern redback salamanders (*Plethodon cinereus*), in addition to many species of frogs and fish. Surveys at the 1988 sighting location yielded only marbled salamanders (*Ambystoma opacum*) and eastern redback salamanders (*Plethodon cinereus*). In September of 2021, a recent conservation biology graduate from New York named Dean Stavrides discovered a *Pseudotriton* specimen under a plywood board while on a trip to southern New Jersey. Thinking it was likely the far more common northern red salamander (*Pseudotrition ruber*), he did not report his finding until June of 2022 when he posted it on a citizen science website. While reviewing this website in July of 2022, I saw Dean’s photos and immediately recognized the specimen as an eastern mud salamander. I reported the finding to the New Jersey Division of Fish and Wildlife, who agreed with my identification. I also was able to contact Dean, and he agreed to come back to New Jersey to show us the sighting location, which is approximately 10 miles (16 kilometers) from the 1988 sighting location. In August of 2022, I searched the sighting location with Dean and staff from the New Jersey Division of Fish and Wildlife. Although we did not observe any additional mud salamanders that day, we are happy to confirm from the photos that this species is extant in New Jersey.

**Budget Allocation**

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| **Budget Category** | **Item/Amount** | **Amount spent** | **Monies remaining** |
| Supplies | Minnow traps, glow sticks, plywood boards, other supplies | $500 | 0 |
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**Next Steps and Future Directions**

The 2021 sighting location will continue to be heavily surveyed to attempt to locate additional mud salamanders and assess the density of the population. Other locations in the vicinity will also be surveyed, potentially with the use of eDNA detection.