

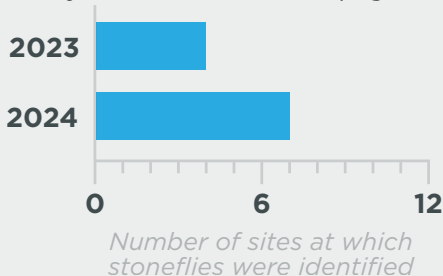
# Winter Stonefly Search

Winter stoneflies (Capniidae and Taeniopterygidae) are important biotic indicators of water quality. Stonefly nymphs are extremely sensitive to water pollution and develop in cool, well-oxygenated water. The presence of stoneflies is an indicator of good water quality. Their presence or absence in the Clinton River watershed can tell us a lot about the health of local waterways. On February 17th, 2024, volunteers set off across the watershed for Clinton River Watershed Council's annual Stonefly Search. Despite the cold and snowy conditions that surprised us that day, 61 volunteers helped CRWC monitor 12 sites across 6 water bodies.

## 2024 RESULTS

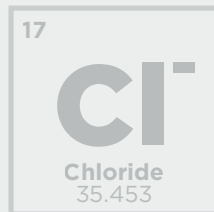
### ABUNDANCE

This year, stoneflies were found at 7 out of 12 sites, or about 58% of sites surveyed. This is a great improvement from 2023 when stoneflies were found at 4 out of 12 sites or about 33%. Stoneflies were found at sites on Paint Creek, Avon Creek, Stony Creek, and the North Branch of the Clinton River. Capniidae, the small winter stonefly, was found at all seven sites whereas Taeniopterygidae, the winter stonefly, was only found at six of the seven sites. A total of 132 stoneflies were collected across the sites. See site by site data on the next page.



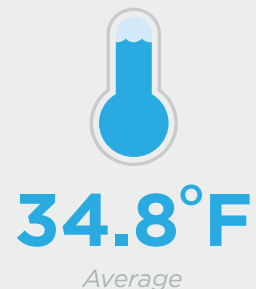
### CHLORIDE

Volunteers collected chloride (road salt) concentration data as part of the SaltWatch program through the Izaak Walton League of America (IWLA). The highest chloride concentrations were found in Avon Creek and two sites along the Clinton River main stem. Chloride concentrations at these three sites were at a level that can have long-term impacts on aquatic life (>150 ppm). Despite the relatively high chloride levels, one small winter stonefly was found in Avon Creek for the first time in our records. Overall, chloride concentrations in 2024 are lower than they were in 2023.



### WATER TEMP

The average water temperature across sites during the 2024 monitoring event was 34.8°F, which is nearly 2°F higher than the previous 3 years' averages. The recorded change in temperature reflects the warm winter many CRWC staff and members noted experiencing. As a result, many teams saw other wildlife and collected other macroinvertebrates not typically found at this time of year, such as water pennies and case-making caddisflies.

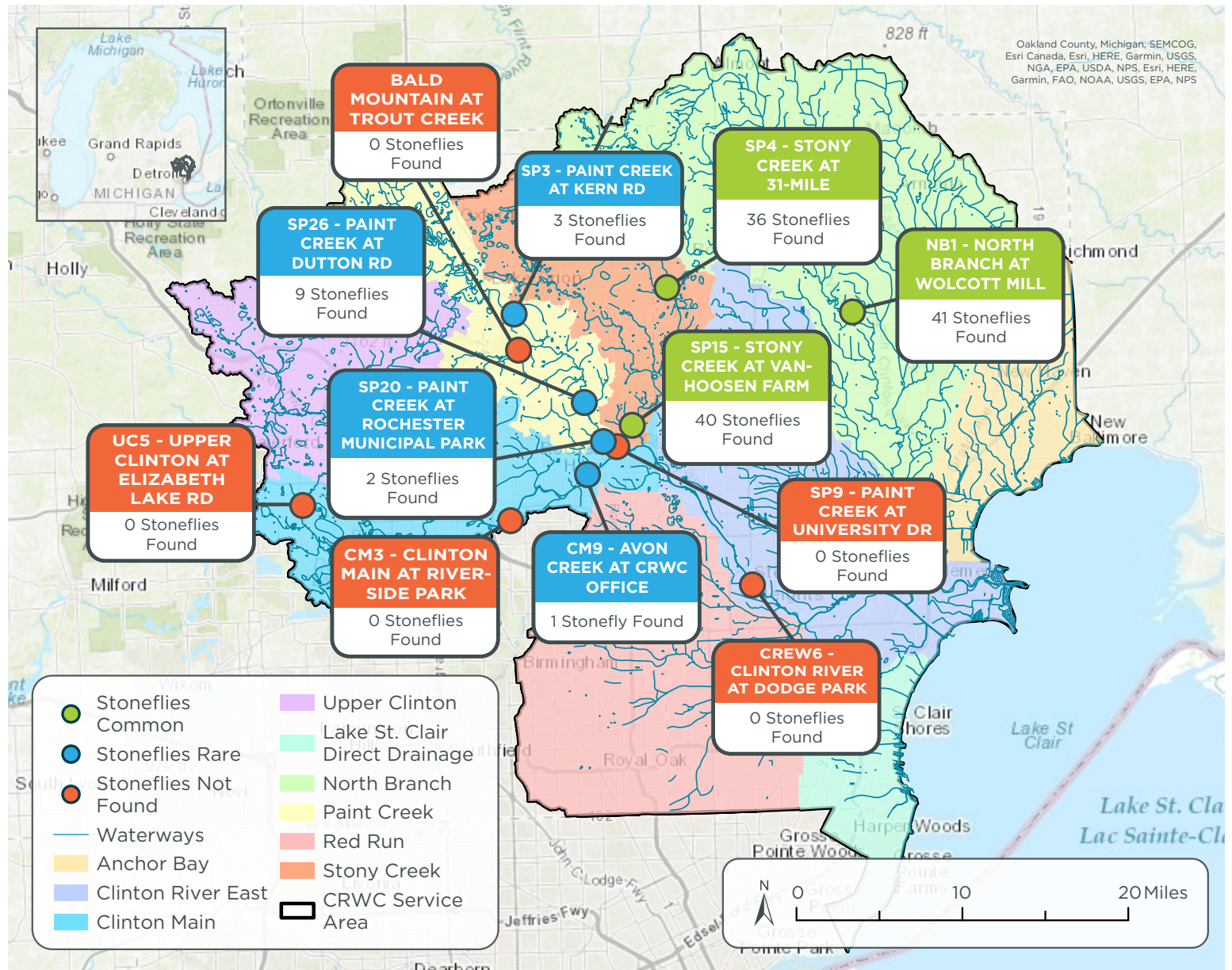


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# ABUNDANCE BY SITE



CRWC thanks all the volunteers who braved the cold to make this year's Stonefly Search a success! We look forward to working with many of our volunteers again during our spring Adopt-A-Stream monitoring happening on May 4th, 2024.