Bureau of Fisheries Technical Brief #tb821014

Lamoka Lake Crappie BPI 2021 (Survey # 821014)

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Lamoka Lake (580 acres) is located in northwest Schuyler County. The lake is connected to Waneta Lake to the north by an approximately 0.7 mile relatively shallow canal that flows through the Waneta-Lamoka Wildlife Management Area. Public access is provided by a DEC Boating Access Site located along CR 23 which crosses the canal. Lamoka Lake is relatively shallow having a maximum depth of 40 feet. It is highly productive lake and home to a variety of sport fish including largemouth bass, smallmouth bass and chain pickerel. The lake is one of several, including Waneta Lake, being monitored for impacts to crappie populations from the minimum size limit increase from nine to ten inches in 2022.

Survey design was based on New York Sunfish and Crappie Trap Netting Protocol (Loukmas 2020). Oneida style trap nets were set in two locations in Lamoka Lake for three consecutive nights the week of May 10, 2021 (Figure 1). The two locations were chosen based on highest black crappie abundance from a total of eight fyke net sets targeting muskellunge in Lamoka Lake in 2017. Nets were checked and reset in the same location each day. Water temperature ranged from 55-56º F. Total length (mm), weight (g), and scales for ageing were taken from all black crappie collected.

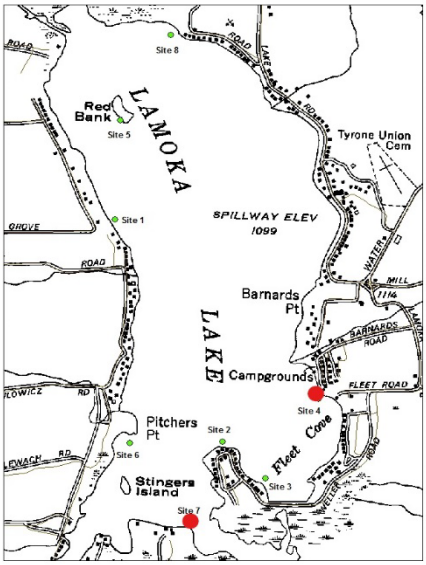

Figure 1. Oneida style trapnet locations for crappie survey in Lamoke Lake, May 2021.

A total of 77 black crappie were collected for a catch rate of 12.8 crappie/net night. Total lengths averaged 9.9 inches and ranged from 7.0 to 12.4 inches (Figure 2). Forty-four percent of the black crappies collected were legal sized (10 inches). The Proportional Stock Density (PSD), Relative Stock Density preferred (RSD_p), and Relative Stock Density memorable (RSD_m) were 98.7, 45.5, and 5.2 respectively. Relative weights for stock-quality, quality-preferred, preferred-memorable, and memorable-trophy size groups were 105, 97, 100, and 104 respectively. Sixty-six black crappies were aged, with ages ranging from 3 to 7 (Figure 3). Age 5 and 6

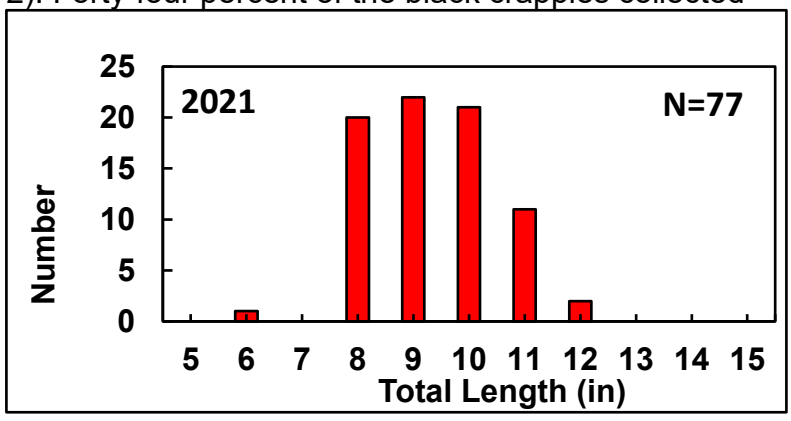

Figure 2. Length frequency distribution of black crappies collected from Lamoka Lake, May 2021.

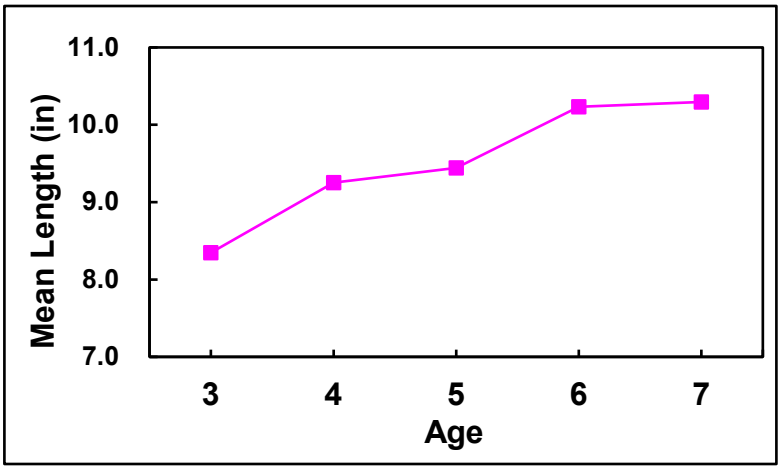

Figure 3. Length (inches) at age from black crappie collected from Lamoka Lake, May 2021.

black crappies comprised 71% of aged fish. Black crappies reached harvestable size between ages 5 and 6.

Lamoka Lake provides anglers with a fair to good opportunity of catching harvestable sized black crappie, with some memorable sized fish (12 inches) present. Both size and weight indices (i.e., PSD and Wr) were generally better than results from other statewide waters where black crappie data from spring electrofishing were presented (Brooking et al 2018). Growth rates were similar to statewide averages (Brooking et al. 2018). Future surveys will help determine population responses to the recently enacted 10-inch minimum size limit.

Literature Cited

Brooking, T. J. Loukmas, R. Jackson, and T. VanDevalk. 2018. Bass and sunfish population metric data 1988-2017. New York State Department of Environmental Conservation. Federal Aid in Sportfish Restoration, F-63-R, Study 2, Job 2-2.3. Albany, NY. 15 pp.

Loukmas, J. 2021. New York sunfish and cappie trap netting protocol. New York State Department of Environmental Conservation. Bureau of Fisheries. Albany, NY 9 pp.