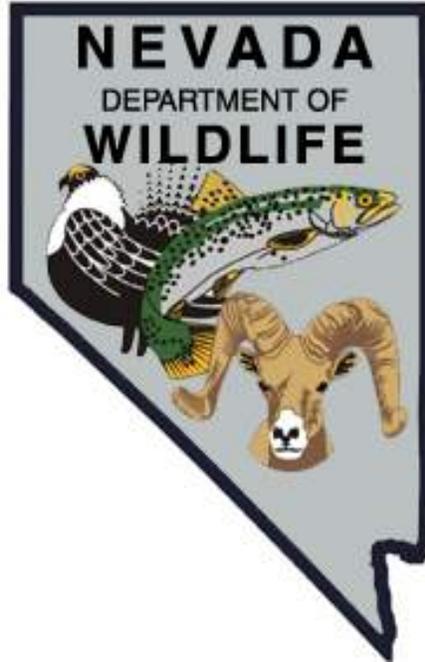


NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE SPORT FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORT

F-20-52
2016

Urban Sport Fisheries
SOUTHERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL PROGRESS REPORT**

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ANNUAL PROGRESS REPORT**

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NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION ANNUAL PROGRESS REPORT

State: Nevada
Project Title: Statewide Fisheries Program
Job Title: Southern Region Urban Sport Fisheries Management
Period Covered: January 1, 2016 through December 31, 2016

SUMMARY

The urban fishing ponds in the Southern Region support put-and-take fisheries of rainbow trout *Oncorhynchus mykiss* and channel catfish *Ictalurus punctatus*. Additionally, some ponds support populations of largemouth bass *Micropterus salmoides* and various sunfish species *Lepomis* spp. Current regulations allow anglers to harvest three fish of any species. In 2016, 83,347 rainbow trout were stocked in the urban ponds. These fish averaged 9.5 inches ([in], 241 millimeters [mm]) total length (TL), and 2.93 fish per pound (f/lb). In the warm water season, 12,214 channel catfish were stocked in the urban ponds, averaging 0.6 f/lb and 16.8 in (427 mm) TL.

A total of 10 days of contact creel surveys were carried out at the urban ponds, with two to four ponds visited on each survey day. Surveys were conducted monthly at urban ponds, except for July when no fish stocking took place and October when the creel clerk was assisting with gill netting and electrofishing surveys on Lake Mead. A total of 194 anglers were contacted, reporting 216 fish caught. These fish included 191 rainbow trout, 18 channel catfish, one largemouth bass, one bluegill *L. macrochirus*, and five common carp *Cyprinus carpio*. Overall, catch rates were 0.61 fish per hour (f/h) and 1.1 fish per angler (f/angler). By species, rainbow trout made up 88.4% of the catch, channel catfish 8.3%, bluegill 0.5%, largemouth bass 0.5%, and common carp 2.3% of the catch. Because of the small amount of effort put toward the creel survey, creel data may not fully reflect the amount of angler use and harvest occurring at these ponds.

BACKGROUND

There are seven urban fishing ponds in the Southern Region. They include Sunset Park Pond, Boulder City Park Pond, Lorenzi Park Pond, Tule Pond (Floyd Lamb Park), the Mesquite Urban Pond (Hafen Pond), Cold Creek Pond, and the Beatty Pond. These ponds are a popular alternative to traditional fishing and provide a nearby urban fishing environment. Ponds are managed mainly as a put-and-take fishery with stocked rainbow trout during the coldwater season and channel catfish during the warmwater season. Some ponds have naturally recruiting populations of largemouth bass and sunfish.

Sunset Park Pond

Sunset Park Pond is approximately 14 acres and located in the southeastern Las Vegas Valley. It is managed by Clark County Parks and Recreation Department. This pond has a maximum depth of 10 to 12 feet (ft). Rainbow trout and channel catfish are stocked seasonally. Other fish that are common in Sunset Park Pond include bluegill, common carp, and largemouth bass. While not stocked by NDOW, these fish have developed reproducing populations.

Boulder City Park Pond

Boulder City Park Pond is approximately three acres with a maximum depth of 15 ft. This pond is located at the Veterans Memorial Park in Boulder City and is operated by the City of Boulder City. It is stocked seasonally with rainbow trout and channel catfish. Bluegill are occasionally stocked as well.

Lorenzi Park Pond

Lorenzi Park Pond is another small pond of approximately three acres in size. It is located in northwest Las Vegas and is operated by the City of Las Vegas. This pond has a maximum depth of 10 ft. Rainbow trout and channel catfish are stocked seasonally. Some largemouth bass and other panfish species are known to inhabit the pond, but are not stocked by NDOW.

Tule Pond (Floyd Lamb Park)

Tule Pond is a spring-fed pond located in the Floyd Lamb Park in the northwest part of Las Vegas. This pond is approximately five acres with a maximum depth of 15 ft. The pond is currently maintained by the City of Las Vegas. Rainbow trout and channel catfish are stocked seasonally. The pond does support other species including largemouth bass, bluegill, green sunfish *L. cyanellus*, and redear sunfish *L. microlophus*.

Mesquite Urban Pond (Hafen Pond)

Mesquite Urban Pond is one of the smallest of the Southern Region urban ponds at approximately two acres. This pond is located in the town of Mesquite at Hafen Lane Park. It is stocked seasonally with rainbow trout in the coldwater season and channel catfish in the warmwater season.

Cold Creek Pond

Near Indian Springs, Cold Creek Pond is a small spring-fed pond north of Mount Charleston in Clark County. The pond is less than two acres and has a maximum depth of eight feet. It is stocked with rainbow trout in the winter months.

Beatty Pond

The Beatty Pond is located in the town of Beatty in Nye County. The pond is located at Highway 95 and Vanderbilt Road, and used to be part of a gravel pit operated by the Nye County Road Department. The pond is spring fed from a shallow well with cattails along its edges. It is stocked with rainbow trout during the winter months and is managed as a coldwater put-and-take fishery. This pond may also have resident bass and catfish from previous stockings sometime after its construction in 1977.

OBJECTIVES and APPROACHES

Objective: To administer an urban fisheries program, which assesses fisheries resources or potentially new fisheries resources, identifies and addresses habitat management needs, manages fish stocking to meet fishery objectives, provides information to anglers, and maintains contact with managing entities of individual fishing waters.

Approaches:

- Conduct a general fisheries assessment through direct angler contacts at least once monthly at all managed sites except Mesquite (Hafen Park), Cold Creek, and Beatty ponds.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity).
- Evaluate annual stocking recommendations based on habitat conditions and angler use.
- Coordinate rainbow trout stocking at all sites during cool-weather months (November through March).
- Manage contracts for and coordinate stocking of purchased channel catfish at all sites during warm-weather months (April through October).
- Coordinate fishery management activities with the City of Las Vegas, City of Boulder City, City of Mesquite, and Clark County, as necessary to maintain/enhance the fishery and address observed site management needs.
- Identify and/or develop additional urban fishing waters in cooperation with local government entities as opportunities arise.

PROCEDURES

General Fisheries Assessment

Creel surveys were conducted at Sunset Park Pond, Lorenzi Pond, Tule Pond, and Boulder City Pond January through December (except July and October), for a total of 10 days, contacting 194 anglers. Broken down by site, Sunset Park Pond was surveyed on 10 occasions, Lorenzi Pond on six occasions, Tule Pond on 10 occasions,

and Boulder City Pond on eight occasions. No creel survey was conducted at the Mesquite Urban Pond, Cold Creek Pond, or Beatty Pond. Survey information collected included total catch, unit of effort, and species caught.

General Habitat assessment

General habitat assessments were made through visual observations during creel survey and stocking days.

Rainbow Trout Stocking

Rainbow trout stocking was initiated on January 13 and continued through April 6, then stocking resumed November 30 through December 29. Rainbow trout were stocked once or twice per month in January and then two or three times in February, except for the smaller Lorenzi, Beatty, and Cold Creek ponds which were stocked once. In March, only Floyd Lamb and Lorenzi ponds were stocked once. In April, Cold Creek Pond was the only pond stocked. All ponds were stocked once in November and Floyd Lamb, Sunset, and Boulder City ponds were stocked weekly in December. A total of 83,347 rainbow trout (28,535 lbs) were stocked to the urban ponds in 2016 (Table 1). These fish averaged 9.5 in (241 mm) TL and were 2.93 f/lb. These fish came from Mason Valley Fish Hatchery and Spring Creek Rearing Station.

TABLE 1. Location, number, and pounds of rainbow trout stocked, and average length, average f/lb, and number of times each urban pond was stocked in southern Nevada, 2016.

| Urban pond | Number of rainbow trout | Pounds | Average length | Fish/lb | Number of times stocked |
|----------------------------|-------------------------|--------|----------------|---------|-------------------------|
| Boulder City Pond | 19,170 | 6,657 | 9.5 | 2.92 | 10 |
| Sunset Pond | 21,432 | 7,073 | 9.4 | 3.0 | 11 |
| Lorenzi Park Pond | 11,588 | 3,773 | 9.3 | 3.09 | 6 |
| Floyd Lamb (Tule) Pond | 22,573 | 8,050 | 9.7 | 2.8 | 10 |
| Mesquite (Hafen Lane) Pond | 3,480 | 1,132 | 9.3 | 3.16 | 5 |
| Cold Creek Pond | 2,414 | 900 | 9.8 | 2.68 | 3 |
| Beatty Pond | 2,690 | 950 | 9.6 | 2.87 | 4 |
| Total | 83,347 | 28,535 | | | |
| Average | | | 9.5 | 2.93 | |

Channel Catfish Stocking

Channel catfish stocking commenced on April 13 and ended October 27. Catfish were stocked on a monthly basis, except for July. Due to high mortality rates in July, both the NDOW and the vendor agreed to postpone stocking in July and resume in August. Exceptions to the monthly stocking were the Mesquite Pond, which was stocked in April, June, August, and October. A total of 12,214 channel catfish (18,415 lbs) were stocked to the urban ponds, averaging 0.6 f/lb and 16.8 in (427 mm) TL.

Sunset Park Pond and Floyd Lamb Pond received the largest allotment of catfish at 4,700 and 4,341 fish each, respectively (Table 2). Boulder City Pond received 1,898 fish, Lorenzi Park Pond received 1,029 fish, and Mesquite Pond received 246 fish due to the smaller pond sizes and the reduced amount of angling pressure exerted at these ponds. Due to excessive heat in June, there was a mortality of approximately 50%. The vendor made up the losses in subsequent stockings. Future June stockings should be made earlier in the month when it is cooler. Catfish were purchased through a contract with Moody Fish located in Arkansas.

TABLE 2. Location, number, and pounds of channel catfish stocked into urban ponds in southern Nevada, 2016.

| Urban pond | Number of channel catfish | Pounds |
|----------------------------|---------------------------|--------|
| Boulder City Pond | 1,898 | 2,850 |
| Sunset Pond | 4,700 | 7,066 |
| Lorenzi Park Pond | 1,029 | 1,552 |
| Floyd Lamb (Tule) Pond | 4,341 | 6,548 |
| Mesquite (Hafen Lane) Pond | 246 | 399 |
| Total | 12,214 | 18,415 |

Bluegill stocking

One stocking of bluegill was made to the Boulder City Pond in preparation for Free Fishing Day on June 11. A total of 1,075 fish (215 lbs) averaging 5 f/lb were stocked in June.

Development of Additional Urban Fisheries

No additional ponds were identified in 2016.

FINDINGS

A total of 10 days of contact creel surveys were carried out at the urban ponds, contacting 194 anglers who reported 216 fish caught. These fish included 18 channel catfish, 191 rainbow trout, one bluegill, one largemouth bass, and five common carp. Overall, catch rates were 0.61 f/h and 1.1 f/angler (Figure 1). By species, rainbow trout made up 88.4% of the catch, channel catfish 8.3%, bluegill 0.5%, largemouth bass 0.5%, and common carp 2.3% of the catch. Because of the low level of creel surveys carried out at the urban ponds, angler use and success may be higher than that observed.

The overall observed angler success in terms of f/h was greater than the recommended catch rates for an urban fishery as defined in NDOW's Urban Fishery Management Concepts (NDOW) as seen in Figure 1. The overall f/angler rates were also acceptable (Figure 2) and within the target values, however, individually, Sunset Park Pond had acceptable f/angler rates with the other ponds needing improvement.

Even though these ponds could use some improvement, the f/angler catch rates over the past three years are much better than rates seen from 2011-2013 (Figure 2).

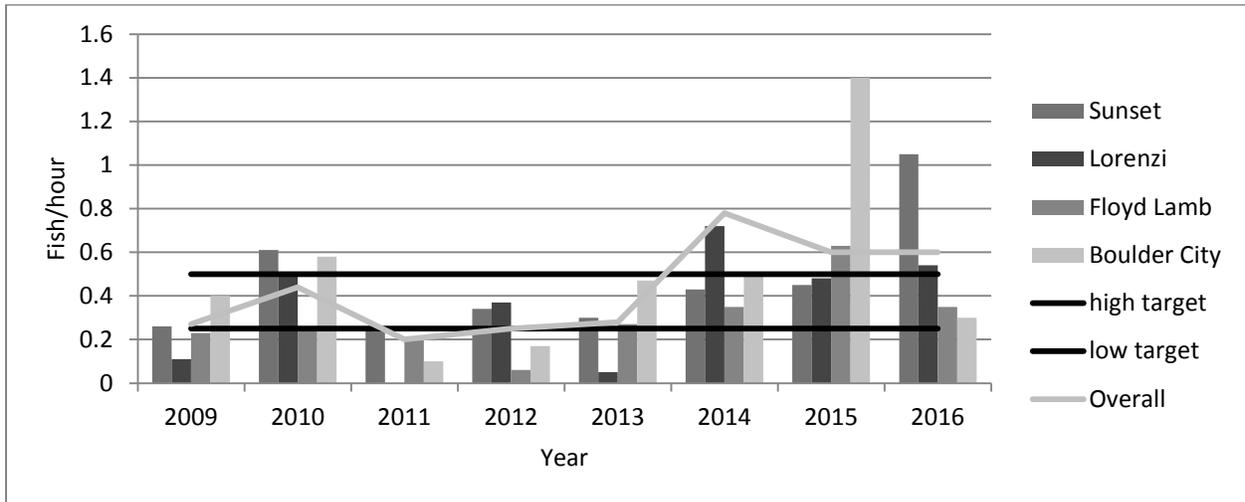


FIGURE 1. Urban pond catch rates (f/hr) with target angler success rates (horizontal lines) given by the NDOW Urban Fishery Management Concepts, 2009-2016.

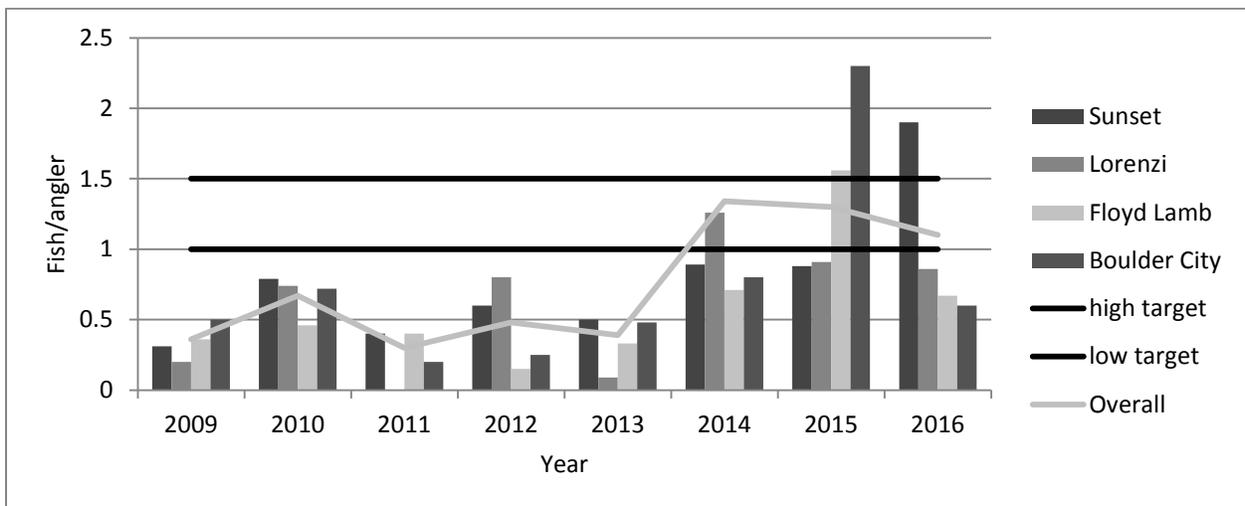


FIGURE 2. Urban pond catch rates (Fish/angler) with target angler success rates (horizontal lines) given by the NDOW Urban Fishery Management Concepts, 2009-2016.

In addition to monthly surveys, the mail-in angler questionnaire data was used to assess angler use and success at the ponds. Each year, the previous year's angler questionnaire data becomes available, so the current angler questionnaire data is from 2015. As of 2015, Sunset Park and Floyd Lamb ponds continue to receive the highest number of anglers (Figure 3) and angler days followed by Lorenzi and Boulder City ponds (Figure 4). No data was available for Mesquite Pond. Floyd Lamb Pond had a slight increase in number of anglers while the number of Sunset Pond anglers decreased (Figure 3). Lorenzi Pond also had a slight decline in number of anglers while Boulder City Pond anglers held steady. Beatty and Cold Creek ponds continue to have

low levels of angling pressure (Figure 3). Floyd Lamb, Sunset, Lorenzi, Boulder City, and Beatty ponds all had decreases in angler days, while the Cold Creek Pond doubled from 2.09 to 5.49 expanded angler days (Figure 4). The smaller Cold Creek and Beatty ponds had the highest catch rates at 7.0 f/angler and 2.8 f/angler, respectively, while the other ponds had catch rates below 2.0 f/angler. Sunset and Boulder City ponds fell short of the low target rate of 1.0 fish/angler day (Figure 5).

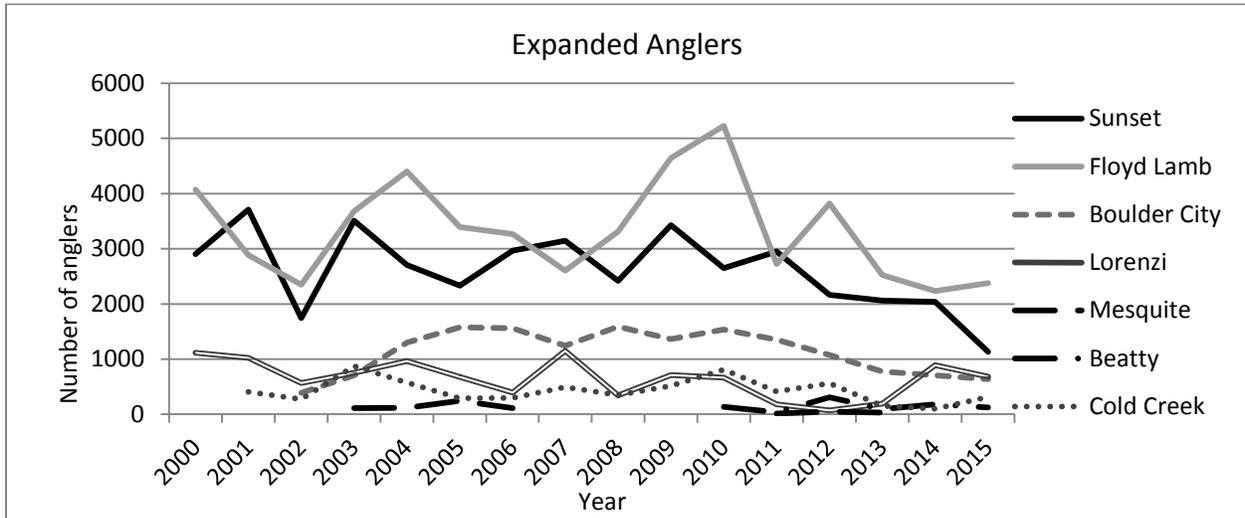


FIGURE 3. Expanded anglers from the mail-in angler questionnaire data for urban ponds in southern Nevada, 2000-2015.

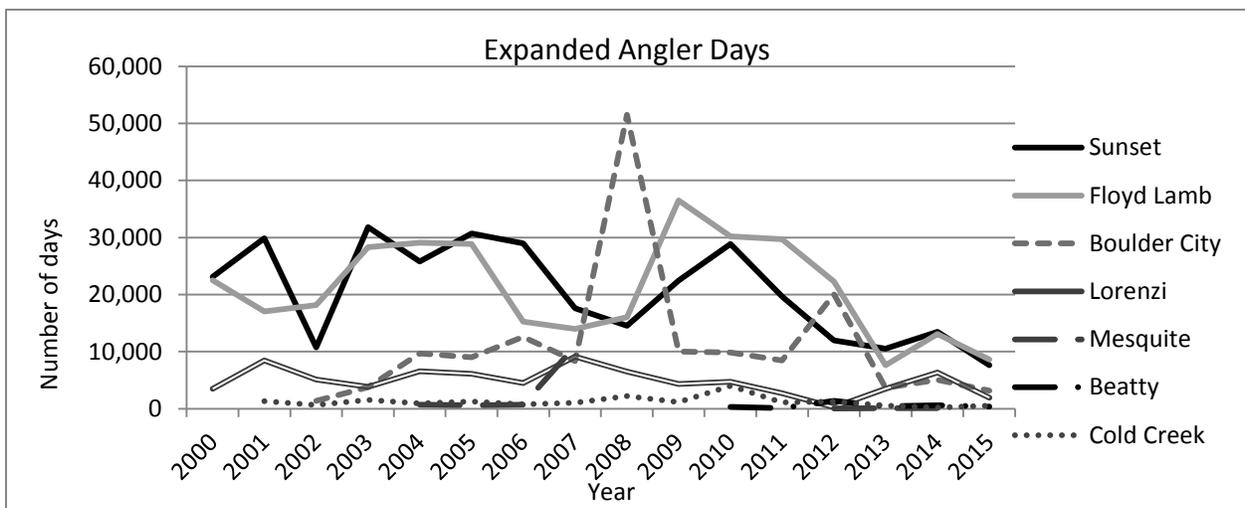


FIGURE 4. Expanded angler days from the mail-in angler questionnaire data for urban ponds in southern Nevada, 2000-2015.

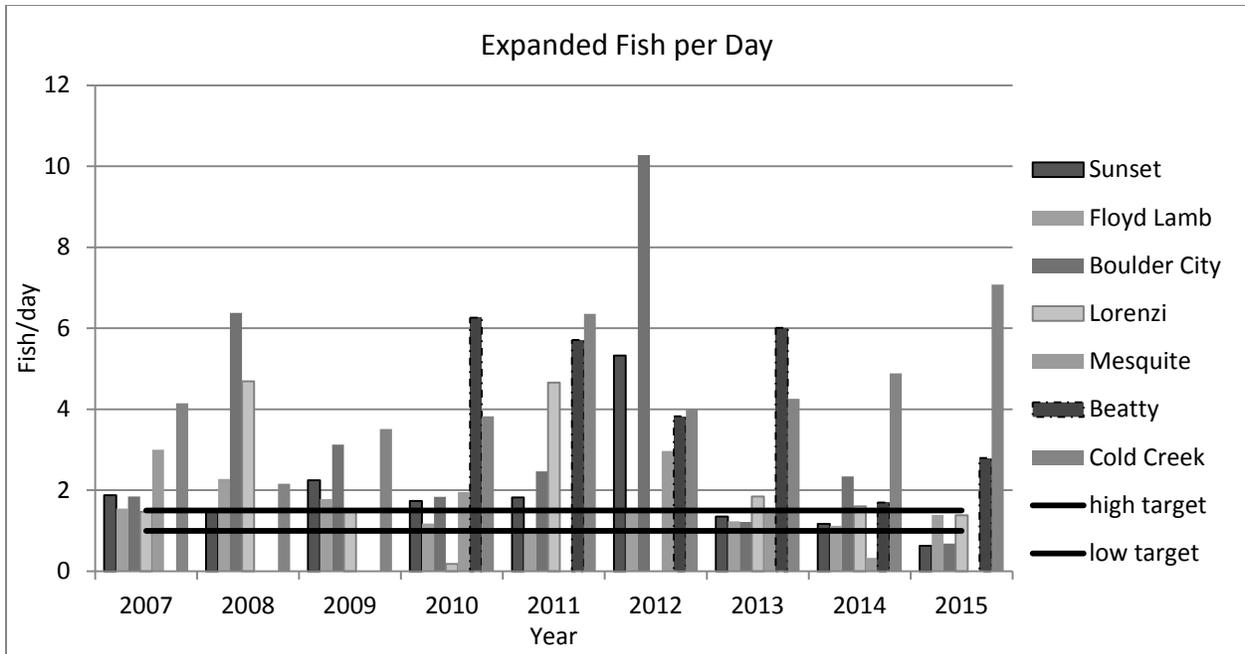


FIGURE 5. Expanded f/day data from the mail-in angler questionnaire data for urban ponds in southern Nevada with high and low angler success targets according to NDOWs Urban Fishery Management Concepts, 2007-2015.

Sunset Park Pond

Through 10 creel survey visits to the pond, 67 anglers were surveyed. A total of 114 rainbow trout, seven channel catfish, five carp, and one largemouth bass were reported. These anglers reported 121 h of fishing effort with a catch rate of 1.05 f/h and 1.9 f/angler. These catch rates are an improvement over last year’s rates of 0.47 f/h and 0.9 f/angler.

In addition to monthly creel surveys, two visits were made to Sunset Park Pond to survey for nonnative tilapia *Oreochromis aureus*, bighead carp *Hypophthalmichthys nobilis*, and silver carp *H. molitrix* using electroshocking and gill netting. After reports of a video titled “Another Sunset Park monster fish” by Tony Bader had been seen on YouTube showing an angler catching a bighead or silver carp along with reports of tilapia captured at the pond, a nonnative fish survey was scheduled.

On June 15, boat electroshocking was used to survey for and eradicate any captured tilapia, bighead, and silver carp. Prior to electroshocking, a water quality meter was used to get temperature and conductivity readings of 25.9°C and 1,583 µS/cm, respectively. A Clark aluminum boat equipped with a Coffelt shocking boom and a Smith-Root VVP-15B electrical box was used to electroshock around the perimeter of the pond. Electroshocking commenced at just after 2000 hours. The initial setting at 60 pulses produced 10-12 amps and approximately 200 volts of power. The unit kept shutting off and the pulses had to be reduced to 30 to keep the generator from shutting off. As we moved counter clockwise around the pond, eventually we were able

to get back up to 60 pulses and 10-12 amps. Electroshocking continued for 1,782 seconds of mostly a continuous “on” time. Electroshocking was completed by 2148 hours. As the fish were netted, they were identified to species and then thrown back to the pond, except for one goldfish which was removed. No tilapia, bighead, or silver carp were captured.

The next sampling was on June 21. A total of 18 multifilament gill nets measuring 150 ft in length with a height of eight feet were set at 2015 hours throughout the pond. The nets were left overnight and pulled the next morning starting at 0500 hours. A total of 33 fish of four species were captured. No tilapia, bighead, or silver carp were captured. The most numerous fish captured was channel catfish followed by green sunfish, largemouth bass, and common carp (Table 3). All fish were returned back to the pond except for six common carp that were removed from the pond.

TABLE 3. Capture summary, Sunset Park Pond, 6/22/2016.

| Species | number |
|-----------------|--------|
| Largemouth bass | 7 |
| Channel catfish | 11 |
| Green sunfish | 8 |
| Common carp | 7 |
| Total fish | 33 |

Lorenzi Pond

Lorenzi Pond was surveyed on six visits. A total of 29 anglers were contacted reporting 25 fish captured. Fishing effort was 46 angler hours and fish captured included 24 rainbow trout and one channel catfish for a catch rate of 0.54 f/h and 0.86 f/angler. These rates are comparable to last year’s catch rates of 0.48 f/h and 0.91 f/angler.

Tule Pond (Floyd Lamb Park)

Ten contact creel surveys were conducted at Tule Pond (Floyd Lamb Park). A total of 78 anglers were contacted, having fished 149 h with a catch rate of 0.35 f/h and 0.67 f/angler. These anglers caught 46 rainbow trout, five channel catfish, and one bluegill. Tule Pond had a decrease in catch rates from the 0.63 f/h and 1.56 f/angler observed last year.

Boulder City Pond

Eight visits were made to the Boulder City Pond for creel surveys. These surveys contacted 20 anglers with 39.5 fishing hours. Anglers reported catching seven rainbow trout and five channel catfish. Catch rates were 0.3 f/h and 0.6 f/angler and were much lower than that of last year’s rates of 1.4 f/h and 2.3 f/angler.

On April 16, a channel catfish tournament was held at Boulder City Pond. This was a catch-and-release tournament organized by a high-school senior with proceeds benefitting wildlife habitat guzzlers. Three days before the tournament, channel catfish were stocked to the pond as part of the regular stocking program. Out of approximately 240 catfish, 60 fish were Floy-tagged for the tournament. The original plan was for the numbered tags (once captured) to be entered into a drawing for prizes.

The tournament lasted four hours from 0700 to 1100 hours, with 24 people registered for the event. A creel survey three hours into the tournament found that these anglers caught 11 fish (10 channel catfish, 1 trout) in 72 fishing hours for a catch rate of 0.15 fish/h. No tagged fish were caught, so all participants were entered into the raffle. There were prizes for all children including rods and reels and kids tackle boxes. There were many prizes for adults ranging from gift cards to Colorado River kayak trips.

Mesquite Urban Pond (Hafen Pond)

No creel surveys were conducted at the Mesquite Urban Pond.

Cold Creek Pond

No creel surveys were conducted at the Cold Creek Pond.

Beatty Urban Pond

No creel surveys were conducted at the Beatty Pond.

MANAGEMENT REVIEW

The objective of administering an urban fisheries program was met and approaches completed. Creel surveys found overall angler catch rates were within the acceptable range for an urban fishery as defined by the department's Urban Fisheries Management Concept (NDOW) standards. Some of the ponds, however, could improve in terms of fish/angler. Because the sampling effort at the ponds is minimal, actual catch rates may not be reflected in the survey. It also appears the stocking rates for 2016 were adequate for the amount of angler use and success at the ponds.

References

NDOW [Nevada Department of Wildlife]. Program and procedure: Fishery Management Concepts, 7 pp.

RECOMMENDATIONS

Continue with the following approaches:

- Conduct a general fisheries assessment through direct angler contacts at least monthly at all managed sites except Mesquite (Hafen Park), Cold Creek, and Beatty ponds.
- Consider sending a seasonal Conservation Aid to conduct additional creel surveys when possible to get a better representation of catch rates.
- Conduct a general habitat assessment through visual observations of water quantity (lake level) and water quality (clarity).
- Evaluate annual stocking recommendations based on habitat conditions and angler use.
- Manage contracts for and coordinate stocking of purchased channel catfish at all sites during warm-weather months (April through October).
- Identify and/or develop additional urban fishing waters in cooperation with local government entities as opportunities arise.

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