

Long-billed Curlew



ASSESSING HABITAT QUALITY FOR PRIORITY WILDLIFE SPECIES IN COLORADO WETLANDS



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Long-billed curlews (*Numenius americanus*, Family Scolopacidae) have a distinctive long bill that curves downward. They can be found near playas and ponds in eastern Colorado.

Species Description

Identification

The long-billed curlew, at 20–26 inches in length, is the largest shorebird in North America. Their primitive-sounding *curlee* vocalizations are considered a harbinger of spring. Their down-curved, sickle-shaped bill is the largest among shorebirds and inspired their genus name, *Numenius*, derived from the Greek word, noumenios, meaning of the new crescent moon.

Preferred Habitats

Long-billed curlews are considered a grassland species, but they are rarely observed far from water. In Colorado, they are usually associated with ponds, reservoirs, playas, and wet meadows.

Diet

Long-billed curlews probe or peck for invertebrates, including mollusks, worms, crustaceans, spiders, and

insects, particularly grasshoppers. They also eat some vertebrate species, including fish, amphibians, and bird eggs/nestlings.

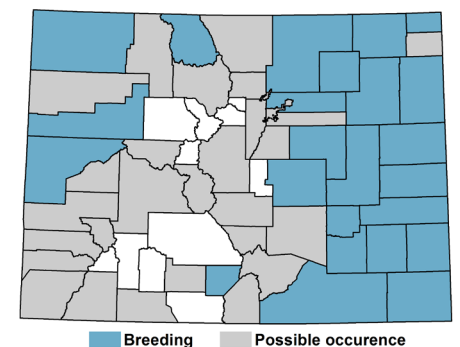
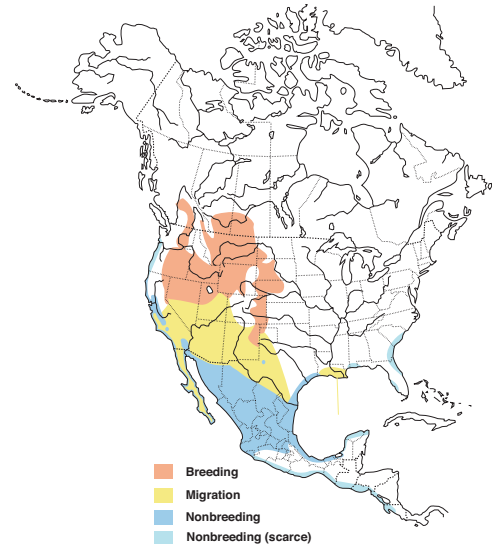
Conservation Status

Populations of long-billed curlews have experienced overall declines in many areas, especially throughout the eastern United States, due primarily to habitat loss and historic over-hunting. In Colorado, long-billed curlews are listed as a Tier 2 Species of Greatest Conservation Need (CPW 2015). The Breeding Bird Survey indicates a significant population decline in Colorado, and the Colorado Breeding Bird Atlas indicates a decrease in distribution. Confirmed breeding observations of long-billed curlews were reported in ~60% fewer priority blocks during the second Colorado Breeding Bird Atlas (2007–2011) compared to the first atlas (1987–1994).

Species Distribution

Range

Long-billed curlews breed in the western United States, including eastern Colorado, and in southwestern Canada. During migration, long-billed curlews occur sporadically in western Colorado and regularly throughout eastern Colorado.



North America map used by permission from Birds of the World, published by Cornell Lab of Ornithology. Colorado map based on Andrews and Righter (1992), Nelson (1998), Kibbe (2016), and CFO (2020).

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Preferred Habitat Conditions

Dominant vegetation	short grasses, sedges, and short annual forbs
Height of herbaceous vegetation	8–20 inches
Landscape context	mosaic of short grasslands, meadows, agricultural fields, and wetlands
Percent cover of emergent vegetation	0–33%
Size of habitat	>50 acres
Water depth in wet meadows	0 or hummocks
Water depth in wetlands	0–6 inches

Management Recommendations

This fact sheet contains easy-to-use guidelines for understanding habitat needs of Colorado Parks and Wildlife priority wetland-dependent wildlife. Biologists with expertise in long-billed curlews have suggested numerous practical steps that can be taken to improve habitat quality for this species.

Vegetation

- Create and maintain diversity of vegetation within wet meadows by mowing, rotational burning, and/or grazing as appropriate.
- Remove residual vegetation.
- Control tall dense vegetation.
- Use periodic prescribed burns to control tall vegetation.
- Control woody plants and shrubs within appropriate grasslands.
- Control height of vegetation through appropriate livestock grazing.
- Use livestock grazing to maximize low vegetation, but reduce grazing intensity during breeding period to reduce trampling effects.

Pesticides

- Avoid controlling grasshoppers with pesticides.
- Reduce use of herbicides on grasslands.

Conservation

- Protect breeding birds from human disturbance.
- Create 220–325-yard buffers around suitable habitat.



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Acknowledgements

Colin Lee (Rocky Mountain Bird Observatory/Colorado Parks and Wildlife/Natural Resources Conservation Service) reviewed an earlier version and provided input on preferred habitat conditions.

Suggested Reading and Citations

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Habitat Scorecard for Long-billed Curlews (v. Nov 2020)

Assessment of habitat before and after restoration or management actions

Project Name: _____ Project Area (acres): _____ Habitat Area (acres): _____

Size of Contiguous Habitat outside Project Area (acres): _____ Ownership (circle): Same / Different / Conservation Easement

Scorecard Instructions: Select appropriate checklist: (1) **Playas** or other wetlands or (2) **Wet Meadows**. Enter one value that best describes early to mid-summer conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. **If condition is outside range or is not described, enter a zero.**

Project Area and Habitat Area: The project area includes the entire area affected by the project. The habitat is the area that will provide (in case of pre-project) or does provide (post-project) habitat for each potential target species within the project area. The habitat area may be the same size as the project area or it might be smaller and it may be defined differently for different target species. If there is contiguous habitat area outside the project area, note the size and whether the ownership of the contiguous areas is the same or different and whether it is under conservation easement or other habitat protection. If the habitat area within your project area is noncontiguous and/or if sections are in very different conditions, consider using multiple scorecards so that each scorecard represents the general conditions. If you use multiple scorecards, identify each habitat area on a map.

Playas or Other Wetlands

Key habitat variable and conditions	Value	Pre-Project	Expected Post-Project	Actual Post-Project
Date of assessment				
Percent of water with emergent vegetation				
0 – 33%	25.2			
>33 – 50%	16.8			
>50 – 70%	8.4			
Predominant depth of water				
0 – 6 inches	25.2			
>6 – 7 inches	16.8			
>7 – 8 inches	8.4			
Size of habitat				
>50 acres	19.9			
>12 – 50 acres	13.3			
7 – 12 acres	6.6			
Height of herbaceous vegetation				
8 – 20 inches	19.9			
>20 – 40 inches	13.3			
>40 inches	6.6			
Dominant vegetation				
Low grasses <8 inches	9.8			
Low sedges, rushes <8 inches OR Annual or perennial forbs	6.5			
Tall grasses >8 inches	3.3			
Total (of 100 possible): add all numbers in before or after columns				

Habitat Scorecard for Long-billed Curlews (v. Nov 2020)

Assessment of habitat before and after restoration or management actions

Project Name: _____ Size of Project Area (acres): _____ Size of Habitat (acres): _____

Size of Contiguous Habitat Outside Project Area (acres): _____ Ownership (circle): Same / Different / Conservation Easement

Scorecard Instructions: Select appropriate checklist: (1) **Playas** or other wetlands or (2) **Wet Meadows**. Enter one value that best describes early to mid-summer conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. **If condition is outside range or is not described, enter a zero.**

Habitat and Project Area Size: The project area includes the entire area affected by the project. The habitat area within the project area will provide (in case of pre-project) or does provide (post-project) habitat for each target species. The habitat area may be the same size as the project area or it might be smaller. For each scorecard, determine the size of the habitat area and fill out the scorecard using the range of conditions observed within the habitat area. If your habitat area is noncontiguous and/or if sections are in very different conditions, consider using multiple scorecards so that each scorecard represents the general conditions. If you use multiple scorecards, identify each habitat area on a map.

Wet Meadows

Key habitat variable and conditions	Value	Pre-Project	Expected Post-Project	Actual Post-Project
Date of assessment				
Height of herbaceous cover				
8 – 20 inches	28.7			
>20 – 40 inches	19.1			
>40 inches	9.6			
Predominant depth of water				
0 or hummocks	28.7			
Size of habitat				
>50 acres	21.4			
>12 – 50 acres	14.3			
7 – 12 acres	7.2			
Percent of herbaceous vegetation that is too dense or hard for animal movement				
0 – 20%	11.2			
>20 – 50%	7.4			
>50 – 80%	3.7			
Dominant vegetation				
Low grasses <8 inches	10.0			
Low sedges, rushes <8 inches OR Annual or perennial forbs	6.7			
Tall grasses >8 inches	3.3			
Total (of 100 possible): add all numbers in before or after columns				