

Raptor Monitoring in the Pinedale Anticline Project Area



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Natural Resource Consultants

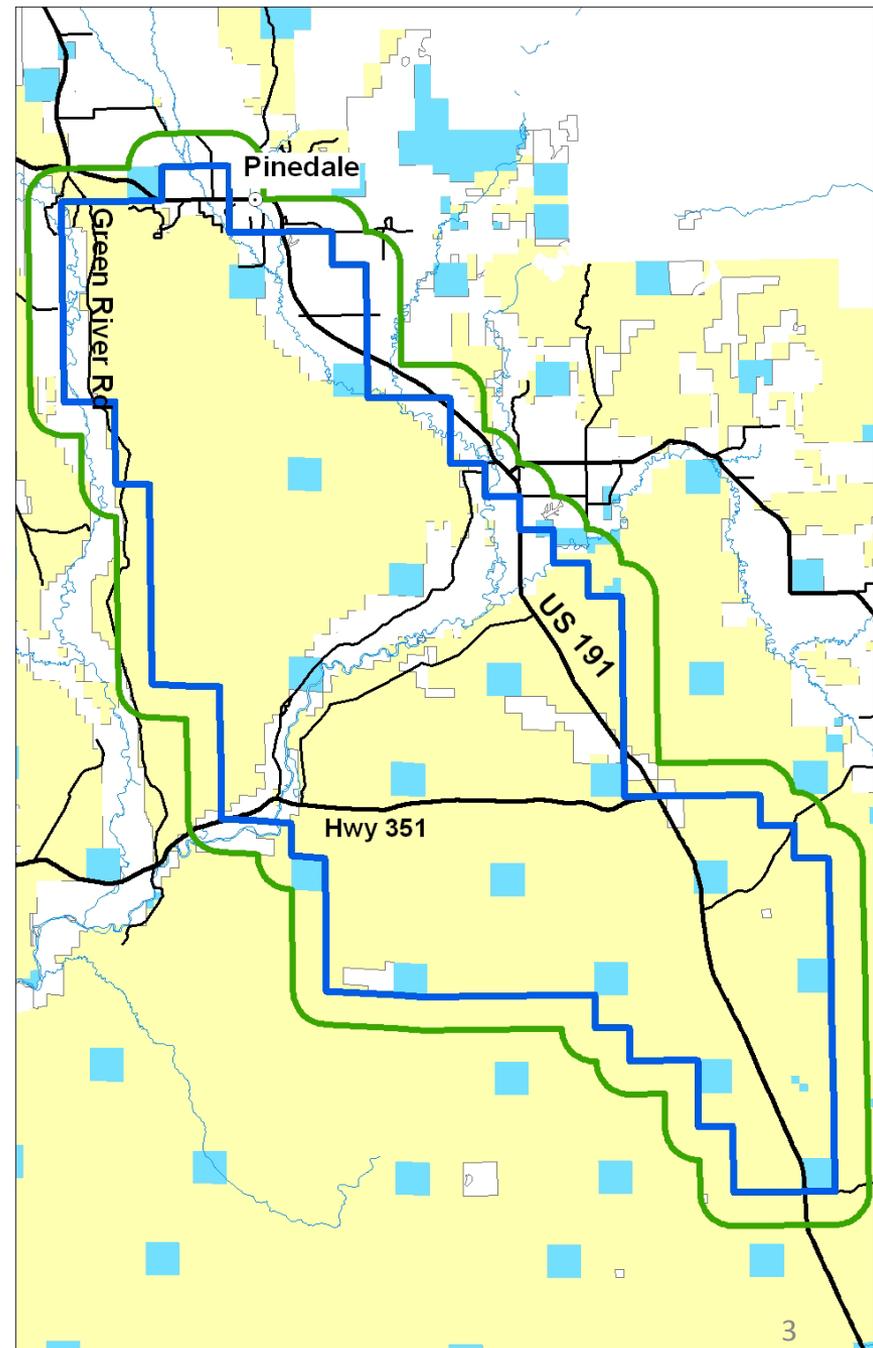
Introduction

- The 2008 Record of Decision (ROD) for the Pinedale Anticline requires the annual monitoring of raptor nests.
- Monitoring implemented under the 2008 ROD aims to:
 - protect and maintain existing raptor nesting habitat throughout the Pinedale Anticline
 - comply with the Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act.
- In 2010, Hayden-Wing Associates was contracted by the WGFD to report the activity and productivity of raptor nests in and within one mile of the Pinedale Anticline.

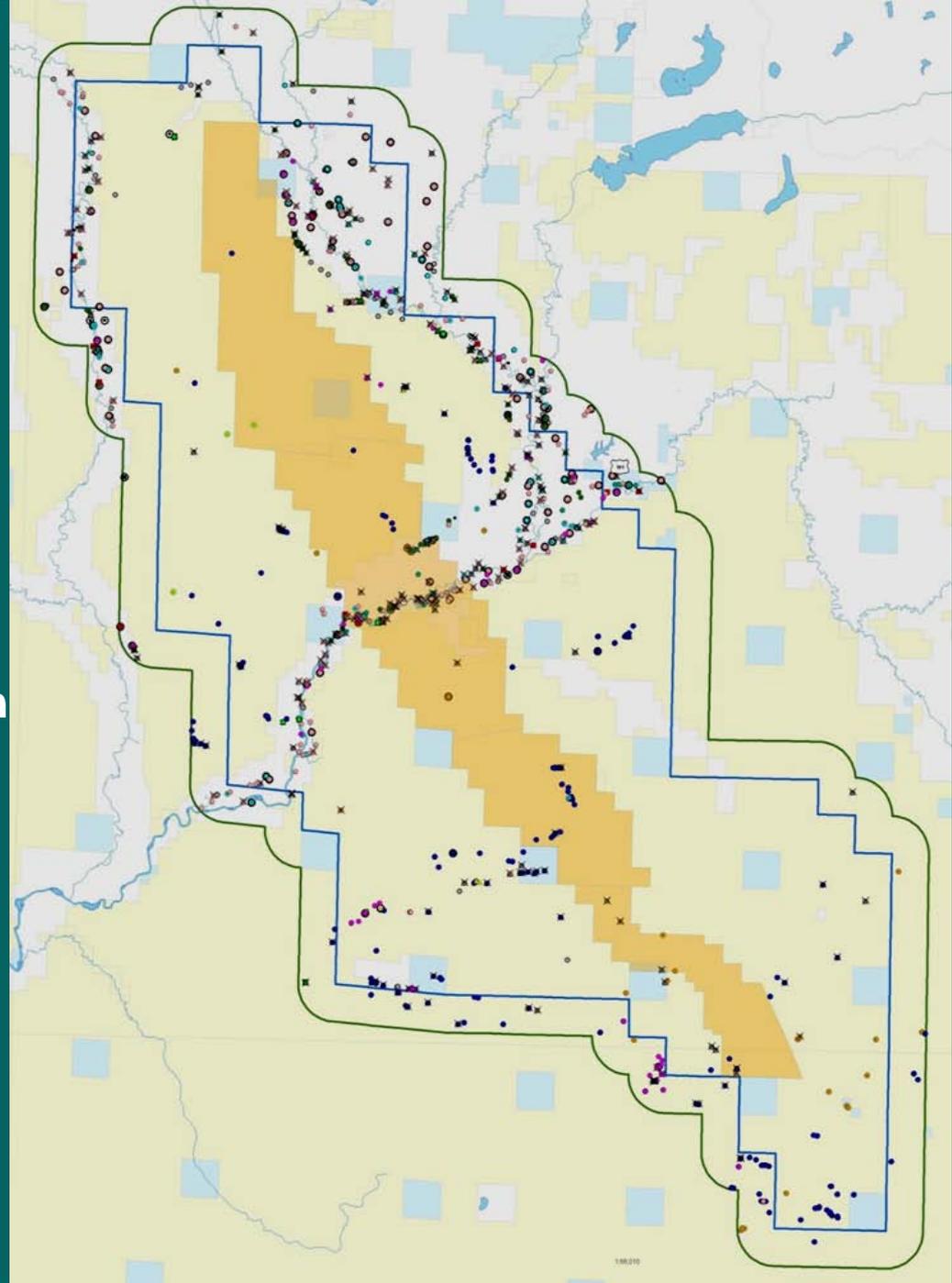


Project Area

- Pinedale Anticline Project Area
 - 198,037 acres (blue line)
 - one-mile buffer (green line)
 - BLM (yellow), State (blue), and Private (white) surface ownership
- Green River and New Fork rivers - both support riparian habitats consisting of large cottonwoods and willows



- Raptor nests are particularly abundant within these riparian habitats, the majority of which are private surface ownership.
- Access was granted by some landowners
- Two observers floated the river in an inflatable catamaran



Methods

- Surveys were performed in accordance with the BLM's *Wildlife Survey Protocols – Pinedale Field Office, January 2010*.
- An aerial survey was conducted on May 25 and 26 to search for new nests
- Ground surveys were conducted monthly (May to August) to:
 - 1) verify the location and activity status of raptor nests,
 - 2) search for new or previously undocumented nests, and
 - 3) determine the productivity of active raptor nests
- Active raptor nests were surveyed until the young fledged or the nest failed.
- Nests were observed from a distance, using binoculars and scopes to avoid disturbing nesting birds.
- Accurate locations of raptor nests were recorded using GPS equipment
- Nest status, condition, substrate, and species of raptor using the nest were documented.
- Since surveys were monthly, productivity estimates were largely determined through using nestling age combined with each species' nesting chronology to make an educated decision on whether a nest was productive or failed.



Results

- Within the Anticline and its one-mile buffer, 911 nest locations were surveyed.
- Of the 911 nest locations, 120 were active raptor nests including:

- 55 Red-tailed Hawk,
- 15 Great Horned Owl,
- 13 Swainson's Hawk,
- 12 Osprey,
- 11 American Kestrel,
- 5 Ferruginous Hawk,
- 4 Bald Eagle,
- 2 Golden Eagle,
- 1 Burrowing Owl,
- 1 Northern Harrier,
- 1 Prairie Falcon



Results

- 10 active non-raptor nests including:
 - 4 Black-billed Magpie,
 - 6 Common Raven
- Magpie and raven nests are surveyed annually because of the potential for use by raptor species such as Great Horned Owls and Long-eared Owls.



Results

Red-tailed Hawk 213 nest locations

Active nests	55
Productive	45
Production unknown	8
Failed	2
Inactive nests	43
Gone nests	82
Unable to survey (access)	33

- average 1.9 fledglings per nest



Results

Great Horned Owl

52 nest locations

Active nests	15
Productive	14
Production unknown	0
Failed	1
Inactive nests	26
Gone nests	4
Unable to survey (access)	7

- average 1.7 fledglings per nest



Results

American Kestrel

70 nest locations

Active nests	11
Productive	4
Production unknown	7
Failed	0
Inactive nests	48
Gone nests	9
Unable to survey (access)	2

- average 1.8 fledglings per nest



Results

Swainson's Hawk

50 nest locations

Active nests	13
Productive	6
Production unknown	5
Failed	2
Inactive nests	13
Gone nests	22
Unable to survey (access)	2



- average 1.5 fledglings per nest



Results

Osprey 27 nest locations

Active nests	12
Productive	10
Production unknown	0
Failed	2
Inactive nests	3
Gone nests	10
Unable to survey (access)	2

- average 1.6 fledglings per nest



Results

Bald Eagle

15 nest locations

Active nests	4
Productive	4
Production unknown	0
Failed	0
Inactive nests	8
Gone nests	2
Unable to survey (access)	1



- average 1.5 fledglings per nest



Results

Ferruginous Hawk

194 nest locations

Active nests	5
Productive	3
Production unknown	1
Failed	1
Inactive nests	142
Gone nests	47
Unable to survey (access)	0



- average 3.7 fledglings per nest



Results

Burrowing Owl

28 nest locations

Active nests	1
Productive	1
Production unknown	0
Failed	0
Inactive nests	16
Gone nests	4
Unable to survey (access)	0



- # fledglings unknown

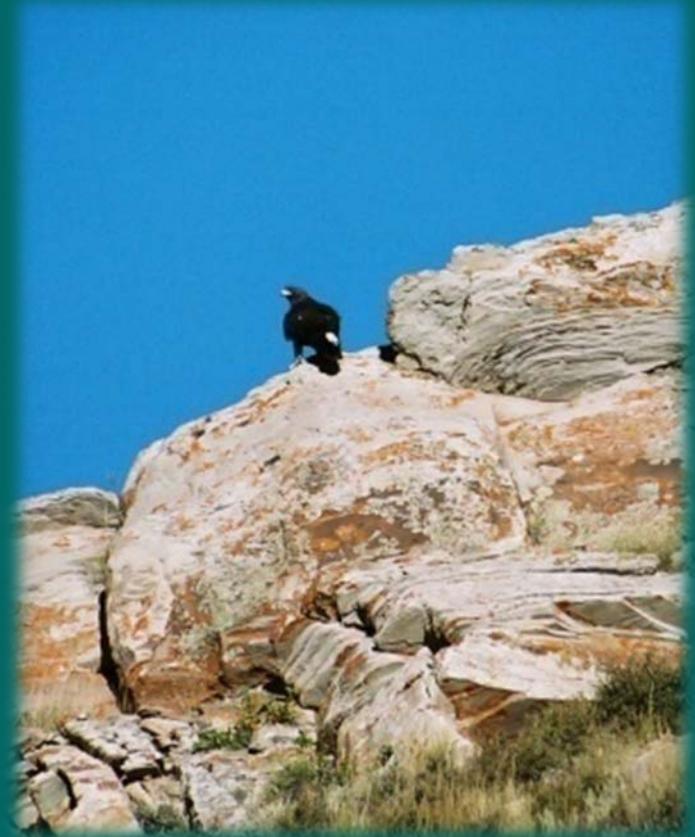


Results

Golden Eagle 17 nest locations

Active nests	2
Productive	1
Production unknown	1
Failed	0
Inactive nests	8
Gone nests	5
Unable to survey (access)	2

- two fledglings



Results

Northern Harrier

10 nest locations

Active nests	1
Productive	1
Production unknown	0
Failed	0
Inactive nests	6
Gone nests	1
Unable to survey (access)	2

- five fledglings



Results

Prairie Falcon 6 nest locations	
Active nests	1
Productive	1
Production unknown	0
Failed	0
Inactive nests	5
Gone nests	0
Unable to survey (access)	0

- three fledglings



Results

- **94 NEW nests found by HWA in 2010 including:**

- **16 Red-tailed Hawk**
 - **7 Ferruginous Hawk**
 - **7 American Kestrel**
 - **6 Swainson's Hawk**
 - **5 Great Horned Owl**
 - **1 Burrowing Owl, and**
 - **1 Northern Harrier**
 - **25 unknown raptor (inactive)**
-
- **23 Black-billed Magpie**
 - **3 Common Raven**



Discussion

- 2011 recommendations:
 - Productivity – if accurate productivity numbers are required or desired by the PAPO, we suggest surveying active nests twice a week, especially when nearing the fledging date.
 - Duplicate nests – suggest removing duplicate nest locations from BLM database, so survey efforts aren't duplicated in future surveys.



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- Private Landowners – granting survey access

• Questions...?



HWA

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