SOUTH DAKOTA STATEWIDE FISHERIES SURVEY

2102-F-21-R-39

Name: Monument Dam **County(ies):** Jones
Legal Description: T1N-R31E-Sec. 21 **GPS(UTM):** 14 388015 E 4876281 N
Location from nearest town: 23 S and 4 W of Ft Pierre, South Dakota

Date of present survey: June 16-18, 2009 (netting)
Date of last survey: None known
Most recent lake management plan: None done
Management classification: Unknown

Primary Game Species	Secondary and Other Species
Largemouth Bass	Bluegill
	Golden Shiner

PHYSICAL DATA

Monument Dam is located in Jones County, South Dakota. The surrounding land and the dam grade are owned and managed by the United States Department of Agriculture, Forest Service and is part of the Fort Pierre National Grasslands. Monument Dam is a 3.4 hectare (8.5 acre) pond that had maximum depth at the time of survey in 2009 of about 2.9 m (9-1/2 feet). Water levels appeared to be slightly below full levels and seemed to be 0.2 m (8 inches) lower than the outflow structure.

A portion of the pond had emergent vegetation (cattail and bulrush) along the shoreline. Within the pond, several species of submergent vegetation were found including white water crowfoot, sago pondweed, clasping pondweed, and long leafed pondweed. There is very limited boat access and would be limited to a canoe or small duck boat that can be loaded and unloaded by hand. Good ice fishing opportunities do exist. No contour map or depth contour as ever been done.

CHEMICAL DATA

Dissolved oxygen and temperature readings were taken at the surface and various depths throughout the water column and are listed in Table 1. No established thermocline was found. The dissolved oxygen levels were adequate to support fish throughout the water column. A secci disk depth reading of 211 cm (83 inches) provided very good water clarity within the pond.

Table 1. Dissolved oxygen and water temperature recordings from Monument Dam, Jones County, at 10:00 AM during June 16, 2009.

Depth (m)	Temp (C)	Oxygen (ppm)
Subsurface	21.6	4.92
1.2	21.6	4.57
1.8	21.4	4.35
2.4	16.8	5.86

BIOLOGICAL DATA

Methods:

Monument Dam was sampled on June 16-18, 2009, with eight overnight trap net sets, 4 each day. The frame nets have 0.9 m x 1.5 m frames, 18 m leads, and 1.9 cm knotted mesh. No experimental gill nets set or electrofishing done during this survey season. Fish indices and statistics were completed using WinFin. No age structures were collected due to the limited number of fish collected and no age analysis was conducted.

Results and Discussion:

Trap Net Catch

Table 2. Total catch of eight, overnight 1.9 cm frame nets at Monument Dam, Jones County, June 16-18, 2009.

Species	N	%	CPUE	SE	Mean CPUE*	PSD	RSD-P	Mean Wr
Bluegill	2	1	0.3	0.3	--	0	0	--
Golden shiner	4	4	0.5	0.3	--	0	0	--
Largemouth bass	105	95	13.1	9.6	--	0	0	--

* First year of recorded survey

Bluegill

A limited number of bluegill were collected (two individuals) during the survey (Table 2). A supplemental stocking of bluegill was completed with 599 juveniles stocked into Monument Dam after the survey was completed during June, 2009 (Table 3).

Golden Shiner

Golden shiners were seen during the survey but in low numbers with only four individuals being collected (Table 2). This low population of golden shiner will provide a food source for largemouth bass.

Largemouth Bass

Largemouth bass were collected during the frame net survey with a CPUE of 13.1 fish/net-night. The quality of largemouth bass was low due to no bass collected over 170 mm. Thus, the PSD and RSD-P were both 0 and Figure 1 illustrates the small sizes seen in Monument Dam largemouth bass. To effectively sample largemouth bass electrofishing is the preferred method, but access with a large boat is very difficult, if not impossible in Monument Dam. Larger size largemouth bass (130) were collected, by angling, and removed from Monument Dam for transfer stockings into other waters (Table 3).

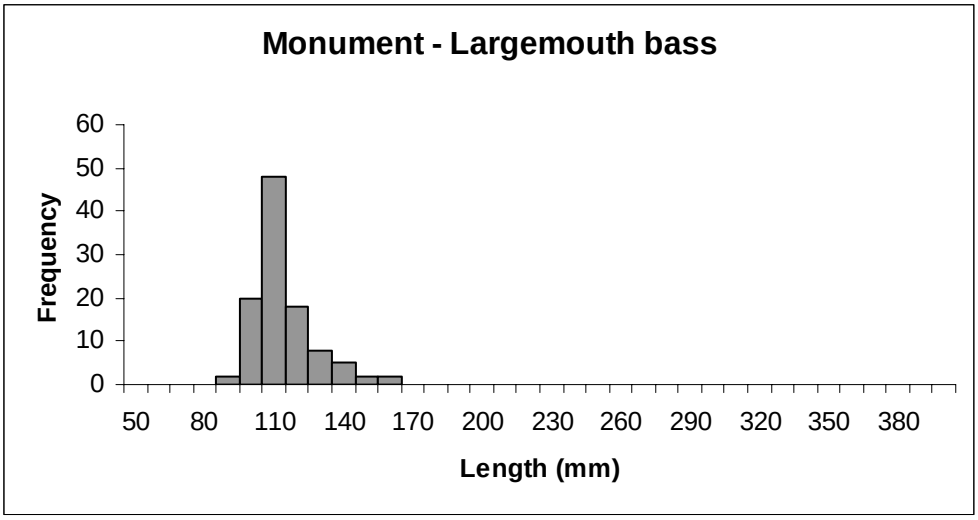

Figure 1. Length frequency histogram for largemouth bass sampled from Monument Dam, Jones County, 2009.

Table 3. Fish stocking and removal record for Monument Dam, Jones County, South Dakota.

Year	Number	Species	Size	Direction
2009	130	Largemouth Bass	Juvenile	Removed
	599	Bluegill	Juvenile	Stocked

RECOMMENDATIONS

1. Resurvey, when time allows, to further monitor the fish populations and to continually collect trend data on the pond.

2. Resurvey the pond with electrofishing to adequately sample the largemouth bass population within the pond, if possible.

3. Provide a refuge area from cattle grazing, fencing a portion of the pond, to allow natural vegetation (shoreline and aquatic) to begin to grow. This would improve fish and wildlife habitat within and around the pond.