

# Species Fact Sheet

## Streaked Horned Lark

### *Eremophila alpestris strigata*



#### **STATUS: CANDIDATE**

This species occurs in Grays Harbor, Mason, Pacific, Pierce, Thurston, and Wahkiakum Counties, Washington  
(Map may reflect historical as well as recent sightings)

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The streaked horned lark, *Eremophila alpestris strigata*, became a Federal candidate species in 2001. A status assessment is completed annually for this species.

### ***Current and Historical Status***

Historically, the streaked horned lark's breeding range extended from southern British Columbia south through the Puget lowlands and outer coast of Washington and the Willamette Valley and Rogue River Valley of Oregon. Along the coast of Oregon, the streaked horned lark was considered scarce. At the time of European settlement, the streaked horned lark was described as very abundant in all of the prairies of the Puget Sound region in Washington. This subspecies was considered common in the early 1950s on the prairies of western Washington and abundant throughout the valleys west of the Cascades. Historical breeding records exist for Whatcom, Skagit, Island, Pierce, Thurston, Mason, Grays Harbor,

Pacific, and Clark Counties, Washington. Although there are no known breeding records, streaked horned larks may also have bred in King and Clallam Counties.

The streaked horned lark is currently considered rare and has been extirpated throughout much of its range, including British Columbia, the San Juan Islands and the northern Puget Sound region of Washington, and the Rogue River Valley in Oregon. In Washington, streaked horned larks are found in the Puget lowlands, coastal areas, and on Columbia River islands. Some of these birds over-winter along the coast and lower Columbia River of Washington, but it appears that most over-winter in the Willamette Valley of Oregon. In Oregon, streaked horned larks breed in the Willamette Valley and are most common near the Corvallis Airport and in the central Willamette Valley.

The range-wide total population of streaked horned larks is likely less than 1,000 individuals, with about 330 in Washington and at least 500 in Oregon. Estimates from all of the primary nesting areas in Washington indicate that the Washington population is declining by 40 percent per year, apparently due to a combination of low survival and fecundity rates. Oregon's surveys are as yet incomplete, and so a full state-wide population estimate is not possible.

## ***Description and Life History***

The streaked horned lark is a small, slender, long-winged bird with distinctive black "horns," which are actually feather tufts. The male's face and throat are yellowish. Adults have a black bib covering the chest and black whisker marks.

Breeding is thought to occur at 1 year. Most Washington streaked horned larks over-winter in Oregon and begin to arrive at nesting grounds in late February. Nesting begins in late March and continues into June. The nest consists of a shallow depression built in the open or near a grass clump and lined with fine dead grasses. The female commonly lays four greenish or grayish eggs speckled with brown. Incubation lasts 11 days and the young are able to fly within 9 to 12 days after hatching.

## ***Habitat***

The streaked horned lark nests on bare ground in sparsely vegetated sites dominated by grasses and forbs. Historically this type of habitat was found in prairies, along the coast of Washington, and

along the Columbia River. Today nesting occurs in native prairies, coastal dunes, fallow agricultural fields, seasonal wetlands, sparsely-vegetated edges of grass fields, moderately- to heavily-grazed pastures, seasonal mudflats, airports, and dredge spoil islands in and along the tidal reach of the Columbia River.

## ***Reasons for Decline***

The most significant factor in the decline of the streaked horned lark has been the loss of habitat. Native prairies and grasslands have been virtually eliminated throughout the range of the species, mainly by conversion to agriculture and residential uses. Other losses have been due to military and airport activities where the species occurs at military and local airports, and river channel maintenance in the Columbia River, where dredge spoils are deposited on islands inhabited by the species. It has been estimated that less than one percent of the native savanna and grassland remains in the range of the streaked horned lark in Oregon, while in the south Puget Sound region, where most of western Washington's prairies historically occurred, only 10 percent of the historic prairie is considered intact. The encroachment of non-native plants in native habitats is another key factor contributing to the species' decline. Streaked horned larks will use a variety of human-altered habitats with sparse vegetation, such as plowed fields, grass seed fields, and fallow fields. However, in these human-altered landscapes, the birds are vulnerable to frequent disturbance (e.g., mowing, plowing, recreational vehicle use, military vehicle use, blasting, dredge spoil deposition, etc.).

The small size of remaining individual nesting populations, combined with low genetic diversity, makes them vulnerable to local extirpation due to poor recruitment related to low hatchability, low adult survival, severe weather, predation, and human disturbance (e.g., mowing, trampling, etc.), which leads to nest destruction and/or nest abandonment. Analyses show that streaked horned larks probably have suffered a loss of genetic diversity. Decreased genetic diversity causes an increased chance of inbreeding depression, reduced disease resistance, and reduced adaptability to environmental change, leading to reduced reproductive success. Small population sizes coupled with observations of mother-son pairings (which leads to decreased genetic diversity) in horned larks may explain the relatively low hatchability of lark eggs.

In winter, streaked horned larks congregate in larger groups, and reside in fewer areas. Their wintering habitats mainly occur on privately-owned farmlands that are subject to unpredictable conversions to unsuitable foraging habitats. Also, when they are

grouped together in larger numbers, they become even more susceptible to stochastic events that may occur in the winter. Small and rapidly declining population size and low genetic diversity coupled with this tendency to clump in larger groups on unsecured winter habitats puts the species at high risk of significant negative impacts.

## ***Conservation Efforts***

The Service and many of its partners have funded breeding and wintering surveys of larks in both Washington and Oregon and research aimed at better understanding key habitat features, including research on impacts from herbicides, prairie plant propagation research, how to improve nest success, the causes of nest failure in agricultural areas in Oregon, and dredge spoil island habitat use and population size. In addition, restoration activities at the Leadbetter Point Unit of the Willapa National Wildlife Refuge Complex have helped to address threats to nesting habitat due to beach grass encroachment and to increase the amount of nesting occurring there. Similar restoration efforts on other Wildlife Areas and Natural Area Preserves have improved breeding habitat quality.

As a result of these years of research and restoration, several conservation measures have been developed to help the streaked horned lark recover from its current low population level. Land managers are encouraged to: (1) use mechanical or natural means to maintain or create bare ground and sparsely vegetated areas within or adjacent to areas of suitable habitat; (2) create suitable habitat and/or protected nest sites in areas secure from disturbance by vehicles, predators (e.g., away from edges of fields), and flooding events (e.g., upland hummocks, dikes, etc.) to reduce the species' vulnerability and potentially increase nest success and population size; (3) use moist soil management to create seasonal mudflats where possible; and (4) carefully time and place dredge material so as to benefit nesting streaked horned larks.

In Washington, the Washington Department of Fish and Wildlife recently purchased 800 acres of the West Rocky Prairie, the largest and highest-quality prairie habitat remaining in private ownership the South Puget Sound. They also purchased an 80-acre inholding within the Black River-Mima Prairie Glacier Heritage Preserve. The Washington Department of Natural Resources expanded the Mima Mounds Natural Area Preserve in 2008 and the Nature Conservancy recently received a conservation easement donation on 613 acres of the Cavness Ranch south of Tenino. While these areas aren't currently known to be occupied by streaked horned larks, they will

protect these prairie areas from development, and one or more of these sites may become occupied by larks in the future.

## ***References and Links***

[Listing Status](#)

[USFWS Species Assessment](#)

[USFWS Species Profile](#)

[Action Plan](#)

[OR and WA Partners in Flight Conservation Strategy 2000](#)

[WDFW Status Report](#)

[South Sound Prairies - Documents](#)

[The Nature Conservancy](#)