

Interagency Florida Panther Response Team

Annual Report: 2017

(July 1, 2016 – December 31, 2017)



Florida Fish and Wildlife Conservation Commission

U.S. Fish and Wildlife Service

National Park Service



INTRODUCTION

NOTE: It was decided at the Interagency Response Team meeting held on 9 November 2016 that future reports would be on a calendar year basis instead of the state fiscal year (1 July - 30 June). Rather than doing an abbreviated report for the latter half of 2016, this “transitional” report covers July-December of 2016 and all of calendar year 2017. Caution is therefore warranted when reviewing total number of events and domestic animal depredations for comparison against previous reporting periods/reports.

An Interagency Florida Panther Response Team (Response Team) was established by the Florida Fish and Wildlife Conservation Commission (FWC), National Park Service (NPS), and the U.S. Fish and Wildlife Service (FWS) in 2004 to respond to human-panther interactions. The Response Team developed the Interagency Florida Panther Response Plan (Response Plan) to provide guidelines for responding to human-panther interactions and conflicts. Also included in the plan is an outreach strategy that provides goals and objectives for educating the public. The Response Plan has been the guiding document for the Response Team since February 2005. An Environmental Assessment (EA) for the Response Plan was finalized in October 2008. The Environmental Assessment and Response Plan (Appendix C of EA) is available for download at

<http://www.fws.gov/verobeach/MammalsPDFs/R4FWSPantherEAFinal.pdf?scode=A008>.

The Response Team meets annually to review the past year’s activities and suggest revisions to the Response Plan, if needed. The results of the annual meeting are provided in a comprehensive report to the **Oversight Committee** consisting of the:

- FWS Florida State Supervisor for Ecological Services
- FWS Project Leader of the Southwest Florida Gulf Coast Refuges
- FWS Florida Resident Agent in Charge
- NPS Superintendent of Everglades National Park (ENP)
- NPS Superintendent of Big Cypress National Preserve (BCNP)
- FWC Executive Director

Previous Oversight Committee members included Regional Directors for the NPS and FWS, however, they have delegated their responsibilities to the Superintendents of the BCNP and ENP and to the FWS Ecological Services State Supervisor, FWS Resident Agent in Charge for Florida, and FWS Project Leader for the Southwest Florida Gulf Coast Refuge Complex. These revisions to the Oversight Committee will be incorporated via an Environmental Action Statement for Categorical Exclusion.

The Oversight Committee will review and approve revisions to the Response Plan, review actions by the Response Team and provide guidance if warranted.

The Annual Interagency Response Team Meeting was held on 14 May 2018 to review significant human-panther interactions that occurred during the reporting period and discuss potential Response Plan revisions for consideration by the Oversight Committee.

HUMAN-PANTHER INTERACTIONS AND DEPREDATIONS

The Response Plan identifies five human-panther interaction classifications: Sighting(s), Encounter, Incident, Threat, and Attack. Panther depredation (preying on domestic animals) is addressed separately because it does not involve direct interaction with a human. Definitions, associated panther behaviors, risk factor, and Team response of each interaction type are detailed in the Response Plan (available through the link provided in the Introduction). **Only those interactions and/or depredations where physical evidence of panther activity was found and that occurred within the reporting period of this report will be summarized below.** All interactions and depredations investigated by the Response Team during the reporting period are listed in Appendix I.

An interaction or depredation is tallied when physical evidence, examined by experienced personnel knowledgeable in interpreting panther sign, supports that a panther was involved. During the reporting period, two encounters, 2 incidents, and 80 panther depredations contained physical evidence to support a panther was involved (Table 1). There were no threats or human attacks. Twenty-seven additional depredations were investigated but no physical evidence of panther activity was found. A bear, bobcat, coyotes, vulture and dog were responsible for 14 depredations (Table 1).

Encounters

An encounter is an unexpected direct meeting between a human and a panther. Encounters pose a low to moderate risk factor and vary depending on proximity and behavior of both the panther and the person involved. Reported encounters were investigated within 24 hours, an attempt was made to determine the cause of the encounter, and an assessment was submitted to the Response Team. Two encounters occurred during the reporting period (Table 2, Fig. 2).

- Two dogs treed a juvenile, female panther estimated to be 10-mo-old, multiple times in a resident's yard just east of the landfill in Collier County. The dogs caught the panther on the ground, a brief tussle ensued, and all three animals suffered minor injuries. The owner removed the dogs to his residence but the panther remained in the tree until an FWC biologist arrived and flushed the panther from the area.
- A juvenile male, estimated to be 9-mo-old, was found hunkered amongst debris under a stilt home in Golden Gate Estates in Collier County. An FWC biologist and LE officer responded and chased the panther from under the house while applying auditory hazing techniques (yelling, banging a bucket).

Incidents

An incident is an interaction between a human and a panther as described in an encounter, except that the panther displays potentially threatening behavior. Incidents pose a moderate to high risk factor and vary depending on the circumstances causing the incident and response of people involved. Two encounters occurred during the reporting period (Table 2, Fig.2), both associated with a depredation event.

- A panther had killed a goat and was bedded down next to the cache in a very small palmetto patch in Alva, Lee County (cover photo). The neighbor to the property where the goat was killed was walking their dog on a leash along the property boundary looking for the panther when it came out from the palmettos and growled at the dog from the opposite side of the fence. Due to

several extenuating factors, the decision was made to trap and relocate the panther to a more suitable area. Further information is detailed in the Management Actions section below.

- Two people approached a goat on the ground in a Golden Gate Estates property in Collier County when a panther reportedly came out from underneath a nearby Brazilian Pepper bush in the direction of the people. One of the people reportedly threw a bucket they were carrying at the panther and it ran off away from the people. The goat was recently killed and had not been moved or fed on yet. Upon investigating, it appears the goat was killed moments before the owners came outside and, as they approached, the panther momentarily and coincidentally moved towards the people to get out from under the bush before being able to turn and retreat in the opposite direction of the people. Based on the lack of any defensive or prey-protective behaviors by the panther, it seems its only intent was escaping.

Depredations

A depredation is classified as domestic livestock or pets being preyed upon by a panther. Because depredations do not involve direct contact with humans, they pose a low risk to human safety. Physical evidence of panther presence or activity was found at 80 depredation events (some events involved multiple prey animals) in Collier, Hendry, Lee, and Polk Counties (Table 3). Most of these involved hobby farm livestock (“backyard” animals such as goats, sheep, etc.) or pets in the Golden Gate Estates subdivision east of Naples but depredations also occurred in rural areas near Sunniland/Immokalee, Felida/LaBelle, and the Big Cypress Seminole Indian Reservation (Fig. 3). Additionally, the first verified panther depredation north of the Caloosahatchee River occurred near Lake Wales in Polk County (Fig. 4). Goats were the most common hobby livestock taken by panthers (Fig. 5) but other animals included sheep, donkey, miniature horse, pig, turkey, emu, duck, goose, dog, cat, cattle (calves), and alpaca (Table 4). Additionally, 14 depredations were caused by bears (6), bobcats (2), coyotes (3), vultures (2) and dog (1) (Table 1).

FWC distributed educational materials to nearby residents following a depredation in residential areas. Packets of information were delivered door-to-door to residents within 1-mile of the depredation location alerting them of the recent activity. Packets contained a notice about recent wildlife activity in the neighborhood, the *A Guide to Living With Florida Panthers* brochure, information on reporting panther sightings to the panther sightings web site, the Defenders of Wildlife safety pen assistance program, the Conservancy of Southwest Florida pen assistance and cattle compensation programs, and a handout on obtaining the Defenders of Wildlife booklet *Florida Panther: A Guide to Recognizing the Florida Panther, It's Tracks and Sign*. Additionally, because bears are active in many of the same areas, the *A Guide to Living in Bear Country* brochure and tips on avoiding attracting bears were also included. Literature was delivered to 1,106 residences near affected areas. Packets were not redelivered in areas recently canvassed. An informational A-Frame (sandwich board) sign containing Living with Panthers brochures was also deployed along the roadside near depredation locations to advise residents of recent activity and provide additional opportunities to obtain information.

MANAGEMENT ACTIONS

Some interactions require the Response Team to take action to resolve a situation for the benefit of human or panther safety. The responding Response Team members will evaluate the situation and submit an

assessment to the Response Team via email. If necessary, the Response Team shall coordinate resources among all affected agencies and develop an action plan. Certain situations warrant immediate action, before the Response Team can formally be notified, for a prudent and successful outcome.

Three events required management action: one panther was relocated and two were made to move from locations where they were temporarily settled to expedite their return to a safer area. Additionally, a conference call was held to apprise Team members of several encounters that occurred and confer that appropriate actions were being taken.

- A juvenile female panther, estimated to be about 10-mo-old, was treed in a Brazilian Pepper along Smith Rd. near the Collier County landfill in the early morning of 10 November 2016 (Table 2). Because of the time-of-day and proximity to the road, the panther was made to jump out of the tree so it could retreat to a more secluded location and reunite with its family.
- A juvenile male panther, estimated to be about 9-mo-old, was discovered cowered underneath a stilt home in Golden Gate Estates on 19 May 2017 (Table 2). An FWC panther biologist and wildlife law enforcement officer on scene hazed the panther by yelling and banging on a bucket while chasing it from where it was hiding.
- A panther was observed laying in a yard in Alva within a few hundred feet of SR80 on 31 May 2017. An FWC officer responded and reported that the panther was still on scene, the resident reported that it may be injured, and that a goat was missing. FWC panther biologists arrived at the scene and determined that the panther was not injured. Additionally, the missing goat was found cached next to where the panther had been laying. A neighbor reported that their dog had chased the panther through their yard the previous day and the next day they were walking their dog on a leash looking for the panther when it came out from the palmetto patch where it had cached the goat and growled at the dog from the opposite side of the fence (Table 2). Due to the lack of quality habitat, number of homes in the immediate area, proximity to a busy highway, and the panther's behavior (remaining in area despite interactions with dogs), team members felt relocation was the best management option for this panther. The panther was captured in a cage trap later that night, radiocollared, and released on Dinner Island Ranch Wildlife Management Area (DIR) approximately 30 miles from Alva. This 1.5-yr-old panther, now designated as FP249, utilized DIR and the Immokalee Ranch to the south for several months before displaying dispersal behavior. He was struck and killed by a vehicle on CR833 on 20 November 2017.
- The Response Team held a conference call on 2 November 2017 to discuss some encounters/incidents that occurred the previous month. One incident involved the panther coming towards people before turning away after a bucket was reportedly thrown at it (Table 2) and the other involved a report of a panther that was approaching a goat until the owner came outside. In the latter case, several attempts were made to follow up with the complainant but messages were never returned. The main purpose of the call was to make sure team members were aware and to confer on how the situations were handled. All agreed they were handled appropriately. The Team also discussed about whether we could advise private citizens to apply aversive conditioning techniques to discourage panthers from approaching near people, their animals and dwellings. The consensus was that opportunities would be limited considering the fleeting nature of encounters and the person having the appropriate tool (i.e. air horn, bear spray, etc) on hand at the moment of the encounter. However, law enforcement team members advised that suggesting using projectiles, such as paint ball guns, would need serious consideration and may constitute an illegal taking due to the panther's endangered classification.

OUTREACH

The Florida Panther Outreach Working Group, comprised of state and federal government agencies and non-government organizations, was created in 2006 to develop and promote various types of outreach materials based on the Response Plan's Outreach Strategy. Teleconference meetings were held monthly. Also, the annual Save the Florida Panther Day was recognized on 18 March 2017 through a Collier County Board of Commissioner's resolution that was developed by the Defenders of Wildlife, the Conservancy of Southwest Florida, and Friends of the Florida Panther Refuge. This resolution coincides with the Governor's proclamation that occurs on the third Saturday of each March. Outreach efforts accomplished during the reporting period are summarized below.

Florida Fish & Wildlife Conservation Commission

The Florida Fish and Wildlife Conservation Commission (FWC) created a part time (20 hr/wk) Panther Outreach Specialist position, that began in November 2016, to promote and maintain FWC's Living with Panthers initiatives. This was primarily done through talks at special venues and homeowner's associations, participation in summer camp programs, and tabling at festivals and other events. Significant accomplishments were:

- Attended 23 festivals and other events generating 4,542 table visits.
- Gave 44 presentations to groups ranging from county sponsored events, school groups, homeowner's associations/communities, and environmental organizations reaching nearly 2,000 people.
- Coordinated with the Collier County Tax Collector's office to distribute Living with Panthers information during agricultural exemption inspections.
- Worked with Collier County staff to post electronic versions of the Living with Panthers brochures (English, Spanish, and Creole) on the Collier County District 5 (Golden Gate Estates) Commissioner's and the Collier County Sheriff's Office web sites.
- Attended monthly Golden Gate Estates Task Force meetings to spread awareness and messaging amongst county emergency service and natural resource personnel.
- Produced a waterless panther track tattoo as a giveaway item for kids at festivals.

FWC's Private Lands Panther Biologist (position ended in early 2017)

- Multiple presentations were given to groups ranging from college students, local environmental groups, private landowners, and at workshops. Festivals attended included the Swamp Cabbage Festival in partnership with Defenders of Wildlife, the Florida Wildlife Festival (formerly the Umatilla Bear Festival), and Ding Darling Family Days. Topics ranged from panther ecology, living with panthers, and landowner incentive programs.

U. S. Fish & Wildlife Service – Florida Panther National Wildlife Refuge / Vero Beach Field Office

- The Florida Panther National Wildlife Refuge hosted an Open House to commemorate Save the Panther Day on March 18, 2017. Several events and activities preceded the festivity which attracted over 200 participants.
- Refuge staff gave 4 presentations at summer camps and neighborhood communities reaching over 200 people.
- The Panther Coordinator gave a presentation to all 5th grade students in Collier County Public Schools utilizing Livestream, a video streaming platform. The event was hosted through the Naples Zoo.

Friends of the Florida Panther National Wildlife Refuge

- The quarterly *Panther Update* newsletter, produced by the Friends of the Florida Panther National Wildlife Refuge, included stories from the field as well as other interesting facts related to panthers. Five newsletters were published during the reporting period and disseminated to over 400 email recipients and posted on several websites.

Big Cypress National Preserve – Swamp Water and Me Program (SWAMP)

- Big Cypress National Preserves' (BCNP) environmental education program, SWAMP (Swamp Water and Me Program), is a hands-on, curriculum-based program provided to 6th grade students at public and private schools in Collier County. Students are first taught by a ranger in their schools and then take a field trip to Big Cypress National Preserve where they can develop an appreciation and awareness of Florida panthers, their habitat needs, and avoiding conflict with panthers.
- Classroom presentations: 156, 2,993 participants.
- Field Trips: 80, 2,981 participants.

Defenders of Wildlife

- Defenders of Wildlife personnel attended 7 festivals recording around 2,000 table visits and gave 3 presentations. At many events, a portable livestock safety pen was exhibited demonstrating the concepts of a predator resistant enclosure to promote safety of pets and hobby livestock.
- Panther information was delivered at several summer camps with over 800 attendees.

Naples Zoo at Caribbean Gardens

- The Florida Panther Festival returned in 2016 with a new location – the Naples Zoo at Caribbean Gardens. The festival was held on the first Saturday of the month, November 3rd, which coincided with the free day for Collier County residents (first Saturday of each month free for Collier County residents). Response to the new venue was excellent with 5,531 people attending.
- The Naples Zoo hosted the Florida Panther Festival again on the first Saturday of the month, 4 November 2017. Although there was a steady stream of people throughout the day, attendance was down slightly to 3,427. Recovery efforts and impacts from Hurricane Irma 8 weeks prior may have affected attendance
- The Naples Zoo launched a website, www.panthercrossing.org, to promote awareness of the hazards that roads pose to Florida panthers. Caring citizens can sign a pledge to drive the posted speed limit through designated panther zones and receive a panther crossing decal to place on their vehicle to show their support for panther conservation.

FGCU Wings of Hope of Hope

- The “Wings of Hope” environmental education program, located at Florida Gulf Coast University (FGCU), engaged numerous SW Florida schools. This program is also an integral part of the environmental humanities curriculum at FGCU. University students share their knowledge with 3rd - 5th grade students organized as the “Florida Panther Posse,” in Collier and Lee County schools. Through the Panther Posse, elementary students develop reading, writing, science, geography, math, and research skills while working on current day challenges of Living with Florida panthers and water conservation issues. The program engages and involves over 400 university students who are then required to educate two others about panthers adding 800 additionally educated students, friends, or family. They also reach out to approximately 5,500 elementary students. Lastly, elementary students reach out to at least two other persons (not

necessarily their parents) about panthers and their habitat, thus spreading awareness to an additional 11,000 persons/year.

fStop Foundation

The fStop Foundation joined the Outreach Team in 2017. Their mission is to create a positive effect in conservation by creating awareness through the use of photography. The fStop Foundation submits panther photos to FWC via the sightings website. More information on this foundation is available on their website at <https://fstopfoundation.org/> and information about their Florida Panther Awareness Program can be found under the “What We Do” menu option.

- fStop teamed up with FWC’s panther outreach specialist for a joint presentation to Palmetto Ridge High School students on October 2017. Palmetto Ridge High School serves the Golden Gate Estates area of Naples, FL.
- A mock-up of the trail camera system was set up at the 2017 Panther Festival. Photos were taken of families with an outdoor backdrop to demonstrate how trail cameras work. Four Palmetto Ridge High School students volunteered their day and assisted with the demonstration.

OTHER ACTIVITIES

Florida panther depredation management issues also are being mitigated by other means. Although the Response Team is not directly involved with these efforts, they are mentioned for an awareness of activities on this topic.

Assistance Programs

The Conservancy of Southwest Florida

The Conservancy of Southwest Florida launched two programs in June 2011 that continue today; a pen building assistance program for small hobby livestock, and a cattle compensation program for free-ranging cattle on small operation ranches. To date, over \$20,000 has been awarded from both programs. More details about these programs can be found by visiting <https://www.conservancy.org/our-work/policy/florida-panther-pilot-compensation-program>.

The *Pen Building Assistance Program* provides funds to assist landowners who have experienced a depredation from a Florida panther to build a predator-resistant pen to protect their livestock and pets from further potential depredation. Assistance was provided to four residences, in partnership with Defenders of Wildlife, totaling a contribution of \$3,146 from the Conservancy of Southwest Florida.

The *Free-Ranging Cattle Compensation Program* is designed to help compensate small farm operations (300 head of cattle or fewer) that have suffered documented calf losses to panthers. Four owners were compensated for four calves totaling \$3,195 by the Conservancy of Southwest Florida.

Defenders of Wildlife

The Florida office of Defenders of Wildlife manages a *Predator-Resistant Enclosure Program* to assist residents wishing to protect their pets or hobby livestock by housing them in predator-resistant enclosures at night when predators are typically most active. The cost-share program provides construction and retrofitting instructions, labor assistance, guidance on making one’s property less attractive to predators, and financial assistance to eligible participants. Funds and assistance totaling \$1,601.00 were provided for 3 new safety pens and retrofitting one enclosure to make it predator resistant.

Livestock Indemnity Program

The Agricultural Act of 2014 (2014 Farm Bill) authorized the Livestock Indemnity Program (LIP) to provide benefits to livestock producers for livestock deaths in excess of normal mortality caused by adverse weather. In addition, LIP covers attacks by animals reintroduced into the wild by the federal government or protected by federal law, including wolves and avian predators. LIP payments are equal to 75 percent of the market value of the applicable livestock on the day before the date of death of the livestock as determined by the Secretary. Due to inherent difficulties in finding and documenting calves killed by Florida panthers, the USFWS worked with the Farm Service Agency (FSA) to improve the LIP payment procedure. This included allowing the USFWS to certify that 5% of losses could be attributed to panther depredation as determined in the Jacobs and Main study. Under the aforementioned modified approach, one payment was made on an application in 2016 for losses that occurred in 2015 and one payment was made in 2017 for losses that occurred in 2016. Additional applications for losses were filed in 2017 but denied for various reasons. These denied applications highlight the challenges of implementing LIP for losses attributed to panthers in southwest Florida cow-calf operations.

Table 1. Number of human-panther interactions and depredations investigated during reporting period 1 July 2016 - 31 December 2017.

Interaction Classification	Panther^a	Lacking Evidence^b	Other Predator^c	Total
Depredation	80	13	14	107
Encounter	2	4	0	6
Incident	2	0	0	2
Threat	0	0	0	0
Attack	0	0	0	0
Total	84	17	14	115

- a. Physical evidence that a panther was involved.
- b. No physical evidence was found to clearly determine the type of animal involved. Reasons evidence may be lacking include delays in reporting, evidence being destroyed by other animals or human activity, or environmental conditions or factors. Also includes 2 non-predatory causes (i.e. illness).
- c. Physical evidence that an animal other than panther was involved. Other depredations were caused by bear (6), bobcat (2), coyote (3), vulture (2), and domestic dog (1).

Table 2. Human-panther interactions in Collier and Lee County, Florida during reporting period 1 July 2016–31 December 2017. Corresponding locations for the event numbers are represented in Figure 2.

Event Number	Interaction Date	Location	Interaction Type	Comments
1	5/31/2017	Alva	Incident	Panther "lunged and hissed" at person walking dog on leash looking for panther. Panther was across fence from person and reacting in defense of food source (goat cache). Panther relocated for its safety based on limited and unfavorable habitat at this location.
2	10/6/2017	Golden Gate Estates	Incident	Homeowners were approaching goat on ground when panther came out from underneath Brazilian Pepper tree in direction of people. Bucket thrown at panther and it retreated. 2 goats, 1 emu also depredated.
3	11/10/2016	Golden Gate Estates	Encounter	Juvenile female panther about 10-mo- old treed by homeowner's dogs. Coaxed out and left area.
4	5/19/2017	Golden Gate Estates	Encounter	Juvenile panther about 9-mo-old resting under stilt house. Aversive conditioning techniques applied and panther vacated area.

Table 3. Panther depredations in Collier, Hendry, Lee and Polk Counties, Florida investigated during study period 1 July 2016 - 31 December 2017. Locations are represented in Figure 3.

Event Number	Interaction Date	Location	Animals Depredated	Comments
1	7/6/2016	LaBelle	Cow	1 calf fatal. Evidence: feeding method.
2	7/7/2016	Sunniland	Cow	1 calf fatal. Evidence: feeding method. First verified depredation north of Caloosahatchee River.
3	7/12/2016	Big Cypress Seminole Indian Reservation	Dog	1 dog injured. Eyewitness interrupted attack.
4	7/26/2016	LaBelle	Horse	1 miniature horse fatal. Evidence: feeding method, tracks.
5	9/29/2016	West of Clewiston	Sheep	11 sheep fatal, 1 injured. Evidence: attack method.
6	10/5/2016	Naples - GGE	Goat	1 goat injured. Evidence: attack method.
7	11/1/2016	Sunniland	Cow	1 calf injured, then euthanized. Evidence: attack method.
8	11/10/2016	Sunniland	Cow	1 calf fatal. Evidence: feeding method.
9	11/13/2016	Naples - GGE	Goat	2 goats fatal. Evidence: tracks, feeding method.
10	11/18/2016	Naples - GGE	Goat	3 goats fatal. Evidence: feeding method.
11	11/21/2016	Sunniland	Cow	1 calf injured. Evidence: attack method, canine puncture spacing.
12	11/28/2016	Naples - GGE	Goat	1 goat fatal. Evidence: feeding method.
13	11/29/2016	Naples - GGE	Goat	1 goat injured. Evidence: attack method.
14	12/1/2016	Sunniland	Cow	1 calf fatal. Evidence: feeding method.
15	12/13/2016	Naples - GGE	Goat	1 goat injured. Evidence: attack method, tracks.
16	12/20/2016	Naples - GGE	Sheep	4 sheep fatal. Evidence: attack, feeding method.
17	12/20/2016	Naples - GGE	Goat	2 goats fatal. Evidence: feeding method.
18	12/26/2016	Naples - GGE	Goat	1 goat fatal. Evidence: tracks, attack method.
19	1/2/2017	Naples - GGE	Goat	1 goat fatal. Evidence: feeding method.
20	1/5/2017	Sunniland	Cow	1 calf fatal. Evidence:
21	1/8/2017	Naples - GGE	Goat	1 goat injured. Owner saw panther attacking goat. Panther ran at sight of human.
22	1/12/2017	Immokalee Ranch	Cow	1 calf fatal. Evidence: feeding method.
23	1/15/2017	Naples - GGE	Goat	2 goats fatal. Evidence: tracks, feeding method.

Event Number	Interaction Date	Location	Animals Depredated	Comments
24	1/18/2017	Sunniland	Cow	1 calf fatal. Evidence: feeding method.
25	1/19/2017	Naples - GGE	Goat	2 goats fatal. Evidence: feeding method.
26	1/25/2017	Naples - GGE	Sheep	1 sheep fatal. Evidence: feeding method.
27	2/3/2017	Naples - GGE	Alpaca	1 alpaca fatal. Evidence: feeding method.
28	2/17/2017	Naples - GGE	Goat	1 goat fatal. Evidence: tracks, attack method.
29	2/27/2017	Naples - GGE	Pig	2 piglets fatal. Evidence: tracks, feeding method.
30	3/1/2017	Naples - GGE	Goat	1 goat fatal. Evidence: tracks, feeding method.
31	3/3/2017	Naples - GGE	Cat	1 cat fatal. Evidence: tracks.
32	3/12/2017	Naples - GGE	Goats, Geese, Duck	7 goats fatal, 2 geese fatal, 2 ducks fatal. Evidence: tracks. FP236 documented on camera returning on evening of 12 March 2017.
33	3/17/2017	Naples - GGE	Goat	2 goats fatal. Evidence: tracks, feeding method.
34	3/19/2017	Naples - GGE	Pig	2 pigs fatal. Evidence: tracks, feeding/attack method.
35	3/19/2017	Lake Wales	Sheep	1 sheep fatal. Evidence: tracks, feeding method. First verified panther depredation north of the Caloosahatchee River.
36	3/20/2017	Naples - GGE	Goat	1 goat fatal. Evidence: attack method, panther hair on fence.
37	4/7/2017	Naples - GGE	Turkey	1 turkey fatal. Evidence: tracks.
38	4/11/2017	Naples - GGE	Goat	2 goats fatal. Evidence: attack method.
39	5/15/2017	Naples - GGE	Goat	1 goat fatal. Evidence: security video.
40	5/20/2017	Naples - GGE	Goat	1 goat fatal. Evidence: tracks.
41	5/21/2017	LaBelle	Cow	1 calf fatal. Evidence: feeding method.
42	5/22/2017	LaBelle	Cow	1 calf fatal. Evidence: feeding method.
43	5/22/2017	Felda	Cow	1 calf fatal. Evidence: feeding method.
44	5/24/2017	Felda	Cow	1 calf fatal. Evidence: feeding method.
45	5/28/2017	Naples - GGE	Sheep	1 sheep fatal. Evidence: feeding method.
46	6/17/2017	Immokalee	Cow	1 calf fatal. Evidence: feeding method.
47	6/21/2017	Naples - GGE	Turkey, Goat	1 goat, 1 turkey fatal. Evidence: tracks.
48	7/16/2017	Naples - South Naples	Goats	1 goat fatal, 1 goat injured. Evidence: attack method.
49	7/21/2017	Naples - GGE	Goats	2 goats fatal, 1 goat injured, 1 goat missing. Evidence: attack method.

Event Number	Interaction Date	Location	Animals Depredated	Comments
50	7/22/2017	Naples - GGE	Miniature Horses	3 miniature horses injured. Evidence: tracks.
51	7/24/2017	Naples - GGE	Goat	2 goats fatal. Evidence: feeding method.
52	7/29/2017	Naples - GGE	Goat	2 goats fatal, 1 goat injured. Evidence: feeding/attack method.
53	8/2/2017	Naples - GGE	Cat	1 cat fatal. Evidence: attack method.
54	8/7/2017	Sunniland	Calf	1 calf fatal, euthanized. Evidence: attack method.
55	8/9/217	Sunniland	Calf	1 calf fatal, euthanized. Evidence: attack method.
56	8/11/2017	Big Cypress Seminole Indian Reservation	Mini horse	1 miniature horse fatal. Evidence: feeding method.
57	8/20/2017	Ft. Myers - Lehigh Acres	Goat	2 goats fatal. Evidence: feeding method.
58	8/23/2017	Naples - GGE	Sheep	1 sheep fatal. Evidence: feeding method.
59	8/25/2017	Naples - GGE	Goat	1 goat fatal. Evidence: feeding method.
60	9/19/2017	Naples - GGE	Goat	2 goats fatal. Evidence: feeding method.
61	9/26/2017	Naples - GGE	Goat	2 goats fatal, 1 goat missing. Evidence: feeding method, tracks.
62	10/11/2017	Naples - GGE	Goat	3 goats fatal, 1 goat missing. Evidence: attack method.
63	10/18/2017	Naples - GGE	Sheep, Goose	1 sheep fatal, 1 goose fatal. Evidence: tracks, feeding method.
64	10/18/2017	Sunniland	Cow	1 calf injured. Evidence: attack method.
65	10/20/2017	Naples - GGE	Donkey	2 donkeys fatal. Evidence: tracks, feeding method.
66	10/23/2017	Sunniland	Cow	1 calf fatal. Evidence: tracks, feeding method.
67	10/25/2017	Naples - GGE	Goat	1 goat injured. Evidence: tracks.
68	10/31/2017	Naples - GGE	Goat	1 goat fatal, 1 goat missing. Evidence: feeding method.
69	11/16/2017	Immokalee	Cow	1 calf fatal. Evidence: feeding method.
70	11/22/2017	Naples - GGE	Turkey	2 turkeys fatal. Evidence: tracks, feeding method.
71	11/24/2017	Naples - GGE	Pig	1 pig fatal. Evidence: tracks, attack method.
72	12/2/2017	Naples - GGE	Cat	6 domestic cats, fatal. Evidence: attack method.
73	12/9/2017	Naples - GGE	Goat	1 goat fatal. Evidence: feeding method.

Event Number	Interaction Date	Location	Animals Depredated	Comments
74	12/11/2017	Big Cypress Seminole Indian Reservation	Cow	1 calf fatal. Evidence: tracks, attack method.
75	12/12/2017	Big Cypress Seminole Indian Reservation	Cow	1 calf fatal. Evidence: tracks, attack method.
76	12/20/2017	Sunniland	Cow	1 calf fatal. Evidence: feeding method.
77	12/21/2017	Big Cypress Seminole Indian Reservation	Cow	1 calf fatal. Evidence: tracks, feeding method.
78	12/24/2017	Big Cypress Seminole Indian Reservation	Cow	1 calf fatal. Evidence: tracks, feeding method.
79	5/31/2017	Alva	Goat	1 goat fatal. Evidence: feeding method, panther on scene. Trapped and relocated due to concerns for panthers' safety based on its location.
80	10/6/2017	Naples - GGE	Goat, Emu	2 goats fatal, 1 emu fatal. Evidence: feeding method, tracks.

Table 4. Number of domestic animal depredations by Florida panthers during reporting period 1 July 2016–31 December 2017.

Animals	# Animals Killed	# Animals Injured	Total
Goat	53	8	61
Sheep	20	1	21
Donkey	2	0	2
Miniature Horse	2	3	5
Pig	5	0	5
Turkey	4	0	4
Emu	1	0	1
Duck	2	0	2
Goose	3	0	3
Dog	0	1	1
Cat	8	0	8
Cattle (calf)	20	3	23
Alpaca	1	0	1
Total	121	16	137

Figure 1. Number of verified human-panther conflicts and depredations per calendar year. Depredation tallies include radio ear-tagged calf mortalities documented during the UF-IFAS Calf Mortality Study during years 2011-2013. *Graphs in prior annual reports depicted numbers on a fiscal year basis, this and subsequent graphs reflect calendar year numbers.*

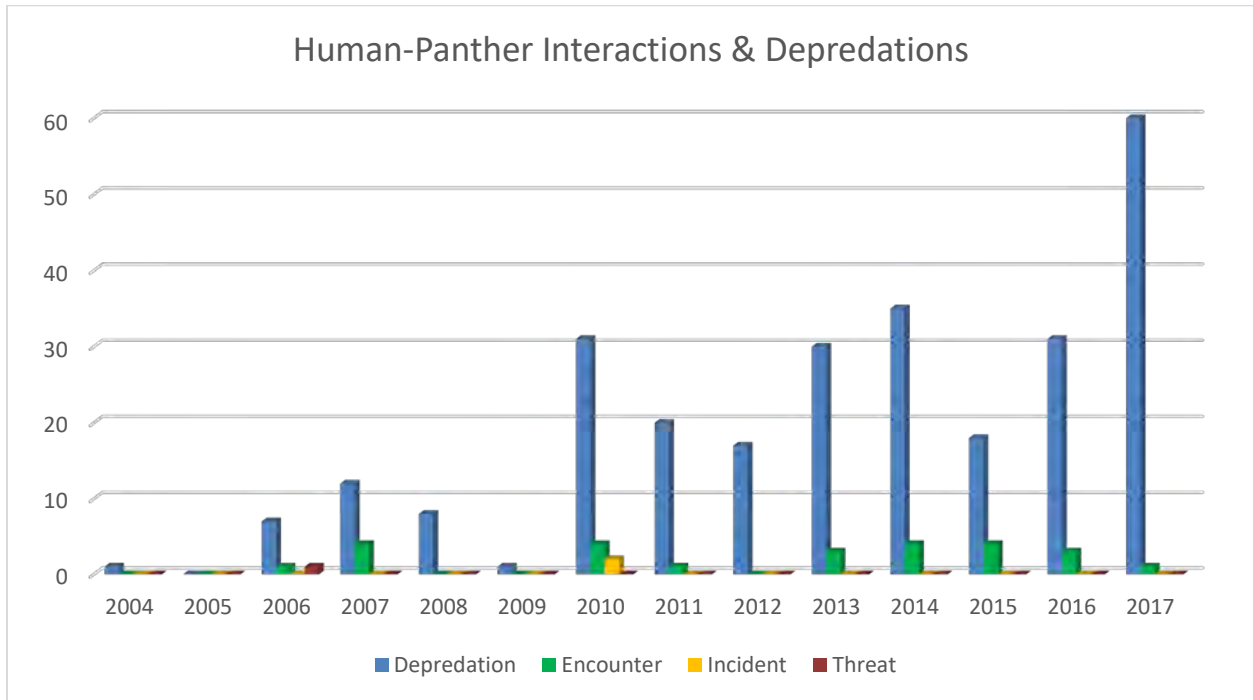


Figure 2. Human-panther interactions (event numbers correspond with Table 2) in Collier and Lee Counties, Florida during reporting period 1 July 2016 -31 December 2017.

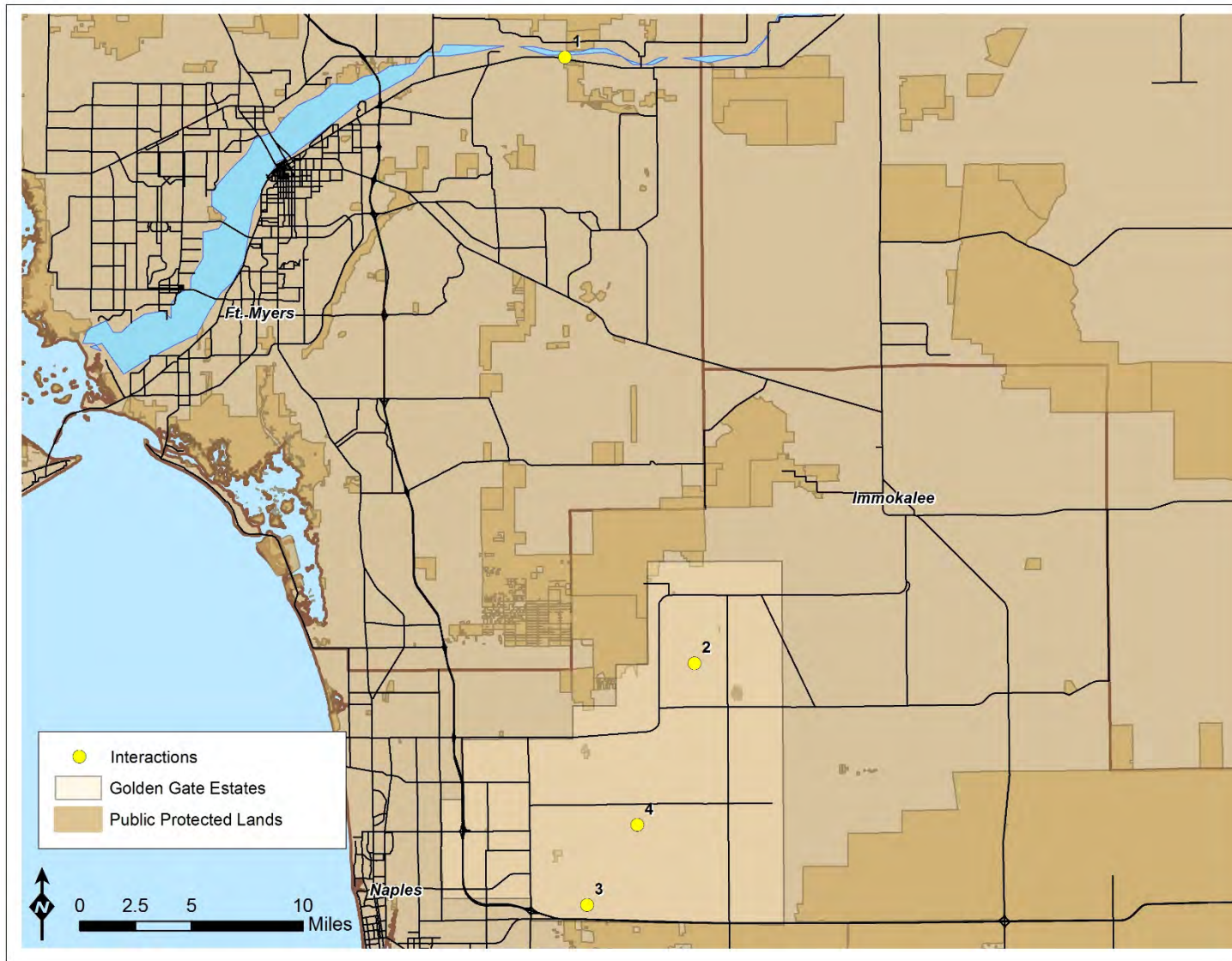


Figure 3. Panther depredations (Table 3) in Collier, Hendry and Lee Counties, Florida during reporting period 1 July 2016 – 31 December 2017.

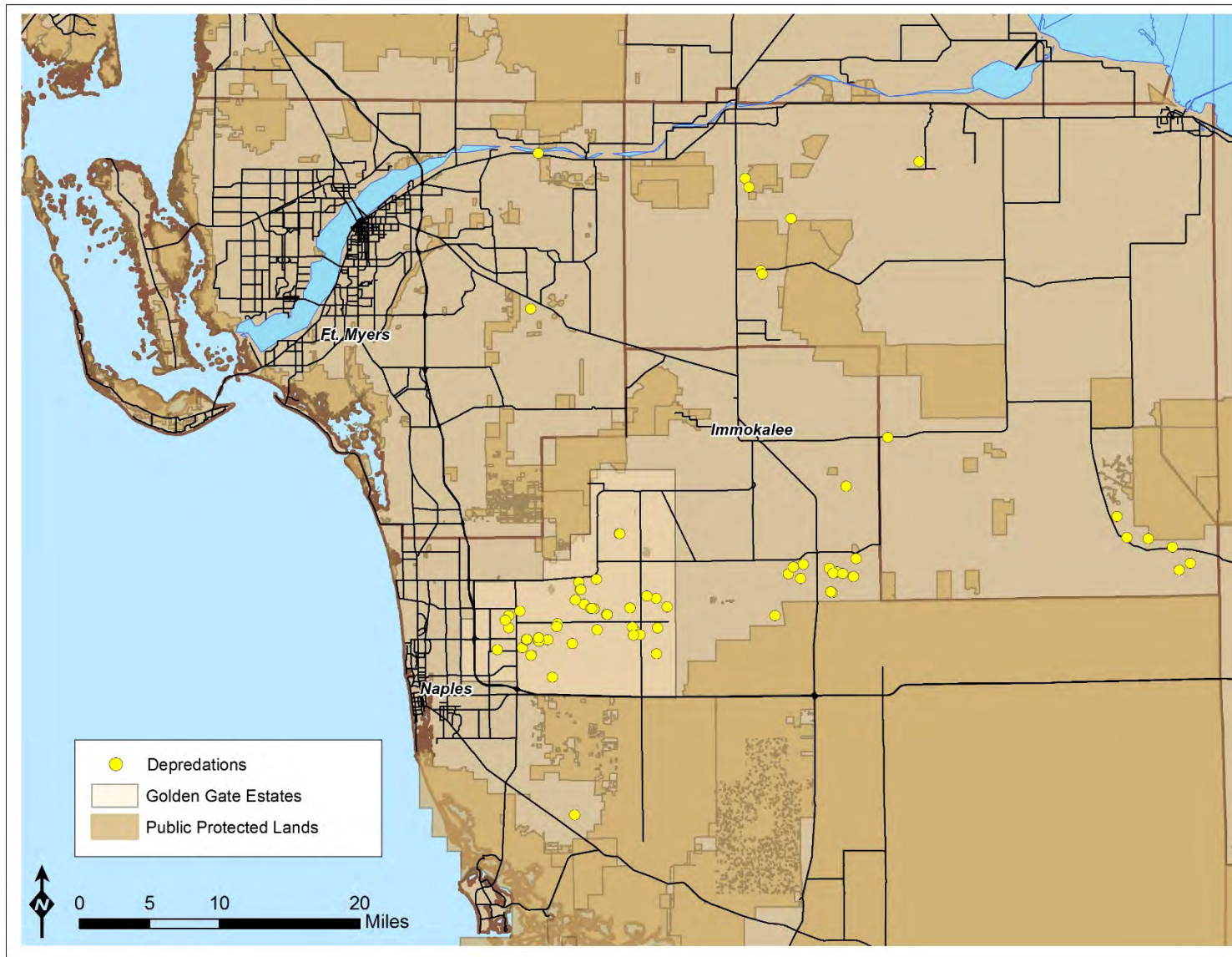


Figure 4. Panther depredation (Table 3) in Polk County, Florida during reporting period 1 July 2016 – 31 December 2017.

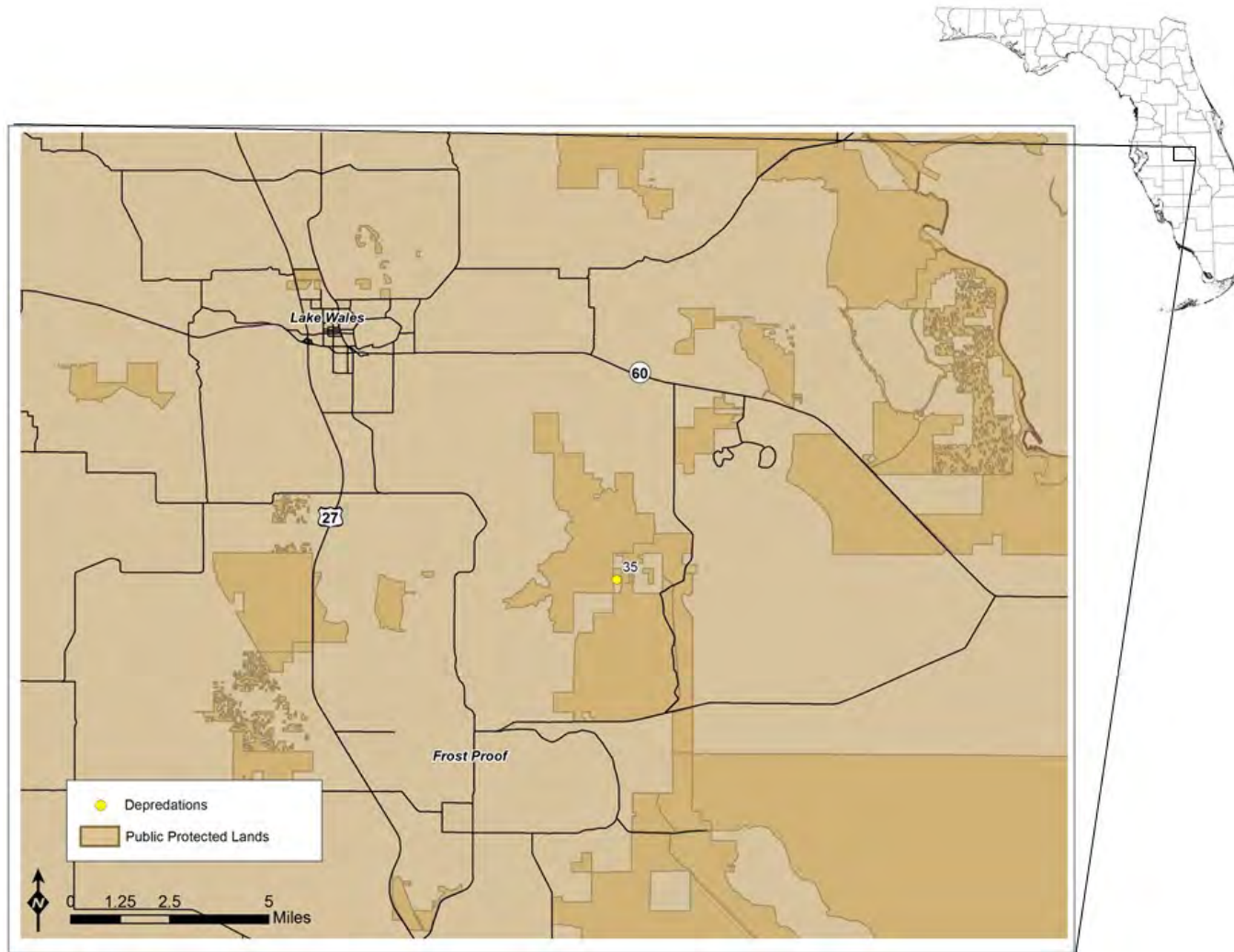
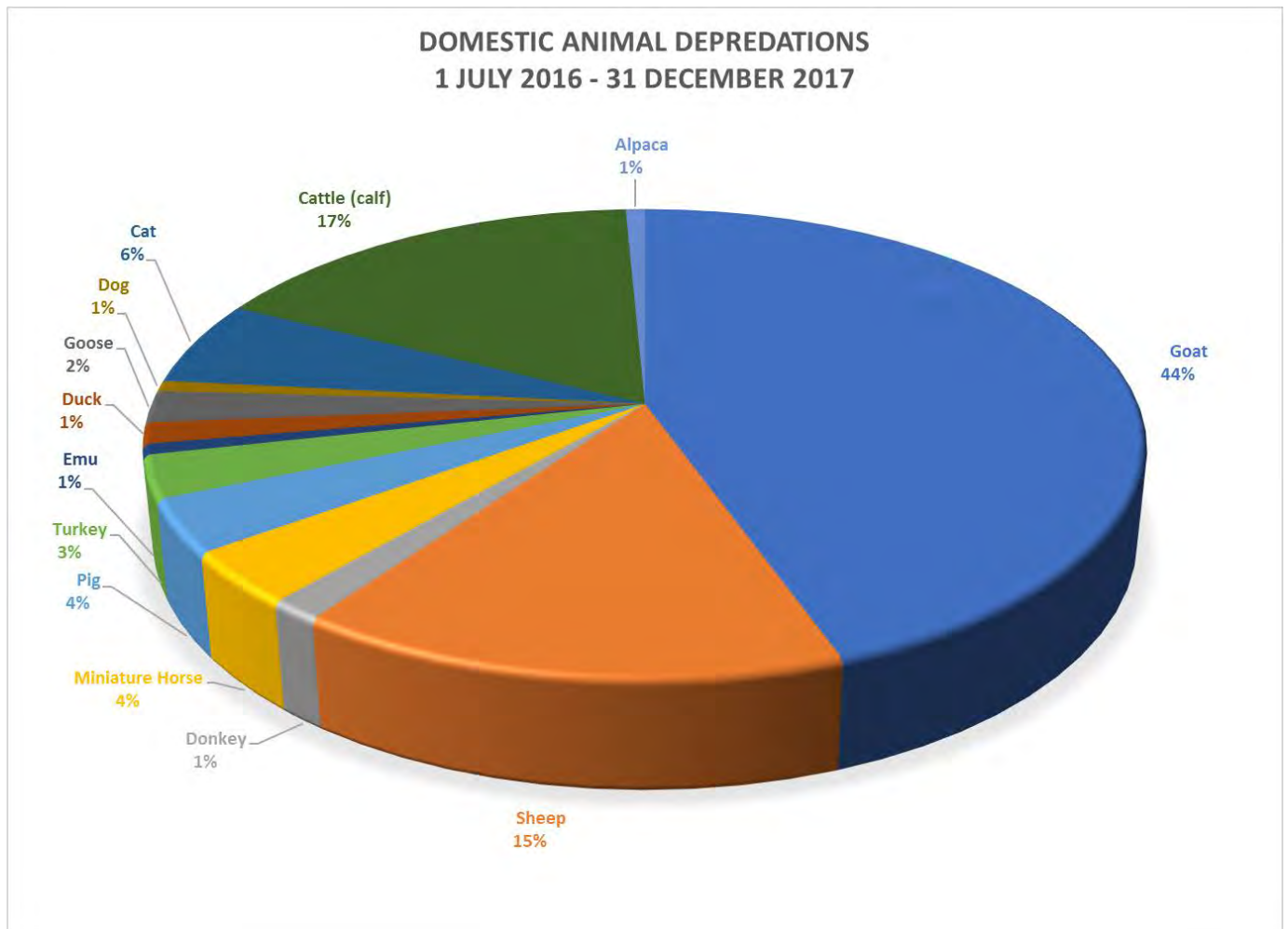


Figure 5. Proportion of domestic animal species involved in panther depredations during reporting period 1 July 2016 – 31 December 2017.



Appendix I. List of depredations and human-panther interactions received by the Florida Panther Response Team during reporting period 1 July 2016 – 31 December 2017.

Interaction Date	Location	County	Interaction Type	Animals Depredated^a	Predator
7/6/2016	LaBelle	Hendry	Depredation	Cow	Panther
7/7/2016	Sunniland	Collier	Depredation	Cow	Panther
7/12/2016	Seminole Indian Reservation	Hendry	Depredation	Dog	Panther
7/25/2016	Golden Gate Estates	Collier	Depredation	Cow	Dog
7/26/2016	LaBelle	Hendry	Depredation	Horse	Panther
9/10/2016	Golden Gate Estates	Collier	Encounter	NA	Unknown
9/18/2016	Lehigh Acres	Lee	Depredation	Dog	Unknown
9/18/2016	Labelle	Hendry	Depredation	Goat	Unknown
9/29/2016	Clewiston - Pioneer	Hendry	Depredation	Sheep	Panther
10/3/2016	Golden Gate Estates	Collier	Depredation	Chicken	Unknown
10/5/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
10/18/2016	LaBelle	Hendry	Depredation	Goat	Bobcat
10/24/2016	Immokalee - private lease	Collier	Depredation	Cow	Vulture
11/1/2016	JB Ranch	Collier	Depredation	Cow	Panther
11/3/2016	JB Ranch	Collier	Depredation	Cow	Unknown
11/6/2016	JB Ranch	Collier	Depredation	Cow	Bear
11/7/2016	Ft. Myers - Tice	Lee	Encounter	NA	Unknown
11/10/2016	JB Ranch	Collier	Depredation	Cow	Panther
11/10/2016	Golden Gate Estates	Collier	Encounter	NA	Panther
11/13/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
11/17/2016	Seminole Indian Reservation	Hendry	Depredation	Cow	Bear
11/18/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
11/21/2016	JB Ranch	Collier	Depredation	Cow	Panther
11/21/2016	Golden Gate Estates	Hendry	Encounter	NA	Unknown
11/28/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther

Interaction Date	Location	County	Interaction Type	Animals Depredated^a	Predator
11/28/2016	JB Ranch	Collier	Depredation	Cow	Unknown
11/29/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
12/1/2016	JB Ranch	Collier	Depredation	Cow	Panther
12/13/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
12/15/2016	Golden Gate Estates	Collier	Sighting (video)	NA	Panther
12/20/2016	Golden Gate Estates	Collier	Depredation	Sheep	Panther
12/20/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
12/23/2016	Golden Gate Estates	Collier	Depredation	Dogs	Unknown
12/26/2016	Golden Gate Estates	Collier	Depredation	Goat	Panther
12/30/2016	Golden Gate Estates	Collier	Depredation	Goat	Bear
1/2/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
1/5/2017	JB Ranch	Collier	Depredation	Cow	Panther
1/8/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
1/12/2017	Immokalee Ranch	Hendry	Depredation	Cow	Panther
1/15/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
1/18/2017	Sunniland	Collier	Depredation	Cow	Panther
1/19/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
1/25/2017	Golden Gate Estates	Collier	Depredation	Sheep	Panther
2/3/2017	Golden Gate Estates	Collier	Depredation	Alpaca	Panther
2/17/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
2/27/2017	Golden Gate Estates	Collier	Depredation	Pig	Panther
3/1/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
3/3/2017	Golden Gate Estates	Collier	Depredation	Cat	Panther
3/12/2017	Golden Gate Estates	Collier	Depredation	Goats, Geese, Duck	Panther
3/14/2017	LaBelle	Hendry	Depredation	Goat	Coyote
3/17/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
3/19/2017	Golden Gate Estates	Collier	Depredation	Pig	Panther

Interaction Date	Location	County	Interaction Type	Animals Depredated^a	Predator
3/19/2017	Lake Wales	Polk	Depredation	Sheep	Panther
3/20/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
3/30/2017	Moorehaven	Glades	Depredation	Cow	NA
4/7/2017	Golden Gate Estates	Collier	Depredation	Turkey	Panther
4/11/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
5/15/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
5/19/2017	Golden Gate Estates	Collier	Depredation	Cat	Unknown
5/19/2017	Golden Gate Estates	Collier	Encounter	NA	Panther
5/20/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
5/21/2017	LaBelle	Hendry	Depredation	Cow	Panther
5/22/2017	LaBelle	Hendry	Depredation	Cow	Panther
5/22/2017	Felda - Keri Rd	Hendry	Depredation	Cow	Panther
5/24/2017	Felda - Keri Rd	Hendry	Depredation	Cow	Panther
5/28/2017	Golden Gate Estates	Collier	Depredation	Sheep	Panther
5/31/2017	Alva	Lee	Depredation	Goat	Panther
5/31/2017	Alva	Lee	Incident	NA	Panther
6/17/2017	Sunniland	Collier	Depredation	Cow	Panther
6/19/2017	Clewiston - Hendry Isles Blvd	Hendry	Depredation	Sheep	Coyote
6/21/2017	Golden Gate Estates	Collier	Depredation	Goat, Turkey	Panther
7/5/2017	Golden Gate Estates	Collier	Depredation	Dog	Unknown
7/8/2017	Golden Gate Estates	Collier	Depredation	Cat	Unknown
7/16/2017	Naples - 6L's	Collier	Depredation	Goats	Panther
7/19/2017	Golden Gate Estates	Collier	Depredation	Chicken	Unknown
7/21/2017	Golden Gate Estates	Collier	Depredation	Goats	Panther
7/22/2017	Golden Gate Estates	Collier	Depredation	Miniature Horses	Panther
7/24/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
7/24/2017	Ft Myers - Buckingham	Lee	Depredation	Geese	Unknown
7/29/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther

Interaction Date	Location	County	Interaction Type	Animals Depredated^a	Predator
8/2/2017	Golden Gate Estates	Collier	Depredation	Cat	Panther
8/7/2017	Sunniland	Collier	Depredation	Cow	Panther
8/9/2017	Sunniland	Collier	Depredation	Cow	Panther
8/11/2017	Seminole Indian Reservation	Hendry	Depredation	Mini horse	Panther
8/20/2017	Lehigh Acres	Lee	Depredation	Goat	Panther
8/23/2017	Golden Gate Estates	Collier	Depredation	Sheep	Panther
8/25/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
9/4/2017	Golden Gate Estates	Collier	Depredation	Sheep	Bear
9/19/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
9/26/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
10/6/2017	Golden Gate Estates	Collier	Depredation	Goat, emu	Panther
10/6/2017	Golden Gate Estates	Collier	Incident	NA	Panther
10/11/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
10/18/2017	Golden Gate Estates	Collier	Depredation	Sheep, Goose	Panther
10/18/2017	Sunniland	Collier	Depredation	Cow	Panther
10/20/2017	Golden Gate Estates	Collier	Depredation	Donkey	Panther
10/23/2017	JB Ranch	Collier	Depredation	Cow	Panther
10/25/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
10/31/2017	Sebring	Highlands	Depredation	Cow	Coyote
10/31/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
11/2/2017	JB Ranch	Collier	Depredation	Cow	Unknown
11/2/2017	Seminole Indian Reservation	Hendry	Depredation	Cow	Bear
11/3/2017	Golden Gate Estates	Collier	Depredation	Rabbit	Bobcat
11/6/2017	Sunniland	Collier	Depredation	Cow	Bear
11/7/2017	JB Ranch	Collier	Depredation	Cow	Vulture
11/12/2017	JB Ranch	Collier	Depredation	Cow	Unknown
11/16/2017	JB Ranch	Collier	Depredation	Cow	Panther
11/22/2017	Golden Gate Estates	Collier	Depredation	Turkey	Panther

Interaction Date	Location	County	Interaction Type	Animals Depredated^a	Predator
11/24/2017	Golden Gate Estates	Collier	Depredation	Pig	Panther
12/2/2017	Golden Gate Estates	Collier	Depredation	Cat	Panther
12/2/2017	Golden Gate Estates	Collier	Encounter	NA	Unknown
12/9/2017	Golden Gate Estates	Collier	Depredation	Goat	Panther
12/11/2017	Seminole Indian Reservation	Hendry	Depredation	Cow	Panther
12/12/2017	Seminole Indian Reservation	Hendry	Depredation	Cow	Panther
12/20/2017	JB Ranch	Collier	Depredation	Cow	Panther
12/21/2017	Seminole Indian Reservation	Hendry	Depredation	Cow	Panther
12/24/2017	Seminole Indian Reservation	Hendry	Depredation	Cow	Panther

a. Each “cow” was a calf generally less than 2-mo-old. There were no depredations of adult cattle.