

**APPENDICES TO ACCOMPANY REPORT**

**ECOLOGY OF VIRGINIA BIG-EARED BATS**

**IN NORTH CAROLINA AND TENNESSEE**

Presented to  
North Carolina Department of Transportation  
Raleigh, NC

on  
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## **APPENDIX A: CAPTURES**



**Appendix A1: Virginia big-eared bats radio-tagged from March to May 2013 and 2014 in northwestern North Carolina.**

Site <sup>1</sup>	Date	Time	Sex	Repr Cond <sup>2</sup>	Age	Mass (g)	Forearm Length (mm)	Wing Score	Transmitter Frequency	Comments
BRCC	3/19/2013	19:00	F	NR	A	10.9	46	0	151.306	Came from cluster of 5 bats
BRCC	3/19/2013	19:56	F	NR	A	9.1	44	0	151.500-011	Cluster of ~20 bats-few small scars right wing
BRCC	3/19/2013	20:18	F	NR	A	9.5	45	0	151.328_2013	Cluster of 5-many small scars right wing
BRCC	3/19/2013	20:40	F	NR	A	11.8	44	0	151.500-012	Cluster of 20- 1 hole right wing
BRCC	3/29/2013	18:10	F	NR	A	9.7	46	1	151.447	Tear/hole o R wing, white on nose
BRCC	3/29/2013	18:54	F	NR	A	10.3	46	1	151.500-013	5 spots R wing, white on forearm, hand and R leg
BRCC	3/29/2013	16:49	F	NR	A	10.3	46	1	151.470	10+ spot on R wing, trailing edge damage-scar
BRCC	3/29/2013	17:33	F	NR	A	12.2	47	0	151.500-010	5+ spot R wing, 5+ spot and pinhole L wing
BRCC	4/2/2013	17:34	F	NR	A	10.3	46	0	151.426_2013	4 spots R wing
BRCC	4/2/2013	18:07	F	NR	A	10.1	45.5	1	151.500-015	10 spots, trailing edge damage R wing, 10 spots L
BRCC	4/2/2013	19:17	F	NR	A	8.9	45	0	151.345	White substance, 5 + spots R wing
BRCC	4/3/2013	17:01	F	NR	A	9.1	45	0	151.388	4 spots, pinhole, 2 mm hole R wing, 3 spots L wing
BRCC	4/3/2013	17:01	F	NR	A	10.5	46	1	151.398_2013	10+ spots, trailing edge damage, pinhole R wing
BRCC	4/3/2013	18:13	F	NR	A	9.0	45	0	151.500-016	3 spots, trailing edge damage R wing, 3 spots L wi

<sup>1</sup> BRCC=Black Rock Cliffs Cave

<sup>2</sup> NR=non-reproductive, P=pregnant,  
S=scrotal

## Appendix A1 Cont.

Site <sup>1</sup>	Date	Time	Sex	Repr Cond <sup>2</sup>	Age	Mass (g)	Forearm Length (mm)	Wing Score	Transmitter Frequency	Comments
BRCC	4/3/2013	18:13	F	NR	A	10.2	46	1	151.500-014	6+ spots, 2 pinholes L wing
BRCC	4/9/2013	16:20	F	NR	A	9.5	46	1	151.500-017	Left wing trailing edge damage 10 + spots, Right wing 20+ spots
BRCC	4/9/2013	17:07	F	NR	A	10.4	45.5	1	151.500-019	R wing trailing edge damage 10 + spots rt wing, hole left wing (2), 20 spots left wing, scar tissue
Roost 4	4/13/2013	14:58	F	NR	A	8.9	44.5	0	151.586	7 spots left wing, healed spot right wing
Roost 5	4/13/2013	17:49	F	NR	A	9.2	46.5	0	151.496	4 spots right wing, 5+ spots left wing, hole left wing
BRCC	3/19/2014	14:25	F	NR	A	11.8	47	0	151.500-020	Out of group~20
BRCC	3/19/2014	15:15	F	NR	A	10.6	46	0-P	151.500-021	Trailing edge tear right wing
BRCC	3/19/2014	15:29	F	NR	A	10.3	45	0-P	151.500-022	1 mm hole left wing;<1 mm hole left, 2 holes < 0.5 mm right wing
BRCC	3/19/2014	16:01	F	NR	A	11.4	46	0-P	151.416	Right wing trailing edge damage, 1 mm hole right wing 4 spots left wing
BRCC	3/21/2014	16:34	F	NR	A	11.0	46	0	151.500-024	Few small spots, 2 possible Pd.
BRCC	3/21/2014	17:14	F	NR	A	9.0	45	0-P	151.500-025	Small trailing edge tear R, 3 spots on uropat, + recent hole on ura
BRCC	3/21/2014	17:39	F	NR	A	9.9	46	0	151.500-026	
BRCC	3/21/2014	16:10	F	NR	A	11.6	45.5	0-P	151.500-023	Trailing edge damage on left wing-light
BRCC	3/25/2014	13:13	F	NR	A	11.0	45	0-P	151.500-027	pinhole left wing
BRCC	3/25/2014	13:45	F	NR	A	10.8	45.5	0-P	151.500-028	pinhole right wing, trailing edge damage left wing, 10 spots left wing

<sup>1</sup> BRCC=Black Rock Cliffs Cave

<sup>2</sup> NR=non-reproductive, P=pregnant, S=scrotal

## Appendix A1 Cont.

Site <sup>1</sup>	Date	Time	Sex	Repr Cond <sup>2</sup>	Age	Mass (g)	Forearm Length (mm)	Wing Score	Transmitter Frequency	Comments
BRCC	3/25/2014	14:13	F	NR	A	9.5	45	0-P	151.500-029	pinhole left wing and right wing, 8 spots right wing, 3 spots left wing
BRCC	3/31/2014	12:44	F	NR	A	10.4	49	0	151.482	4 spots left wing
BRCC	3/31/2014	13:22	F	NR	A	10.7	45.5	0-P	151.453	white material on vulva, 2 pinholes right wing, 2 pinholes left wing, 1 large hole (1mm) left wing, 6 spots
BRCC	3/31/2014	13:54	F	NR	A	10.1	46	0-P	151.466	white material on vulva, 2 pinholes right wing, 1 pinhole left wing, 5 spots left wing
BRCC	3/31/2014	14:27	F	NR	A	9.9	46	0-P	151.383	frequency may sound clearer at 151.386, 2 large holes (1mm) right wing, 2 spots left wing, 9 spots right wing
BRCC	3/31/2014	15:30	F	NR	A	11.1	47	0-P	151.507	scar tissue left wing, 1 large (1mm) hole left wing, 1 spot right wing, 3 spots left wing
BRCC	3/31/2014	16:10	F	NR	A	11.6	46	0	151.534	5 spots left wing, 10 spots right wing
BRCC	4/16/2014	14:32	F	NR	A	8.8	46.5	0-P	151.524	right wing red spot, 1 pin hole 4 spots, 2 spots physical damage, left wing 11 spots, 2 hole 1mm size, little white speck uropotagium, mite found while trimming hair
BRCC	4/16/2014	15:21	F	NR	A	8.5	43	0-P	151.328_2014	1 pin hole on right wing, 1 pin hole left wing
BRCC	4/16/2014	15:53	F	NR	A	9.5	45	0-P	151.398_2014	2 pin holes right wing, large hole left wing-2 mm in size, parasite-orange mite eggs?
BRCC	4/16/2014	16:29	F	NR	A	9.4	46	0-P	151.426_2014	Frequency supposed to be 151.468 but sounds better at 426
Roost 4	4/28/2014	14:40	M	S	A	8.4	43	0-P	151.038	4 spots, 2 scars right wing, 1 pinhole, 3 spots left wing, mites
Roost 22	5/19/2014	11:07	M	NR	A	9.4	44	1	151.059	50+ spots left wing, 50+ spots right wing, 2 pinholes left wing, scar right wing
Roost 34	5/19/2014	15:37	F	P	A	11.8	45	1	151.383B	Tag used earlier in season; 12 spots right wing, 1 pinhole right wing, multiple mite, 1 large scar left wing, 50+ spots right wing, spot on left ear, decent pigment loss
Roost 33	5/19/2014	17:26	F	NR	A	11.5	46	1	151.466B	Transmitter used once earlier in season, right wing leading edge discoloration, 20+ spots right wing, 30+ spots left wing, 1 small scar, mites evident

<sup>1</sup> BRCC=Black Rock Cliffs Cave

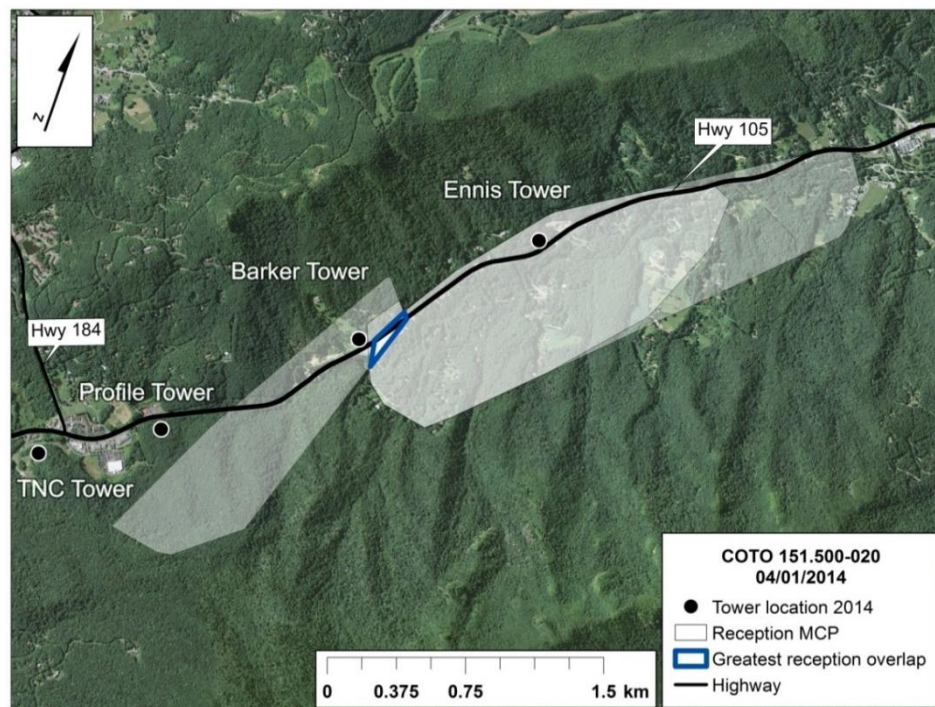
<sup>2</sup> NR=non-reproductive, P=pregnant, S=scrotal

## **APPENDIX B: MOVEMENTS AND FORAGING**

**Appendix B1: Individual Virginia big-eared bats detected by towers along NC 105 during Spring 2014. For each antenna, we derived a minimum convex polygon (MCP) for the area of high-power (signal strength 171–255) reception. The blue polygon represents the area where there is greatest reception overlap of the MCPs, indicating the most likely location of crossing the highway.**

COTO 151.500-020 was radio-tagged at BRCC on 19 March 2014. On 1 April, from 21:13–22:03 EDT, the bat’s radio signal was picked up by the Barker, Ennis, Profile, TNC, and Linville telemetry towers. Only the Ennis and Barker towers detected high-powered signals (signal strength 171–255). We also detected this bat’s signal from 21:54–21:58 on 1 April while driving along NC Highway 105 with a data logging receiver (Appendix B3). On 2 April, we relocated this bat in the primary maternity roost (Roost 7).

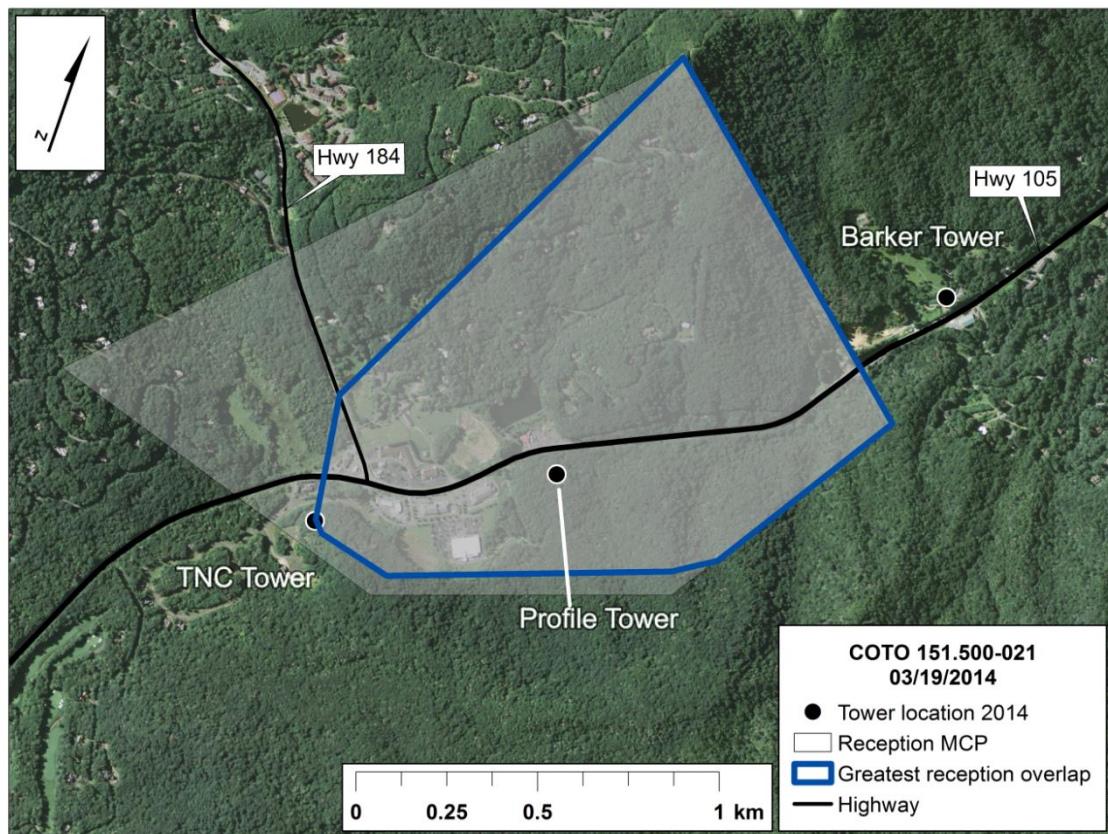
Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
4/1/2014	21:54:15	21:54:35	Ennis south-Barker south	4
4/1/2014	21:54:43	21:54:50	Ennis south-Barker south	2
4/1/2014	21:56:48	21:57:18	Ennis south-Barker south	4
4/1/2014	21:57:45	21:58:00	Barker south	2
4/1/2014	21:58:40	21:59:10	Ennis north-Barker north-Barker south	5
4/1/2014	21:59:30	22:00:00	Ennis north-Ennis south-Barker north-Barker south	9
4/1/2014	22:00:03	22:00:33	Ennis north-Ennis south-Barker north-Barker south	12
4/1/2014	22:00:34	22:01:04	Ennis north-Ennis south-Barker north-Barker south	10
4/1/2014	22:01:08	22:01:23	Ennis north-Ennis south	3
4/1/2014	22:01:48	22:02:03	Ennis north	2



## Appendix B1 Cont.

COTO 151.500-021 was radio-tagged at BRCC on 19 March 2014 at 15:15 EDT. On 19 March, from 20:52–22:13, the bat's radio signal was detected by the TNC telemetry tower, from 21:12–22:31, by the Barker and Profile telemetry towers, and from 22:28–22:33, by the Ennis telemetry tower. Only the Profile tower detected high-powered signals (signal strength 171–255) from this bat. On 20 March, we relocated the bat in Roost 5 near Beech Creek.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/19/2015	21:13:03	21:13:18	Profile south	2
3/19/2015	22:08:41	22:09:11	Profile south	3
3/19/2015	22:11:05	22:11:15	Profile north-Profile south	2
3/19/2015	22:12:35	22:12:55	Profile north-Profile south	2

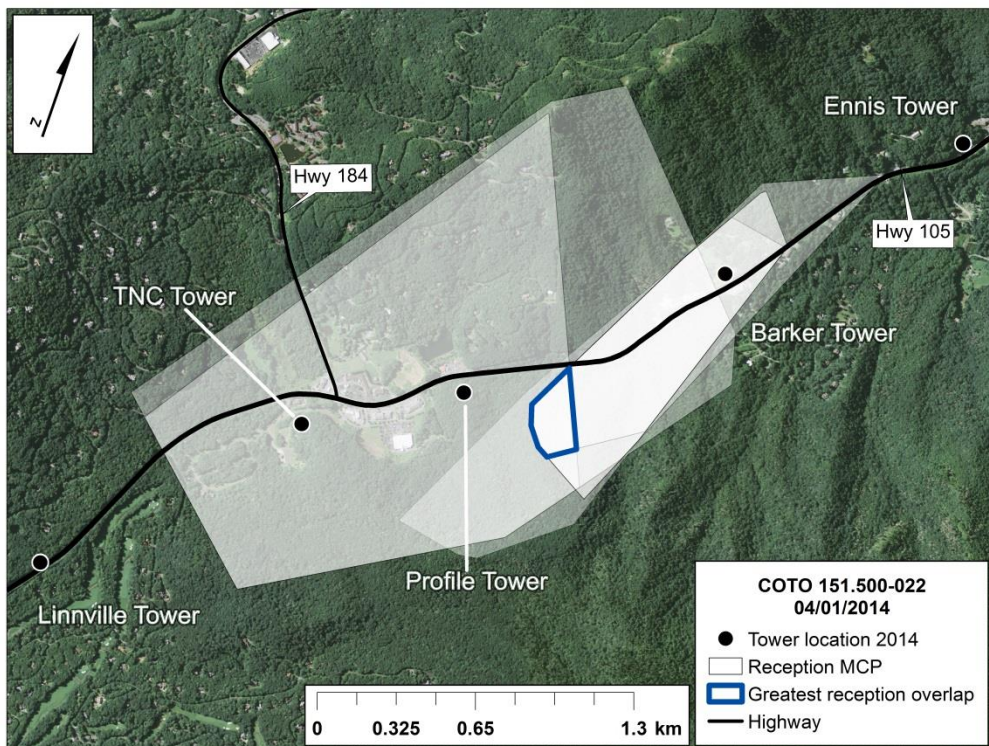
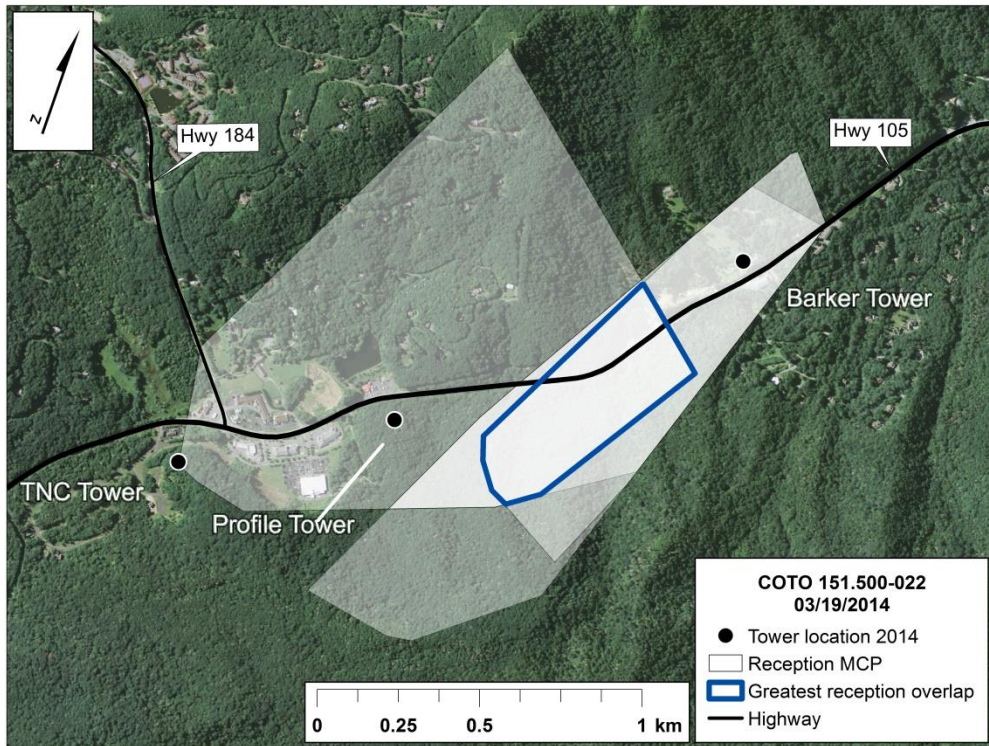


## Appendix B1 Cont.

COTO 151.500-022 was radio-tagged at BRCC on 19 March 2014 at 15:29 EDT. On 19 March, from 20:04–20:27, the bat’s radio signal was detected by the Barker and Profile telemetry towers. On 1 April, the bat’s radio signal was detected by the Ennis, Barker, Profile, TNC, and Linville telemetry towers. On 1 April, all towers, except Ennis, detected high-powered signals (signal strength 171–255). On 3 April, the bat roosted in Roost 17 near Beech Creek.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/19/2014	20:20:57	20:21:12	Profile north-Profile south	2
3/19/2014	20:21:32	20:22:02	Barker south-Profile north-Profile south	5
3/19/2014	20:22:07	20:22:37	Barker south	3
3/19/2014	20:22:47	20:23:07	Barker south-Profile north	2
3/19/2014	20:23:22	20:23:52	Barker north-Barker south	5
3/19/2014	20:23:52	20:23:57	Barker south-Profile north	2
3/19/2014	20:26:42	20:27:07	Barker north-Barker south	2
3/19/2014	20:27:27	20:27:42	Barker south	2
4/1/2014	20:14:46	20:15:16	Barker south	5
4/1/2014	20:15:21	20:15:51	Barker north-Barker south	4
4/1/2014	20:16:01	20:16:31	Barker north-Barker south-TNC north	8
4/1/2014	20:16:36	20:17:01	Barker north-Barker south-Profile north	8
4/1/2014	20:17:11	20:17:41	Barker south	4
4/1/2014	20:18:51	20:19:21	Barker north-Barker south	5
4/1/2014	20:19:26	20:19:46	Barker north-Barker south	4
4/1/2014	20:20:01	20:20:26	Barker north-Barker south	6
4/1/2014	20:20:36	20:21:01	Barker north-Barker south	5
4/1/2014	20:22:06	20:22:32	Barker north-Barker south	2
4/1/2014	20:23:32	20:23:57	Barker north	2
4/1/2014	20:24:07	20:24:37	Barker south	3
4/1/2014	20:24:42	20:25:02	Barker north-Barker south	2
4/1/2014	20:25:51	20:26:21	Barker north	2
4/1/2014	20:26:36	20:26:41	Barker north	2
4/1/2014	20:29:56	20:30:13	TNC north-Linville north	2
4/1/2014	20:35:45	20:36:05	TNC north	2
4/1/2014	20:45:10	20:45:35	TNC north-Linville north	4
4/1/2014	20:45:42	20:46:10	TNC north-Linville north	2



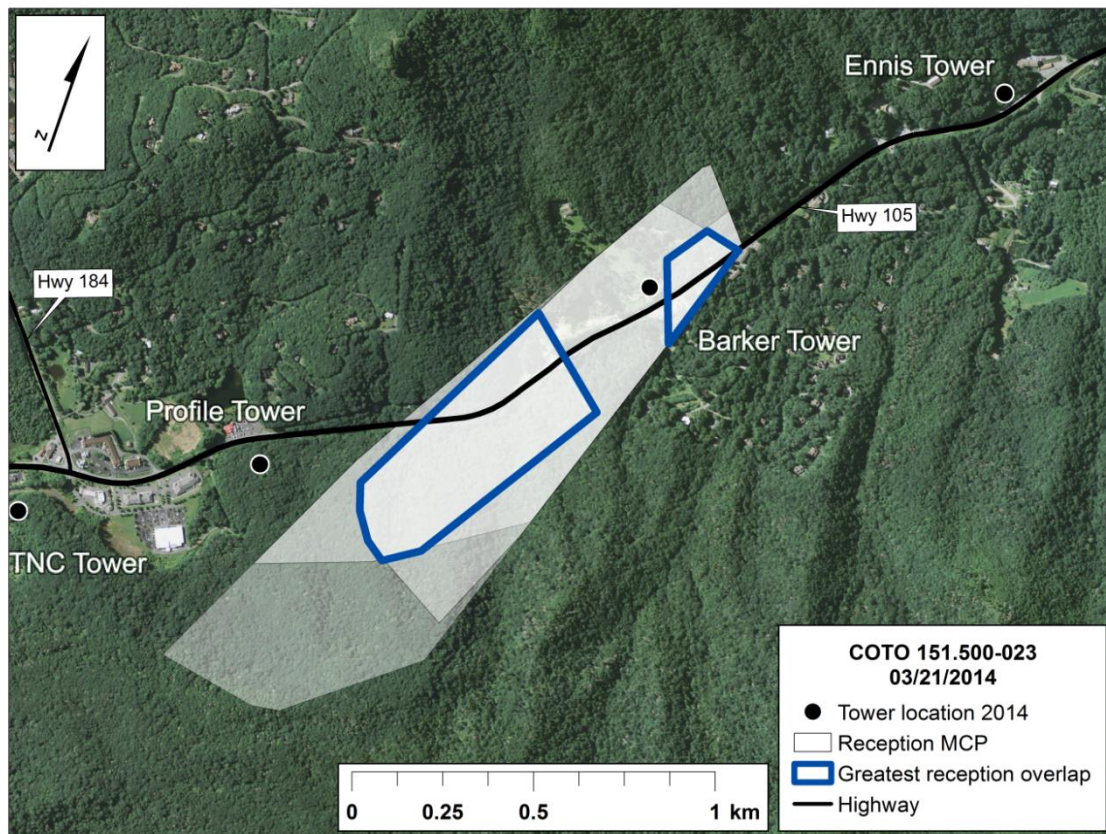




## Appendix B1 Cont.

COTO 151.500-023 was radio-tagged at BRCC on 21 March 2014 at 16:10 EDT. On the same day from 21:01–21:26, the bat's radio signal was detected by the Ennis, Barker, Profile, and TNC telemetry towers. The Ennis, Barker, and Profile towers detected high-powered signals (signal strength 171–255) from this bat. We relocated this bat 11 days later on 1 April in the primary maternity roost (Roost 7) near Beech Creek.

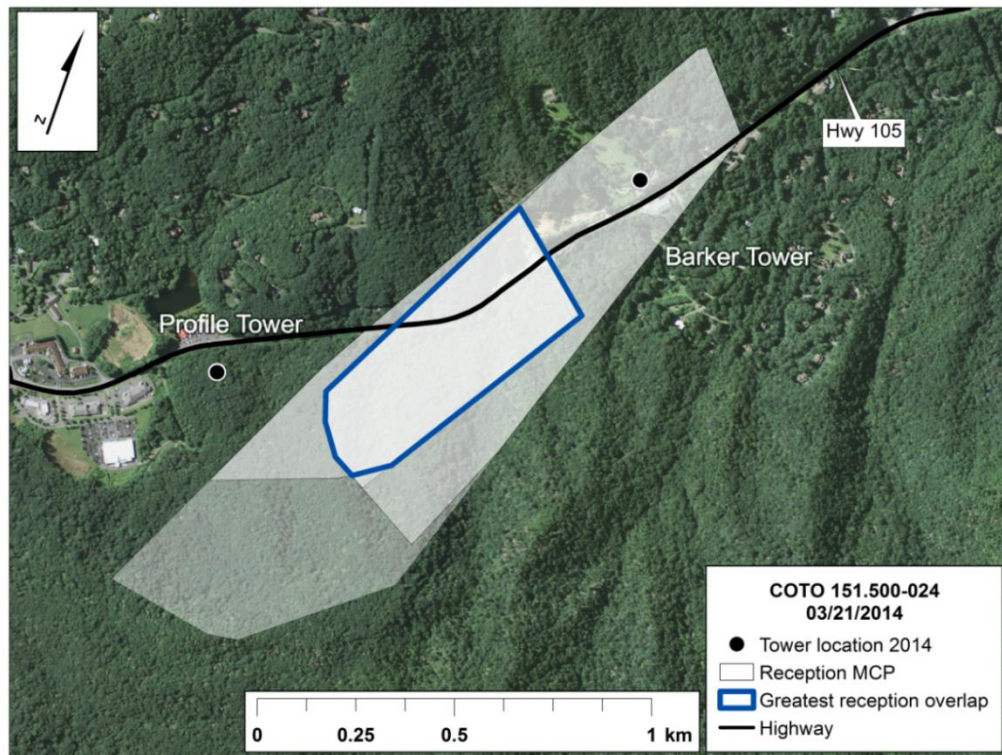
Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/21/2014	21:15:15	21:15:45	Barker north-Barker south	5
3/21/2014	21:15:50	21:16:20	Barker north-Barker south	7
3/21/2014	21:16:25	21:16:55	Ennis south-Barker north-Barker south	7
3/21/2014	21:17:00	21:17:30	Barker north-Barker south	7
3/21/2014	21:17:45	21:18:15	Barker south-Profile north-Profile south	5
3/21/2014	21:19:00	21:19:30	Barker north-Barker south-Profile north	6
3/21/2014	21:19:35	21:20:05	Barker north-Barker south	5
3/21/2014	21:20:10	21:20:40	Barker north-Barker south	5
3/21/2014	21:24:20	21:24:25	Barker south	2



## Appendix B1 Cont.

COTO 151.500-024 was radio-tagged at BRCC on 21 March 2014 at 16:34 EDT. On the same day from 20:52–21:05, the bat's radio signal was detected by the Ennis, Barker, Profile, and TNC telemetry towers. The Barker and Profile towers detected high-powered signals (signal strength 171–255) from this bat. We relocated this bat the next day at the primary maternity roost (Roost 7) near Beech Creek.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/21/2014	20:53:58	20:54:23	Barker north-Barker south	4
3/21/2014	20:54:33	20:55:03	Barker south	3
3/21/2014	20:55:13	20:55:43	Barker north-Barker south-Profile south	5
3/21/2014	20:55:45	20:56:05	Barker south-Profile north-Profile south	7
3/21/2014	20:56:18	20:56:48	Barker north-Barker south	4
3/21/2014	20:56:58	20:57:28	Barker south	4
3/21/2014	20:57:38	20:58:08	Barker north-Barker south	6
3/21/2014	20:58:33	20:59:03	Barker north-Barker south	5
3/21/2014	20:59:13	20:59:33	Barker north-Barker south	5
3/21/2014	20:59:48	21:00:08	Barker south	3
3/21/2014	21:00:23	21:00:42	Barker north-Barker south	3
3/21/2014	21:00:57	21:01:27	Barker north-Barker south	5
3/21/2014	21:01:37	21:01:57	Barker north-Barker south	3

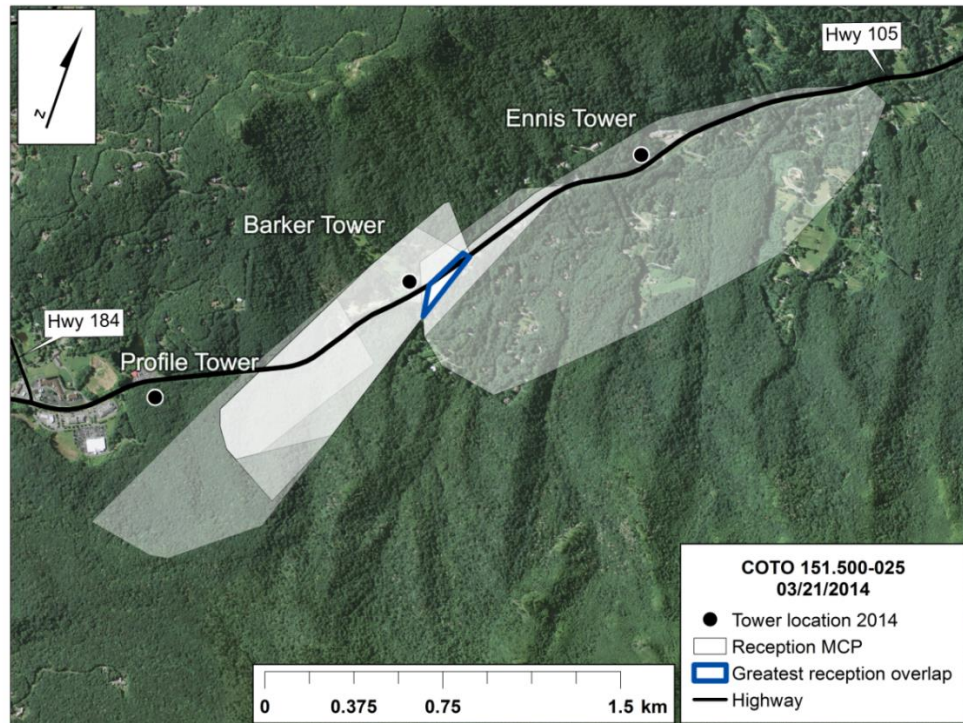




## Appendix B1 Cont.

COTO 151.500-025 was radio-tagged at BRCC on 21 March 2014 at 17:14 EDT. On the same day from 20:15–20:29, the bat's radio signal was detected by the Ennis, Barker, Profile, and TNC telemetry towers. The Ennis, Barker, and Profile towers detected high-powered signals (signal strength 171–255) from this bat. We relocated this bat 15 days later at Roost 4 near Beech Creek.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/21/2014	20:15:34	20:16:04	Barker south	4
3/21/2014	20:16:19	20:16:44	Barker north-Barker south	5
3/21/2014	20:16:54	20:17:24	Barker north-Barker south-Profile north	8
3/21/2014	20:17:29	20:17:59	Barker north-Barker south-Profile north-Profile south	7
3/21/2014	20:18:09	20:18:39	Barker north-Barker south	6
3/21/2014	20:18:44	20:19:14	Barker north-Barker south	3
3/21/2014	20:19:40	20:19:59	Ennis south-Barker north-Barker south	5
3/21/2014	20:20:14	20:20:44	Ennis south-Barker north	5
3/21/2014	20:20:45	20:21:14	Ennis north-Ennis south-Barker north-Barker south	10
3/21/2014	20:21:15	20:21:45	Ennis north-Ennis south-Barker north-Barker south	9
3/21/2014	20:21:49	20:22:15	Ennis north-Ennis south-Barker north	8
3/21/2014	20:22:20	20:22:50	Ennis north-Ennis south	6
3/21/2014	20:22:55	20:23:25	Ennis north-Ennis south	5
3/21/2014	20:23:30	20:23:50	Ennis north-Ennis south	4

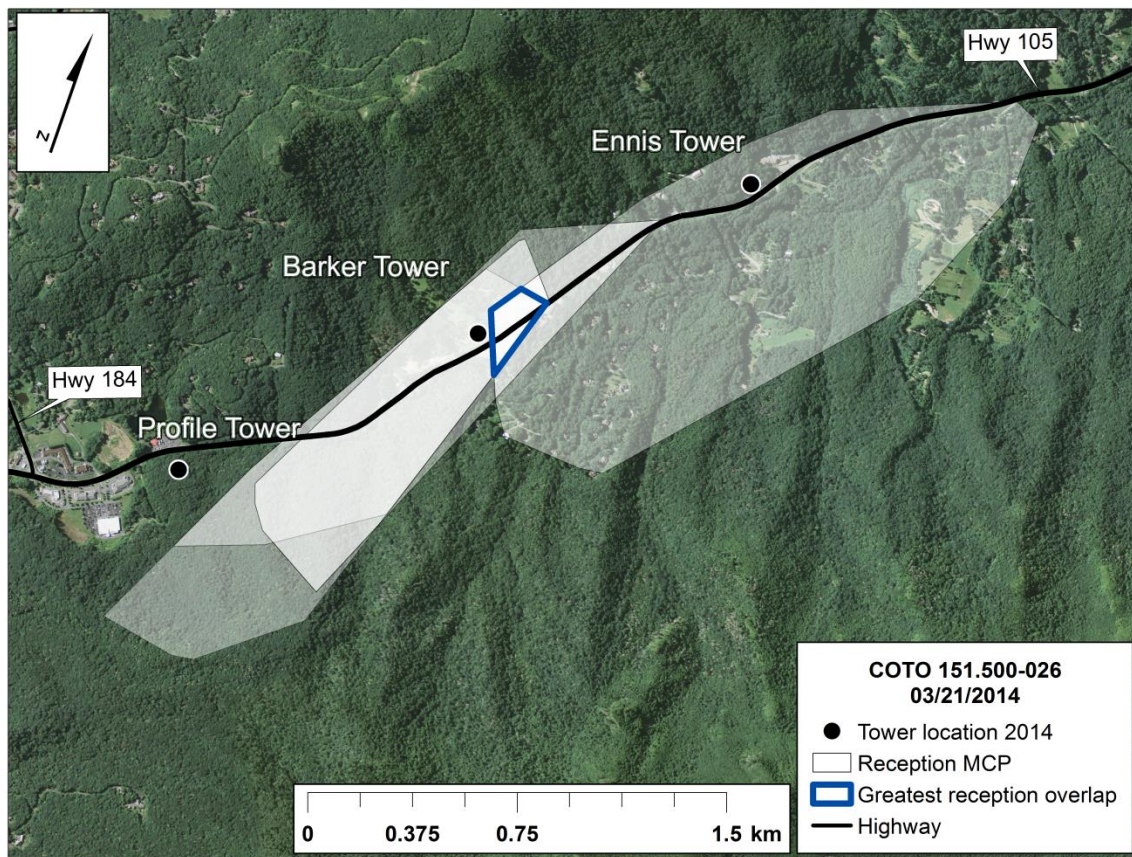


## Appendix B1 Cont.

COTO 151.500-026 was radio-tagged at BRCC on 21 March 2014 at 17:39 EDT. On the same day from 20:03–21:11, the bat's radio signal was detected by the Ennis, Barker, Profile, and TNC telemetry towers. The Ennis, Barker, and Profile towers detected high-powered signals (signal strength 171–255) from this bat. We relocated this bat the next day at the primary maternity roost (Roost 7) near Beech Creek.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
3/21/2014	20:07:11	20:07:16	Ennis south	2
3/21/2014	20:07:46	20:08:01	Ennis south	2
3/21/2014	20:08:31	20:08:36	Ennis south	2
3/21/2014	20:13:13	20:13:13	Barker south	2
3/21/2014	20:13:53	20:14:23	Barker north-Barker south	3
3/21/2014	20:14:28	20:14:58	Barker north-Barker south	6
3/21/2014	20:15:53	20:16:23	Barker north-Barker south	4
3/21/2014	20:16:28	20:16:58	Barker north-Barker south	3
3/21/2014	20:17:13	20:17:43	Barker south	2
3/21/2014	20:17:48	20:18:13	Ennis south-Barker north-Barker south	3
3/21/2014	20:18:39	20:19:03	Ennis south-Barker south	3
3/21/2014	20:19:18	20:19:33	Barker north-Barker south	3
3/21/2014	20:19:53	20:20:08	Barker north-Barker south	3
3/21/2014	20:21:33	20:21:58	Barker north-Barker south	3
3/21/2014	20:22:08	20:22:23	Barker north-Barker south	3
3/21/2014	20:22:48	20:23:18	Barker north-Barker south	3
3/21/2014	20:23:23	20:23:33	Barker south	2
3/21/2014	20:29:58	20:30:03	Barker south	2
3/21/2014	20:31:18	20:31:33	Barker south	3
3/21/2014	20:33:43	20:34:13	Barker south	2
3/21/2014	20:35:38	20:35:53	Barker south	2
3/21/2014	20:39:53	20:40:08	Barker south	2
3/21/2014	20:44:52	20:44:57	Barker south	2
3/21/2014	20:45:42	20:46:12	Barker south	2
3/21/2014	20:46:17	20:46:47	Barker south	4
3/21/2014	20:46:54	20:47:22	Barker south-Profile north	4
3/21/2014	20:47:27	20:47:47	Barker north-Barker south	5
3/21/2014	20:47:58	20:48:22	Ennis south-Barker south	3
3/21/2014	20:48:43	20:49:12	Ennis south-Barker north-Barker south	8
3/21/2014	20:49:27	20:49:33	Ennis south-Barker south	2
3/21/2014	20:50:02	20:50:27	Barker south	4
3/21/2014	20:50:42	20:51:12	Ennis south-Barker north-Barker south	6
3/21/2014	20:51:22	20:51:52	Barker north-Barker south	6

3/21/2014	20:52:12	20:52:42	Barker north-Barker south	6
3/21/2014	20:52:47	20:53:17	Barker north-Barker south	7
3/21/2014	20:53:22	20:53:52	Barker north-Barker south	4
3/21/2014	20:53:57	20:54:27	Ennis south-Barker north-Barker south	6
3/21/2014	20:54:32	20:55:02	Ennis south-Barker north-Barker south	5
3/21/2014	20:55:07	20:55:37	Barker north-Barker south	3
3/21/2014	20:55:42	20:56:12	Ennis south-Barker north-Barker south	7
3/21/2014	20:57:38	20:58:08	Ennis south-Barker north-Barker south	5
3/21/2014	20:58:12	20:58:42	Barker north-Barker south	5
3/21/2014	20:58:47	20:58:53	Ennis south-Barker south	2
3/21/2014	20:59:22	20:59:42	Barker north-Barker south	2
3/21/2014	20:59:57	21:00:17	Barker north	2
3/21/2014	21:02:24	21:02:54	Ennis south	3
3/21/2014	21:03:09	21:03:14	Ennis south-Barker north	3

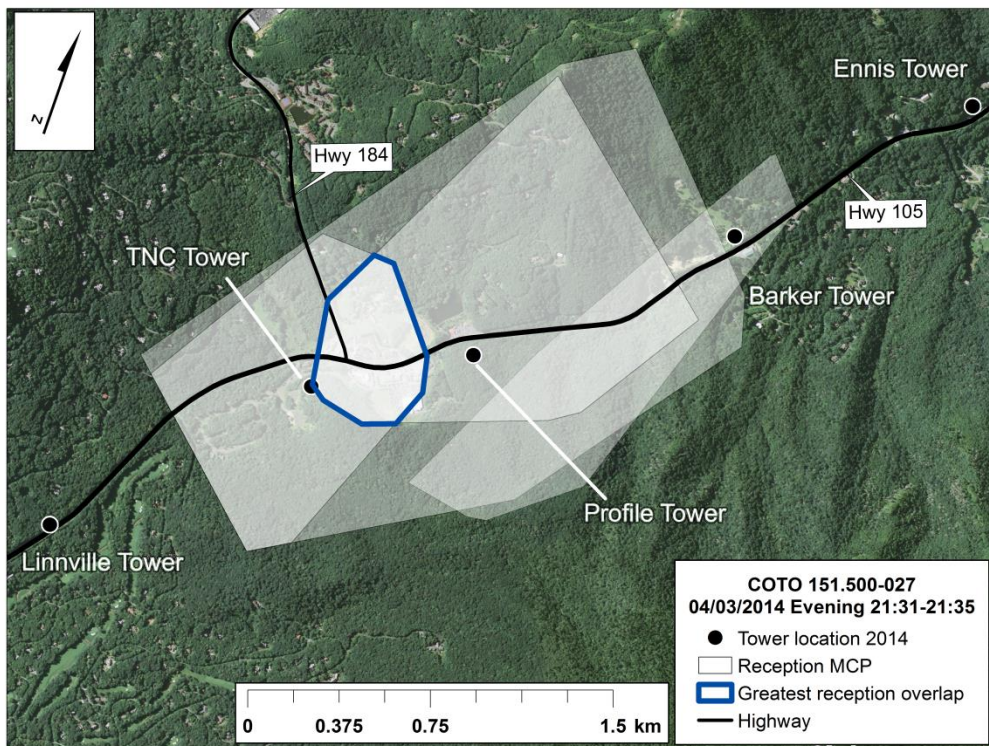
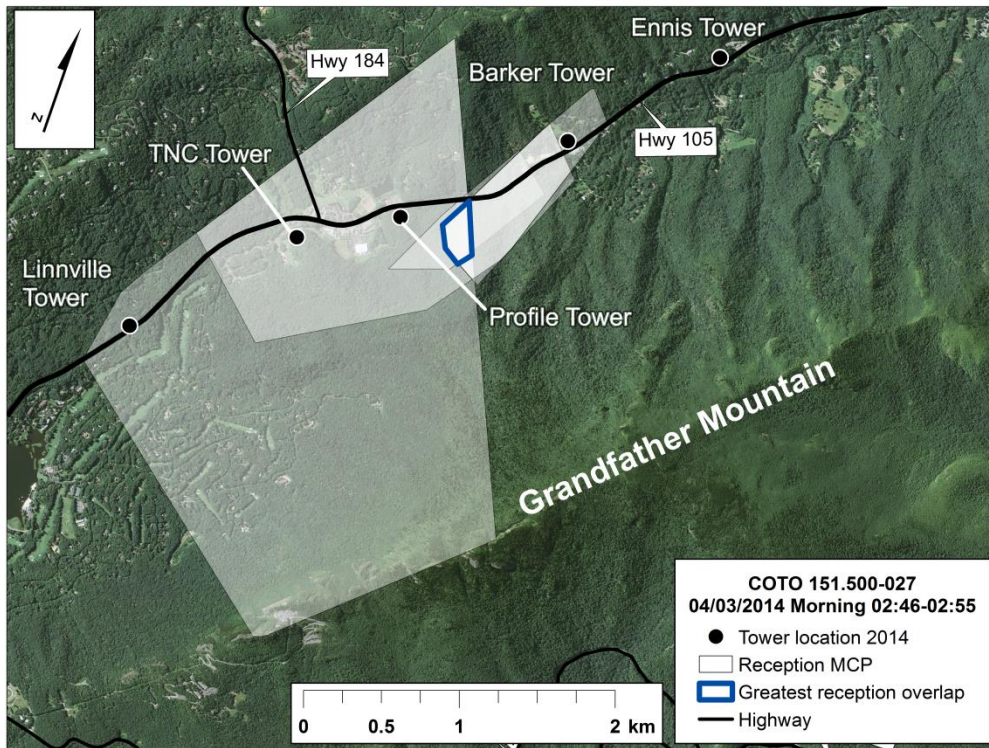


## Appendix B1 Cont.

COTO 151.500-027 was radio-tagged at BRCC on 21 March 2014. On 2 April, from 05:58–06:18, the bat’s radio signal was detected by the Barker, Ennis, Profile, TNC, and Linville telemetry towers. Only the Ennis and Barker towers detected high-powered signals (signal strength 171–255). On 3 April, from 02:43–02:56, its signal was detected by all five telemetry towers, with high signal strengths. Again on 3 April, from 21:30–21:46, the signal was detected by all five telemetry towers, with high signal strengths detected by the Barker, Profile, and TNC telemetry towers. We also detected this bat’s signal on four occasions (2, 4, 12, and 30 April) while driving along SR-1545 with a data logging receiver (Appendix B3). This bat roosted in BRCC or Roost 32 (located 5.9 km southwest of BRCC in the Pisgah National Forest) on the days we detected its signal via telemetry tower or driving, except on 3 April when we do not know where the bat roosted.

Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
4/2/2014	6:03:26	6:03:32	Ennis south-Barker south	2
4/2/2014	6:04:11	6:04:31	Ennis south	3
4/2/2014	6:05:16	6:05:37	Ennis south-Barker south	4
4/2/2014	6:05:47	6:06:12	Barker north-Barker south	6
4/2/2014	6:06:21	6:06:50	Ennis south-Barker north-Barker south	7
4/2/2014	6:06:52	6:07:22	Ennis south-Barker north-Barker south	7
4/2/2014	6:07:32	6:08:02	Barker south	3
4/3/2014	2:46:12	2:46:27	Linville north	2
4/3/2014	2:49:11	2:49:35	Barker south-Profile south	3
4/3/2014	2:50:26	2:50:56	Ennis south-Barker south-Profile north-Profile south-TNC north	11
4/3/2014	2:50:59	2:51:29	Ennis south-Barker north-Barker south-Profile north-Profile south-TNC north-TNC south	17
4/3/2014	2:51:30	2:52:00	Ennis south-Barker north-Barker south-Profile north-Profile south-TNC north-TNC south	20
4/3/2014	2:52:01	2:52:26	Barker north-Barker south-Profile north-TNC north-TNC south	11
4/3/2014	2:52:35	2:53:05	Barker north-Barker south-TNC north	8
4/3/2014	2:53:10	2:53:40	Barker north-Barker south	2
4/3/2014	2:53:46	2:53:51	Barker north-TNC north	3
4/3/2014	2:55:06	2:55:32	TNC north-Linville north	5
4/3/2014	21:31:28	21:31:58	TNC north-TNC south	4
4/3/2014	21:32:03	21:32:33	Profile north-Profile south-TNC north-TNC south	9
4/3/2014	21:32:38	21:33:08	Profile north-Profile south-TNC north-TNC south	12
4/3/2014	21:33:18	21:33:28	Profile north-Profile south-TNC north	5
4/3/2014	21:33:53	21:34:23	TNC north	3
4/3/2014	21:35:15	21:35:45	Barker south	2



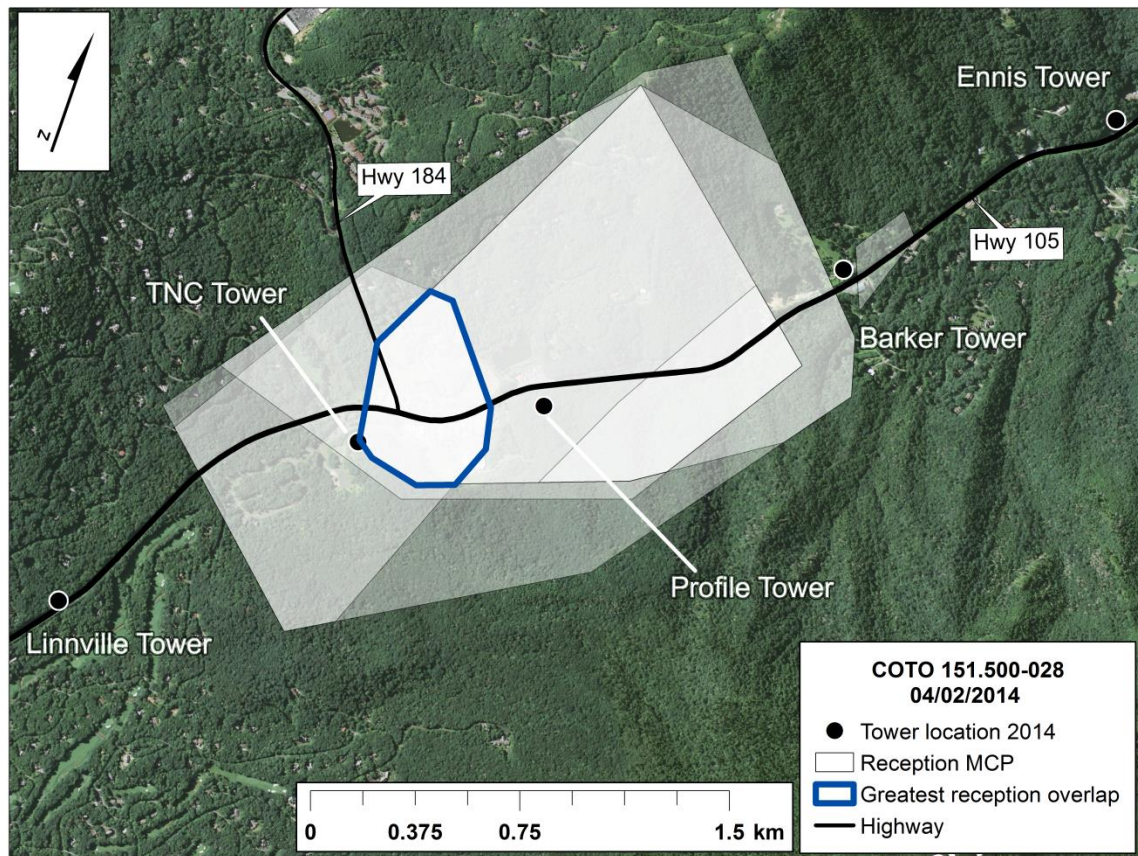


## Appendix B1 Cont.

COTO 151.500-028 was radio-tagged at BRCC on 25 March 2014. On 2 April, from 21:47–22:04, the bat's radio signal was detected by the Ennis, Barker, Profile, TNC, and Linville telemetry towers. All towers, except the Linville tower, detected high-powered signals (signal strength 171–255) from this bat. This bat roosted in BRCC on 2 April and in the primary maternity roost (Roost 7) on 3 April.

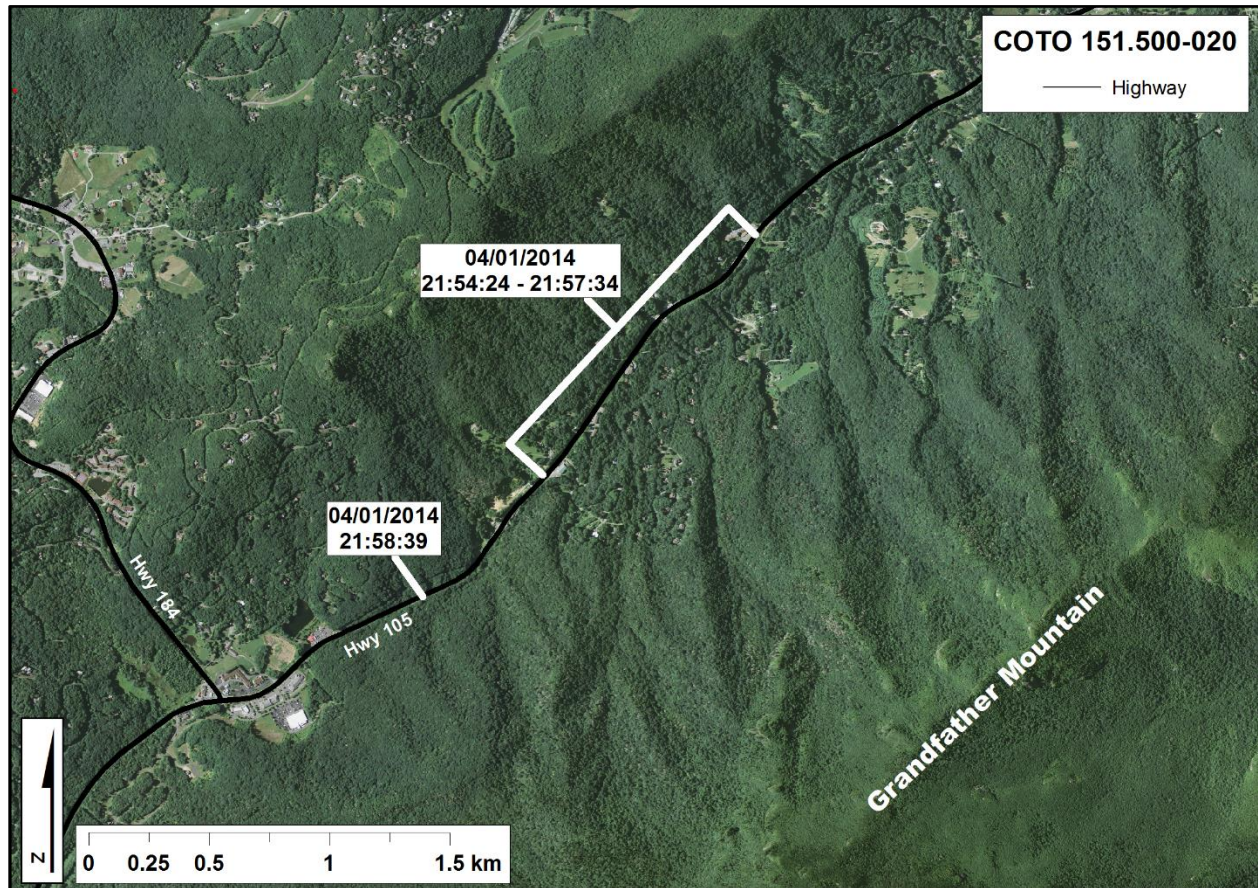
Date	Start Time	End Time	Antennae	# of Detections (Strength >171)
4/2/2014	21:52:56	21:53:26	Ennis south-Barker south	3
4/2/2014	21:53:46	21:54:16	Profile south-TNC north	4
4/2/2014	21:54:25	21:54:55	Profile north-TNC north	3
4/2/2014	21:55:15	21:55:45	Profile north-TNC north	5
4/2/2014	21:55:50	21:56:15	Profile north-Profile south-TNC north-TNC south	5
4/2/2014	21:56:21	21:56:50	Barker south-Profile north-Profile south-TNC north-TNC south	11
4/2/2014	21:56:56	21:57:26	Barker south-Profile north-TNC north-TNC south	8
4/2/2014	21:57:30	21:58:00	Profile north-Profile south-TNC north	5
4/2/2014	21:58:05	21:58:35	Barker south-Profile north-Profile south-TNC north	6
4/2/2014	21:58:40	21:59:10	Barker south-Profile north-Profile south-TNC north	7
4/2/2014	21:59:15	21:59:45	Profile north-Profile south-TNC north	7
4/2/2014	21:59:55	22:00:25	Barker south-Profile north-Profile south-TNC north	10
4/2/2014	22:00:30	22:01:00	Profile north-Profile south-TNC north-TNC south	13
4/2/2014	22:01:05	22:01:35	Profile north-Profile south-TNC north-TNC south	11
4/2/2014	22:01:50	22:02:10	TNC north	4
4/2/2014	22:02:25	22:02:45	TNC north-TNC south	3
4/2/2014	22:03:30	22:04:00	TNC north	2





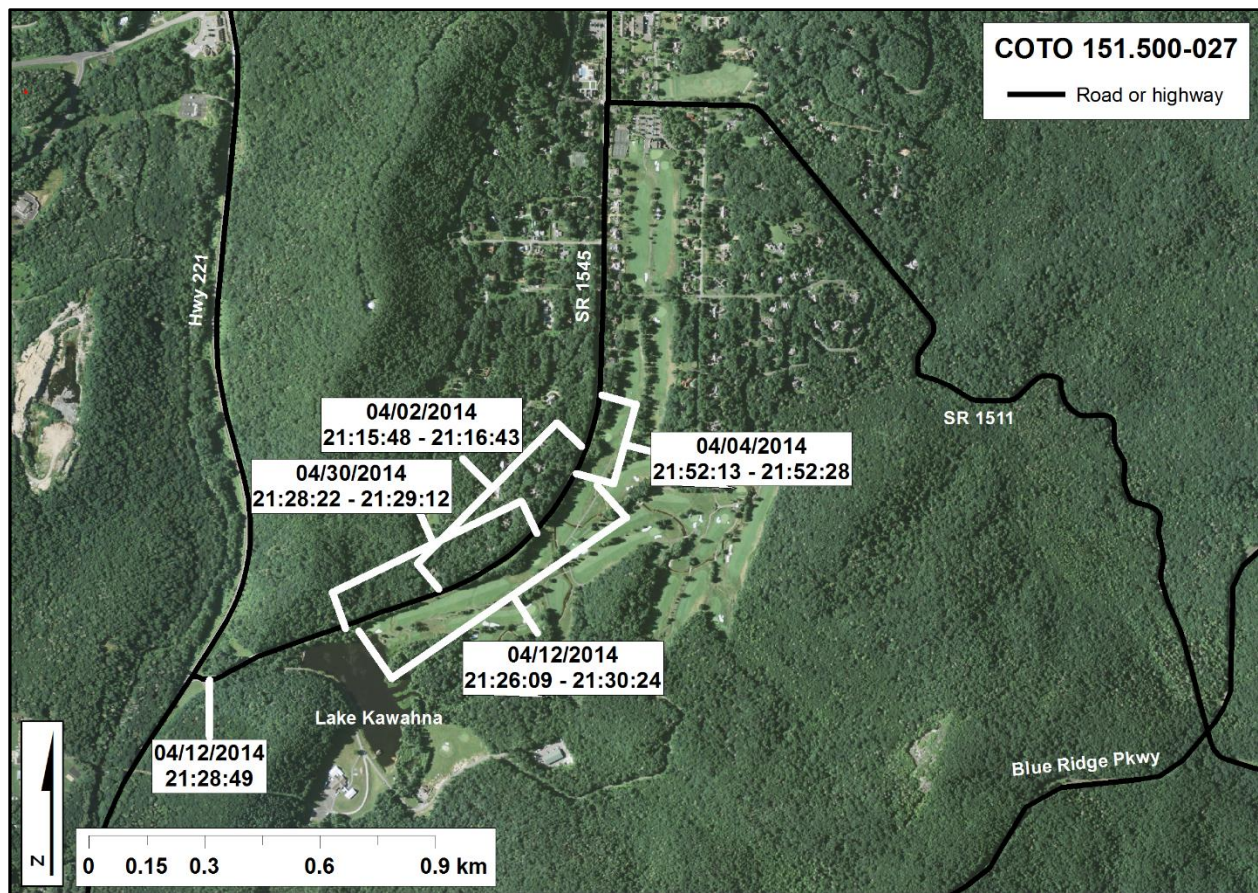
COTO 151.500-029 was radio-tagged at BRCC on 25 March 2014. On 12 April, from 21:16–21:28, the bat’s radio signal was detected by the Ennis and Barker telemetry towers. These towers did not detect high-powered signals (signal strength 171–255) from this bat. This bat roosted in BRCC on 12 April and in the primary maternity roost (Roost 7) on 13 April.

**Appendix B2: Virginia big-eared bat detections along NC 105 driving transects in Spring 2014.** Each pre-dawn or post-dusk transect (n = 48) was 44 km in length. We drove with a datalogging receiver and either a 3- or 5-element Yagi antenna mounted  $\leq 1$  m above the vehicle, forward and parallel to the road. Data below are for two bats detected during five of the driving transects.



Telemetry signal detections of radio-tagged Virginia big-eared bat (frequency 151.500-020) during driving transect along Highway 105 in Avery County, North Carolina on 1 April 2014. Areas on map indicate the locations where we detected a signal while driving along the road, but not necessarily where the bat was flying.





Telemetry signal detections of radio-tagged Virginia big-eared bat (frequency 151.500-027) during driving transect along SR-1545 in Avery County, North Carolina on 2, 4, 12, and 30 April 2014. Detections indicate the location where we detected a signal while driving along the road, but not necessarily where the bat was flying.

**Appendix B3: Class names and grid values for landcover classifications for habitat use of Virginia big-eared bats in 2013 and 2014 in North Carolina and Tennessee. Class names and grid values are drawn from 2001 Southeast Gap Analysis data (Davidson 2001).**

Classification	Description	Grid Value
Natural riparian vegetation and water	Named streams or water bodies on 24k map	n/a
	South-Central Interior Large Floodplain - Forest Modifier	202
	South-Central Interior Small Stream and Riparian	203
	Southern Piedmont Large Floodplain Forest - Forest Modifier	231
	Southern Piedmont Small Floodplain and Riparian Forest	232
	Southern and Central Appalachian Bog and Fen	400
	South-Central Interior Large Floodplain - Herbaceous Modifier	511
	Open Water (Fresh)	579
	Disturbed/Successional - Grass/Forb Regeneration	574
	Disturbed/Successional - Shrub Regeneration	575
Developed and urban	Developed, Low Intensity	582
	Developed, Medium Intensity	583
	Developed, High Intensity	584
	Quarries, Mines, Gravel Pits and Oil Wells	580
	Developed, Open Space	581
	Cultivated Cropland	556
Agriculture	Pasture/Hay	557

### Appendix B3. Cont.

Classification	Description	Grid Value
Upland forest, shrub, herb, and rock vegetation and rock	Evergreen Plantation or Managed Pine	38
	Central and Southern Appalachian Montane Oak Forest	62
	Central and Southern Appalachian Northern Hardwood Forest	63
	Southern and Central Appalachian Oak Forest	84
	Southern and Central Appalachian Oak Forest - Xeric	85
	Southern Ridge and Valley Dry Calcareous Forest	87
	Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier	92
	Appalachian Hemlock-Hardwood Forest	95
	Central and Southern Appalachian Spruce-Fir Forest	96
	Southern Appalachian Low Mountain Pine Forest	110
	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier	112
	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier	113
	South-Central Interior Mesophytic Forest	126
	Southern and Central Appalachian Cove Forest	127
	Southern Piedmont Mesic Forest	129
	Southern Appalachian Montane Pine Forest and Woodland	135
	Southern Appalachian Grass and Shrub Bald - Herbaceous Modifier	343
	Southern Appalachian Grass and Shrub Bald - Shrub Modifier	344
	Harvested Forest - Grass/Forb Regeneration	567
	Southern Appalachian Montane Cliff	522
	Southern Piedmont Cliff	525
	Undifferentiated Barren Land	553
	Southern Appalachian Rocky Summit	527

## **APPENDIX C: ROOSTING**

**Appendix C1: Landcover class names drawn from 2001 Southeast Gap Analysis data (Davidson 2001), and grid numbers for reference to descriptions. These data were used in an analysis of roost habitat selection.**

Landcover	Class names	Grid value
Riparian vegetation	South-Central Interior Large Floodplain - Forest Modifier	202
	South-Central Interior Small Stream and Riparian	203
	Southern Piedmont Large Floodplain Forest - Forest Modifier	231
	Southern Piedmont Small Floodplain and Riparian Forest	232
	Southern and Central Appalachian Bog and Fen	400
	South-Central Interior Large Floodplain - Herbaceous Modifier	511
Rock vegetation/rock	Southern Appalachian Montane Cliff	522
	Southern Piedmont Cliff	525
	Southern Appalachian Rocky Summit	527
Developed/disturbed	Disturbed/Successional - Grass/Forb Regeneration	574
	Disturbed/Successional - Shrub Regeneration	575
	Developed, Low Intensity	582
	Developed, Medium Intensity	583
	Developed, High Intensity	584
	Developed, Open Space	581

## Appendix C1 Cont.

Landcover	Class names	Grid value
Forest	Evergreen Plantation or Managed Pine	38
	Central and Southern Appalachian Montane Oak Forest	62
	Central and Southern Appalachian Northern Hardwood Forest	63
	Southern and Central Appalachian Oak Forest	84
	Southern and Central Appalachian Oak Forest - Xeric	85
	Southern Ridge and Valley Dry Calcareous Forest	87
	Southern Piedmont Dry Oak-(Pine) Forest - Loblolly Pine Modifier	92
	Appalachian Hemlock-Hardwood Forest	95
	Central and Southern Appalachian Spruce-Fir Forest	96
	Southern Appalachian Low Mountain Pine Forest	110
	Southern Piedmont Dry Oak-(Pine) Forest - Hardwood Modifier	112
	Southern Piedmont Dry Oak-(Pine) Forest - Mixed Modifier	113
	South-Central Interior Mesophytic Forest	126
	Southern and Central Appalachian Cove Forest	127
	Southern Piedmont Mesic Forest	129
	Southern Appalachian Montane Pine Forest and Woodland	135
	South-Central Interior Large Floodplain - Forest Modifier	202
	South-Central Interior Small Stream and Riparian	203
	Southern Piedmont Large Floodplain Forest - Forest Modifier	231
	Southern Piedmont Small Floodplain and Riparian Forest	232
	Harvested Forest - Grass/Forb Regeneration	567



**Appendix C2: Model hypotheses, expectations, and variables used to assess large-scale roost habitat selection by Virginia big-eared bats in North Carolina and Tennessee in 2013 and 2014. See Table 2 in report for variable definitions.**

Model	Hypothesis (Locations of <i>Corynorhinus townsendii virginianus</i> roosts may be influenced by:)	Expectation	Variable(s)
1	Proximity to foraging resources	Riparian vegetation and/or water provides suitable foraging habitat	Density of streams, distance to riparian
2	Proximity to foraging resources	Forest habitat is used for foraging	Percent forest
3	Landcover type	Roost sites are closer than expected to rock/rock- vegetation	Distance to rock vegetation
4	Optimal temperatures on the landscape due to elevation and aspect	Female bats roost at lower elevations than expected and on hillsides with south aspect	Elevation, north and south aspect
5	Optimal temperatures on the landscape due to elevation	Female bats roost at lower elevations than expected	Elevation
6	Distance to primary roost locations	Bat roost sites are closer than expected to either BRCC or Roost 7	Distance to primary maternity roosts
7	Availability of man-made structures	Bats roost near man-made structures, or in areas with a relatively high density of anthropogenic structures	Percent developed
8	Disturbance	Roost sites are farther than expected from streets and major streams	Distance to water, distance to streets, distance to developed

**Appendix C3: Virginia big-eared bat counts at 31 of 35 roost sites in North Carolina and Tennessee in 2013 and 2014. Counts are based on roost visits and emergence counts.**

Structure	Date	Number of bats
Roost 1 (BRCC)	5/4/2013	35
	6/15/2013	25
	6/13/2014	125
Roost 2	3/22/2013	5
	3/20/2013	2
Roost 4	4/13/2013	2
	6/11/2013	0
	4/28/2014	1
Roost 5	6/12/2014	0
	4/13/2013	9
	6/11/2013	0
	6/21/2013	0
	4/10/2014	6
	4/11/2014	5
Roost 6	4/26/2014	3
	4/28/2014	0
	6/12/2014	0
	4/17/2014	0
	6/11/2013	0
	5/20/2013	286
Roost 7	5/28/2013	269
	5/29/2013	282
	6/1/2013	292
	6/4/2013	271
	6/8/2013	264
	6/20/2013	281
	6/23/2013	276
	6/26/2013	263
	4/3/2014	270
	4/21/2014	335
	4/27/2014	359
	5/6/2014	342
	5/25/2014	329
	6/7/2014	313
	6/13/2014	313
Roost 8	6/17/2014	263
	6/22/2014	265
	4/17/2013	1
	4/22/2013	1
	4/23/2013	1
	4/24/2013	0
Roost 9	6/8/2014	0
	6/14/2013	0
Roost 10	4/23/2013	1
	4/24/2013	2
Roost 11	4/25/2013	3
	4/26/2013	3
	4/30/2013	1
	5/7/2013	1
	5/16/2013	0
	6/6/2013	1
Roost 12	5/14/2013	5
	4/18/2014	4
	5/20/2014	0
Roost 13	5/10/2013	1
	6/14/2013	0
	5/11/2013	1
	5/30/2013	0
	6/11/2014	0

Structure	Date	Number of bats
Roost 14	6/12/2013	0
	6/8/2014	0
Roost 15	3/23/2014	1
	3/24/2014	1
	5/16/2014	1
Roost 16	6/2/2014	0
	6/14/2014	0
	4/3/2014	1
Roost 17	5/17/2014	0
	6/11/2014	0
	4/4/2014	1
	4/23/2014	1
Roost 18	5/28/2014	0
	6/2/2014	0
	4/5/2014	1
Roost 19	6/6/2014	0
	4/6/2014	1
Roost 20	5/10/2014	0
	5/16/2014	0
	6/2/2014	0
Roost 21	4/8/2014	1
	5/18/2014	0
	6/4/2014	0
Roost 22	4/14/2014	2
	5/8/2014	1
	5/19/2014	1
	5/22/2014	0
Roost 23	5/25/2014	1
	6/3/2014	0
	4/18/2014	1
	6/3/2014	0
Roost 24	6/7/2014	0
	6/21/2014	0
Roost 25	4/21/2014	1
	4/23/2014	1
Roost 26	6/21/2014	0
	4/21/2014	3
	5/26/2014	0
	5/30/2014	0
Roost 27	4/23/2014	1
	6/7/2014	0
Roost 28	4/26/2014	1
	6/4/2014	0
Roost 29	4/26/2014	1
	6/4/2014	0
Roost 31	4/29/2014	1
	6/1/2014	0
Roost 33	5/3/2014	2
	5/19/2014	2
	5/20/2014	0
Roost 34	5/21/2014	1
	6/2/2014	1
	6/21/2014	1
	5/19/2014	1
	5/25/2014	0
	6/21/2014	0

**Appendix C4: Principal components to describe roosts used by Virginia big-eared bats in North Carolina and Tennessee in 2013 and 2014. We present eigenvalues, percent variance (total sample variance accounted for by each component), and cumulative percent variance for each factor. PCA<sub>size/cover</sub> included nine variables (excluding temperature) collected at 21 natural rock roosts and PCA<sub>temp</sub> included 11 variables (including two temperature variables) collected at eight natural rock roosts.**

Component	PCA <sub>size/cover</sub>			PCA <sub>temp</sub>		
	Eigenvalue	Percent variance	Cumulative percent variance	Eigenvalue	Percent variance	Cumulative percent variance
1	2.72	30.27	30.27	3.44	31.26	31.26
2	1.76	19.60	49.88	2.77	25.19	56.44
3	1.31	14.55	64.43	1.90	17.29	73.74
4	1.03	11.46	75.89	1.64	14.95	88.69
5	0.89	9.93	85.81	0.70	6.34	95.03
6	0.58	6.49	92.30	0.30	2.77	97.80
7	0.34	3.80	96.10	0.24	2.20	100.00
8	0.25	2.77	98.87	-	-	-
9	0.10	1.13	100.00	-	-	-

**Appendix C5: Photos of roosts used by Virginia big-eared bats in North Carolina and Tennessee in 2013 and 2014. Photos grouped into categories by roost type.**

**Primary Roost: Roost 1 (BRCC)**





**Appendix C5 Cont. Primary Roost: Roost 7**

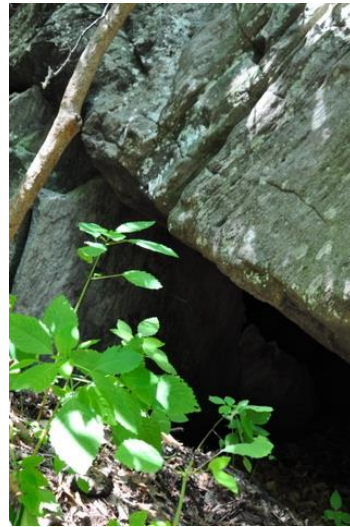




**Appendix C5 Cont. Secondary Roosts: Rock Roosts**



Roost 2



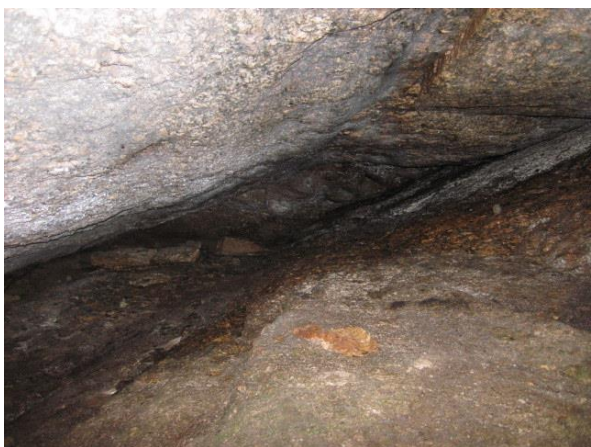
Roost 3



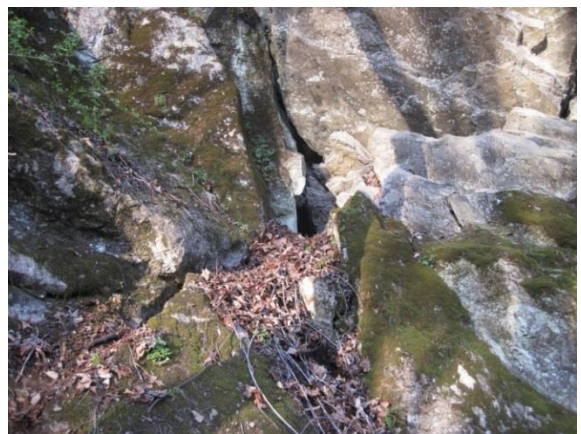
Roost 4



Roost 5



Roost 6



Roost 9



**Appendix C5 Cont. Secondary Roosts: Rock Roosts**



Roost 11



Roost 12



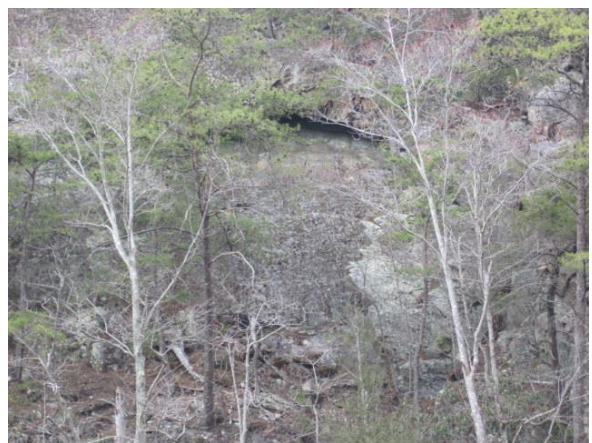
Roost 13



Roost 14



Roost 15



Roost 16



**Appendix C5 Cont. Secondary Roosts: Rock Roosts**



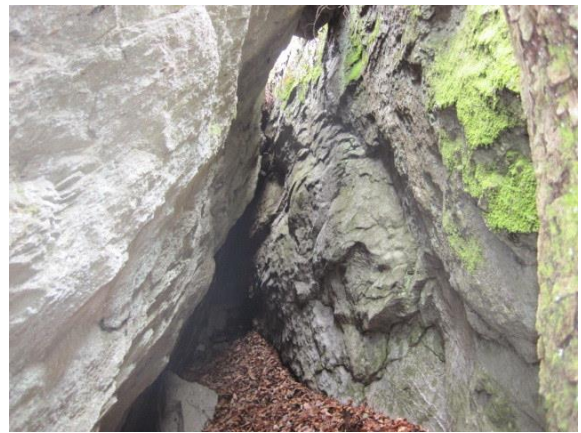
Roost 17



Roost 19



Roost 20



Roost 21



Roost 26



Roost 29



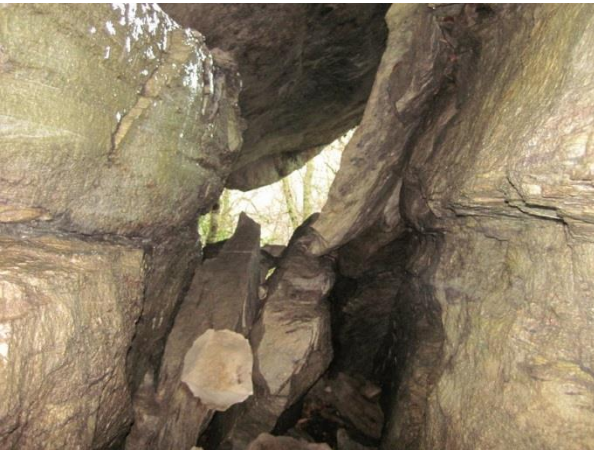
**Appendix C5 Cont. Secondary Roosts: Rock Roosts**



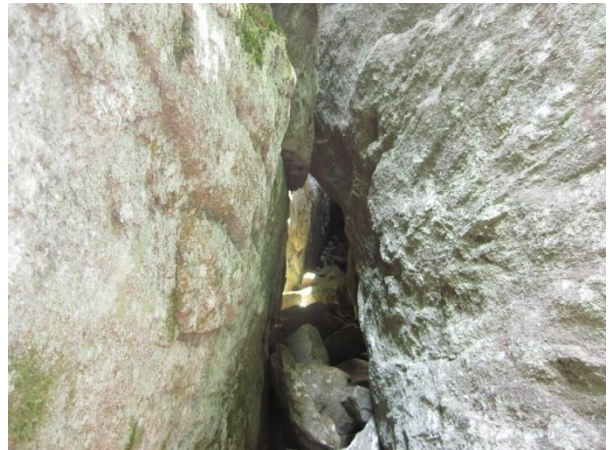
Roost 30



Roost 31



Roost 32



Roost 35

**Secondary Roosts: Tree Roost**



Roost 28



Roost 28 (Close-up)



**Appendix C5 Cont. Secondary Roosts: Building Roosts**



Roost 8



Roost 8 (Inside)



Roost 10



Roost 10 (Inside)



Roost 18



Roost 22



**Appendix C5 Cont. Secondary Roosts: Building Roosts**



Roost 22 (Inside)



Roost 23



Roost 23



Roost 24



Roost 24 (Inside)



Roost 25



**Appendix C5 Cont. Secondary Roosts: Building Roosts**



Roost 27



Roost 27 (Inside)



Roost 33



Roost 33 (Inside)



Roost 34



Roost 34 (Inside)

## **APPENDIX D: INDIVIDUAL BAT ACCOUNTS**

**Appendix D1. Virginia big-eared bats tracked in North Carolina and Tennessee in Spring 2013. Individual accounts are arranged with females with foraging telemetry data first (see also adjacent maps), then other females, and then males. Due to logistical constraints, most bats were not followed for the entire life of the radio transmitter, but we present data on known transmitter fates when possible.**

### **2013 Females With Foraging Data**

COTO 151.500-013 was an adult female captured on 29 March 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County and Roost 9 near the Elk River in Carter County Tennessee. After we radio-tagged this bat and before it roosted in the primary maternity roost, it also roosted in an unidentified roost on Grandfather Mountain near Attic Window. On 12 April, this bat was foraging around a bridge near Roost 9 that crosses the Watauga River on Poga Road in Carter County Tennessee. On 20 April, the bat was roosting in the area of what was to be identified as Roost 9 on the next day. The bat's radio signal was picked up by the GFGCC telemetry tower (Table 4) on the nights of 30 March and 6 April. We conducted 3 nights of foraging telemetry on this bat (Table 5) as it foraged in the Elk River and Little Stone Mountain areas of Tennessee. It also foraged near the primary maternity roost (Roost 7), however we did not obtain any estimated foraging locations in this area.

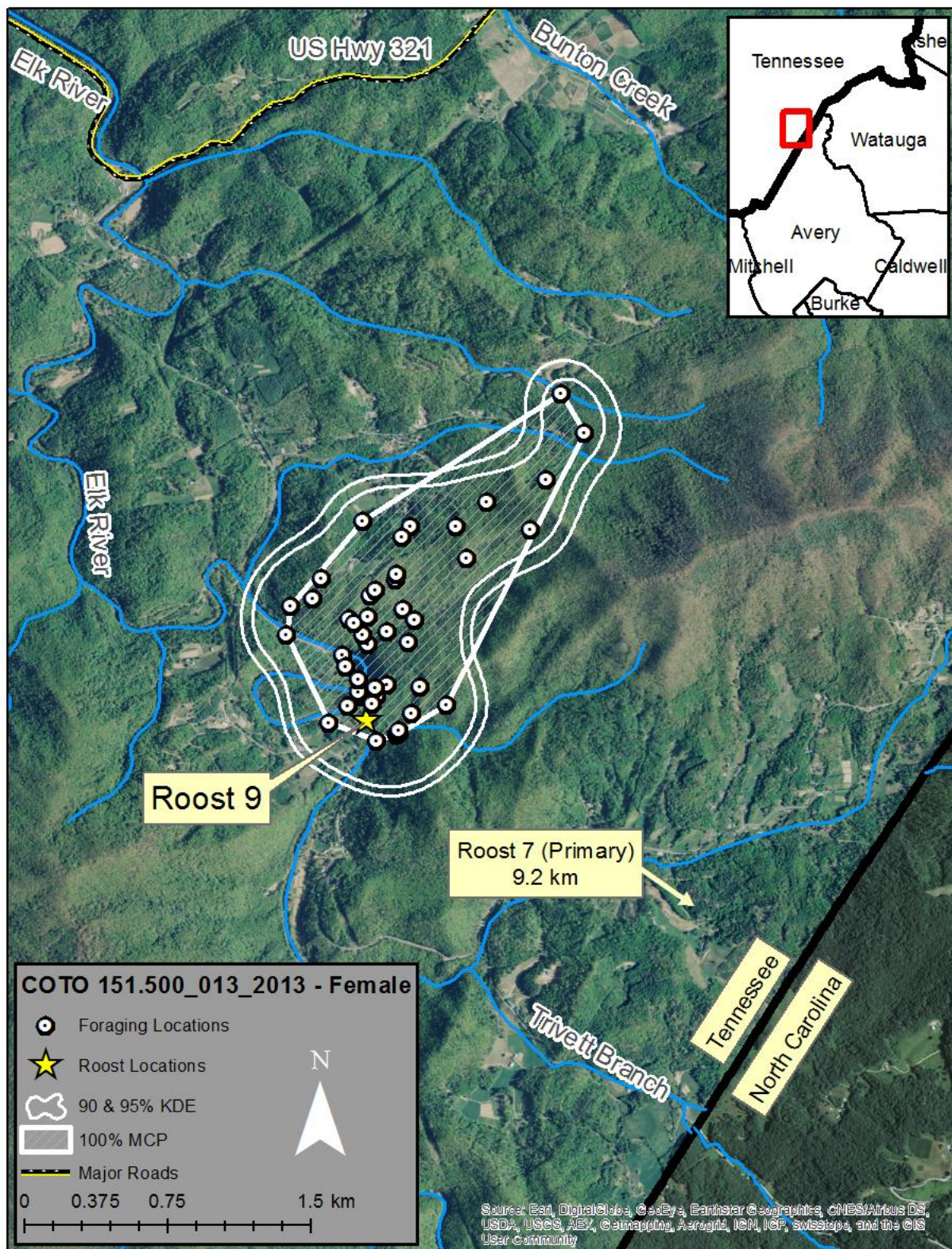
Roost data for female Virginia big-eared bat with transmitter 151.500-013

Date	Roost	Date	Roost	Date	Roost
3/29/13	Trans. BRCC	4/12/13	-	4/26/13	7
3/30/13	-	4/13/13	-	4/27/13	7
3/31/13	-	4/14/13	7	4/28/13	7
4/1/13	-	4/15/13	-	4/29/13	7
4/2/13	-	4/16/13	7	4/30/13	7
4/3/13	-	4/17/13	-	5/1/13	7
4/4/13	-	4/18/13	7	5/2/13	7
4/5/13	Attic Window	4/19/13	-	5/3/13	7
4/6/13	Attic Window	4/20/13	-	5/4/13	7
4/7/13	-	4/21/13	9	5/5/13	7
4/8/13	-	4/22/13	9	5/6/13	7
4/9/13	-	4/23/13	7	5/7/13*	7
4/10/13	-	4/24/13	7		
4/11/13	-	4/25/13	7		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 15 May when the signal died in the daytime per the data logger.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.500-013

## Appendix D1. Cont 2013 Females With Foraging Data

COTO 151.306 was an adult female captured on 19 March 2013 at BRCC. This bat roosted in BRCC and the primary maternity roost (Roost 7). Before it moved to the primary maternity roost, it also roosted in an unidentified roost on Grandfather Mountain near Attic Window. We conducted 3 nights of foraging telemetry on this bat (Table 5) as it foraged in the Laurel Creek and Rominger areas in Watauga County.

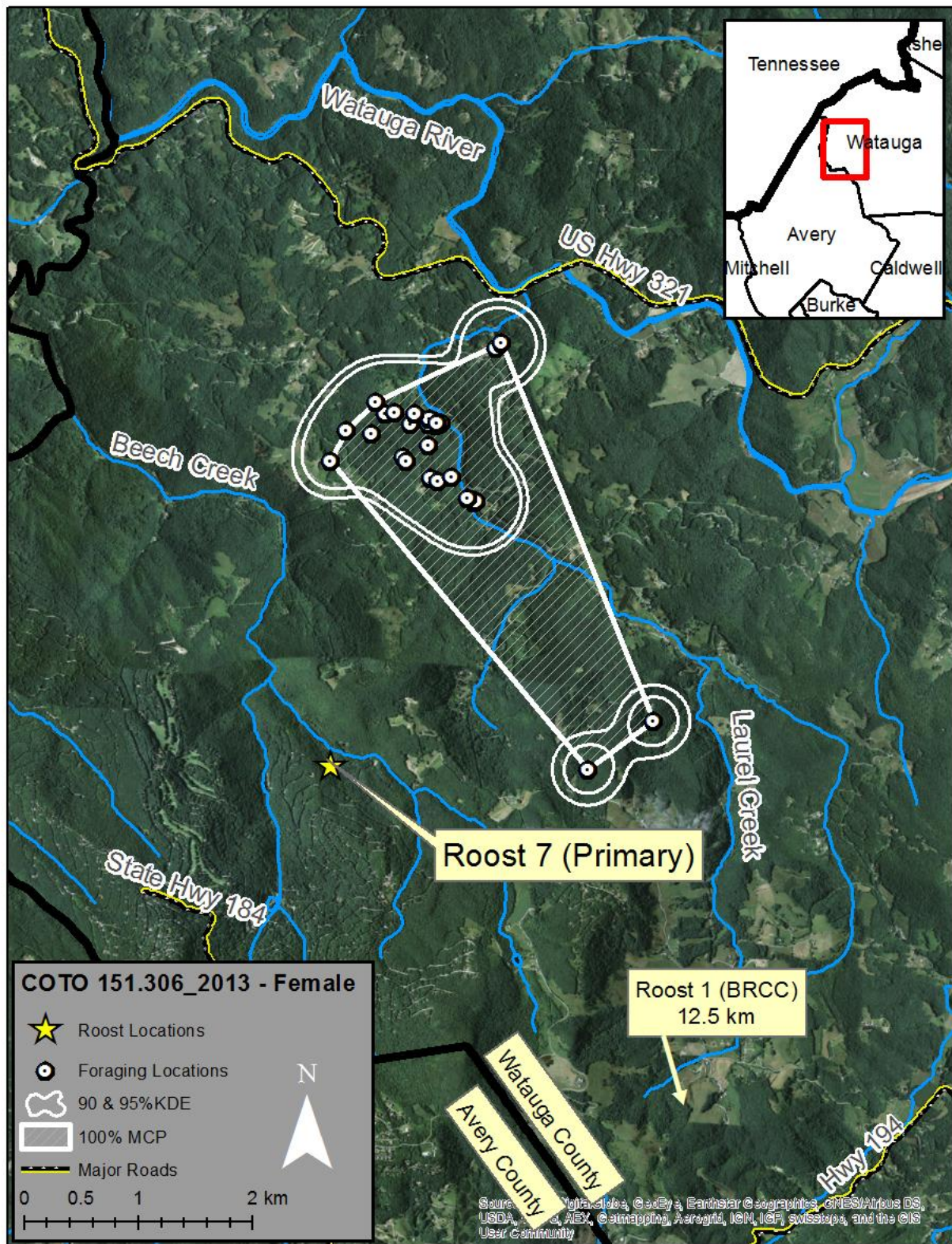
Roost data for female Virginia big-eared bat with transmitter 151.306

Date	Roost	Date	Roost	Date	Roost
3/19/13	Trans. BRCC	4/3/13	BRCC	4/18/13	7
3/20/13	BRCC	4/4/13	-	4/19/13	-
3/21/13	BRCC	4/5/13	Attic Window	4/20/13	7
3/22/13	BRCC	4/6/13	Attic Window	4/21/13	-
3/23/13	BRCC	4/7/13	Attic Window	4/22/13	7
3/24/13	BRCC	4/8/13	Attic Window	4/23/13	-
3/25/13	BRCC	4/9/13	Attic Window	4/24/13	7
3/26/13	-	4/10/13	Attic Window	4/25/13	7
3/27/13	BRCC	4/11/13	Attic Window	4/26/13	7
3/28/13	-	4/12/13	-	4/27/13	7
3/29/13	BRCC	4/13/13	-	4/28/13	7
3/30/13	BRCC	4/14/13	-	4/29/13	-
3/31/13	-	4/15/13	-	4/30/13	7
4/1/13	-	4/16/13	-	5/1/13	7
4/2/13	BRCC	4/17/13	-	5/2/13*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 11 May.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.306

## Appendix D1. Cont 2013 Females With Foraging Data

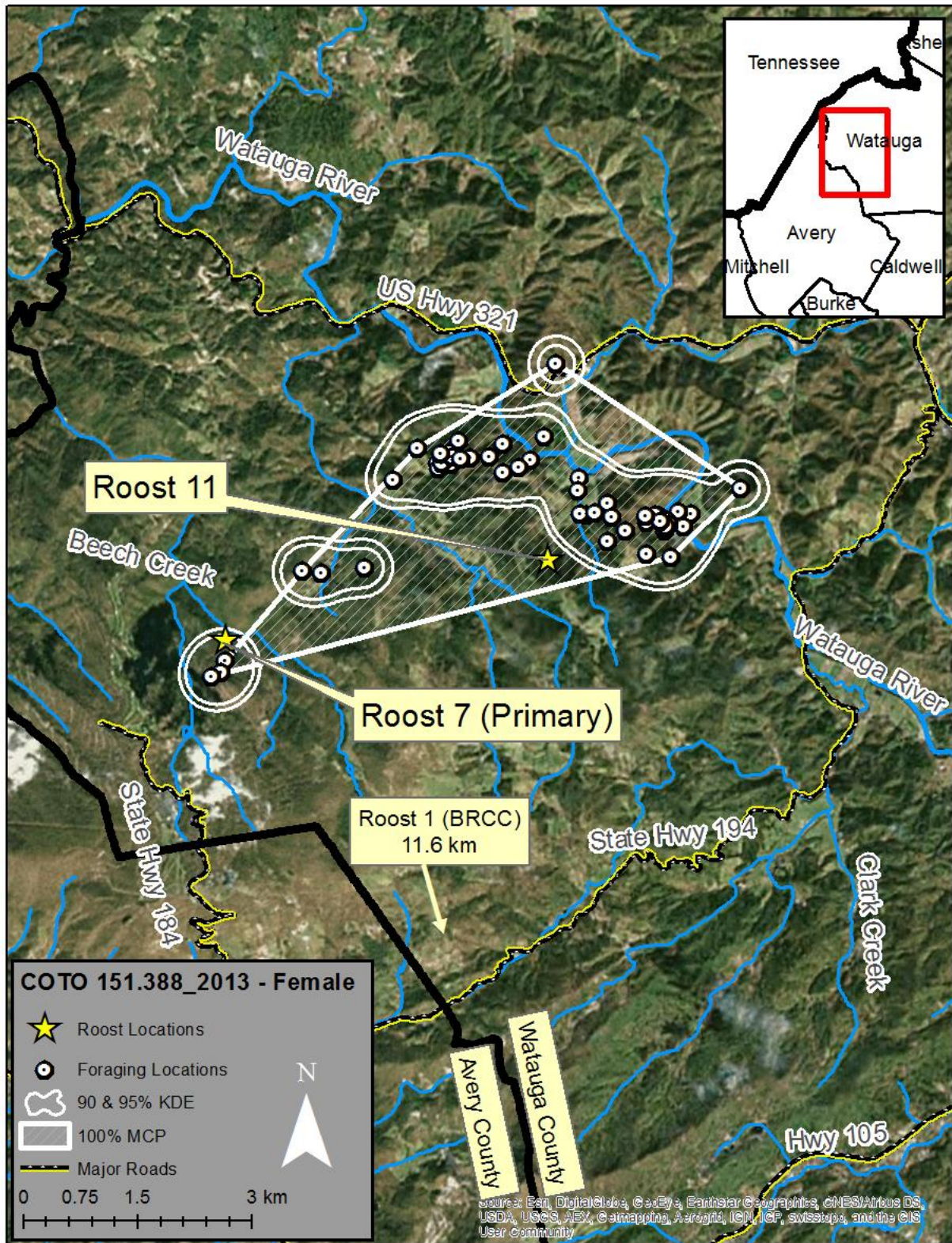
COTO 151.388 was an adult female captured on 3 April 2013 at BRCC. This bat roosted in BRCC, the primary maternity roost (Roost 7), and Roost 11 near Long Ridge. From 4–5 May, this bat roosted between Long Ridge and Worley Roads, likely in Roost 11. We conducted 9 nights of foraging telemetry on this bat (Table 5) when it foraged in the Watauga River, Rominger Road, and Long Ridge Road areas in Watauga County.

Roost data for female Virginia big-eared bat with transmitter 151.388

Date	Roost	Date	Roost	Date	Roost
4/3/13	Trans. BRCC	4/18/13	-	5/3/13	-
4/4/13	-	4/19/13	-	5/4/13	-
4/5/13	BRCC	4/20/13	-	5/5/13	-
4/6/13	-	4/21/13	-	5/6/13	-
4/7/13	-	4/22/13	-	5/7/13	-
4/8/13	-	4/23/13	7	5/8/13	-
4/9/13	-	4/24/13	7	5/9/13	7
4/10/13	-	4/25/13	7	5/10/13	7
4/11/13	-	4/26/13	7	5/11/13	7
4/12/13	-	4/27/13	7	5/12/13	7
4/13/13	-	4/28/13	7	5/13/13	7
4/14/13	-	4/29/13	7	5/14/13	11
4/15/13	-	4/30/13	7	5/15/13	-
4/16/13	-	5/1/13	7	5/16/13	7
4/17/13	-	5/2/13	-	5/17/13	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.388

## Appendix D1. Cont 2013 Females With Foraging Data

COTO 151.398\_2013 was an adult female captured on 3 April 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 14 near Long Ridge. Before it roosted in the primary maternity roost, it also roosted in an unidentified roost on Grandfather Mountain near Attic Window. We conducted 6 nights of foraging telemetry on this bat (Table 5) as it foraged in the Watauga River, Herb Thomas Road, and Mast Gap areas in Watauga County.

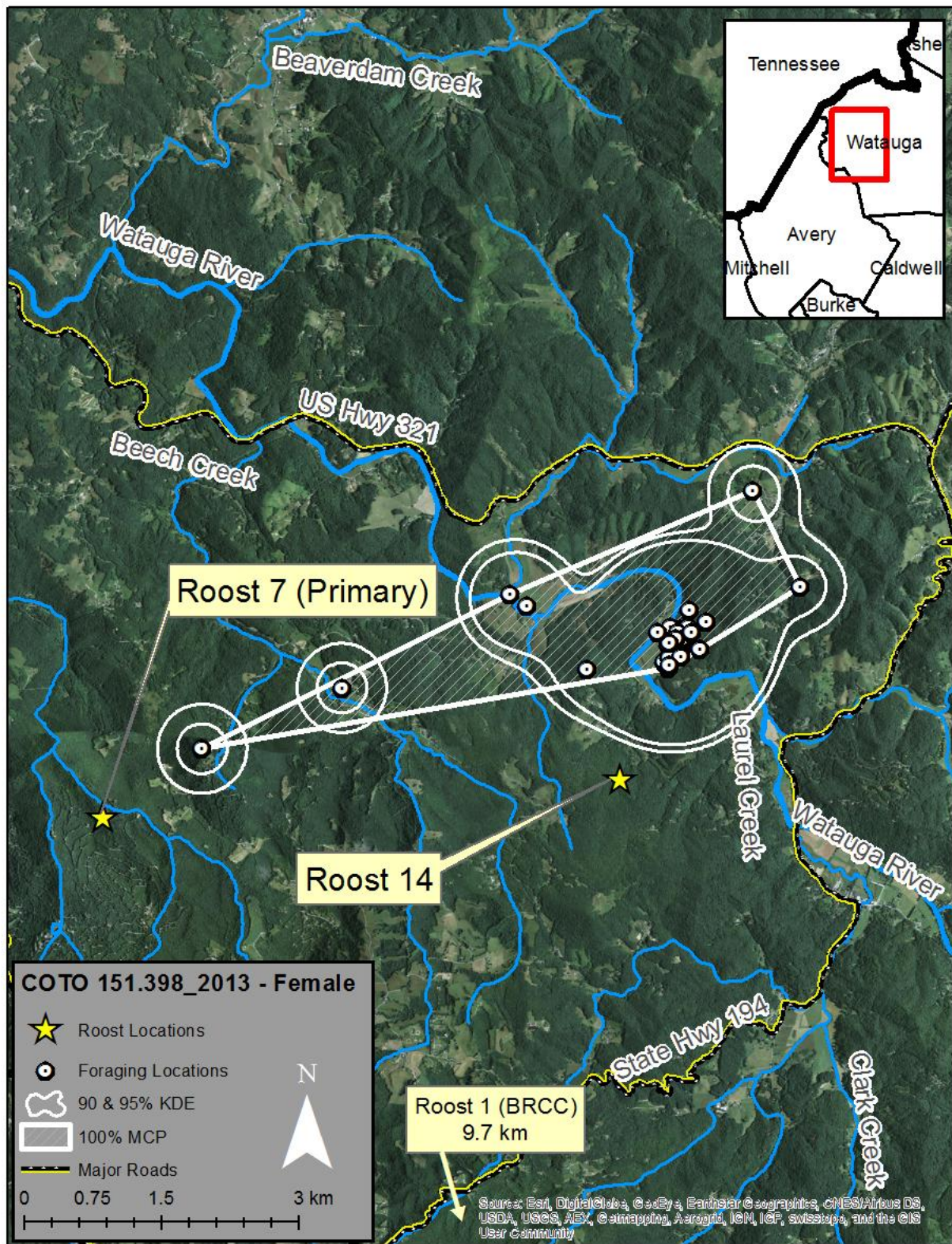
Roost data for female Virginia big-eared bat with transmitter 151.398\_2013

Date	Roost	Date	Roost	Date	Roost
4/3/13	Trans. BRCC	4/18/13	-	5/3/13	7
4/4/13	-	4/19/13	-	5/4/13	-
4/5/13	Attic Window	4/20/13	-	5/5/13	7
4/6/13	Attic Window	4/21/13	-	5/6/13	-
4/7/13	Attic Window	4/22/13	-	5/7/13	-
4/8/13	-	4/23/13	-	5/8/13	-
4/9/13	-	4/24/13	7	5/9/13	7
4/10/13	-	4/25/13	7	5/10/13	7
4/11/13	-	4/26/13	7	5/11/13	7
4/12/13	-	4/27/13	7	5/12/13	14
4/13/13	-	4/28/13	7	5/13/13	14
4/14/13	-	4/29/13	7	5/14/13	-
4/15/13	-	4/30/13	7	5/15/13	7
4/16/13	-	5/1/13	7	5/16/13	7
4/17/13	-	5/2/13	-	5/17/13*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 20 May when we found the transmitter on the cave floor.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.398\_2013

## Appendix D1. Cont 2013 Females With Foraging Data

COTO 151.496 was an adult female captured on 13 April 2013 at Roost 5 near Beech Creek. This bat roosted in Roost 6, the primary maternity roost (Roost 7), Roost 10 near Four Diamond Ridge, and Roost 12 near Rough Ridge and the Blue Ridge Parkway in Avery County. We conducted 7 nights of foraging telemetry on this bat (Table 5) as it foraged in the Diamond Creek Golf Club and Andy Hicks Road areas in Avery and Watauga counties.

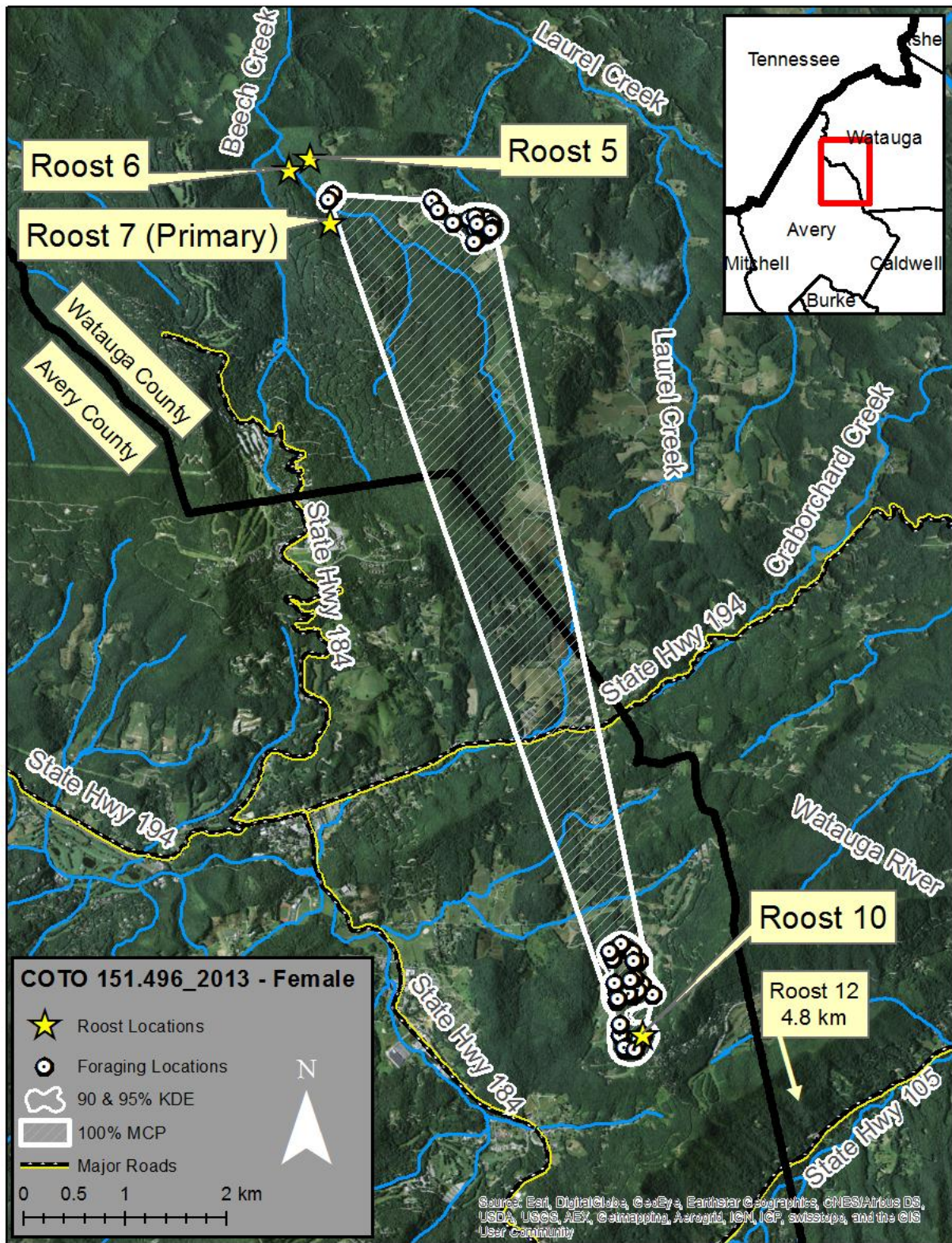
Roost data for female Virginia big-eared bat with transmitter 151.496

Date	Roost	Date	Roost	Date	Roost
4/13/13	Trans. Roost 5	4/27/13	10	5/11/13	10
4/14/13	6	4/28/13	10	5/12/13	10
4/15/13	-	4/29/13	10	5/13/13	10
4/16/13	-	4/30/13	10	5/14/13	10
4/17/13	-	5/1/13	10	5/15/13	7
4/18/13	-	5/2/13	10	5/16/13	7
4/19/13	-	5/3/13	10	5/17/13	-
4/20/13	-	5/4/13	10	5/18/13	7
4/21/13	-	5/5/13	10	5/19/13	10
4/22/13	-	5/6/13	10	5/20/13	7
4/23/13	10	5/7/13	10	5/21/13	7
4/24/13	10	5/8/13	10	5/22/13	7
4/25/13	10	5/9/13	10	5/23/13*	10
4/26/13	10	5/10/13	12		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal in the vicinity of the golf course near Roost 10 until 18 June.





Foraging and roost locations for female Virginia big-eared bat with transmitter 151.496

## Appendix D1. Cont 2013 Females With Foraging Data

COTO 151.426\_2013 was an adult female captured on 2 April 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 11 near Long Ridge. We conducted 2 nights of foraging telemetry on this bat as it foraged in the Watauga River, Worley Creek, Cove Creek, and Highway 321 areas in Watauga County, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.586). On 15 May, while we were doing foraging telemetry, this bat night-roosted on the north side of the Watauga River across from and near the intersection of Watauga River Road and Bramble Lane.

Roost data for female Virginia big-eared bat with transmitter 151.426\_2013

Date	Roost	Date	Roost	Date	Roost
4/2/13	Trans. BRCC	4/17/13	-	5/2/13	7
4/3/13	-	4/18/13	-	5/3/13	7
4/4/13	-	4/19/13	-	5/4/13	7
4/5/13	-	4/20/13	-	5/5/13	-
4/6/13	-	4/21/13	-	5/6/13	-
4/7/13	-	4/22/13	-	5/7/13	-
4/8/13	-	4/23/13	7	5/8/13	11
4/9/13	-	4/24/13	7	5/9/13	7
4/10/13	-	4/25/13	7	5/10/13	7
4/11/13	-	4/26/13	7	5/11/13	7
4/12/13	-	4/27/13	-	5/12/13	7
4/13/13	-	4/28/13	-	5/13/13	7
4/14/13	-	4/29/13	-	5/14/13	11
4/15/13	-	4/30/13	-	5/15/13	7
4/16/13	-	5/1/13	7	5/16/13*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 20 May when we found the transmitter on the cave floor.

## Appendix D1. Cont 2013 Females With Foraging Data

COTO 151.586 was an adult female captured on 13 April 2013 at Roost 4 near Beech Creek. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. We conducted 1 night of foraging telemetry on this bat, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.426\_2013).

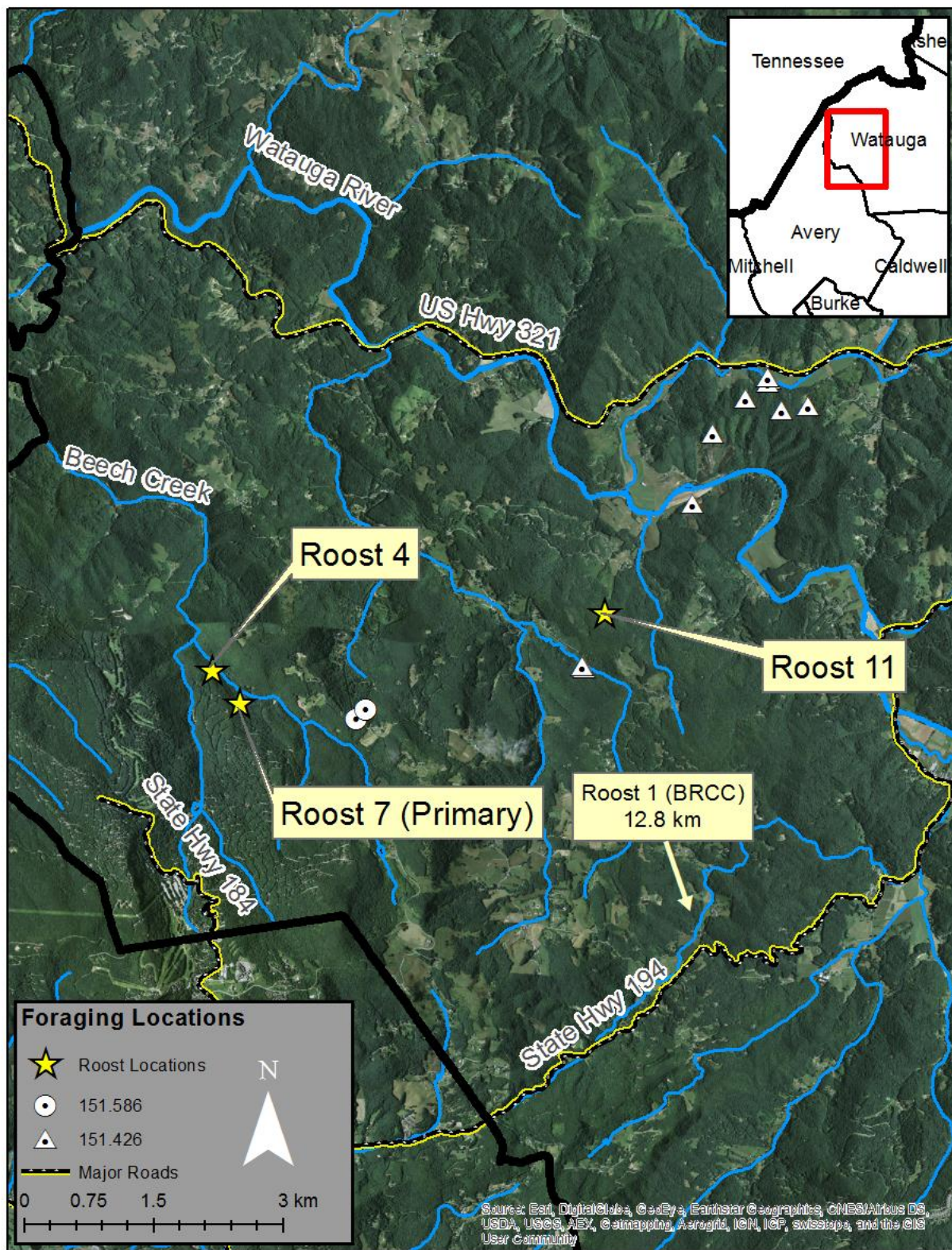
Roost data for female Virginia big-eared bat with transmitter 151.586

Date	Roost	Date	Roost	Date	Roost
4/13/13	Trans. Roost 4	4/26/13	-	5/9/13	-
4/14/13	-	4/27/13	-	5/10/13	-
4/15/13	-	4/28/13	-	5/11/13	-
4/16/13	-	4/29/13	-	5/12/13	-
4/17/13	-	4/30/13	-	5/13/13	-
4/18/13	-	5/1/13	7	5/14/13	-
4/19/13	-	5/2/13	-	5/15/13	-
4/20/13	7	5/3/13	-	5/16/13	-
4/21/13	7	5/4/13	-	5/17/13	-
4/22/13	-	5/5/13	-	5/18/13	-
4/23/13	-	5/6/13	-	5/19/13	7
4/24/13	-	5/7/13	-	5/20/13	7
4/25/13	-	5/8/13	-	5/21/13*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 23 May.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitters 151.426\_2013 and 151.586

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-010 was an adult female captured on 29 March 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. After we radio-tagged this bat and before it roosted in the primary maternity roost, it also roosted in an unidentified roost on Grandfather Mountain near Attic Window. During the day on 12 April, we heard this bat's radio signal to the north near Beech Creek from Shawnee Road in Watauga County. The bat's radio signal was not picked up by any of the telemetry towers.

Roost data for female Virginia big-eared bat with frequency 151.500-010

Date	Roost	Date	Roost	Date	Roost
3/29/13	Trans. BRCC	4/12/13	-	4/26/13	-
3/30/13	-	4/13/13	-	4/27/13	7
3/31/13	-	4/14/13	-	4/28/13	-
4/1/13	-	4/15/13	-	4/29/13	-
4/2/13	-	4/16/13	-	4/30/13	7
4/3/13	-	4/17/13	-	5/1/13	7
4/4/13	-	4/18/13	7	5/2/13	7
4/5/13	-	4/19/13	-	5/3/13	7
4/6/13	Attic Window	4/20/13	7	5/4/13	-
4/7/13	Attic Window	4/21/13	-	5/5/13	-
4/8/13	-	4/22/13	-	5/6/13	-
4/9/13	-	4/23/13	-	5/7/13*	7
4/10/13	-	4/24/13	7		
4/11/13	-	4/25/13	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 15 May and we found the dead transmitter on the cave floor on 20 May.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-011 was an adult female captured on 19 March 2013 at BRCC. This bat roosted in Roosts 2 and 3 in Avery and Watauga counties. On 18 April, this bat's radio-transmitter was found on the ground underneath a utility pole, encapsulated in the pellet of a bird of prey. The bat's radio signal was not picked up by any of the telemetry towers.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-011

Date	Roost	Date	Roost
3/19/13	Trans. BRCC	4/4/13	2
3/20/13	2	4/5/13	2
3/21/13	2	4/6/13	2
3/22/13	2	4/7/13	-
3/23/13	2	4/8/13	3
3/24/13	2	4/9/13	3
3/25/13	2	4/10/13	-
3/26/13	2	4/11/13	-
3/27/13	2	4/12/13	-
3/28/13	2	4/13/13	-
3/29/13	2	4/14/13	-
3/30/13	2	4/15/13	-
3/31/13	2	4/16/13	-
4/1/13	2	4/17/13	-
4/2/13	2	4/18/13	Pellet*
4/3/13	2		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found this bat's transmitter encapsulated inside the pellet of a bird of prey.



## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-012 was an adult female captured on 19 March 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. After we radio-tagged this bat and before it roosted in the primary maternity roost, it also roosted in an unidentified roost on Grandfather Mountain near Attic Window. The bat's radio signal was picked up by the GFGCC telemetry tower on the night of 6 April (Table 4).

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-012

Date	Roost	Date	Roost	Date	Roost
3/19/13	Trans. BRCC	4/5/13	-	4/22/13	-
3/20/13	-	4/6/13	Attic Window	4/23/13	-
3/21/13	-	4/7/13	-	4/24/13	7
3/22/13	-	4/8/13	-	4/25/13	7
3/23/13	-	4/9/13	-	4/26/13	7
3/24/13	-	4/10/13	-	4/27/13	7
3/25/13	-	4/11/13	-	4/28/13	-
3/26/13	-	4/12/13	-	4/29/13	-
3/27/13	-	4/13/13	-	4/30/13	7
3/28/13	-	4/14/13	7	5/1/13	7
3/29/13	-	4/15/13	-	5/2/13	-
3/30/13	-	4/16/13	-	5/3/13	-
3/31/13	-	4/17/13	-	5/4/13	7
4/1/13	-	4/18/13	7	5/5/13	-
4/2/13	Attic Window	4/19/13	-	5/6/13	7
4/3/13	-	4/20/13	7	5/7/13*	7
4/4/13	-	4/21/13	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 10 May when the signal died in the daytime per the data logger.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-014 was an adult female captured on 3 April 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 11 (near Long Ridge) in Watauga County. The bat's radio signal was not picked up by any of the telemetry towers.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-014

Date	Roost	Date	Roost	Date	Roost
4/3/13	Trans. BRCC	4/16/13	-	4/29/13	-
4/4/13	-	4/17/13	-	4/30/13	7
4/5/13	-	4/18/13	7	5/1/13	7
4/6/13	-	4/19/13	-	5/2/13	-
4/7/13	-	4/20/13	7	5/3/13	7
4/8/13	-	4/21/13	-	5/4/13	-
4/9/13	-	4/22/13	-	5/5/13	-
4/10/13	-	4/23/13	-	5/6/13	-
4/11/13	-	4/24/13	7	5/7/13	-
4/12/13	-	4/25/13	-	5/8/13	11
4/13/13	-	4/26/13	-	5/9/13	7
4/14/13	-	4/27/13	7		
4/15/13	-	4/28/13	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*With the exception of 10 May, we continued to hear the transmitter signal inside Roost 7 until 15 May.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-015 was an adult female captured on 2 April 2013 at BRCC. This bat roosted in Roosts 5 and 13 in Watauga County. The bat's radio signal was picked up by the Linn Cove telemetry tower on the night of 12 April and during the daytime on 25 April and 12 May (Table 4). However, on each of these dates we detected only a few pulses within an hours' time and, thus, conclude that these pulses may have been from radio interference and not the bat.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-015

Date	Roost	Date	Roost	Date	Roost
4/2/13	Trans. BRCC	4/16/13	5	4/30/13	-
4/3/13	-	4/17/13	-	5/1/13	-
4/4/13	-	4/18/13	-	5/2/13	-
4/5/13	-	4/19/13	-	5/3/13	-
4/6/13	-	4/20/13	-	5/4/13	-
4/7/13	-	4/21/13	-	5/5/13	-
4/8/13	-	4/22/13	-	5/6/13	-
4/9/13	-	4/23/13	-	5/7/13	-
4/10/13	-	4/24/13	-	5/8/13	-
4/11/13	-	4/25/13	-	5/9/13	-
4/12/13	-	4/26/13	-	5/10/13	-
4/13/13	5	4/27/13	-	5/11/13	13
4/14/13	5	4/28/13	-		
4/15/13	-	4/29/13	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.



## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-016 was an adult female captured on 3 April 2013 at BRCC. We did not find any roosts for this bat. However, this bat's signal was picked up during the daytime on 17 April, 27 April, 10 May, 15–18 May by the Linn Cove tower located 0.3 km northeast of BRCC (17S 0426741 3994936). Therefore, it was roosting in the area on the east side of BRCC, possibly in Roost 26, which is a cave we later found near where the tower was located. On 8 April, this bat was foraging in the Stack Rock Creek area. The bat's radio signal was detected by the Stack Rock tower on 18 different nights, the Linn Cove tower on 19 different nights, and by the GFGCC telemetry tower on four different nights in April and May (Table 4).

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-016

Date	Roost	Date	Roost	Date	Roost
4/3/13	Trans. BRCC	4/19/13	-	5/4/13	-
4/4/13	-	4/20/13	-	5/5/13	-
4/5/13	-	4/21/13	-	5/6/13	-
4/6/13	-	4/22/13	-	5/7/13	-
4/7/13	-	4/23/13	-	5/8/13	-
4/8/13	-	4/24/13	-	5/9/13	-
4/9/13	-	4/25/13	-	5/10/13	Linn Cove*
4/10/13	-	4/26/13	-	5/11/13	-
4/11/13	-	4/27/13	Linn Cove*	5/12/13	-
4/12/13	-	4/28/13	-	5/13/13	-
4/13/13	-	4/29/13	-	5/14/13	-
4/14/13	-	4/30/13	-	5/15/13	Linn Cove*
4/15/13	-	5/1/13	-	5/16/13	Linn Cove*
4/16/13	-	5/2/13	-	5/17/13	Linn Cove*
4/17/13	Linn Cove*	5/3/13	-	5/18/13	Linn Cove*
4/18/13	-				

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*The Linn Cove telemetry tower picked up the transmitter radio signal during the daytime.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-017 was an adult female captured on 9 April 2013 at BRCC. This bat roosted in Roost 4 in Watauga County. On 10 April just before dusk, this bat's radio-signal was heard in the Watauga River area near the North Carolina/Tennessee border on Highway 321. On 12 April, we heard this bat's radio-signal near Beech Creek on Andy Hicks Road in Watauga County. The bat's radio signal was not picked up by any of the telemetry towers in 2013. On 20 April, this bat was found dead on the ground 0.9 km northeast of Roost 4 (17S 0421890 4009365). We heard a signal coming from this location the previous two days but did not find the bat. It is likely that this bat died due to a heavy hail and rain storm on the morning of 19 April.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-017

Date	Roost
4/9/13	Trans. BRCC
4/10/13	-
4/11/13	-
4/12/13	-
4/13/13	4
4/14/13	4
4/15/13	-
4/16/13	-
4/17/13	-
4/18/13	-
4/19/13	-
4/20/13	Found dead

A dash (-) indicates the bat was not tracked on that date or no roost was found.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.500-019 was an adult female captured on 9 April 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. We heard this bat's radio-signal in the Horse Ridge/Poga Mountain area near Flat Springs Road in Avery County on 10 April. The bat's radio signal was not picked up by any of the telemetry towers in 2013.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-019

Date	Roost	Date	Roost
4/9/13	Trans. BRCC	4/26/13	-
4/10/13	-	4/27/13	-
4/11/13	-	4/28/13	-
4/12/13	-	4/29/13	-
4/13/13	-	4/30/13	-
4/14/13	-	5/1/13	7
4/15/13	-	5/2/13	7
4/16/13	-	5/3/13	7
4/17/13	-	5/4/13	-
4/18/13	-	5/5/13	-
4/19/13	-	5/6/13	-
4/20/13	-	5/7/13	-
4/21/13	-	5/8/13	-
4/22/13	-	5/9/13	-
4/23/13	-	5/10/13	-
4/24/13	-	5/11/13	-
4/25/13	-	5/12/13*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\* With the exception of 13-14 May, we continued to hear the transmitter signal inside Roost 7 until 19 May.



## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.328\_2013 was an adult female captured on 19 March 2013 at BRCC. This bat roosted in BRCC and Roost 7 in Watauga County. On 8 April, this bat was foraging southeast of the Blue Ridge Parkway Viaduct, and on 17 April, the bat was foraging near Pigeon Roost Road in Watauga County.

Roost data for female Virginia big-eared bat with transmitter frequency 151.328\_2013

Date	Roost	Date	Roost
3/19/13	Trans. BRCC	4/5/13	-
3/20/13	BRCC	4/6/13	-
3/21/13	BRCC	4/7/13	BRCC
3/22/13	BRCC	4/8/13	-
3/23/13	BRCC	4/9/13	-
3/24/13	BRCC	4/10/13	-
3/25/13	BRCC	4/11/13	-
3/26/13	-	4/12/13	-
3/27/13	BRCC	4/13/13	-
3/28/13	-	4/14/13	-
3/29/13	BRCC	4/15/13	-
3/30/13	BRCC	4/16/13	-
3/31/13	-	4/17/13	-
4/1/13	BRCC	4/18/13	7
4/2/13	BRCC	4/19/13	-
4/3/13	BRCC	4/20/13*	7
4/4/13	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until we found the transmitter on the cave floor on 20 May.

#### **Appendix D1 Cont. 2013 Females Without Foraging Data**

COTO 151.345 was an adult female captured on 2 April 2013 at BRCC. We did not find any roosts for this bat. On the night of 16 April, we heard a radio-signal for this bat coming from the Laurel Creek or Watauga River area in Watauga County.

## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.447 was an adult female captured on 29 March 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. After we radio-tagged this bat and before it roosted in the primary maternity roost, it roosted in an unidentified roost on Grandfather Mountain near Attic Window. On the night of 24 April, a Copperhead Consulting aircraft recorded this bat foraging near Poga Creek and the Watauga River in Avery County.

Roost data for female Virginia big-eared bat with transmitter frequency 151.447

Date	Roost	Date	Roost	Date	Roost
3/29/13	Trans. BRCC	4/13/13	-	4/28/13	7
3/30/13	Attic Window	4/14/13	-	4/29/13	7
3/31/13	Attic Window	4/15/13	-	4/30/13	7
4/1/13	Attic Window	4/16/13	-	5/1/13	7
4/2/13	Attic Window	4/17/13	-	5/2/13	7
4/3/13	Attic Window	4/18/13	7	5/3/13	7
4/4/13	-	4/19/13	-	5/4/13	7
4/5/13	Attic Window	4/20/13	7	5/5/13	7
4/6/13	Attic Window	4/21/13	-	5/6/13	7
4/7/13	Attic Window	4/22/13	7	5/7/13	-
4/8/13	-	4/23/13	7	5/8/13	-
4/9/13	-	4/24/13	-	5/9/13	-
4/10/13	-	4/25/13	-	5/10/13*	7
4/11/13	-	4/26/13	-		
4/12/13	-	4/27/13	7		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\* We continued to hear the transmitter signal inside Roost 7 until 17 May.



## Appendix D1 Cont. 2013 Females Without Foraging Data

COTO 151.470 was an adult female captured on 29 March 2013 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 8 near Beech Mountain Road in Avery County. After we radio-tagged this bat and before it roosted in the primary maternity roost, it roosted in an unidentified roost on Grandfather Mountain near Attic Window. On the night of 10 April, this bat's radio-signal was heard near Roost 8 on Beech Mountain Road.

Roost data for female Virginia big-eared bat with transmitter frequency 151.470

Date	Roost	Date	Roost	Date	Roost
3/29/13	Trans. BRCC	4/14/13	-	4/30/13	7
3/30/13	Attic Window	4/15/13	-	5/1/13	7
3/31/13	Attic Window	4/16/13	-	5/2/13	7
4/1/13	Attic Window	4/17/13	8	5/3/13	-
4/2/13	Attic Window	4/18/13	-	5/4/13	7
4/3/13	Attic Window	4/19/13	-	5/5/13	-
4/4/13	Attic Window	4/20/13	-	5/6/13	-
4/5/13	Attic Window	4/21/13	-	5/7/13	7
4/6/13	Attic Window	4/22/13	8	5/8/13	-
4/7/13	-	4/23/13	8	5/9/13	7
4/8/13	-	4/24/13	-	5/10/13	7
4/9/13	-	4/25/13	-	5/11/13	7
4/10/13	-	4/26/13	-	5/12/13	7
4/11/13	-	4/27/13	7	5/13/13	7
4/12/13	-	4/28/13	7	5/14/13	-
4/13/13	-	4/29/13	7	5/15/13	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

**Appendix D2. Virginia big-eared bats tracked in North Carolina and Tennessee in Spring 2014. Individual accounts are arranged with females with foraging telemetry data first (see also adjacent maps), then other females, and then males. Due to logistical constraints, most bats were not followed for the entire life of the radio transmitter, but we present data on known transmitter fates when possible.**

### **2014 Females With Foraging Data**

COTO 151.500-020 was an adult female captured on 19 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 21 near White Rock in Watauga County. After we radio-tagged this bat and before it roosted in the primary maternity roost, it roosted in an unidentified roost on Grandfather Mountain near Attic Window. The bat's radio signal was picked up by the Barker, Ennis, Profile, TNC, and Linville telemetry towers (Table 4) as it moved across NC 105 and during an evening driving transect on NC Highway 105 on 1 April (Appendix B3). We conducted 1 night of foraging telemetry on this bat as it foraged in the Pigeon Roost Road area in Watauga County, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.524, 151.482, and 151.383B).

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-020

Date	Roost	Date	Roost
3/19/14	Trans. BRCC	4/3/14	7
3/20/14	Attic Window	4/4/14	-
3/21/14	Attic Window	4/5/14	7
3/22/14	Attic Window	4/6/14	-
3/23/14	-	4/7/14	-
3/24/14	-	4/8/14	21
3/25/14	-	4/9/14	21
3/26/14	-	4/10/14	21
3/27/14	-	4/11/14	-
3/28/14	Attic Window	4/12/14	7
3/29/14	Attic Window	4/13/14	-
3/30/14	-	4/14/14	-
3/31/14	Attic Window	4/15/14	-
4/1/14	Attic Window	4/16/14*	7
4/2/14	7		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 27 April with the exception of 23 April.

## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.383B was an adult female captured on 19 May 2014 at Roost 34 near Kellersville Road in Watauga County. This bat roosted in the primary maternity roost (Roost 7). We conducted 2 nights of foraging telemetry on this bat as it foraged in the Beech Creek, Poga Creek, and Highway 321 areas of Watauga County, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.524, 151.482, and 151.500-020). On 27 May, we found this bat's transmitter ~2 m from a rock overhang near Pond Creek in Watauga County (17S 0420804 4008388).

Roost data for female Virginia big-eared bat with transmitter frequency 151.383B

Date	Roost
5/19/14	Trans. Roost 34
5/20/14	7
5/21/14	7
5/22/14	7
5/23/14	7
5/24/14	7
5/25/14	7
5/26/14	7
5/27/14*	Ground

\*We found the transmitter on the ground.



## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.482 was an adult female captured on 31 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 27 near Highway 321 in Johnson County Tennessee. We conducted 2 nights of foraging telemetry on this bat as it foraged in the Watauga River area of Avery and Watauga Counties in North Carolina and Johnson County in Tennessee, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.524, 151.383B, and 151.500-020).

Roost data for female Virginia big-eared bat with transmitter frequency 151.482

Date	Roost	Date	Roost
3/31/14	Trans. BRCC	4/13/14	7
4/1/14	7	4/14/14	7
4/2/14	7	4/15/14	7
4/3/14	7	4/16/14	7
4/4/14	7	4/17/14	7
4/5/14	7	4/18/14	7
4/6/14	7	4/19/14	7
4/7/14	7	4/20/14	7
4/8/14	7	4/21/14	7
4/9/14	7	4/22/14	7
4/10/14	7	4/23/14	27
4/11/14	7	4/24/14*	7
4/12/14	7		

\*We continued to hear the transmitter signal inside Roost 7 until 29 April.

## Appendix D2 Cont. 2014 Females With Foraging Data

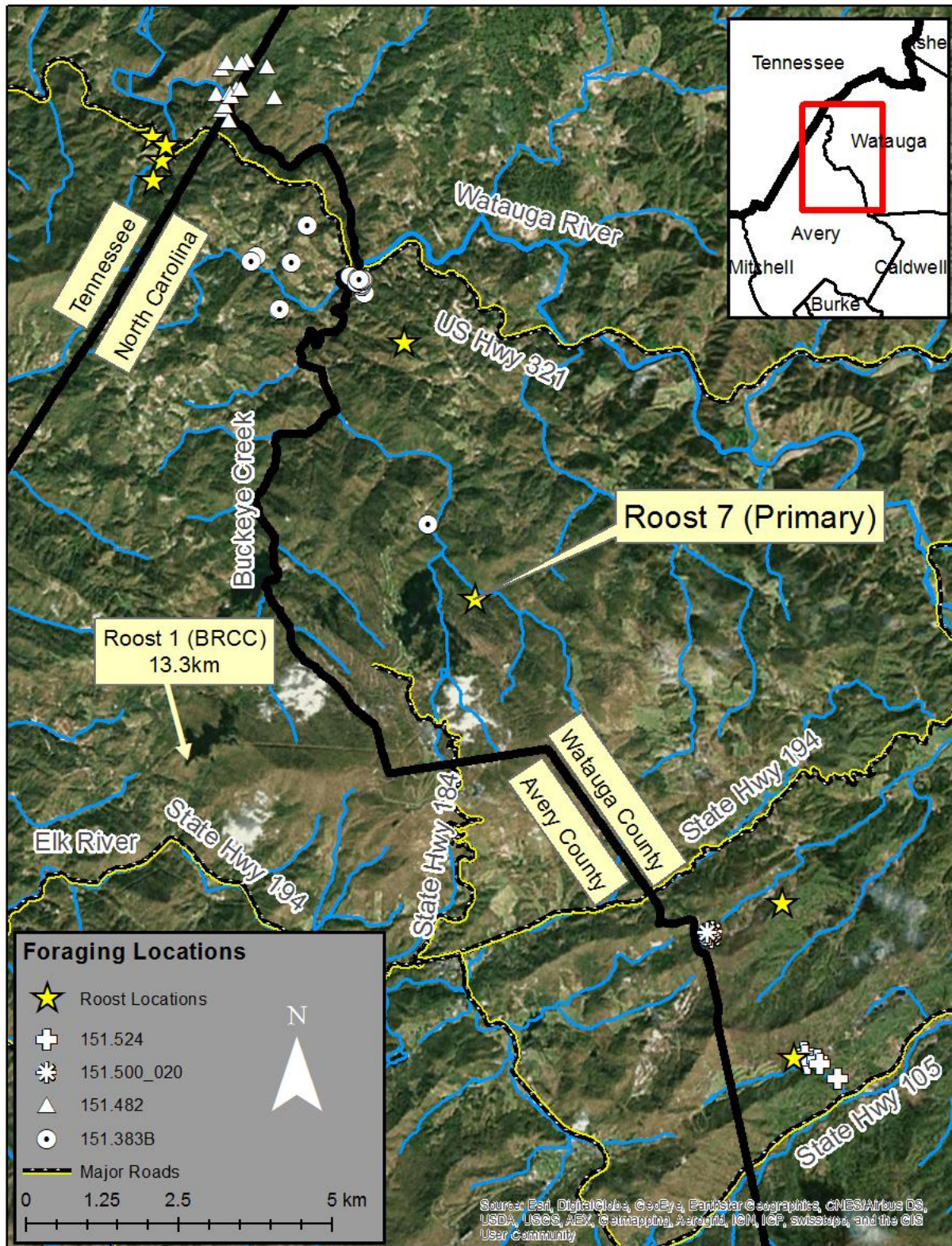
COTO 151.524 was an adult female captured on 16 April 2014 at BRCC. This bat roosted in Roosts 23, 24, 25, and 28. On the night of 16 April, we heard this bat cross Highway 105 near the Avery/Watauga County line. The day after leaving BRCC this bat roosted near Highway 105 and the Watauga River (approximate location 17S 0427165 3999550). Roost 23 was a back deck of an apartment building near Skyland Drive and Valley Creek in Seven Devils. Roosts 24, 25, and 28 were located near Highway 321 in Johnson County Tennessee. Roost 28 was a living Virginia pine tree (*Pinus virginiana*). On 27 April, we found this bat dead underneath Roost 28. We conducted 1 night of foraging telemetry on this bat as it foraged in the Valley Creek and Skyland Drive area in Watauga County, but did not gather enough points to generate foraging range polygons (see points on shared map with COTO 151.383B, 151.482, and 151.500-020).

Roost data for female Virginia big-eared bat with transmitter frequency 151.524

Date	Roost
4/16/14	Trans. BRCC
4/17/14	-
4/18/14	23
4/19/14	-
4/20/14	24
4/21/14	25
4/22/14	25
4/23/14	25
4/24/14	25
4/25/14	25
4/26/14	28
4/27/14*	Found dead

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found this bat dead underneath tree Roost 28.



Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.524, 151.500-020, 151.482 and 151.383B. Not all roosts are labeled.

## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.416 was an adult female captured on 19 March 2014 at BRCC. This bat roosted in BRCC, the primary maternity roost (Roost 7), and Roost 22 near Shoemaker Road in Avery County. We conducted 8 nights of foraging telemetry on this bat (Table 5) as it foraged in the Shoemaker Road, Beech Creek, and Highway 321 areas of Avery and Watauga counties.

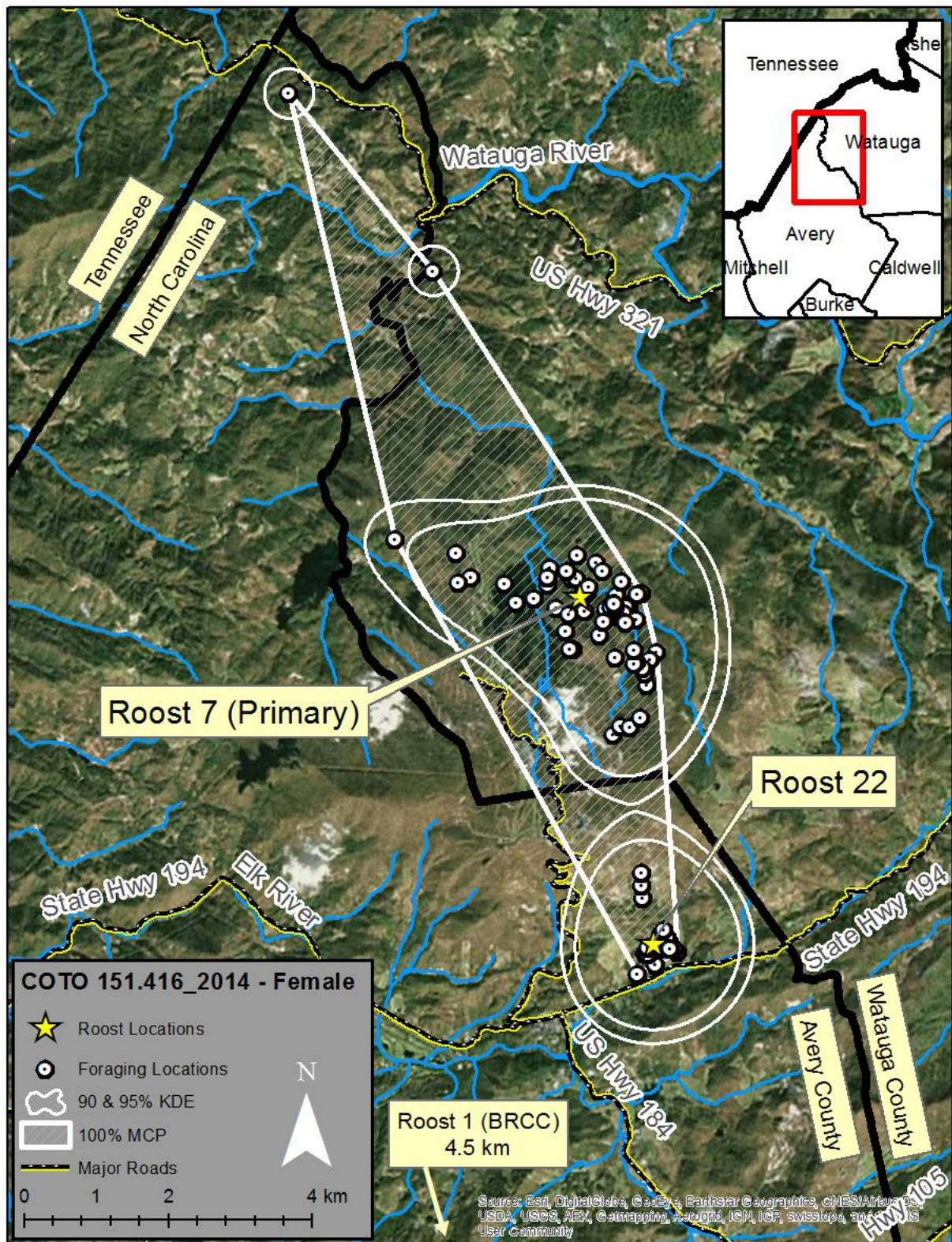
Roost data for female Virginia big-eared bat with transmitter frequency 151.416

Date	Roost	Date	Roost	Date	Roost
3/19/14	Trans. BRCC	4/6/14	BRCC	4/23/14	7
3/20/14	BRCC	4/7/14	-	4/24/14	7
3/21/14	BRCC	4/8/14	BRCC	4/25/14	7
3/22/14	BRCC	4/9/14	BRCC	4/26/14	7
3/23/14	-	4/10/14	BRCC	4/27/14	7
3/24/14	-	4/11/14	BRCC	4/28/14	7
3/25/14	BRCC	4/12/14	BRCC	4/29/14	7
3/26/14	-	4/13/14	-	4/30/14	7
3/27/14	-	4/14/14	22	5/1/14	7
3/28/14	-	4/15/14	22	5/2/14	7
3/29/14	-	4/16/14	22	5/3/14	7
3/30/14	-	4/17/14	22	5/4/14	7
3/31/14	BRCC	4/18/14	7	5/5/14	7
4/1/14	BRCC	4/19/14	7	5/6/14	7
4/2/14	BRCC	4/20/14	7	5/7/14	7
4/3/14	BRCC	4/21/14	7	5/8/14	7
4/4/14	BRCC	4/22/14	7	5/9/14*	7
4/5/14	BRCC				

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 12 May.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.416

## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.453 was an adult female captured on 31 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7). We conducted 7 nights of foraging telemetry on this bat (Table 5) as it foraged in the Beech Creek area of Watauga County.

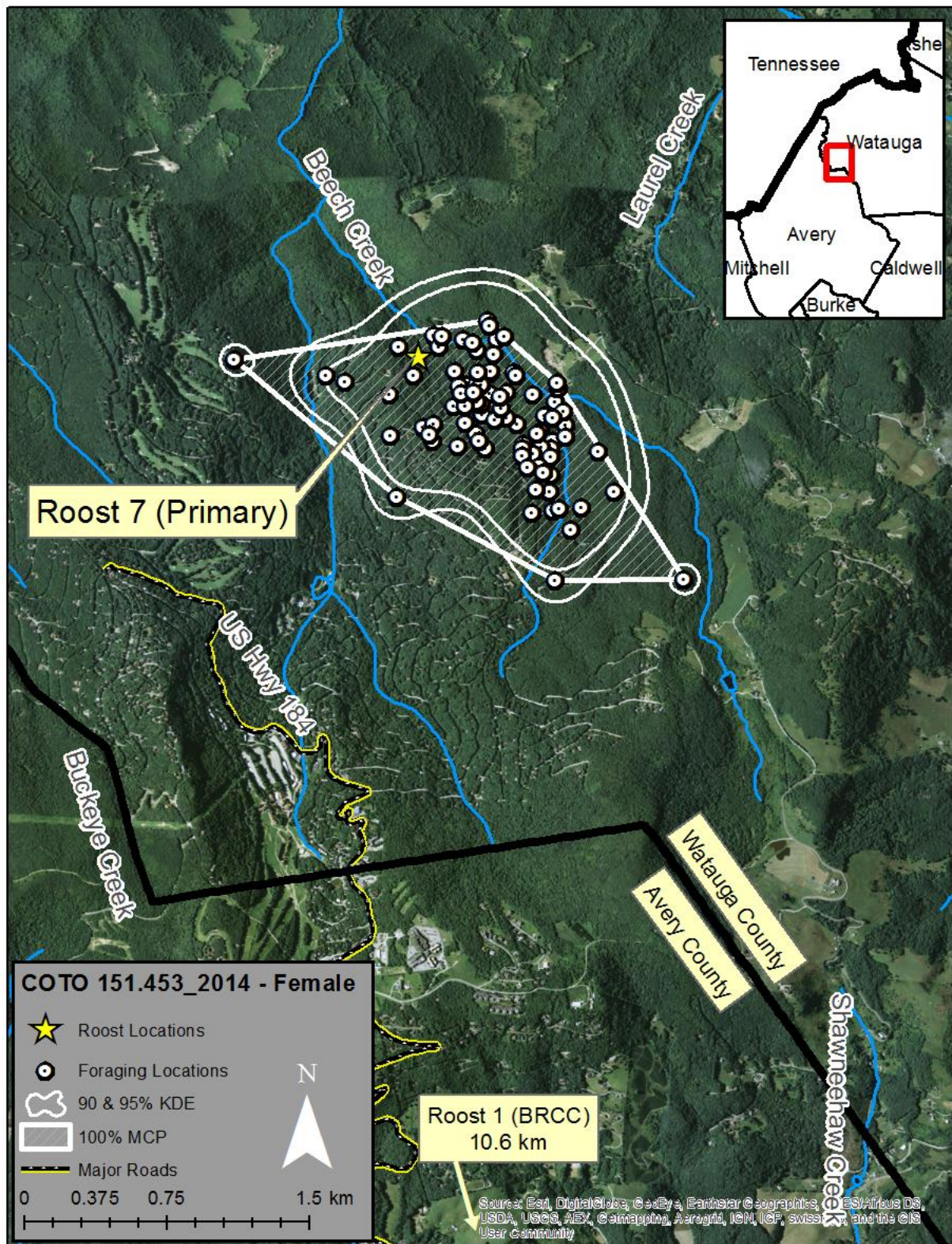
Roost data for female Virginia big-eared bat with transmitter frequency 151.453

Date	Roost	Date	Roost
3/31/14	Trans. BRCC	4/15/14	-
4/1/14	7	4/16/14	-
4/2/14	7	4/17/14	-
4/3/14	7	4/18/14	-
4/4/14	7	4/19/14	-
4/5/14	7	4/20/14	-
4/6/14	7	4/21/14	-
4/7/14	7	4/22/14	7
4/8/14	7	4/23/14	7
4/9/14	7	4/24/14	7
4/10/14	7	4/25/14	7
4/11/14	7	4/26/14	7
4/12/14	7	4/27/14	7
4/13/14	7	4/28/14*	7
4/14/14	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 6 May.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.453

## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.466 was an adult female captured on 31 March 2014 at BRCC. This bat roosted in BRCC and the primary maternity roost (Roost 7). On 11 May, we found this bat's transmitter on a log ~2 m off the ground near Wiley Harmon Road (17S 0420153 4009956). We conducted 7 nights of foraging telemetry on this bat (Table 5) as it foraged in the Beech Creek area of Watauga County.

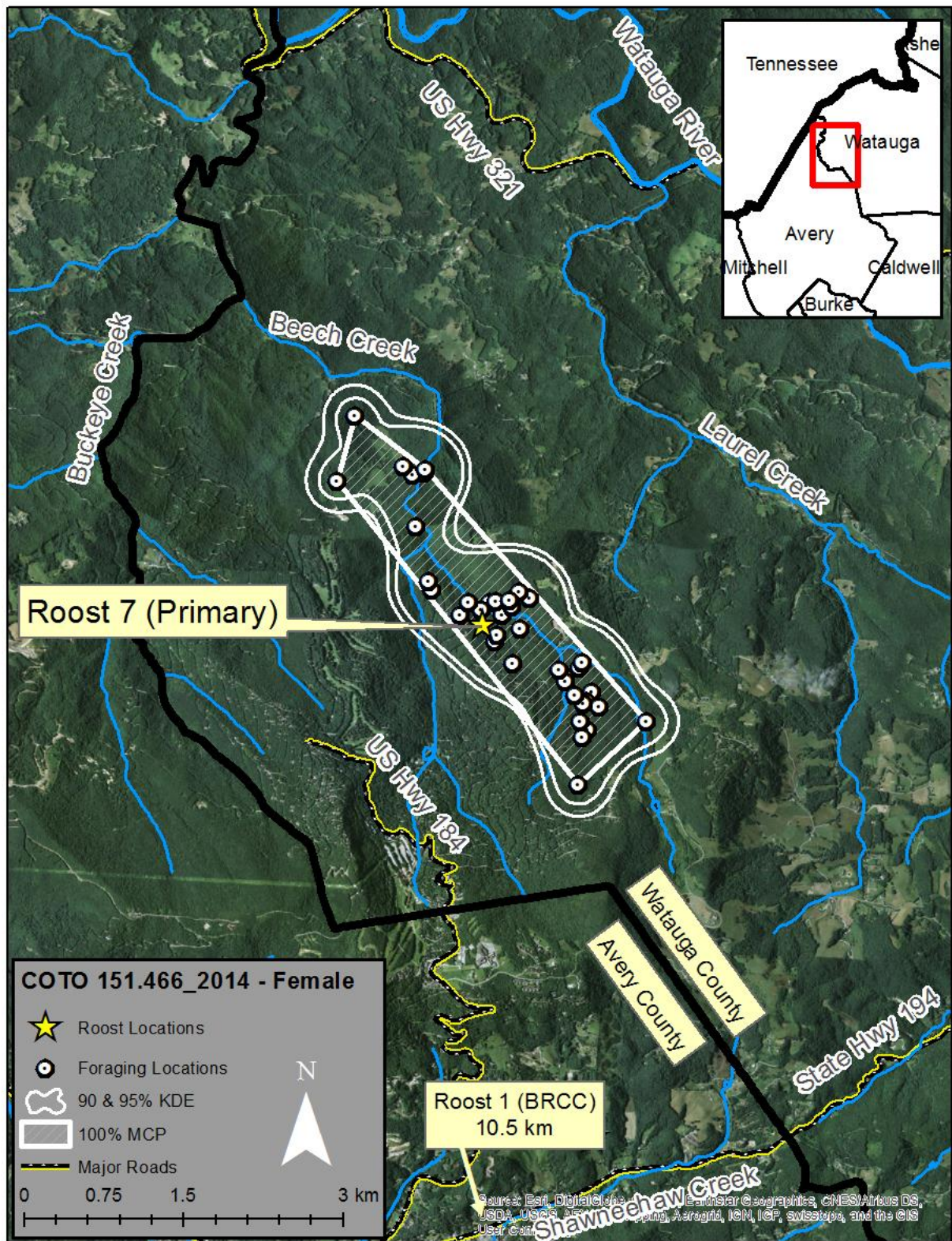
Roost data for female Virginia big-eared bat with transmitter frequency 151.466

Date	Roost	Date	Roost	Date	Roost
3/31/14	Trans. BRCC	4/14/14	-	4/28/14	7
4/1/14	BRCC	4/15/14	-	4/29/14	-
4/2/14	BRCC	4/16/14	-	4/30/14	7
4/3/14	BRCC	4/17/14	-	5/1/14	7
4/4/14	BRCC	4/18/14	-	5/2/14	-
4/5/14	BRCC	4/19/14	-	5/3/14	-
4/6/14	BRCC	4/20/14	-	5/4/14	7
4/7/14	-	4/21/14	-	5/5/14	7
4/8/14	BRCC	4/22/14	7	5/6/14	7
4/9/14	BRCC	4/23/14	7	5/7/14	7
4/10/14	BRCC	4/24/14	7	5/8/14	7
4/11/14	-	4/25/14	-	5/9/14	7
4/12/14	7	4/26/14	-	5/10/14	7
4/13/14	7	4/27/14	7	5/11/14*	Ground

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found the transmitter on a log ~2 m off the ground.





Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.466

## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.466B was an adult female captured on 19 May 2014 at Roost 33 near Kellersville Road. This bat roosted in the primary maternity roost (Roost 7). On 28 May, we found this bat's transmitter on the ground beneath a rock overhang near Big Ridge and Perry Presnell Road in Watauga County (17S 0419956 4011038). We conducted 5 nights of foraging telemetry on this bat (Table 5) as it foraged in the Watauga River area of Watauga County.

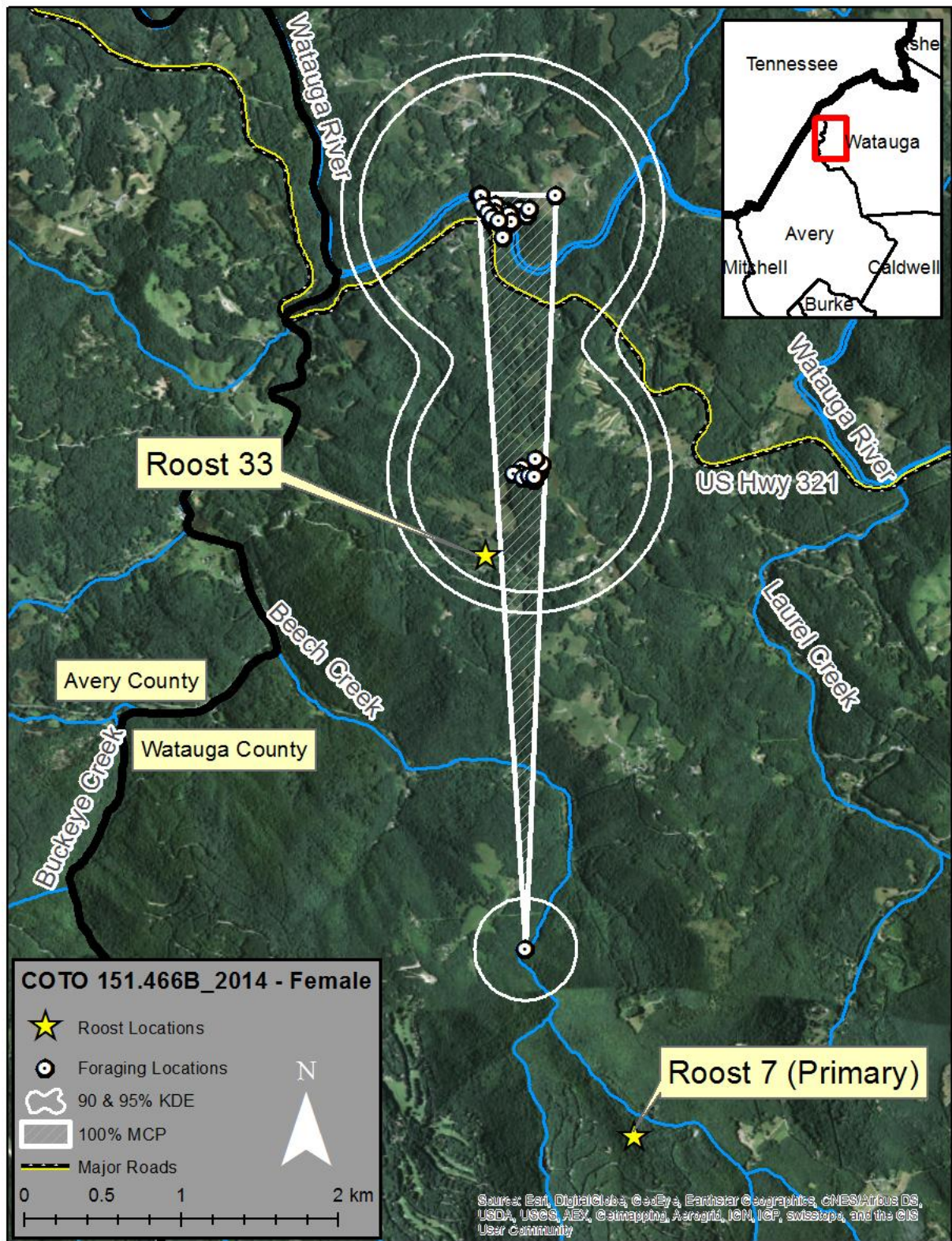
Roost data for female Virginia big-eared bat with transmitter frequency 151.466B

Date	Roost
5/19/14	Trans. Roost 33
5/20/14	7
5/21/14	7
5/22/14	7
5/23/14	7
5/24/14	7
5/25/14	7
5/26/14	7
5/27/14	-
5/28/14*	Ground

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found the transmitter on the ground.





Foraging and roost locations for female Virginia big-eared bat with transmitter 151.466B



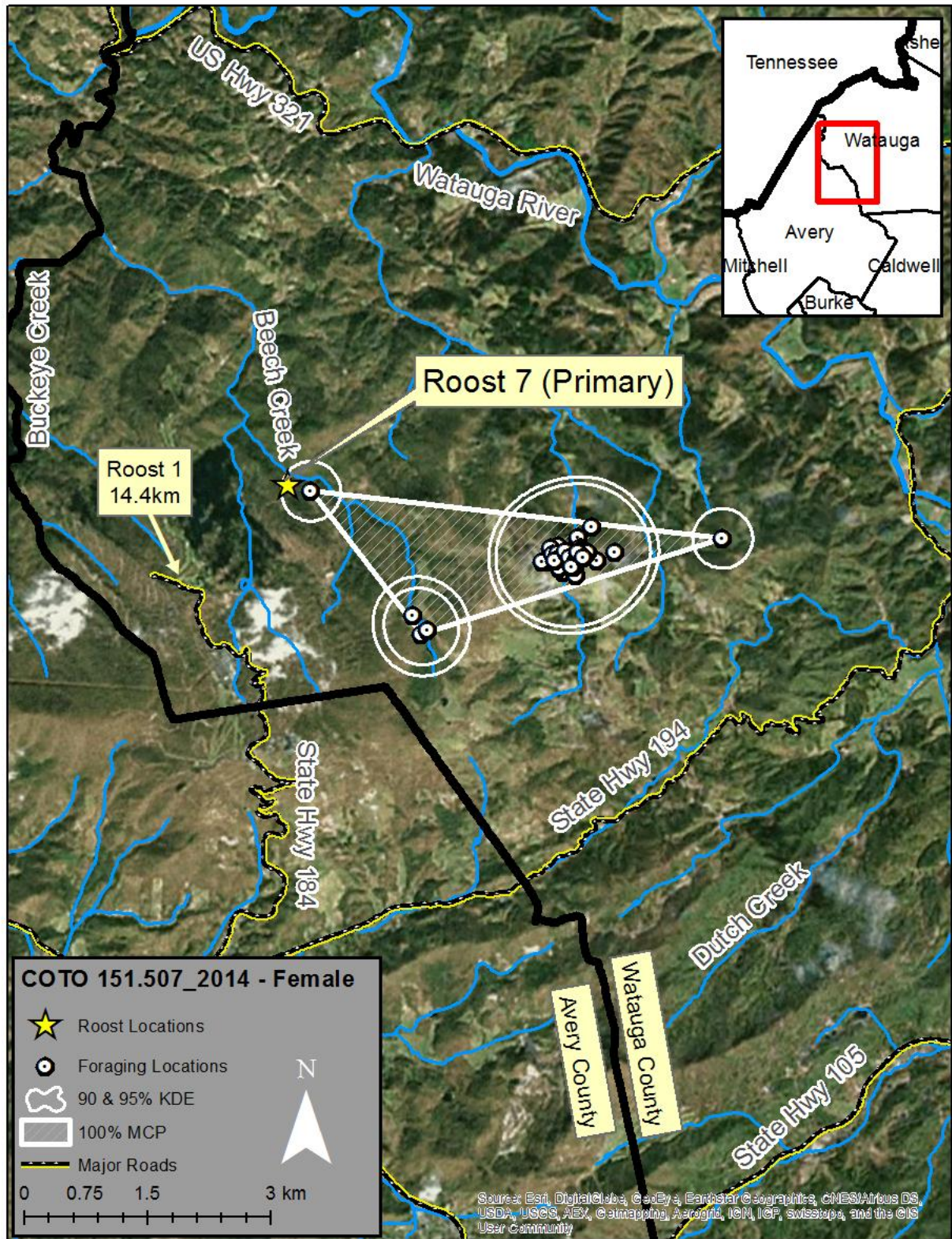
## Appendix D2 Cont. 2014 Females With Foraging Data

COTO 151.507 was an adult female captured on 31 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7). After we radio-tagged this bat and before it roosted in the primary maternity roost, it roosted in an unidentified roost on Grandfather Mountain near Attic Window. We conducted 4 nights of foraging telemetry on this bat (Table 5) as it foraged in the Laurel Creek area near Laurel Creek Road in Watauga County.

Roost data for female Virginia big-eared bat with transmitter frequency 151.507

Date	Roost
3/31/14	Trans. BRCC
4/1/14	Attic Window
4/2/14	7
4/3/14	7
4/4/14	7
4/5/14	7
4/6/14	7
4/7/14	7
4/8/14	7
4/9/14	7
4/10/14	7
4/11/14	7
4/12/14*	7

\*We continued to hear the transmitter signal inside Roost 7 until 4 June with the exception of 19 May, 27-28 May, 31 May, and 1-3 June.



Foraging and nearby roost locations for female Virginia big-eared bat with transmitter 151.507

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-021 was an adult female captured on 19 March 2014 at BRCC. This bat roosted in Roost 5, the primary maternity roost (Roost 7), Roost 16, and Roost 19 in Watauga and Johnson counties in North Carolina and Tennessee, respectively. The bat's radio signal was picked up by the Barker, Ennis, Profile, and TNC telemetry towers (Table 4) as it moved across NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-021

Date	Roost	Date	Roost	Date	Roost
3/19/14	Trans. BRCC	3/30/14	16	4/10/14	-
3/20/14	5	3/31/14	-	4/11/14	-
3/21/14	5	4/1/14	-	4/12/14	-
3/22/14	5	4/2/14	-	4/13/14	7
3/23/14	-	4/3/14	-	4/14/14	7
3/24/14	-	4/4/14	-	4/15/14	5
3/25/14	-	4/5/14	19	4/16/14	5
3/26/14	16	4/6/14	19	4/17/14	5
3/27/14	16	4/7/14	19	4/18/14	5
3/28/14	16	4/8/14	19	4/19/14	5
3/29/14	16	4/9/14	-	4/20/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 26 April with the exception of 25 April.



## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-022 was an adult female captured on 19 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roost 17 in Watauga County. The bat's radio signal was picked up by the Barker, Ennis, Linville, Profile, and TNC telemetry towers (Table 4) as it moved near NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-022

Date	Roost	Date	Roost	Date	Roost
3/19/14	Trans. BRCC	3/30/14	-	4/10/14	7
3/20/14	-	3/31/14	-	4/11/14	7
3/21/14	-	4/1/14	-	4/12/14	7
3/22/14	-	4/2/14	-	4/13/14	7
3/23/14	-	4/3/14	17	4/14/14	7
3/24/14	-	4/4/14	7	4/15/14	7
3/25/14	-	4/5/14	7	4/16/14	7
3/26/14	-	4/6/14	7	4/17/14	-
3/27/14	-	4/7/14	7	4/18/14	7
3/28/14	-	4/8/14	7	4/19/14	-
3/29/14	-	4/9/14	-	4/20/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 9 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-023 was an adult female captured on 21 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. This bat's radio signal was picked up by the Barker, Ennis, Profile, and TNC telemetry towers (Table 4) as it moved near NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-023

Date	Roost	Date	Roost
3/21/14	Trans. BRCC	4/6/14	-
3/22/14	-	4/7/14	-
3/23/14	-	4/8/14	-
3/24/14	-	4/9/14	-
3/25/14	-	4/10/14	-
3/26/14	-	4/11/14	7
3/27/14	-	4/12/14	-
3/28/14	-	4/13/14	-
3/29/14	-	4/14/14	7
3/30/14	-	4/15/14	7
3/31/14	-	4/16/14	7
4/1/14	7	4/17/14	-
4/2/14	7	4/18/14	-
4/3/14	7	4/19/14	-
4/4/14	7	4/20/14*	7
4/5/14	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 6 May with the exception of 29 April.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-024 was an adult female captured on 21 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) in Watauga County. This bat's radio signal was picked up by the Barker, Ennis, Profile, and TNC telemetry towers (Table 4) as it moved across NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-024

Date	Roost	Date	Roost
3/21/14	Trans. BRCC	4/2/14	7
3/22/14	7	4/3/14	7
3/23/14	7	4/4/14	7
3/24/14	7	4/5/14	7
3/25/14	7	4/6/14	7
3/26/14	7	4/7/14	7
3/27/14	-	4/8/14	7
3/28/14	7	4/9/14	7
3/29/14	7	4/10/14	7
3/30/14	7	4/11/14	-
3/31/14	-	4/12/14	-
4/1/14	7	4/13/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 28 April with the exception of 27 April.



## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-025 was an adult female captured on 21 March 2014 at BRCC. This bat roosted in Roost 4, the primary maternity roost (Roost 7), and Roost 29 in Watauga County. On 9 May, we found this bat's transmitter on the ground beneath a living *Pinus strobus* tree 1.2 km north of the primary maternity roost. This bat's radio signal was picked up by the Barker, Ennis, Profile, and TNC telemetry towers (Table 4) as it moved near NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-025

Date	Roost	Date	Roost	Date	Roost
3/21/2014	Trans. BRCC	4/7/2014	4	4/24/2014	-
3/22/2014	-	4/8/2014	4	4/25/2014	-
3/23/2014	-	4/9/2014	4	4/26/2014	29
3/24/2014	-	4/10/2014	4	4/27/2014	29
3/25/2014	-	4/11/2014	4	4/28/2014	-
3/26/2014	-	4/12/2014	4	4/29/2014	-
3/27/2014	-	4/13/2014	-	4/30/2014	-
3/28/2014	-	4/14/2014	7	5/1/2014	7
3/29/2014	-	4/15/2014	7	5/2/2014	-
3/30/2014	-	4/16/2014	7	5/3/2014	7
3/31/2014	-	4/17/2014	4	5/4/2014	7
4/1/2014	-	4/18/2014	4	5/5/2014	-
4/2/2014	-	4/19/2014	4	5/6/2014	7
4/3/2014	-	4/20/2014	4	5/7/2014	7
4/4/2014	-	4/21/2014	-	5/8/2014	7
4/5/2014	4	4/22/2014	-	5/9/2014	Trans. On ground
4/6/2014	4	4/23/2014	-		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-026 was an adult female captured on 21 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7) and Roosts 15, 18, and 20 near Highway 321 in Watauga County. This bat's radio signal was picked up by the Barker, Ennis, Profile, and TNC telemetry towers (Table 4) as it moved across NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-026

Date	Roost	Date	Roost	Date	Roost
3/21/14	Trans. BRCC	4/4/14	18	4/18/14	7
3/22/14	7	4/5/14	15	4/19/14	7
3/23/14	15	4/6/14	20	4/20/14	20
3/24/14	15	4/7/14	20	4/21/14	7
3/25/14	15	4/8/14	20	4/22/14	7
3/26/14	15	4/9/14	20	4/23/14	7
3/27/14	15	4/10/14	20	4/24/14	7
3/28/14	15	4/11/14	18	4/25/14	7
3/29/14	15	4/12/14	7	4/26/14	20
3/30/14	15	4/13/14	7	4/27/14	7
3/31/14	15	4/14/14	20	4/28/14	7
4/1/14	15	4/15/14	7	4/29/14	20
4/2/14	15	4/16/14	7	4/30/14*	7
4/3/14	-	4/17/14	7		

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 5 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-027 was an adult female captured on 25 March 2014 at BRCC. This bat roosted in BRCC, the primary maternity roost (Roost 7), and Roost 32 in Avery and Watauga counties. This bat's radio signal was picked up by the Barker, Ennis, Linville, Profile, and TNC telemetry towers (Table 4) as it moved near NC 105. Its radio signal was also detected during evening driving transects near Linville Golf Club on NC Highway 105 on 2, 4, 12, and 30 April (Appendix B3).

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-027

Date	Roost	Date	Roost	Date	Roost
3/25/14	Trans. BRCC	4/11/14	BRCC	4/28/14	-
3/26/14	-	4/12/14	BRCC	4/29/14	-
3/27/14	-	4/13/14	-	4/30/14	32
3/28/14	-	4/14/14	-	5/1/14	BRCC
3/29/14	-	4/15/14	-	5/2/14	BRCC
3/30/14	-	4/16/14	BRCC	5/3/14	BRCC
3/31/14	-	4/17/14	BRCC	5/4/14	BRCC
4/1/14	BRCC	4/18/14	BRCC	5/5/14	BRCC
4/2/14	BRCC	4/19/14	BRCC	5/6/14	BRCC
4/3/14	-	4/20/14	BRCC	5/7/14	BRCC
4/4/14	BRCC	4/21/14	BRCC	5/8/14	BRCC
4/5/14	BRCC	4/22/14	7	5/9/14	BRCC
4/6/14	BRCC	4/23/14	-	5/10/14	BRCC
4/7/14	-	4/24/14	-	5/11/14	BRCC
4/8/14	BRCC	4/25/14	BRCC	5/12/14	BRCC
4/9/14	BRCC	4/26/14	BRCC	5/13/14	BRCC
4/10/14	BRCC	4/27/14	BRCC	5/14/14	BRCC

A dash (-) indicates the bat was not tracked on that date or no roost was found.



## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-028 was an adult female captured on 25 March 2014 at BRCC. This bat roosted in BRCC and the primary maternity roost (Roost 7) in Watauga County. This bat's radio signal was picked up by the Barker, Ennis, Linville, Profile, and TNC telemetry towers (Table 4) as it moved as it moved across NC 105.

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-028

Date	Roost	Date	Roost
3/25/14	Trans. BRCC	4/7/14	7
3/26/14	-	4/8/14	7
3/27/14	-	4/9/14	-
3/28/14	-	4/10/14	7
3/29/14	-	4/11/14	7
3/30/14	-	4/12/14	-
3/31/14	-	4/13/14	-
4/1/14	BRCC	4/14/14	-
4/2/14	BRCC	4/15/14	7
4/3/14	7	4/16/14	7
4/4/14	7	4/17/14	7
4/5/14	7	4/18/14	-
4/6/14	7	4/19/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 29 April.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.500-029 was an adult female captured on 25 March 2014 at BRCC. This bat roosted in BRCC, Roost 5, and the primary maternity roost (Roost 7) in Watauga County. This bat's radio signal was picked up by the Barker and Ennis telemetry towers (Table 4) as it moved across NC 105, but we did not detect high power signals (>171 strength).

Roost data for female Virginia big-eared bat with transmitter frequency 151.500-029

Date	Roost	Date	Roost
3/25/14	Trans. BRCC	4/10/14	BRCC
3/26/14	-	4/11/14	BRCC
3/27/14	-	4/12/14	BRCC
3/28/14	-	4/13/14	7
3/29/14	-	4/14/14	7
3/30/14	-	4/15/14	7
3/31/14	-	4/16/14	7
4/1/14	BRCC	4/17/14	7
4/2/14	BRCC	4/18/14	7
4/3/14	BRCC	4/19/14	7
4/4/14	-	4/20/14	7
4/5/14	BRCC	4/21/14	7
4/6/14	BRCC	4/22/14	5
4/7/14	-	4/23/14	5
4/8/14	BRCC	4/24/14	5
4/9/14	BRCC	4/25/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 5 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.328\_2014 was an adult female captured on 16 April 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7). On 22 April, we heard this bat's radio-signal coming from a tree near Beech Creek in Watauga County (17S 0421701 4008696). The signal continued to come from the tree until it was found on the ground underneath the tree on 16 May.

Roost data for female Virginia big-eared bat with transmitter frequency 151.328\_2014

Date	Roost
4/16/14	Trans. BRCC
4/17/14	-
4/18/14	-
4/19/14	-
4/20/14	-
4/21/14	7
4/22/14*	Signal from tree

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal coming from a tree until we found the transmitter on the ground underneath the tree on 16 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.383A was an adult female captured on 31 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7). We found this bat's transmitter ~1 m from a rock overhang near Pond Creek in Watauga County (17S 0420964 4008192).

Roost data for female Virginia big-eared bat with transmitter frequency 151.383A

Date	Roost
3/31/14	Trans. BRCC
4/1/14	7
4/2/14	-
4/3/14	-
4/4/14	-
4/5/14	-
4/6/14	-
4/7/14	-
4/8/14	-
4/9/14	-
4/10/14	-
4/11/14	-
4/12/14*	Ground

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found the transmitter on the ground.



## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.398\_2014 was an adult female captured on 16 April 2014 at BRCC. This bat roosted in BRCC, Roost 26 near the Blue Ridge Parkway, and Roost 31 near a branch of Stack Rock Creek in the Pisgah National Forest in Avery County.

Roost data for female Virginia big-eared bat with transmitter frequency 151.398\_2014

Date	Roost
4/16/14	Trans. BRCC
4/17/14	BRCC
4/18/14	BRCC
4/19/14	BRCC
4/20/14	BRCC
4/21/14	26
4/22/14	BRCC
4/23/14	BRCC
4/24/14	BRCC
4/25/14	BRCC
4/26/14	BRCC
4/27/14	BRCC
4/28/14	BRCC
4/29/14	31
4/30/14*	BRCC

\*We continued to hear the transmitter signal inside BRCC until 21 May with the exception of 15 May and 19-20 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.426\_2014 was an adult female captured on 16 April 2014 at BRCC. This bat roosted in BRCC, the primary maternity roost (Roost 7), and Roost 33 near Kellersville Road in Watauga County. After no longer hearing the transmitter signal for this bat, we witnessed a bat with missing hair (where a transmitter would be applied) in Roost 33 on 19 May.

Roost data for female Virginia big-eared bat with transmitter frequency 151.426\_2014

Date	Roost	Date	Roost
4/16/14	Trans. BRCC	4/26/14	BRCC
4/17/14	BRCC	4/27/14	BRCC
4/18/14	BRCC	4/28/14	-
4/19/14	BRCC	4/29/14	-
4/20/14	BRCC	4/30/14	7
4/21/14	BRCC	5/1/14	7
4/22/14	BRCC	5/2/14	33
4/23/14	BRCC	5/3/14	33
4/24/14	BRCC	5/4/14	33
4/25/14	BRCC	5/5/14*	7

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We continued to hear the transmitter signal inside Roost 7 until 10 May.

## Appendix D2 Cont. 2014 Females Without Foraging Data

COTO 151.534 was an adult female captured on 31 March 2014 at BRCC. This bat roosted in the primary maternity roost (Roost 7).

Roost data for female Virginia big-eared bat with transmitter frequency 151.534

Date	Roost
3/31/2014	Trans. BRCC
4/1/14	7
4/2/14	7
4/3/14	7
4/4/14	7
4/5/14	7
4/6/14	7
4/7/14	7
4/8/14	7
4/9/14	7
4/10/14	7
4/11/14*	7

\*We continued to hear the transmitter signal inside Roost 7 until 26 May with the exception of 20-20 April, 10-11 May, and 19 May.

## **Appendix D2 Cont. 2014 Males (No Foraging Data)**

COTO 151.038 was an adult male captured on 28 April 2014 at Roost 4 near Beech Creek. This bat roosted in the primary maternity roost (Roost 7) and Roost 30 near Egg Knob in Watauga County.

Roost data for male Virginia big-eared bat with transmitter frequency 151.038

Date	Roost
4/28/14	Trans. Roost 4
4/29/14	30
4/30/14	30
5/1/14	30
5/2/14	30
5/3/14	30
5/4/14	30
5/5/14	30
5/6/14	7
5/7/14	7
5/8/14	7



## Appendix D2 Cont. 2014 Males (No Foraging Data)

COTO 151.059 was an adult male captured on 19 May 2014 at Roost 22 near Shoemaker Road in Avery County. This bat roosted in Roost 22, flew over Grandfather Mountain to use Roost 35 near the Blue Ridge Parkway in Avery County for one day, then flew back across Grandfather Mountain to return to Roost 22.

Roost data for male Virginia big-eared bat with transmitter frequency 151.059

Date	Roost
5/19/14	Trans. Roost 22
5/20/14	-
5/21/14	22
5/22/14	-
5/23/14	22
5/24/14	35
5/25/14*	22

A dash (-) indicates the bat was not tracked on that date or no roost was found.

\*We found the transmitter on the barn floor with a bat missing hair roosting above it.

## **APPENDIX E: ACOUSTICS**

**Appendix E1. Sample call from a Virginia big-eared bat recorded at Roost 7, a primary maternity roost for the Virginia big-eared bat colony in northwestern North Carolina, June 2014.**

