

Observations of Roosting Northern Harriers, Bald Eagles, and Short-eared Owls within Wetlands Surrounding Boulder Reservoir during Winter 2018-19

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We monitored potentially roosting Northern Harriers, Bald Eagles, and Short-eared Owls in wetlands near the western and northern shores of Boulder Reservoir from 1 December-28 February 2018-19. Volunteers visited fixed observation points at least once monthly around dusk and mapped locations of flying and perching Northern Harriers, Bald Eagles, and Short-eared Owls. The purpose of this ongoing study is to determine where winter roosts occur and how they might be protected from disturbance.

Methods

Teams of one-to-four volunteers visited assigned observation points (Figure 1) approximately once monthly from 40 minutes before sunset to 30 minutes after sunset. They mapped sighting locations of perching and flying Northern Harriers, Bald Eagles, and Short-eared Owls and recorded numbers of each species seen within the monitored drainage. Total observation times were as follows:

Dry Creek: 7 visits; 8 hours, 33 min.

Little Dry Creek: 7 visits; 7 hours, 57 min.

Results and Discussion

Potentially ground-roosting Northern Harriers and perching Bald Eagles were observed in both the Dry Creek and Little Dry Creek drainages. No Short-eared owls were observed within either drainage.

Dry Creek

We observed a total of at least six Northern Harriers (two adult males and four adult females or juveniles) within this wetland complex during the course of the study (Figure 2). The highest number observed during any one visit was two adult males and three adult females or juveniles on 4 December, and one adult male and four adult females or juveniles on 9 December and 4 January. During five separate observations, several individuals were observed at dusk flying into a potential ground-roost within the expansive wetland north of the Anthill and southeast of the aeromodeling facility (Figure 2).

A juvenile Bald Eagle flew over the wetland area on 9 February, 2019, but we observed no perching Bald Eagles in this area throughout the duration of the study.

Little Dry Creek

We observed one adult male flying over the Little Dry Creek wetland west of the Boulder Valley Ranch pond, west of our study area, on 13 February, 2019 and three adult females or juveniles flying over this same area and descending into the marsh at dusk on 30 December, 2018 and 13 February (Figure 2), We

observed two adult females or juveniles hunting over the Little Dry Creek marsh west of North 51st Street on 13 December, 2018, but we observed no evidence of perching or apparent roosting within the Little Dry Creek marsh.

We observed up to two adult and one juvenile Bald Eagle perching on telephone poles and on the ground within the Little Dry Creek wetland east of North 51st Street on various dates between 9 December, 2018, and 13 February, 2019 (Figure 3). All of these perching eagles appeared to leave the area before dusk.

Additional Raptor Observations

Three Red-tailed Hawks perched on telephone poles within the Dry Creek drainage near North 53rd Street on 9 December and two Red-tailed Hawks perched habitually on telephone poles within the Little Dry Creek drainage along North 51st Street. Pairs nested within each of these areas during 2018 (Jones 2018, Figure 4). We observed one Great Horned Owl flying over the Dry Creek wetland on 19 January and 9 February, 2019 and two perching in a cottonwood tree 200 m north of Little Dry Creek on 4 February (Figure 5). A pair nested within the heronry north of North 53rd Street during 2018 (Jones 2018, Figure 5). We observed an American Kestrel perched within the Dry Creek drainage on 13 December.

Summary

It appears that one family of Northern Harriers, comprising five individuals, overnight-roosted habitually within the Dry Creek wetland north of the Anthill from early December through late February. While volunteers have difficulty discriminating adult females from juveniles in low light conditions, most volunteers reported seeing a single adult male, a single adult female, and three juveniles in this group.

It appears a second family of Northern Harriers, comprising at least four individuals (one adult male and three adult females or juveniles), overnight-roosted during December-February in the marsh west of the pond on the Boulder Open Space and Mountain Parks Boulder Valley Ranch property, west of the study area.

Both apparent roosting sites lie within 100 m of 2018 nesting sites (Jones 2018b), so it's likely that these are the same families that have nested in the sites during previous years. We saw no human activity within these areas during the duration of 2018-19 winter observations. Since the harriers fly into their nocturnal roosts around dusk, when few humans are out hiking in winter, and because these roosts lie within fenced areas, I see no need for specific signage or other protective measures at this time.

Though we observed no evidence of overnight roosting by Bald Eagles, at least two adults and one juvenile perched habitually within the study area, most often in the Little Dry Creek wetland east of North 51st Street.

We observed no Short-eared Owls within the study area during December 2018-February 2019.

Figure 1. Boulder Reservoir observation points.



Figure 2. Northern Harrier December 2018-March 2019 perching locations.



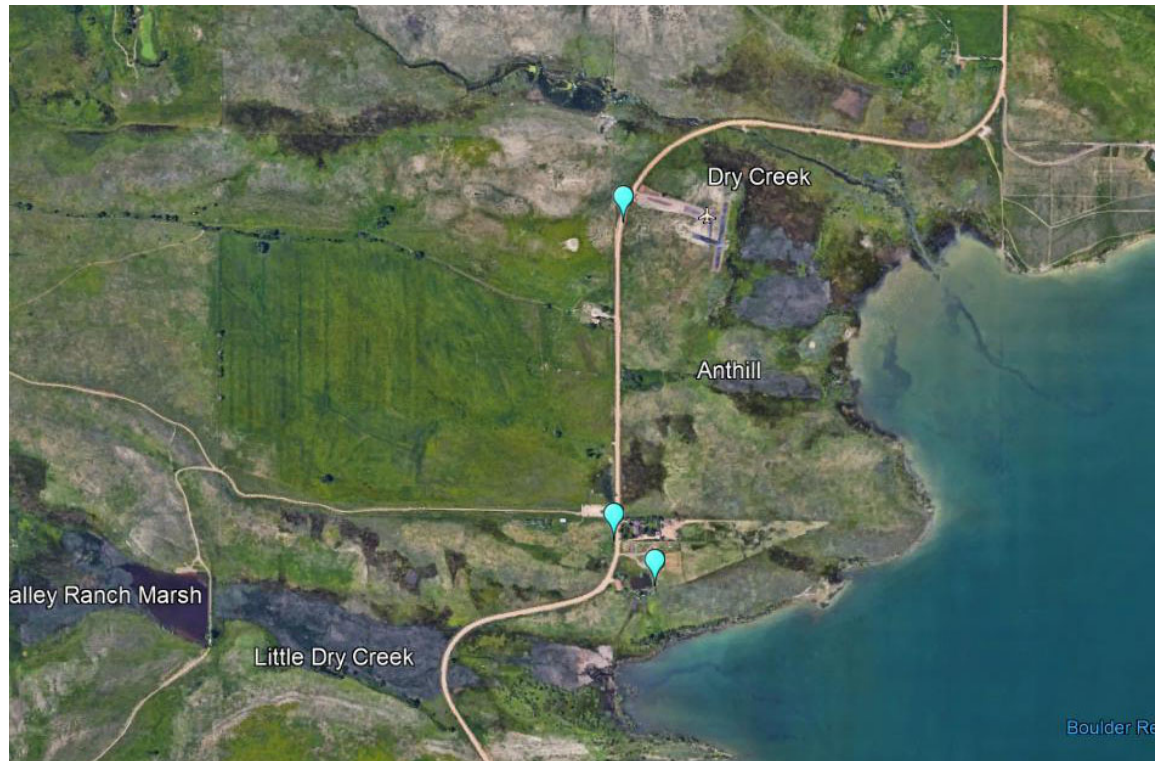
Figure 3. Bald Eagle December 2018-February 2019 perching locations.



Figure 4. Red-tailed Hawk perching locations.



Figure 5. Great Horned Owl perching locations.



Observers reporting: George Alexander, Barbara Brandt, Cindy Buchenroth-Martin, Jenny Gerson, Steve Jones, Mary Malley, Joy Master, Zach Pesch, Gary Rabourn, Darin Toohey, George Kasynski.

Literature Cited

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Appendix: Boulder Reservoir 2018-19 Wintering Raptor Observations

NH (AM): Northern Harrier adult male NH (F/J): Northern Harrier adult female or juvenile
 BE (A): Bald Eagle adult BE (J): Bald Eagle juvenile BE (U): Bald Eagle undetermined age
 GE (A): Golden Eagle adult RT: Red-tailed Hawk GH: Great Horned Owl
 AK: American Kestrel

Dry Creek

Date	Hours	NH (AM)	NH (F/J)	BE (A)	BE (J)	BE (U)	GE (A)	RT	GH	AK	Observers
4-Dec	1530-1700	2	3								Rabourn
9-Dec	1554-1701	1	4						3		Alexander, Jones, Malley
6-Jan	1610-1720	1	3								Gerson
19-Jan	1610-1730	1	2				2		1		Pesch
27-Jan	1630-1740	1	4								Gerson
9-Feb	1645-1800		2	1	1				1		Pesch
27-Feb	1710-1820	2	2					2			Gerson

Little Dry Creek

Date	Hours	NH (AM)	NH (F/J)	BE (A)	BE (J)	BE (U)	GE (A)	RT	GH	AK	Observers
9-Dec	1610-1710		1	1				2	1		Brandt, Master, Rabourn, Toohey
13-Dec	1603-1717		2	1	1			1			Buchenroth- Martin
20-Dec	1628-1737										Kasynski
30-Dec	1550-1715		3*	1				1			Brandt, Toohey
15-Jan	1630-1730		2*		1			2			Brandt, Toohey, Kasynski
4-Feb	1650-1700		1			1			1	1	Buchenroth-Martin
13-Feb	1655-1704	1*	3*	1							Brandt, Toohey, Kasynski

*Flying over or perching within wetland to the west of the pond on Boulder Open Space and Mountain Parks Boulder Valley Ranch property.