Table 1.

Impoundments sampled, surface area (ha), years of spring electrofishing, and year(s) of shoreline rotenone application, if any (“control”).

|  |  |  |  |
| --- | --- | --- | --- |
| Impoundment | Size (ha) | Years Electrofished | Year(s) Treated |
| Anderson | 2.8 | 2017, 2018 | control |
| AE1 | 1.6 | 2017, 2018, 2019 | control |
| Big Pit | 11 | 2017, 2018, 2019 | control |
| FP3 | 0.7 | 2017, 2018, 2019 | control |
| Drummond3 | 8.8 | 2018, 2019 | control |
| Meriwether | 3.4 | 2018, 2019 | control |
| Williams | 3.3 | 2018, 2019 | control |
| Promise | 1.9 | 2018, 2019 | control |
| Little Pit | 4 | 2017, 2018, 2019 | 2017, 2018 |
| S3 | 4 | 2017, 2018, 2019 | 2017, 2018 |
| Horseshoe | 1.3 | 2017, 2018, 2019 | 2017, 2018 |
| Drummond1 | 8.7 | 2018, 2019 | 2018 |
| Britton | 2.2 | 2018, 2019 | 2018 |
| Zachry | 5.3 | 2018, 2019 | 2018 |
| Dead | 2.2 | 2018, 2019 | 2018 |

Figure 1.

Map of small impoundments studied in Alabama, USA. Controls are grey triangles and treatments are black circles. Horseshoe (treatment), Little Pit (treatment), and Big Pit (control) are all three within 50 meters of each other, so the symbols almost completely overlap.

A picture containing text, line, diagram, parallel

Description automatically generated

Figure 2.

Largemouth Bass (top) and Bluegill (bottom) loge total seine catches immediately before (days 1 and 21) and after (days 2 and 22) the first (“App. 1”; black lines) and second (“App. 2”; grey lines) shoreline rotenone applications in small impoundments. Solid lines denote treated impoundments and dashed lines denote controls. Observations were pooled across years (2017 and 2018) and error bars represent the 2.5th and 97.5th percentiles (95% confidence intervals).

A picture containing text, line, diagram, parallel

Description automatically generated

Figure 3.

Largemouth Bass (top) and Bluegille (bottom) loge total seine catches in small impoundments immediately before rotenone application (day 1) and at mid-summer after both rotenone applications (day 42). Solid lines denote impoundments that received shoreline rotenone treatments, and dashed lines denote controls. Data were pooled across years (2017, 2018) and error bars represent 95% confidence intervals.

A picture containing text, line, diagram, parallel

Description automatically generated

Figure 4.

Temporal trends in Largemouth Bass loge MLA-1 in control (dashed lines) and treatment (solid lines) small impoundments. Open circles denote untreated impoundments, while closed circles denote treated impoundments. Solid lines leading from a closed circle to another closed circle represent the impoundments that were treated twice (e.g., see Table 1). Times treated (untreated control, once, twice) was the variable of interest in our model, and this portrays how the model compared those different levels of treatment. The interaction term is testing whether the slopes of the solid lines (i.e., one or two years of treatment) differ from the slopes of the dashed lines (controls). Error bars represent the 95% confidence intervals of the data when the sample size for that year was greater than two impoundments.

A picture containing diagram, line, parallel, text

Description automatically generated

Figure 5.

Temporal trends in age-1 Largemouth Bass (top) and >80 mm Bluegill (bottom) loge electrofishing CPUE (fish caught per 30 minutes electrofishing) in control (dashed lines) and treatment (solid lines) small impoundments. Open circles denote untreated impoundments, while closed circles denote treated impoundments. Data are presented as in Figure 4.