

Report of Coyote Research Project - Metro Boston and Cape Cod

1st Quarter 2008 (January-March)

Drafted by Dr. Jonathan Way, with assistance from Mr. David Eatough and Dr. Eric Strauss

Cape Cod Study Site

This study site focuses in and around the town of Barnstable as well as the adjoining towns of Mashpee, Sandwich, and Yarmouth.

1. Trapping Data. We currently have 10 traps in the field; 9 are large Tomahawk traps while 1 is fox sized

Trapping activity	Total
Trap Days (days traps in field)	791
Traps Wired Open	704
Trap Days Armed	87
Trapping Effort (# of trap visits [incl. 2 visits per day] and bait site visits)	427
Traps Sprung	43
Animals Captured:	
Coyote	3
Raccoon	11
Red-tailed hawk ¹	10
Nothing	9
Crow	6
Opossum	2
Domestic dog	1
Blue jay	1
Turkey vulture	1

¹One hawk died in trap at Barnstable County Farm on 30 March. Trap was checked morning and afternoon (3:30 pm). Hawk went in trap after that time and trap was dragged 8 ft and bait was pulled through trap; we suspect a fisher, who County Farm personnel have observed on their property, killed the hawk through the trap. We will attempt to do afternoon visits closer to dusk from now on, which is normal protocol.

2. Current Trap Locations using NAD 27 coordinates

Trap Name	Location description	UTM – X	UTM – Y
1. Camp Lyndon	Camp Lyndon YMCA - Sandwich	190379332	4616810
2. Hollow	Off Hollow Rd off Newtown Rd at Barn./Mashpee line	190379319	4612048
3. Eagle Pond ¹	Off Putnam Rd in Cotuit	190381117	4610365
4. MM28 ¹	Immediately N of Rt 28 ½ mile W of White Hen Pantry in MMills	190383367	4612041
5. Ebenezer	Trap in J. Way's backyard: 89 Ebenezer Rd	190384776	4612705

6. Hyannisport Watershed	In watershed S of Old Craigville Beach and Old Towne Roads	190389861	4611084
7. County Farm	Trap at Barnstable County Farm in Cummaquid (NE Barnstable)	190393058	4616541
8. Sandy Neck	Trap near/at gatehouse at beginning of Sandy Neck Beach	190384730	4621157
9. Walnut St	By the small sandpit at N part of Walnut St at Centerville/M Mills village line	190385308	4614671
10. NE Mystic	Trap in woods immediately South of Marstons Mills grassy airport	190382776	4615390
11. MMRS big	Trap at Marstons Mills rendezvous site at the River Rd/Bog Rd Jxn	190380672	4613664
12. MMRS small	Same as above – 20 ft apart (this is a small fox-sized trap)	190380676	4613676
13. Oak Street ¹	Off powerlines just E of Oak St and immediately N of Route 6	190387592	4615525

¹Only a bait site – No trap there currently

3. Coyote(s) Captured

Date	Coyote (Name – ID #)	Sex	Age	Location	Wt (lbs)
1. 1-19-08	Raider – 0606 (repeat capture from 2006)	Female	Old Adult ¹	Hyannisport trap	41.2
2. 1-31-08	Coak – 0804	Female	1-2 yr	Oak St trap	26.6
3. 2-19-08	Jaws – 0801 ²	Male	2-3 yr	MM28 trap	30.1

¹Probably 7-8 years old – heavily worn teeth

²Had a broken jaw (specifically the anterior part of his upper maxilla bone just anterior to the upper canines). Was rehabilitated for 9 days at Cape Wildlife Center and surgery (during that time) was performed at Hyannis Animal Hospital where we removed the broken upper jaw bone anterior to the canines and removed all 6 upper incisors, which were broken. We think he was either hit by a car in the face or involved in a fight with other canids (dogs or coyotes). Surgery was performed on 2-21-08, and on 2-28-08 we collared and released him; 80% of the suture had held and we wanted to release him as quickly as possible in order to see if he was a territory holder. 31 lb when released.

4. Coyotes currently being monitored in area

Quick summary:

Coyote	Sex	Capture date(s)	General location
1. Sill	M	2000, 2004	Old male (turns 9 yr in April 2008); has small territory in Marstons Mills surrounding a large complex of cranberry bogs.
2. Mup	F	Nov. 2006	Daughter of Mystic who was shot Dec. 2006; is currently pregnant (visual indicates swollen stomach on 1 April 2008) in natal territory to an

3. Raider	F	6/2006 & 1/08	unrelated male observed after Mystic's death; is 2 yr old this spring Unless she left the area after her second capture (doubtful based on behavior of Coak), both radio-collars died prematurely including the one put on her 2 months ago; currently untrackable with dead collar.
4. Coak	F	Jan. 2008	Captured in West Barnstable but uses the periphery of Raider's territory; suspected to be with one of Raider's sons (not known if pregnant this spring); is young, probably 1-2 yr old.
5. Cake	F	3/2002, 5/2006	Long-time territory in Centerville; is pregnant and now denning in traditional territory; is probably 7 yr old
6. Walnut	M	11/2006	Son of Cake born in 2006; dispersed from Cape Cod and is currently in World's End Reservation in Hingham, MA (10 miles S of Boston)

Description:

As the first quarter ends, our protocols shift in anticipation of the birth of pups. We are currently monitoring Sill and Cake who are an older male and female, respectively, in their long-established territories. Cake is localizing as of this writing and we suspect Sill will be localizing near where his mate chooses to give birth. Mup, who never left her Marstons Mills territory (and whose territory is sandwiched between Sill and Cake's group), seems to be pregnant. She is now 2 years old and consistently travels with other coyotes. Her father (Mystic) was shot by a hunter when she was 8 months old (December 2006). A new male came onto that territory and is likely unrelated to her, hence why she never dispersed. We are trying to figure out if her mother is still around and if he might have bred both of them. We anticipate novel data if that is indeed the case, and will monitor closely.

Our newly collared coyotes, Coak and Jaws, have been fascinating to track. Coak was originally captured in West Barnstable but has been consistently using the greater-Hyannis area. However, she has avoided areas which Raider traditionally uses, although we have not been able to acquire Raider's signal. Our working hypothesis is that Raider's collar did die/malfunction and that she is still around her territory. Coak, we believe, is with one of Raider's offspring and uses the large area but stays away from Raider. We need to collect more night tracking data (including sightings) to see who Coak is traveling with and if she is indeed avoiding Raider, but this is a plausible scenario. In May, when pups are big enough to be away from their mother for a few hours we are going to try to recapture Raider in Hyannisport.

Jaws, the coyote who had jaw surgery and was released nine days later in late February/early March, is doing well. Dr. Way has observed him with another coyote and heard him howl with what sounded like 2 other coyotes. He appears not to have been displaced while held in captivity for 9 days (to receive antibiotics and have surgery on his mouth) which is notable in itself. He seems to have a mate with whom he travels closely with and focuses his activity around the Marstons Mills dump area. However, he also

uses the watershed behind the Stop & Shop in Marstons Mills which is an area frequented by hunters.

In addition to these five coyotes with functioning collars and Raider who's collar is likely dead and suspect is still within the town of Barnstable study site, there is a 7th coyote that we still monitor from the Cape Cod site. Walnut (from Cape Cod originally) is likely still up in Hingham, where we have located him three times in the fall and early winter. He may be localizing with the mate that was observed him with during late February. Dr. Way will attempt to verify this during school vacation in late-April.

Finally, the coyote Hood is being tracked by our colleagues Dave Eatough (Revere High School science teacher) and Steve Cifuni. He consistently uses the Mt. Hood Golf Course area in Melrose and does not have a big range, at least as of yet (see below).

The busy time of the year is just beginning as pups are born and our school year is getting toward the end, which will give us extra time to uncover more secrets from our wild neighbors.

North of Boston Study site

This study site involves the towns/cities of Revere, East Boston, Malden, Everett, Melrose, and Saugus, as well as adjacent towns.

1. Trapping Data

Trapping activity	Total
Trap Days (days traps in field)	182
Traps Wired Open	178
Trap Days Armed	4
Trapping Effort (# of trap visits [incl. 2 visits per day] and bait site visits)	34
Traps Sprung	2
Animals Captured:	
Coyote	1
Nothing	1

2. Current Trap Locations using NAD 27 coordinates

Trap Name	Location description	UTM – X	UTM – Y
1. Mt. Hood	Melrose MA Mt. Hood Golf Course	190332374	4601396
2. Belle Isle	East Boston MA – Belle Isle Preserve	190335878	4694630
3. Jewish Cemetery ¹	In woods near cemetery at N tip of Everett	190332796	4698689

¹Only a bait site – no trap there yet

3. Coyote(s) Captured

Date	Coyote (Name – ID #)	Sex	Age	Location	Wt (lbs)
1. 2/19/08	Hood – BN0803	Male	1-2 yr	Mt. Hood – Melrose MA	33

4. Coyotes currently being monitored in area

We are currently radio-tracking Hood and associates (uncollared – 2 to 3 others). We are trying to determine if he is a helper coyote or a breeding male. His current home range is small and is restricted to the immediate area in and around Mt. Hood Golf Course

Chestnut Hill, Newton & Brighton Study Site

Plans are in-place to reinvigorate the study in the Boston College area late this spring. Because permits were acquired late in the school year, all research students had been assigned to other projects. We assign students to studies during May (for the summer), September (for the fall) and January (for the winter and spring). We have active interest from both the Chestnut Hill Association and the Brookline Country Club to fund particular aspects of the work pertinent to local management challenges. In addition, Dr. Strauss, along with Dr. Numi Mitchell and researchers from the University of Rhode Island are submitting an NSF proposal in April for a collaborative study and public education effort. We are eager to engage the Massachusetts Division of Fisheries and Wildlife in this endeavor.

Coyote Mortalities on our combined study sites

1. 3 December 2007 – 31.8 lb radio-collared female “Snale” hit and killed just S of Service Rd and E of Shooting Range in West Barnstable Conservation Area. Necropsy done by Cape Wildlife Center and body disposed of by CWC. She was hit and killed by a car.
2. 30 January 2008. Coyote “Ches”, originally captured in Newtown was killed (hit by car) in Weston on Route 90 (Mass. Pike). No measurements available as J. Wayh as not seen the carcass yet. MDFW alerted us to this carcass.

Thank-you for your support of these projects.

Respectfully submitted by Jonathan Way, David Eatough, and Eric Strauss