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Abstract.—Populations of native Bluegill *Lepomis macrochirus* and Pumpkinseed *Lepomis gibbosus* were surveyed in Joslin Lake, Washtenaw County, Michigan for seven years prior, and then for eight years after, stocking non-native Redear Sunfish *Lepomis microlophus*. Size, growth, and catch rates were monitored for all three species to evaluate any effects from Redear Sunfish introductions. Catch of all species was by trap nets and electrofishing. Sampling conducted annually from 1988 through 1994 (pre-Redear Sunfish) showed a relatively stable population of both Bluegill and Pumpkinseed in Joslin Lake. The average Bluegill length remained fairly stable after Redear Sunfish introduction while the Pumpkinseed average length increased slightly. Reductions in larger Bluegill and Pumpkinseed may have been due to increases in angling activity targeting panfish. Bluegill catch-per-unit-effort (CPUE) rates in trap nets decreased in the years following Redear Sunfish introduction while electrofishing CPUE were similar to pre-introduction levels. Trap net CPUE for Pumpkinseed remained at pre-Redear Sunfish levels initially (through 1999), then dropped sharply in the 2000–2003 samples. Pumpkinseed CPUE with electrofishing dropped sharply after the Redear Sunfish introduction and remained low for all six post-introduction surveys. Growth indices for Bluegill remained constant between pre- and post-Redear Sunfish introduction while Pumpkinseed growth indices improved after Redear Sunfish introduction. As the new Redear Sunfish population became more mature, the proportion of the panfish trap net catches composed of Bluegill and Pumpkinseed decreased while the proportion of Redear Sunfish increased. Overall combined panfish CPUE also increased. It has been observed that Redear Sunfish seem to readily hybridize with Bluegill, Pumpkinseed, and Green Sunfish *Lepomis cyanellus*. While this does not appear to have created problems even in lakes where Redear Sunfish were introduced over 50 years ago, the authors encourage more study in the possible long-term effects of hybridization as managers consider further Redear Sunfish introductions.