

Streaked Horned Lark Habitat Management Workshop
Baskett Slough NWR, July 27th 2017 | Meeting Notes and Recommendations

Summary

This workshop was held to increase communication among and between habitat managers and lark biologists. The idea for this meeting came out of the October 2016 Streaked Horned Lark Working Group meeting, with the observation that the meeting rarely has sufficient time to discuss lark habitat management in depth, nor does it include the broader group of folks implementing management activities. Approximately 40 individuals representing 18 entities gathered at the US Fish and Wildlife Service’s Baskett Slough National Wildlife Refuge office for a combination of presentations, discussion, and site visits. After a brief ‘Lark 101’ from Bob Altman (American Bird Conservancy) and Gary Slater (Center for Natural Lands Management), presentations were provided by 11 individuals (see below for list). Each presenter provided a quick overview of their site(s) and their management objectives, the tools and techniques they utilized, and their primary challenges and future plans. These presentations were provided in order of geography, allowing trends or shared successes/challenges to be identified.

Presentations covered a wide variety of habitats and land uses, ranging from native prairie to agricultural lands to dunes and deposition islands to vernal pools. The presentations certainly made clear that while we have a lot to learn from each other range-wide, region-specific conversations about habitat management will be especially beneficial as each region faces unique challenges and target ‘suitable habitat’. In some cases larks were the primary target of restoration/land management activities, but often they were secondary objectives. Further discussions about balancing lark habitat creation and maintenance with other land uses and/or target species is a known need and certainly was highlighted by these presentations and group discussions.

Following a short full-group discussion over lunch, attendees headed out to see two lark-focused restoration units on Baskett Slough NWR and then southeast to view two more lark-focused units at Ankeny NWR. Graham Evans-Peters, (Refuge Manager – Baskett and Ankeny) and Brian Root (Refuge Wildlife Biologist) elaborated on their earlier presentation and discussed with the group their management and future plans for these units.

Major topics discussed during the day were: the challenges of balancing lark habitat with other land uses, determining how much habitat within a site is dedicated to lark habitat (patches versus full site), understanding why created lark habitat was under-utilized or not used at all, and finally the many confounding factors that make it hard to determine any causality behind the success or failure of a site.

Presentations

<i>Presenter</i>	<i>Entity</i>	<i>Region</i>
Bill Kronland	Center for Natural Lands Management	South Puget Sound
William Ritchie	US Fish and Wildlife Service	Washington Coast
Kristine Lightner	US Army Corps of Engineers	Lower Columbia River
Nick Atwell	Port of Portland	Lower Columbia River, Portland metro
Elaine Stewart	Metro	Portland metro
Chris Hamilton	Natural Resource Conservation Service	Willamette Valley
Graham Evans- Peters	US Fish and Wildlife Service	Mid-Willamette Valley
Andy Neill	Institute for Applied Ecology	Mid-Willamette Valley
Diane Steeck	City of Eugene	South Willamette Valley
Katie MacKendrick	Long Tom Watershed Council	South Willamette Valley
Laura Tesler	Oregon Dept. of Fish and Wildlife	Willamette Valley

Highlighting major issues in each regions

Major challenges and successes were identified by region. Certainly one of the overarching challenges across the lark's range is applying management/treatments that mimic the disturbance regimes that created the early-successional habitats that larks prefer. This is complicated by the fact that lark habitat is created and maintained by different disturbances in different regions of the lark's range; for example, wind along the coast and in the Columbia River watershed, fire in South Puget Sound, and flooding in the Willamette Valley and Columbia River. Even when focusing on a common habitat type, such as prairies, management actions may need to differ between regions. For example, in South Puget Sound, gravelly glacial outwash soils provide some natural inhibition for vegetation growth, whereas in the Willamette Valley soil is more fertile, requiring a more frequent or severe agent of disturbance to set back succession and maintain suitable habitat for larks.

In the South Puget Sound, most work occurs on an occupied native prairie site with the goal of increasing numbers and expanding distribution of larks, while maintaining diversity of prairie plants. Fire is the major disturbance factor, typically applied every two to three years, although herbicide and seeding are consistent management actions. Monitoring shows that management has increased the extent of suitable habitat, but there is still significant work to meet lark vegetation objectives. One concern about this site was having to sacrifice prairie nativity to maintain lark habitat; this was also a concern in other regions (e.g., Metro).

On the Washington Coast, hundreds of acres of restoration has been carried out at number of sites. Annually, about 60-100 acres are treated/year, mostly associated with removing exotic beachgrass. Much of the work has been focused on other species (e.g., plover), but lark objectives are compatible with larger site goals (dune adjustment). One of the biggest unknowns is whether wind will return as a disturbance factor keeping dunes unvegetated; another concern is how will predators be discouraged from the site.

Along the lower Columbia River, the US Army Corps of Engineers is managing a large network of deposition sites to benefit larks by developing a rotational scheme where some amount of suitable habitat is always available to larks. They are working to refine their habitat suitability modeling. In this region, the Port of Portland also protected and will manage a filled deposition site solely for larks, highlighting a potential new strategy for conserving larks in the region. Overall, the increasing level of activity for larks on a moving mosaic of suitable lands is a promising direction for larks in this region.

Finally, sites in the Willamette Valley may face the greatest set of challenges, but also offer substantial opportunities. The largest challenge is that the best opportunities for lark habitat are on privately-owned working lands. While creating these relationships and methods for creating habitat alongside and among working lands is evolving, there is great opportunity here to create a shifting mosaic of suitable habitat similar to that applied in the Columbia River. The hiring of Niles Brinton to work with landowners via NRCS to increase partnerships is one of many moving parts that can aid in increasing lark habitat. One other strategy that was discussed briefly, but also shows promise, is managing water/flooding/vernal pools to create lark habitat. Further discussions about this strategy would be especially valuable since flooding presumably mimics natural processes in this region.

Although not a major topic of this workshop an opportunity being pursued separately range-wide is the use of airports by larks and determining how to best utilize these sites to host larks while meeting the needs of airports and FAA regulations.

Recommendations for further discussion/Information needs

Based on the presentations and discussions held at this workshop, it became clear that this was a strong need for increased discussion among habitat managers, especially among those in the Willamette Valley. Continued conversation about successes and setbacks provide helpful information to the recovery planning process. Below is a short list of some of the recommendations and information needs that came out of the workshop:

- a. Additional discussions in WV about specific land uses/habitat types would be valuable.
- b. Further discussion about encouraging a standardized monitoring approach for larks (and vegetation) would help in evaluating effectiveness of all the different strategies being employed in WV.
- c. Recommended seed mixes/seed mix development (e.g., grass to forb ratios); what is the value of vegetative heterogeneity on working lands.
- a. Discussion about the need to better quantify vegetation conditions that larks use versus sites that are avoided (for example, lots of questions about vegetation height – in South Sound vegetaion targes are <20 cm, that’s nearly impossible in the WV).
- b. Can conspecific attraction (playbacks/models) improve probability of lark use.

Thank you to the USFWS/ Graham Evans-Peters and Brian Root for hosting us at Baskett Slough NWR!

