Raccoon Population Densities at the Mill Creek Wildlife Sanctuary
Beaver Township
Mahoning County, Ohio

Introduction

The Mill Creek Wildlife Sanctuary is comprised of 264-acres located in Beaver Township (Mahoning County, Ohio). This facility consists of numerous manmade ponds, wetlands, and canals that once functioned as a commercial fish hatchery. Mill Creek MetroParks acquired the property in 2005, and since that time, the property has emerged as one of the premier viewing locations for shorebirds and waterfowl in Ohio. The high quality, diverse, and unique habitat types found at the Mill Creek Wildlife Sanctuary provide ideal conditions for a long list of species to thrive.

As recommended in the Natural Resources Management Plan developed in March 2019, the Mill Creek MetroParks Staff designed and employed a trail camera survey program beginning in August of 2019 to monitor raccoon (*Procyon lotor*) populations at the Sanctuary in an effort to reduce nest predation of waterfowl, ground-nesting birds, and various turtle species. The 2019 survey effort produced a population estimate of 136.9 individuals/mi², which exceeded the population parameters used by the U.S. Fish and Wildlife Service (9 to 45 individuals/mi²) by 200% - as a result, it was recommended that a minimum of 25 individuals be removed from the site. To accomplish this, Mill Creek MetroParks partnered with USDA Wildlife Services to institute a trapping and removal program in the fall of 2019 using dog-proof foot encapsulating traps. The program was extremely successful, resulting in a total of 32 raccoons being removed from the site.

As recommended by USDA Wildlife Services, a repeat survey effort was carried out in the spring of 2020 to continue population monitoring and assess the success of our 2019 efforts.

Materials and Methods

Three (3) bait sites were established over a 175-acre survey area using shelled corn as attractant. Each site was monitored with a motion-activated trail camera (Stealth Cam® Model: STC-G26NG) to document activity. The trail cameras were set to take pictures 24/7 with each unit taking a burst of three (3) pictures with a thirty-second delay between triggers. The trail cameras were checked, and bait sites were maintained as necessary (~ every 6-7 days) over a 5-week period, with the survey beginning on March 30, 2020 and concluding on May 5th, 2020.

The photos collected from each camera were organized and analyzed based upon location, date, and time (time/date stamps were confirmed to be accurate during each camera check). The overall goal of the survey was to document groups of raccoons utilizing different bait sites with correlating times (within 15 minutes) and dates. This methodology addresses the fact that raccoons generally lack any unique markings or characteristics, which makes it extremely difficult to distinguish individuals from one another in order to produce an accurate population estimate. By utilizing multiple camera locations and only considering results with correlating dates/times, the MetroParks can successfully document raccoon movements and population densities at the Sanctuary.

Results

Over the course of the survey period, the trail cameras recorded several thousand pictures with groups of multiple raccoons at each site being a normal occurrence, but to reiterate, the goal of the survey was to confirm different groups of raccoons utilizing separate bait sites during the same timeframe. The MetroParks was successful in documenting this occurrence on several occasions, with the highest count being 13 individuals being documented at three (3) separate locations during the same 15-minute timeframe. Please reference the table below for other significant correlations.

	Camera 1	Camera 2	Camera 3	Total
4/16/20	9:58 PM (4)	10:02 PM (2)	9:54 PM (7)	13
4/24/20	10:38 PM (2)	10:45 PM (5)	10:41 PM (6)	13

Given the 175-acre survey area, the population density of raccoons at the Mill Creek Wildlife Sanctuary, specifically in the wetland portion of the property, is estimated to be equivalent to at least 46.8 individuals/mi², a 74% decrease from 2019.

As a measure of predation pressure and overall nest success, the MetroParks also monitors Canada Goose (*Branta canadensis*) nests on an annual basis at the Sanctuary. In 2019, 19 of 21 nests at the Sanctuary were depredated, resulting in a nest predation rate of 90%. There are a few weeks left remaining in the 2020 Canada Goose monitoring program at the Sanctuary, however, the current nest predation rate is 82%, an 8% reduction from last year.

Recommendation

It is recommended that Mill Creek MetroParks continue to utilize the same scale used by USFWS of 9 to 45 individuals/mi² as the basis for any active management program. Based upon the 2020 population estimate, a removal quota of ten (10) individuals would build upon the success of 2019 and bring the overall density below the 45 individuals/mi² threshold. Survey efforts should continue each year prior to instituting any management efforts and removal quotas should be adjusted appropriately.

As recommended by USDA Wildlife Services, removal efforts should be carried out in the late spring-early summer timeframe to actively protect nests during their most vulnerable times.

Notes

- Unfortunately, Camera 4 was stolen during the first week of the survey, resulting in a 25% reduction in detection probability as compared to 2019.
- Weather conditions varied throughout the survey period with many nights with lows below freezing which could potentially result in reduced raccoon activity.
- Due to the change in survey timing (Spring vs. Fall) young of the year are not represented in the 2020 population estimate as compared to 2019.

Raccoon Population Densities at the Mill Creek Wildlife Sanctuary
Beaver Township
Mahoning County, Ohio

Introduction

The Mill Creek Wildlife Sanctuary is comprised of 264-acres located in Beaver Township (Mahoning County, Ohio). This facility consists of numerous manmade ponds, wetlands, and canals that once functioned as a commercial fish hatchery. Mill Creek MetroParks acquired the property in 2005, and since that time, the property has emerged as one of the premier viewing locations for shorebirds and waterfowl in Ohio. The high quality, diverse, and unique habitat types found at the Mill Creek Wildlife Sanctuary provide ideal conditions for a long list of species to thrive.

As recommended in the Natural Resources Management Plan developed in March 2019, the Mill Creek MetroParks Staff designed and employed a trail camera survey program beginning in August of 2019 to monitor raccoon (*Procyon lotor*) populations at the Sanctuary in an effort to reduce nest predation of waterfowl, ground-nesting birds, and various turtle species. The 2019 survey effort produced a population estimate of 136.9 individuals/mi², which exceeded the population parameters used by the U.S. Fish and Wildlife Service (9 to 45 individuals/mi²) by 200% - as a result, it was recommended that a minimum of 25 individuals be removed from the site. To accomplish this, Mill Creek MetroParks partnered with USDA Wildlife Services to institute a trapping and removal program in the fall of 2019 using dog-proof foot encapsulating traps and/or cage traps. The program was extremely successful, resulting in a total of 32 raccoons being removed from the site.

As recommended by USDA Wildlife Services, repeat survey efforts have been carried out in the spring and fall of each year since 2019 to actively monitor meso-predator populations at the Mill Creek Wildlife Sanctuary. The most recent survey data in the spring of 2021 yielded a population estimate of 39.6 individuals/mi² and prompted the subsequent removal of 10 individuals over a 2-week period in June 2021.

Survey efforts were repeated in the fall of 2021, the results are as follows:

Materials and Methods

Three (3) bait sites were established over a 175-acre survey area using shelled corn as attractant. Each site was monitored with a motion-activated trail camera (Stealth Cam® Model: STC-G26NG) to document activity. The trail cameras were set to take pictures 24/7 with each unit taking a burst of three (3) pictures with a thirty-second delay between triggers. The trail cameras were checked, and bait sites were maintained as necessary (~ every 4-5 days) over a 4-week period, with the survey beginning on July 19th, 2021 and concluding on August 23rd, 2021.

The photos collected from each camera were organized and analyzed based upon location, date, and time (time/date stamps were confirmed to be accurate during each camera check). The overall goal of the survey was to document groups of raccoons utilizing different bait sites with correlating times (within 15 minutes) and dates. This methodology addresses the fact that raccoons generally lack any unique markings or characteristics, which makes it extremely difficult to distinguish individuals from one another in order to produce an accurate population estimate. By utilizing multiple camera locations and only

considering results with correlating dates/times, the MetroParks can successfully document raccoon movements and population densities at the Sanctuary.

Results

Over the course of the survey period, the trail cameras recorded several thousand pictures with groups of multiple raccoons at each site being a normal occurrence, but to reiterate, the goal of the survey was to confirm different groups of raccoons utilizing separate bait sites during the same timeframe. The MetroParks was successful in documenting this occurrence on several occasions, with the highest count being 15 individuals being documented across two (2) separate locations during the same 15-minute timeframe. Please reference the table below for other significant correlations.

Date	Camera 1	Camera 2	Camera 3	Total
7/23/21	10:45 PM (9)	(0)	11:00 PM (6)	15
8/17/21	5:15 AM (6)	(0)	5:00 PM (6)	12
7/21/21	10:45 PM (5)	(0)	10:45 PM (6)	11
8/14/21	2:45 AM (6)	(0)	2:30 AM (4)	10

Given the 175-acre survey area, the population density of raccoons at the Mill Creek Wildlife Sanctuary, specifically in the wetland portion of the property, is estimated to be equivalent to at least 54 individuals/mi², a 33% increase from the fall of 2020.

As a measure of predation pressure and overall nest success, the MetroParks also monitors Canada Goose (*Branta canadensis*) nests on an annual basis at the Sanctuary. The results of the 2021 nesting season documented a total of 5 nests at the Mill Creek Wildlife Sanctuary, 4 of the 5 nests were successful. While overall nest numbers were lower than usual at the Sanctuary, nest success increased dramatically as compared to years past.

Year	Number of Nests Found	Number of Nests Depredated	Nest Success Rate
2021	5	1	80%
2020	10	8	20%
2019	21	19	10%

Recommendation

It is recommended that Mill Creek MetroParks continue to utilize the same scale used by USFWS of 9 to 45 individuals/mi² as the basis for any active management program. Based upon the fall 2021 population estimate falling above the acceptable parameters, it is recommended that the MetroParks continue active management in an effort to maintain current meso-predator populations at the Sanctuary.

As recommended by USDA Wildlife Services, removal efforts should be carried out in the late spring-early summer timeframe (early June) to actively protect nests during their most vulnerable times.

Survey efforts should continue each year prior to instituting any management efforts and removal quotas should be adjusted appropriately.

Raccoon Population Densities at the Mill Creek Wildlife Sanctuary
Beaver Township
Mahoning County, Ohio

Introduction

The Mill Creek Wildlife Sanctuary is comprised of 482-acres located in Beaver Township (Mahoning County, Ohio). This western portion of the facility consists of numerous manmade ponds, wetlands, and canals that once functioned as a commercial fish hatchery. Mill Creek MetroParks acquired the western portion of the property in 2005, and since that time, the property has emerged as one of the premier viewing locations for shorebirds and waterfowl in Ohio. The high quality, diverse, and unique habitat types found at the Mill Creek Wildlife Sanctuary provide ideal conditions for a long list of species to thrive.

As recommended in the Natural Resources Management Plan developed in March 2019, the Mill Creek MetroParks Staff designed and employed a trail camera survey program beginning in August of 2019 to monitor raccoon (*Procyon lotor*) populations at the Sanctuary in an effort to reduce nest predation of waterfowl, ground-nesting birds, and various turtle species. The 2019 survey effort produced a population estimate of 136.9 individuals/mi², which exceeded the population parameters used by the U.S. Fish and Wildlife Service (9 to 45 individuals/mi²) by 200% - as a result, it was recommended that an active meso-predator management program be implemented. To accomplish this, Mill Creek MetroParks partnered with USDA APHIS Wildlife Services to institute a trapping and removal program in the fall of 2019 using dog-proof foot encapsulating and/or cage traps. The program was extremely successful, resulting in a total of 32 raccoons being removed from the site.

As recommended by USDA Wildlife Services, repeat survey efforts have been carried out in the spring and fall of each year since to actively monitor meso-predator populations at the Mill Creek Wildlife Sanctuary.

Materials and Methods

Three (3) bait sites were established over a 175-acre survey area using shelled corn as attractant. Each site was monitored with a motion-activated trail camera (Stealth Cam® Model: STC-G26NG) to document activity. The trail cameras were set to take pictures 24/7 with each unit taking a burst of three (3) pictures with a thirty-second delay between triggers. The trail cameras were checked, and bait sites were maintained as necessary (~ every 4-5 days) over a 4-week period, with the survey beginning on April 4th, 2022 and concluding on April 27th, 2022.

The photos collected from each camera were organized and analyzed based upon location, date, and time (time/date stamps were confirmed to be accurate during each camera check). The overall goal of the survey was to document groups of raccoons utilizing different bait sites with correlating times (within 15 minutes) and dates. This methodology addresses the fact that raccoons generally lack any unique markings or characteristics, which makes it extremely difficult to distinguish individuals from one another in order to produce an accurate population estimate. By utilizing multiple camera locations and only considering results with correlating dates/times, the MetroParks can successfully document raccoon movements and population densities at the Sanctuary.

Results

Over the course of the survey period, the trail cameras recorded several thousand pictures with groups of multiple raccoons at each site being a normal occurrence, but to reiterate, the goal of the survey was to confirm different groups of raccoons utilizing separate bait sites during the same timeframe. The MetroParks was successful in documenting this occurrence on several occasions, with the highest count being 12 individuals being documented across three (3) separate locations during the same 15-minute timeframe. Please reference the table below for other significant correlations.

	Camera 1	Camera 2	Camera 3	Total
4/20/22	**11:37 PM (3)**	**11:40 PM (5)**	**12:33 PM (4)**	**12**
4/22/22	11:02 PM (1)	11:03 PM (3)	11:12 PM (5)	9
4/17/22	9:51 PM (5)	9:43 PM (2)	(0)	7

Given the 175-acre survey area, the population density of raccoons at the Mill Creek Wildlife Sanctuary, specifically in the wetland portion of the property, is estimated to be equivalent to at least 43.2 individuals/mi², a slight increase from 2021.

As a measure of predation pressure and overall nest success, the MetroParks also monitors Canada Goose (*Branta canadensis*) nests on an annual basis at the Sanctuary. At the start of the meso-predator management program in 2019, 90% of nests located at the Sanctuary were depredated – this level of nest predation was likely extended to not only geese, but other species of waterfowl, ground nesting birds, and turtles.

There are several weeks left remaining in the 2022 Canada Goose monitoring program at the Sanctuary, however, based upon the most recent data (4.27.22) 4 of the 5 nests identified by USDA WS have been successful thus far, which indicates only a 20% nest predation rate.

Recommendation

It is recommended that Mill Creek MetroParks continue to utilize the same scale used by USFWS of 9 to 45 individuals/mi² as the basis for any active management program. Despite the 2022 population estimate falling within the acceptable parameters, it is recommended that the MetroParks continue active management in an effort to maintain current meso-predator populations at the Sanctuary.

The nearly identical population estimates produced by the 2021 and 2022 survey efforts (36.9 and 43.2 individuals/mi², respectively) indicates that the current level of management effort is effectively maintaining current populations levels and should be continued.

As recommended by USDA Wildlife Services, removal efforts should be carried out in the late spring-early summer timeframe (early June) to actively protect nests during their most vulnerable times.

Survey efforts should continue each year in the spring prior to instituting any management efforts and removal quotas should be adjusted appropriately.

Notes

- Weather conditions varied throughout the survey period with many nights with lows below freezing which could potentially result in reduced raccoon activity.

- Due to the survey timing (spring vs. fall) young of the year are not represented in this estimate.

Raccoon Population Densities at the Mill Creek Wildlife Sanctuary
Beaver Township
Mahoning County, Ohio

Introduction

The Mill Creek Wildlife Sanctuary is comprised of 482-acres located in Beaver Township (Mahoning County, Ohio). This western portion of the facility consists of numerous manmade ponds, wetlands, and canals that once functioned as a commercial fish hatchery. Mill Creek MetroParks acquired the western portion of the property in 2005, and since that time, the property has emerged as one of the premier viewing locations for shorebirds and waterfowl in Ohio. The high quality, diverse, and unique habitat types found at the Mill Creek Wildlife Sanctuary provide ideal conditions for a long list of species to thrive.

As recommended in the Natural Resources Management Plan developed in March 2019, the Mill Creek MetroParks Staff designed and employed a trail camera survey program beginning in August of 2019 to monitor raccoon (*Procyon lotor*) populations at the Sanctuary in an effort to reduce nest predation of waterfowl, ground-nesting birds, and various turtle species. The 2019 survey effort produced a population estimate of 136.9 individuals/mi², which exceeded the population parameters utilized by the U.S. Fish and Wildlife Service (9 to 45 individuals/mi²) by 200% - as a result, it was recommended that an active meso-predator management program be implemented. To accomplish this, Mill Creek MetroParks partnered with USDA APHIS Wildlife Services to institute a trapping and removal program in the fall of 2019 using dog-proof foot encapsulating and/or cage traps. The program was extremely successful, resulting in a total of 32 raccoons being removed from the site.

As recommended by USDA Wildlife Services, repeat survey efforts have been carried out in the spring of each year since to actively monitor meso-predator populations at the Mill Creek Wildlife Sanctuary.

Materials and Methods

Three (3) bait sites were established over a 175-acre survey area using shelled corn as attractant. Each site was monitored with a motion-activated trail camera (Stealth Cam® Model: STC-G26NG) to document activity. The trail cameras were set to take pictures 24/7 with each unit taking a burst of three (3) pictures with a thirty-second delay between triggers. The trail cameras were checked, and bait sites were maintained as necessary (~ every 4-5 days) over a 3-week period, with the survey beginning on April 3rd, 2023 and concluding on April 24th, 2023.

The photos collected from each camera were organized and analyzed based upon location, date, and time (time/date stamps were confirmed to be accurate during each camera check). The overall goal of the survey was to document groups of raccoons utilizing different bait sites with correlating times (within 15 minutes) and dates. This methodology addresses the fact that raccoons generally lack any unique markings or characteristics, which makes it extremely difficult to distinguish individuals from one another in order to produce an accurate population estimate. By utilizing multiple camera locations and only considering results with correlating dates/times, the MetroParks can successfully document raccoon movements and population densities at the Sanctuary.

Results

Over the course of the survey period, the trail cameras recorded several thousand pictures with groups of multiple raccoons at each site being a normal occurrence, but to reiterate, the goal of the survey was to confirm different groups of raccoons utilizing separate bait sites during the same timeframe. The MetroParks was successful in documenting this occurrence on several occasions, with the highest count being 11 individuals documented across three (3) separate locations during the same 15-minute timeframe. Please reference the table below for other significant correlations.

	Camera 1	Camera 2	Camera 3	Total
4/06/23	**10:56 PM (5)**	**10:48 PM (2)**	**10:57 PM (4)**	**11**
4/13/23	(0)	10:36 PM (2)	10:32 PM (5)	7
4/23/23	11:17 PM (4)	(0)	11:24 PM (2)	6

Given the 175-acre survey area, the population density of raccoons at the Mill Creek Wildlife Sanctuary, specifically in the wetland portion of the property, is estimated to be equivalent to at least 39.6 individuals/mi², a slight decrease from 2022.

Raccoon Population Densities	2019	2020	2021	2022	2023
Minimum Number Detected	**37**	**13**	**11**	**12**	**11**
Per Square Mile Density	**133.2**	**46.8**	**36.9**	**43.2**	**39.6**

As a measure of predation pressure and overall nest success, the MetroParks also monitors Canada Goose (*Branta canadensis*) nests on an annual basis at the Sanctuary. At the start of the meso-predator management program in 2019, 90% of nests located at the Sanctuary were depredated – this level of nest predation was likely extended to not only geese, but other species of waterfowl, ground nesting birds, and turtles.

Through continued nest monitoring we can see a drastic increase in nest success at the Sanctuary, which mirrors the reduction in raccoon populations. Based upon the most recent data (2022) only 2 of the 7 nests identified by USDA WS were depredated, which indicates only a 23% nest predation rate.

Year	**Number of Nests Found**	**Number of Nests Depredated**	**Nest Predation Rate**
2022	7	2	23%
2021	5	1	20%
2020	10	8	80%
2019	21	19	90%

Recommendation

It is recommended that Mill Creek MetroParks continue to utilize the same scale utilized by USFWS of 9 to 45 individuals/mi² as the basis for any active raccoon management program. Despite the 2022 population estimate falling within the acceptable parameters, it is recommended that the MetroParks continue active management in an effort to maintain current meso-predator populations at the Sanctuary.

The nearly identical population estimates produced by the 2021, 2022, and 2023 survey efforts (36.9, 43.2, and 36.9 individuals/mi², respectively) indicates that the current level of management effort is

effectively maintaining current populations levels and should be continued for the next five years, at which time (2028) the program will be reevaluated.

As recommended by USDA Wildlife Services, removal efforts should be carried out in the late spring-early summer timeframe (early June) to actively protect nests during their most vulnerable times.

Survey efforts should continue each year in the spring prior to instituting any management efforts and removal quotas should be adjusted appropriately.

Notes

- Weather conditions varied throughout the survey period with many nights with lows near or below freezing which could potentially result in reduced raccoon activity.

- Due to the survey timing (spring vs. fall) young of the year are not represented in this estimate.

Additional Resources

Hanan, M. (2012). Raccoon Abundance Inventory Report.
https://ecos.fws.gov/ServCat/DownloadFile/45213

2025 Raccoon Population Densities
at the George L. Fordyce Park (West)

Beaver Township Mahoning County, Ohio

Introduction

George L. Fordyce Park is comprised of 482-acres located in Beaver Township (Mahoning County, Ohio). This western portion of the facility consists of numerous manmade ponds, wetlands, and canals that once functioned as a commercial fish hatchery. Mill Creek MetroParks acquired the western portion of the property in 2005, and since that time, the property has emerged as one of the premier viewing locations for shorebirds and waterfowl in Ohio. The high quality, diverse, and unique habitat types found at George L. Fordyce Park provide ideal conditions for a long list of species to thrive.

As recommended in the Natural Resources Management Plan developed in March 2019, the Mill Creek MetroParks Staff designed and employed a trail camera survey program beginning in August of 2019 to monitor raccoon (*Procyon lotor*) populations on the western portions of the property in an effort to reduce nest predation of waterfowl, ground-nesting birds, and various turtle species. The 2019 survey effort produced a population estimate of 136.9 individuals/mi², which exceeded the population parameters utilized by the U.S. Fish and Wildlife Service (9 to 45 individuals/mi²) by 200% - as a result, it was recommended that an active meso-predator management program be implemented. To accomplish this, Mill Creek MetroParks partnered with USDA APHIS Wildlife Services to institute a trapping and removal program in the fall of 2019 using dog-proof foot encapsulating and/or cage traps. The program was extremely successful, resulting in a total of 32 raccoons being removed from the site.

As recommended by USDA Wildlife Services, repeat survey efforts have been carried out in the spring of each year to actively monitor meso-predator populations at the George L. Fordyce Park, with active population management taking place from 2019-2022. During 2023 and 2024, the MetroParks chose to not manage meso-predator populations at the George L. Fordyce Park but instead only monitored the population to observe any changes.

Materials and Methods

Three (3) bait sites were established over a 175-acre survey area using shelled corn as attractant. Each site was monitored with a motion-activated trail camera (Stealth Cam® Model: STC-G26NG) to document activity. The trail cameras were set to take pictures 24/7 with each unit taking a burst of three (3) pictures with a thirty-second delay between triggers. The trail cameras were checked, and bait sites were maintained as necessary (~ every 4-5 days) over a 3-week period, with the survey beginning on June 2nd, 2025, and concluding on June 26th, 2025.

The photos collected from each camera were organized and analyzed based upon location, date, and time (time/date stamps were confirmed to be accurate during each camera check). The overall goal of the survey was to document groups of raccoons utilizing different bait sites with correlating times (within 15 minutes) and dates. This methodology addresses the fact that raccoons generally lack any unique markings or characteristics, which makes it extremely difficult to distinguish individuals from one another in order to produce an accurate population estimate. By utilizing multiple camera locations and only considering results with correlating dates/times, the MetroParks can successfully document raccoon movements and population densities within the survey area.

Results

Over the course of the survey period, the trail cameras recorded several thousand pictures with groups of multiple raccoons at each site being a normal occurrence, but to reiterate, the goal of the survey was to confirm different groups of raccoons utilizing separate bait sites during the same timeframe. The MetroParks was successful in documenting this occurrence on several occasions, with the highest count being 14 individuals documented across three (3) separate locations during the same 15-minute timeframe. Please reference the table below for other significant correlations.

	Camera 1	Camera 2	Camera 3	Total
6/02/25	(0)	10:29 PM (11)	(0)	11
6/16/25	**10:58 PM (6)**	**10:51 PM (8)**	**(0)**	**14**
6/17/25	10:18 PM (5)	10:26 PM (6)	(0)	11

Given the 175-acre survey area, the population density of raccoons at the George L. Fordyce Park (west), specifically in the wetland portion of the property, is estimated to be equivalent to at least 51.2 individuals/mi², an increase from 2023.

Raccoon Population Densities	2019	2020	2021	2022	2023	2025
Maximum Number Detected	**37**	**13**	**11**	**12**	**11**	**14**
Per Square Mile Density	**133.2**	**46.8**	**36.9**	**43.2**	**36.9**	**51.2**

As a measure of predation pressure and overall nest success, the MetroParks also monitors Canada Goose (*Branta canadensis*) nests at the George L. Fordyce Park on an annual basis. At the start of the meso-predator management program in 2019, 90% of nests located at the Sanctuary were depredated – this level of nest predation was likely extended to not only geese, but other species of waterfowl, ground nesting birds, and turtles.

Through continued nest monitoring we can see a drastic increase in nest success when active management is employed, which mirrors the decrease in raccoon population densities.

Year	**Number of Nests Found**	**Number of Nests Depredated**	**Nest Predation Rate**
2025	0*	0*	N/A*
2024	1*	1*	100%*
2023	9	9	100%
2022	7	2	23%
2021	5	1	20%
2020	10	8	80%
2019	21	19	90%

*Goose nest data from 2024 and 2025 is inconclusive as nest detection rates decreased due to unknown factors.

Recommendation

It is recommended that Mill Creek MetroParks continue to utilize the same scale utilized by USFWS of 9 to 45 individuals/mi² as the basis for any active raccoon management program. To return to the acceptable scale of 9 to 45 individuals/mi², it is recommended that the MetroParks resume active

management in an effort to maintain current meso-predator populations at the George L. Fordyce Park (west).

The nearly identical population estimates produced by the 2021, 2022, and 2023 survey efforts (36.9, 43.2, and 36.9 individuals/mi², respectively) indicates that the level of management effort was effectively maintaining current populations levels and should be resumed for the next five years, at which time (2030) the program will be reevaluated.

As recommended by USDA Wildlife Services, removal efforts should be carried out in the late spring-early summer timeframe (early June) to actively protect nests during their most vulnerable times.

Survey efforts should continue each year in the spring prior to instituting any management efforts and removal quotas should be adjusted appropriately.

Notes

- Weather conditions varied throughout the survey period which could potentially result in reduced raccoon activity.

- Due to the survey timing (spring vs. fall) young of the year are not represented in this estimate.

Additional Resources

Hanan, M. (2012). Raccoon Abundance Inventory Report.
https://ecos.fws.gov/ServCat/DownloadFile/45213