

Fox Squirrel Project – protocol for salvaging road-killed animals

In monitoring the spread of fox squirrels along the Wasatch Front, it is important to have accurate information about when and where an observation was made along with evidence that the animal was identified correctly. Georeferenced coordinates (latitude and longitude or UTM) provide good location data, but are most easily interpreted along with a verbal description of place (i.e., neighborhood and road intersection).

A good quality photograph can verify identification. However, the photograph itself has no further scientific value. In contrast, a preserved museum specimen accompanied by accurate data, provides the material evidence that a species occurred at a particular place and time. Furthermore, a specimen can be used to support studies in a wide variety of fields. Its scientific value may be limitless! Specimens are scientific “time capsules”. Specimens from a century ago can be used in current studies on rates of morphological change, molecular genetics, population ecology, and other topics – in most cases areas of research that didn’t exist at the time they were collected. We can only vaguely guess the potential ways in which museum specimens may be used in the future.

Fox squirrels are thriving in urban and suburban areas along the Wasatch Front. However, their success involves some cost – many squirrels are killed by automobiles. Road-killed animals can be salvaged and prepared as museum specimens. During the past two years, many that were obtained by Museum staff are now a part of the museum research collection. Specimens can help us locate the original source of the local fox squirrel population, reveal how many animals were introduced here, and tell us how well squirrels are adapting to their new home. Salvaging these squirrels is a great opportunity for citizen scientists along the Wasatch Front to augment the fox squirrel project.

Fox squirrels rarely carry any diseases that are hazardous to humans. Any infectious disease transmission would require either a bite from a live animal, direct contact with blood, or transmission by external parasites (fleas or lice). Animals that have been salvaged have been in good health and parasite-free. If properly handled (as outlined below), dead squirrels, are not a health threat.

Fox squirrels are not protected wildlife in Utah; there are no laws or regulations restricting their salvage or possession.

If you see a road-killed fox squirrel and wish to salvage it, here’s what you should do:

- 1) First and foremost, use caution! Be mindful of traffic safety along busy streets and roads. Only stop where it is safe (and legal) to park, and the traffic is light enough for you to safely leave your vehicle to retrieve the squirrel. If anyone questions you, tell them you are participating in a citizen science project sponsored by the Museum,
- 2) Even badly damaged animals may make good specimens, but only if they are fresh (have not spoiled). Animals killed during cold weather may be suitable for several hours, but those killed during warm months will spoil very quickly. If a dead squirrel is bloated, dried out, smells bad, or is attracting insects, it is too far gone and should not be salvaged.
- 3) Never touch a dead animal directly! Take particular care if you have a recent cut or scrape on your hand. Handle a dead animal as you would when cleaning up after your dog. Using a clean, intact plastic bag, place your hand in the bag, pick up the squirrel, invert the bag (expelling excess air from the bag)

and tie it closed. It's convenient to carry a few bags for this purpose (recycled plastic grocery bags or kitchen trash bags work best)

4) Note the locality, a street address or nearby road intersection. If you can get latitude/longitude or UTM coordinates on your phone, that's great, but also note the street location as a backup. If possible, take a photograph of the squirrel to add as an iNaturalist record.

5) Place the bagged squirrel in a second clean bag along with a slip of paper with the date of capture, and locality information. In case we have any questions, please include your name and phone number (or email address).

6) Place the bagged squirrel in a freezer – if properly handled and bagged, it will not contaminate anything. During winter (when air temperature will drop below freezing), you can leave it outside where it won't be in direct sunlight.

7) Contact the Museum to arrange for pick-up or drop-off

8) Participants will be credited as collectors of specimens contributed to our collection! However, if you wish you may remain anonymous – privacy will be respected.

Questions? Contact:

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