























AF11	F	1.5	3/5/08	South Table Mesa	Deer Kill	Cage	On-site	NA	Alive
			8/20/08	US-40/Empire	Roadkill				Dead
AM20	M	4	3/6/08	White Ranch	Capture effort	Hounds	On-site	NA	Alive
			5/18/08	West of White Ranch	Livestock Depredation	Shot			Dead
AF15	F	6	3/18/08	Coffin Top	Capture effort	Hounds	On-site	NA	Alive
		7	4/2/09	Hall Ranch	Replace Collar	Hounds	On-site	NA	Alive
			3/25/10	Coffin Tip	Replace Collar	Hounds	On-site	NA	Alive
		8-9	2/4/11	Hall Ranch	Deer Kill	Snare	On-site	NA	Alive
		9+	2/2/12	Longmont Dam Rd	Deer Kill	Snare	On-site	NA	Alive
		9+	11/8/12	Button Rock	Natural Mortality				Dead
AF17	F	9+	3/29/08	Sugarloaf	Pet depredation	Cage	Within 1 mile	Beanbag	Alive
			5/20/08	Four-mile Canyon	Unknown mortality				Dead
AF12	F	2	5/8/08	N. Boulder	Deer Kill	Cage	US Forest Boulder Canyon	Beanbag	Alive
			5/29/08	N. Boulder	Livestock depredation	Cage	Near Ward	Beanbag	Alive
			2/13/09	N. Boulder	Deer Kill/Shot	Snare	None		Dead
AM13	M	2	5/8/08	Sugarloaf	Livestock depredation	Cage	On-site	Beanbag	Alive
			12/17/08	Heil Valley Ranch	Replace Collar	Hounds	On-site	NA	Alive
		3	12/17/09	Heil Valley Ranch	Replace Collar	Hounds	On-site	NA	Alive
			3/27/12	Hall Ranch	Detected by camera				Alive
			5/30/13	Apple Valley Rd.	Shot/depredation				Dead
AM14	M	2	5/15/08	South Boulder	Seen under deck	Free-dart	Lindsey	None	Alive
			5/20/08	South Boulder	Deer kill	Free-dart	West of Rollinsville	Beanbag	Alive
			4/14/09	Rollins Pass	Replace Collar	Hounds	On-site	NA	Alive
		3	2/16/10	Left Hand Canyon	Replace Collar	Hounds	On-site	NA	Alive
		4.5	6/22/11	Allenspark	Elk Kill	Cage	On-site	NA	Alive
		4-5	11/9/11	Hwy 72	Raccoon Kill	Free-dart	On-site	NA	Alive
		4-5	12/4/11	Allenspark	Shot/depredation				Dead
AF34	F	1.5	12/5/08	Heil Valley Ranch	Capture effort	Hounds	On-site	NA	Alive
			3/18/09	N. Boulder	Deer kill	Cage	Heil Valley Ranch	Beanbag	Alive
		2.5	1/4/10	Heil Valley Ranch	Replace Collar	Hounds	On-site	NA	Alive
		3.5	12/31/10	Hall Ranch	Replace Collar	Hounds	On-site	NA	Alive
		4.5	12/28/11	Hall Ranch	Replace Collar	Hounds	On-site	NA	Alive
		5.5	2/13/12	W of Hall Ranch	Unknown mortality				Dead
AM18	M	1.5	12/24/08	Evergreen	Deer kill	Cage	Mt. Evans SWA	None	Alive
			3/14/09	Evergreen	Livestock depredation	Cage	None		Dead
AF16	F	3	12/29/08	Evergreen	Deer Kill	Snare	Flying J Open Space	None	Alive
			3/20/09	Evergreen	Livestock depredation	Cage	Mt. Evans SWA	Beanbag	Alive
									Unknown
AF45	F	5	1/2/09	Gold Hill	Deer kill	Cage	On-site	NA	Alive

			11/24/10	N.Boulder	Euthanized/Lisa Wolfe				NA	Dead
AF40	F	1.5	1/27/09	White Ranch	Capture effort	Hounds	On-site		NA	Alive
		1.5	1/28/09	White Ranch	Replace Collar	Hounds	On-site		NA	Alive
		2.5	2/22/10	White Ranch	Replace Collar	Snare	On-site		NA	Alive
		4-5	3/4/12	Idaho Springs	Fawn Kill	Snare	On-site		NA	Alive
		5	10/13/12	Idaho Springs	Shot by hunter					Dead
AF24	F	10+	2/12/09	North Boulder	Deer Kill	Cage	Hall Ranch		None	Alive
			2/25/09	Hwy 7	Replace Collar	Hounds	On-site		NA	Alive
			4/4/09	North Boulder	Raccoon Kill	Free-dart	Heil Valley Ranch		None	Alive
			5/31/09	North Boulder	Encounter	Shot				Dead
AM31	M	1.5	12/31/08	Evergreen	Chicken coop	Hounds	On-site		None	Alive
			3/29-09	Conifer	Livestock depredation	Cage	Mt. Evans SWA		None	Alive
		2.5	2/16/10	Douglas, WY	Hunter					Dead
AF37	F	1.5	12/31/08	Evergreen	Chicken coop	Free-dart	On-site		None	Alive
			8/11/09	I-70	Roadkill					Dead
AM21*	M	1.5	8/29/09	N. Boulder	Encounter	Free-dart	Ward		None	Alive
		2	3/01/10	Loveland	Livestock depredation					Dead
AF32	F	1.5	9/28/09	Indian Hills	Livestock depredation	Cage	Within 1 mile		None	Alive
		3.5	11/28/10	Golden	In neighborhood	Free-dart	White Ranch		None	Alive
		3.5	12/1/10	Golden	In neighborhood	Cage	Radium		None	Alive
			9/23/11	Green Mtn. Res.	Found dead					Dead
AM46	M	2	11/13/09	Evergreen	Elk kill	Cage	On-site		None	Alive
			3/5/10	Genesee	Livestock depredation	Shot				Dead
AF50	F	3	11/24/09	West of Boulder	Deer kill	Cage	On-site		NA	Alive
										Unknown
AM44	M	6	12/15/09	White Ranch	Capture effort	Hounds	On-site		NA	Alive
			3/18/10	White Ranch	Replace collar	Hounds	On-site		NA	Alive
		7-8	3/20/11	White Ranch	Elk kill	Snare	On-site		NA	Alive
		9	5/30/12	SW of White Ranch	Shot/depredation					Dead
AM606	M	2	1/6/10	Boulder	Seen in town	Free-dart	MacGregor Ranch		None	Alive
			9/23/11	Laporte	Shot killing goat					Dead
AF54	F	4	1/14/10	White Ranch	Capture effort	Hounds	On-site		NA	Alive
			5/16/11	White Ranch	Deer Kill/Replace Collar	Cage	On-site		NA	Alive
		7	3/14/13	White Ranch	Replace Collar	Hounds	On-site		NA	Alive
			4/18/14	White Ranch	Livestock depredation	Shot				Dead
AF52	F	4	1/28/10	Hall Ranch	Capture effort	Hounds	On-site		NA	Alive
		5-6	3/24/11	Hall Ranch	Deer Kill	Cage	On-site		NA	Alive
		10+	2/24/16	Hall Ranch	Baiting	Cage	On-site		NA	Uncollared
AM51	M	1.5	1/28/10	Hall Ranch	Capture effort	Hounds	On-site		NA	Alive

AF56	F	1.5	1/6/2014 2/22/10	Larimer Cty Conifer	Hunter Harvest Livestock depredation	Hounds Cage			Dead Alive
AF55	F	4	5/24/12 2/23/10	Conifer	Shot Livestock depredation	Cage	Mt. Evans SWA	Beanbag	Dead Alive
AM53	M	4	3/13/10 3/13/10	Conifer Genesee	Pet Depredation Elk Kill	Cage Cage		Euthanized NA	Dead Alive
AM60	M	2	3/3/11 3/29/10	Medved property Walker Ranch	Shot/hunter Baiting	Cage	On-site	NA	Dead Alive Unknown
AF58	F	1.5	4/4/10 6/3/10	Table Mesa	Baiting Roadkill	Cage	On-site	NA	Alive Dead
AF62	F	5	4/13/10	Walker Ranch	Elk Kill	Cage	On-site	NA	Alive
		6	4/13/11	Walker Ranch	Baiting	Cage	On-site	NA	Alive
			12/10/11	Gross Dam	Non-target/released	Cage	On-site	NA	Alive
		6	11/14/12	Walker Ranch	Recollar	Cage	On-site	NA	Alive
AF59	F	5	2/16/12 4/22/10	Walker Ranch Blue Jay/Jamestown	Natural Mortality Deer Kill	Cage	On-site	NA	Dead Alive
		5	1/6/11	N. Boulder	Deer Kill	Cage	On-site	NA	Alive
		5-6	12/29/11	Sunshine Canyon	Deer Kill	Free-dart	On-site	NA	Alive
		6	3/6/12	NW of Boulder	Unknown mortality				Dead
AM63	M	1	9/22/10 9/30/10	Paradise Park	Deer Kill Road Kill	Cage	White Ranch	None	Alive Dead
AF57	F	3	11/3/10	Lacy Property	Baiting	Snare	On-site	NA	Alive
		4-5	2/4/12	JCOS Ralston Buttes	Replace Collar	Hounds	On-site	NA	Alive
		5-6	3/5/13	Boulder/OSMP	Recollar	Cage	On-site	NA	Alive
			1/15/14	Lacy property	Recollar	Cage	On-site	NA	Alive
			3/7/16	Last Location					Unknown
AF61	F	4-5	11/18/10	Flagstaff	Deer Kill	Free-dart	On-site	NA	Alive
		4-5	3/2/11	Coal Creek Canyon	Raccoon Kill	Cage	Walker Ranch	None	Alive
		5	12/10/11	Gross Dam Rd	Baiting	Snare	On-site	NA	Alive
			1/27/14	Magnolia	Recollar	Hounds	On-site	NA	Alive
			2/17/16	Last Location					Unknown
AF64	F	1.5	1/20/11	Heil Valley Ranch	Baiting	Cage	On-site	NA	Alive
		3-4	7/19/12	N of Nugget Hill	Kill	Snare	On-site	NA	Alive Unknown
AM67	M	1.2	12/16/10 3/4/12	White Ranch Big Thompson	Baiting Shot/Depredation	Cage Snare	On-site	NA	Alive Dead
AF69	F	1.5	12/1/10	N. Boulder	Deer Kill	Free-dart	On-site	NA	Alive
		2	4/6/11	N.Boulder/Town	Deer Kill	Free-dart	Reynolds Ranch	None	Alive
		4	3/31/12	Wonderland	Deer Kill	Cage	On-site	NA	Alive

			1/21/14	Last Location					Unknown
AM70	M	2	1/23/11	Gold Hill	Deer Kill	Cage	On-site	NA	Alive
			3/2/11	Boulder Heights	Dog Kill	Cage	Reynolds Ranch	None	Alive
		3	2/26/12	Buckhorn Rd	Unknown mortality				Dead
AM71	M	2	1/27/11	Heil Valley Ranch	Baiting	Cage	On-site	NA	Alive
		3	12/23/11	Casper, WY	Shot/hunter	Hounds			Dead
AM72	M	4	2/6/11	Heil Valley Ranch	Baiting	Snare	On-site	NA	Alive
		5	5/2/12	Heil Valley Ranch	Unknown mortality				Dead
AF73	F	4	3/6/11	Sunshine Canyon	Baiting	Cage	On-site	NA	Alive
		3-4	10/28/11	Four Mile Canyon	Deer Kill	Cage	On-site	NA	Alive
		4-5	3/27/13	Magnolia	Recollar	Hounds	On-site	NA	Alive
			1/25/14	Magnolia	Unknown Mort.				Dead
AM74	M	4	2/23/11	White Ranch	Baiting	Cage	On-site	NA	Alive
		5	3/7/12	Golden Gate Canyon	Deer Kill	Snare	On-site	NA	Alive
			12/31/12	Crawford Gultch	Shot				Dead
AM76	M	2-3	3/6/11	Heil Valley Ranch	Baiting	Cage	On-site	NA	Alive
		3	12/27/11	Heil Ranch	Replace collar	Hounds	On-site	NA	Alive
		4	2/13/13	Heil Ranch	Recollar	Snare	On-site	NA	Alive
			12/12/13	Heil Ranch	Unknown Mort.				Dead
AF77	F	5	3/9/11	Morrison Mountain	Baiting	Cage	On-site	NA	Alive
		5	11/15/12	Indian Hills	Recollar	Snare	On-site	NA	Alive
			1/22/15	Last Location					Unknown
AM78	M	2	3/18/11	W. Evergreen	Deer Kill	Cage	On-site	NA	Alive
			5/12/11	Soda Creel/I-70	Road Kill				Dead
AF23	F	2.5	12/8/12	Lacy Property	Initial Collar	Cage	On-site	NA	Alive
			3/27/14	Booth Property	Recollar	Hounds	On-site	NA	Alive
			5/14/16	Last Location					Unknown
AF79	F	4	3/18/11	Mt. Evans	Dumpsite	Cage	On-site	NA	Alive
		4-5	2/17/12	Mt. Evans	Replace Collar	Hounds	On-site	NA	Alive
									Unknown
AM80	M	1.7	3/18/11	Mt. Evans	Dumpsite	Cage	On-site	NA	Alive
									Unknown
AM84	M	2	4/9/11	Shield Park HOA	Sheep depredation	Cage	Deer Creek Canyon	None	Alive
		3	5/4/12	S. Deer Creek	Shot/depredation				Dead
AF86	F	1.5	3/13/12	Gross Dam Road	Recollar	Snare	On-site	NA	Alive
		2	1/31/13	Flagstaff	Recollar	Cage	On-site	NA	Alive
		3	3/5/14	Walker Ranch	Recollar	Hounds	On-site	NA	Alive
		4	5/22/15	Walker Ranch	Recollar	Cage	On-site	NA	Alive
		5	3/31/16	Walker Ranch	Collar Removed				Uncollared

AF91	F	1.5	2/4/12	Cotter Mine	Capture effort	Hounds	On-site	NA	Alive
		2	7/20/12	I-70	Road Kill				Dead
AF22	F	1.5	2/29/12	Golden	Baiting	Cage	On-site	NA	Alive
		2	10/5/12	Idaho Springs	Road Kill				Dead
			4/3/15	Golden	Hunting				Dead
AF87	F	4-5	11/18/11	Heil Ranch	Baiting	Snare	On-site	NA	Alive
		4	12/7/11	Hall Ranch	Deer Kill	Cage	On-site	NA	Alive
		5	3/11/13	Hall Ranch	Recollar	Hounds	On-site	NA	Alive
									Unknown
AF88	F	1.5	10/14/11	N. Boulder	Deer Kill	Cage	On-site	NA	Alive
		2	1/11/12	White Ranch	Possible Intraspecific				Dead
AF26	F	1.5	2/27/13	White Ranch	Initial Collar	Hounds	On-site	NA	Alive
									Unknown
AF27	F	1.5	10/31/12	White Ranch	Initial Collar	Cage	On-site	NA	Alive
		2	1/26/13	White Ranch	Non-target	Snare	On-site	NA	Alive
		2	2/14/13	Ralston Creek	Non-target	Cage	On-site	NA	Alive
		4	4/14/15	White Ranch	Intraspecific Mort				Dead
AM49	M	3	4/1/13	Ralston	Initial Collar	Hounds	On-site	NA	Alive
			1/4/14	Lacy Property	Recollar	Hounds	On-site	NA	Alive
			2/17/15	Gultra Property	Shot/Hunter				Dead
AM98	M	1.5	1/4/13	Eldorado Springs	Deer Kill	Cage	On-site	NA	Alive
			5/31/13	Big Thompson	Unknown Mortality				Dead
AM99	M	1.5	12/2/12	Lyons	Human conflict	Free dart	New Hall	None	Alive
			1/6/13	Lyons	Human conflict	Free dart	HWY 72	None	Alive
			1/16/13	Boulder	Human Conflict	Free dart	Buckhorn Rd.	None	Alive
			1/31/13	Livermore	Depredation/Shot				Dead
AM100	M	2	12/23/12	Boulder	Initial Collar	Cage	On-site	None	Alive
			5/27/12	Boulder	DWM Capture Mort	Dart			Dead
AM109	M	1.5	7/23/13	Sugarloaf	Initial Collar	Cage	On-site	None	Alive
			12/16/13	Coal Creek	Recollar	Cage	On-site	NA	Alive
			1/18/15	Idaho Springs	Human Conflict	Cage		Euthanized	Dead
AF122	F	1.5	3/19/13	Hall Ranch	Initial Collar	Cage	On-site	NA	Alive
		3	1/8/14	Hall Ranch	Recollar	Hounds	On-site	NA	Alive
		4	3/5/15	Hall Ranch	Recollar	Hounds	On-site	NA	Alive
		5	2/24/16	Hall Ranch	Remove Collar	Hounds	On-site		Uncollared
AM123	M	1.5	3/19/13	Hall Ranch	Initial Collar	Cage	On-site	NA	Alive
			1/13/14	W. Loveland	Human Conflict	Shot			Dead
AM124	M	2	3/30/13	Hall Ranch	Initial Collar	Cage	On-site	NA	Alive
			3/25/14	Heil Ranch	Unknown Mort.				Dead
AF126	F	1	5/16/13	W. Boulder	Human Conflict	Cage	Sugarloaf	None	Alive

SW023	F	1	12/7/14	Last Location					Unknown
			4/9/09		Rehab	Release	Pike forest	None	Alive
			11/14/09	Lost Valley Ranch	Found dead				Dead
SW026	M	1	10/20/09		Rehab	Release	Hermit Park	NA	Alive
		3	8/19/11	New Mexico	Shot/hunter				Dead
SW107	M	1	5/7/10		Rehab	Release	Radium	NA	Unknown
			3/22/11		Shot/hunter				Dead
AF995	F	1	8/25/11		Rehab	Release	Reynolds Ranch	NA	Alive
		2	6/23/12	Sunshine Canyon	Road Kill				Dead
AF110	F	1	4/25/14	Flagstaff	Initial Collar	Cage	On-site	NA	Alive
			1/4/15	Hwy 7	Shot/Hunter				Dead
AM110	M	1.5	12/19/13	Marietta	Initial Collar	Cage	On-site	NA	Alive
									Unknown
AM111	M	2	1/9/14	Hall Ranch	Initial Collar	Cage	On-site	NA	Alive
		4	2/24/16	Hall Ranch	Collar Removed	Hounds	On-site		Uncollared
AM117	M	4	1/17/15	Heil Valley	Initial Collar	Cage	On-site	NA	Alive
			4/12/16	Estes	Natural Mortality				Dead
AF43	F	4	1/23/15	Heil Valley	Initial Collar	Cage	On-site	NA	Alive
									Unknown
359	F	2	8/16/14	Boulder	Management	Cage	Boulder Creek	NA	Alive
			4/7/15	Heil Valley	Initial Collar	Cage	On-site	NA	Alive
									Unknown
AM108	M	3	4/10/15	Heil Valley	Initial Collar	Cage	On-site	NA	Alive
			3/17/16	Hall Ranch	Remove Collar	Hounds	On-site		Unknown
AM92	M	1	5/1/15	Walker	Not collared	Cage	On-site	NA	Unknown



Table 2: Capture history, aversive conditioning treatments and current status of all cougar cubs captured as part of the Front Range cougar study.

Cougar ID	Sex	Age	Mother	Date	Location	Occurrence	Capture	Release Loc	Conditioning	Status
AF35	F	3	AF16	12/29/08	Evergreen	Deer Kill	Cage	Flying J Open Space		Alive
				12/31/08	Evergreen	Roadkill				Dead
AM36	M	3	AF16	12/29/08	Evergreen	Deer Kill	Cage	Flying J Open Space		Alive
				1/8/09	Evergreen	Starvation				Dead
AM30	M	8	AF01	1/30/09	S. Boulder	Deer Kill	Cage	On-site		Alive
										Dead
AM38	M	8	AF01	1/30/09	S. Boulder	Deer Kill	Cage	On-site		Alive
				3/27/09	S. Boulder	Encounter	Free-dart	Lindsey	Beanbag	Alive
				3/30/09	S. Boulder	Pet Depredation	Free-dart	Centennial Cone	None	Alive
				4/9/09	Morrison	Encounter	Free-dart	None	Euthanized	Dead
AM29	M	6	Euth.	2/11/09	N. Boulder	Deer Kill	Free-dart	Hall Ranch	None	Alive
		12		6/15/09	N. Boulder	Encounter	Free-dart	Masonville	Beanbag	Alive
				10/23/09	Big Thompson	Goat Depredation	Shot			Dead
AM21* collared	M	12	Unkn	3/25/09	Table Mesa	Baiting	Cage	On-site	NA	Alive
										Dead
AM25	M	12	Unkn	5/22/09	Indian Hills	Deer Kill	Cage	On-site	None	Alive
				9/13/09		Raccoon	Free-dart	Perforated intestine		Dead
AM41	M	12	Unkn	5/22/09	Indian Hills	Deer Kill	Free-dart	On-site	None	Alive
					Indian Hills	Encounter	Shot			Dead
AM65	M	4-5	AF32	11/28/10	Golden	In Neighborhood	Free-	White Ranch	None	Alive



Table 3: Noninvasive hair snag capture results for bobcats and cougars. Number of animals seen, number of hair samples collected and number of successful genotypes.

Species	Year	Pictures	Hair Samples	Genotypes
Bobcat	2014	31	5	0
Bobcat	2015	68	12	1
Bobcat	2016	31	31	4
Cougar	2014	86	55	20
Cougar	2015	42	32	11
Cougar	2016		51	15

List of figures:

Figure 1: Study area for the main Front Range cougar study where most capture effort and field work is conducted.

Figure 2: The effect of distance to kill site on the transition rate among grid cells. The population level response is in black, females in orange and males are in purple. 50% and 95% credible intervals are given.

Figure 3: The effect of distance to kill site on the directionality of the transition among grid cell. The population level response is in black, females in orange and males are in purple. 50% and 95% credible intervals are given.



