To: Jon Kart Vermont Fish & Wildlife Department 1 National Life Drive, Davis 2 Montpelier, VT 05620-3702

From: Jim Andrews 642 Smead Road Salisbury, VT 05769

Re: Annual report for my Scientific Collection Permit SR-2020-01(a2)

Date: January 17, 2025

This is my annual report as required for Scientific Collection Permit SR-2020-01(a2) which expired on 12/31/2024. <u>I</u> would like to extend it for another five years.

Contributed records

Between January 1, 2024 and December 31, 2024, 896 contributors provided 3,661 new records that were entered into the Vermont Reptile and Amphibian Atlas Database. This brings the total number of reports in our database to 126,784.

The 2024 reports included 70 verified reports of S1 species, 147 verified reports of S2 species, 284 verified reports of S3 species, 264 verified reports of S4 species, and 2,883 verified reports of S5 species. Reports also include unverified and negative records, amphibian and reptile road-crossing locations, vernal pools, turtle egg-laying sites, snake dens, and other significant herptile habitats. Sightings came from 239 towns, cities, grants, gores, and all Vermont counties. They included all of Vermont's native species except <u>Boreal Chorus Frog</u> (probably extirpated from Vermont, last reported in 1999) and <u>Fowler's Toad</u> (last reported in 2021). A group of Vermont Fish and Wildlife, USF&W, and Vt Herp Atlas employees and volunteers documented the first <u>North American Racer</u> in Vermont since 2014. All S1-S3 reports were exported to Jodi Shippee of Vermont Fish and Wildlife earlier this week.

Exotic species

Every year we receive a few reports of non-native reptiles and amphibians that were either released or escaped pets or were accidentally transported via boats, trucks, RVs, and cars. We received a report of an escaped <u>Red-footed Tortoise</u> (*Chelonoidis carbonaria*, South American) in Newark. We also received a report of one dead and possibly one more living <u>Pond Slider</u> (*Trachemys scripta*) at the Intervale in Burlington. Vermont Fish and Wildlife employees later trapped this area but did not catch any sliders. This is a common pet turtle species that has become invasive in southern New England. As our climate continues to warm, they could become invasive in Vermont.

Hypothetical species

We received a report of a <u>Blanding's Turtle</u> from Randolph. This was our only report of a hypothetical (possibly native) species entered during 2024. The last verified report of an <u>Eastern Box Turtle</u> (*Terrapene carolina*) was in 2021. Eastern Box Turtle is another species that may be native in Vermont.

New locations

The report of an <u>Eastern Ribbonsnake</u> from South Hero is the most exciting new location and the first verified report of that species from Grand Isle County since 1934. We personally located a <u>Four-toed Salamander</u> in the town of Whiting for the first time and we entered the first reports of <u>Smooth Greensnakes</u> from Essex Town and Colchester and <u>Jefferson Salamander Group</u> from Waterbury. In addition, we entered or updated over 60 new town/species combinations for S4 and S5 species.

Targeted survey efforts

During this period, we personally visited 58 towns (or cities, gores, or grants) to gather new records. Many survey trips focused on those "towns" (including cities, gores, and grants) that have had the least survey effort. This is usually the result of low numbers of residents. Other trips focused on species that are not often reported by citizen scientists. These species include the <u>Northern Dusky Salamander</u> (*Desmognathus fuscus*) and <u>Spring Salamander</u> (*Gyrinophilus porphyriticus*). We filled many data gaps (species/town combinations) with these trips.

No reptiles or amphibians were killed or harmed during any of the above activities.

Review of data

As usual, all these reports have been personally reviewed by me or one of my assistants and when at all possible, the contributors have been personally contacted and thanked. Scores of ID and conservation questions have been personally responded to as well.

Field trips, presentations, classes, and media outreach

During this time, I met with the press for a number of interviews and news pieces on Vermont herptiles. These included five editions of Wildlife Watch, one of Across the Fence for WCAX TV, and an interview on Vermont herptiles for Vermont Public's Vermont Edition.

I also conducted trainings for staff of the Natural Resource Conservation Service (NRCS), an environmental consulting firm (VHB), and a training series called Habitats and Highways for the Vermont Agency of Transportation,

As usual, I led many field trips and/or gave in-person presentations for a variety of events or organizations. These included the Green Mountain Club, the Lewis Creek Association, the Monkton Town Forest Committee, the VT House Committee on Energy and the Environment, the Vermont Natural Resources Committee, the Cornwall Conservation Commission, the Smokey House Center, Castleton College, the Grafton Natural History Museum, Dead Creek Wildlife Festival, and the Herricks Cove Wildlife Festival.

Data sharing

This past year, we provided Vermont distribution records of herptile species to the US Geological Survey, the Vermont Endangered Species Committee, The Nature Conservancy of Vermont, the Vermont Land Trust, Vermont Fish and Wildlife, the Green Mountain National Forest, the University of Vermont, The Watershed Center, and a steering committee for a future Monkton Town Forest. Wood Turtle records were again provided to Kiley Briggs of the Orianne Society and distribution data on a variety of herptiles was provided for the Natural Resource Conservation Service for land under their conservation easements.

I continue to be more aggressive about providing data to contributors from target towns where we need more data. What I provide to these people is a list of common reptiles and amphibians that are expected to be in their towns but have not yet been photo-documented. For towns that have a good chance of providing habitat for rarer species, I include our list of herptiles that should always be documented. Like last year, we provided this sort of data to residents of over forty towns. Many of these exchanges resulted in new town records.

The Forest Ecosystem Monitoring Cooperative and the Colby Hill Ecological Project continue to get exported monitoring data and reports, but they paid for the monitoring and reports.

Significant sightings were shared with state herpetologist Luke Groff as they were received and as mentioned above, reports of all S1-S3 herptiles are forwarded to Vermont Fish and Wildlife annually.

Monitoring

We continue to monitor <u>Red-bellied Snakes</u> (*Storeria occipitomaculata*), <u>Common Gartersnakes</u> (*Thamnophis sirtalis*), <u>Eastern Milksnakes</u> (*Lampropeltis triangulum*), and <u>Eastern Red-backed Salamanders</u> (*Plethodon cinereus*) using artificial cover and <u>Wood Frogs</u> (*Lithobates sylvaticus*) and <u>Spotted Salamanders</u> (*Ambystoma maculatum*) using eggmass counts in Lincoln through the Colby Hill Ecological Project. Neither of these two methods trap or hold organisms, nor do they result in any mortalities.