



Farming for wildlife

Innovative research benefits agriculture, habitat, and community

MARLIN GREENE

It's easy to talk in superlatives when describing the Skagit River and its bordering landscapes.

The Skagit Delta is a vital stop for birds that migrate along the Pacific flyway, a major north-south route that extends from Alaska to South America. The delta is particularly important to tens of thousands of wintering and migratory shorebirds.

The delta also provides some of the world's most fertile fields, supporting more than \$260 million worth of crops, livestock, and dairy products annually.

As the largest watershed in Puget Sound, the Skagit River and its network of tributaries provide rich soils that support both wildlife and farming. These conditions also present a challenge for the region: how to ensure that farming and wildlife live in harmony.

The situation makes the Skagit Delta an ideal location for an innovative research project that The Nature Conservancy has launched in cooperation with Hedlin Family Farms, Mesman Farms, Washington State University, the U.S. Environmental Protection Agency, Skagitonians to Preserve Farmland, and Western Washington Agricultural Association.

Called "Farming for Wildlife," the three-year project will study the relationship between three farming practices and habitat for migratory shorebirds. The study is the first of its kind in the Northwest and possibly the country. The purpose is to discover how a particular farming practice may provide or improve habitat for shorebirds, such as dowitchers and greater yellowlegs, and how conservation may be compatible with crop rotations in the Skagit Valley.

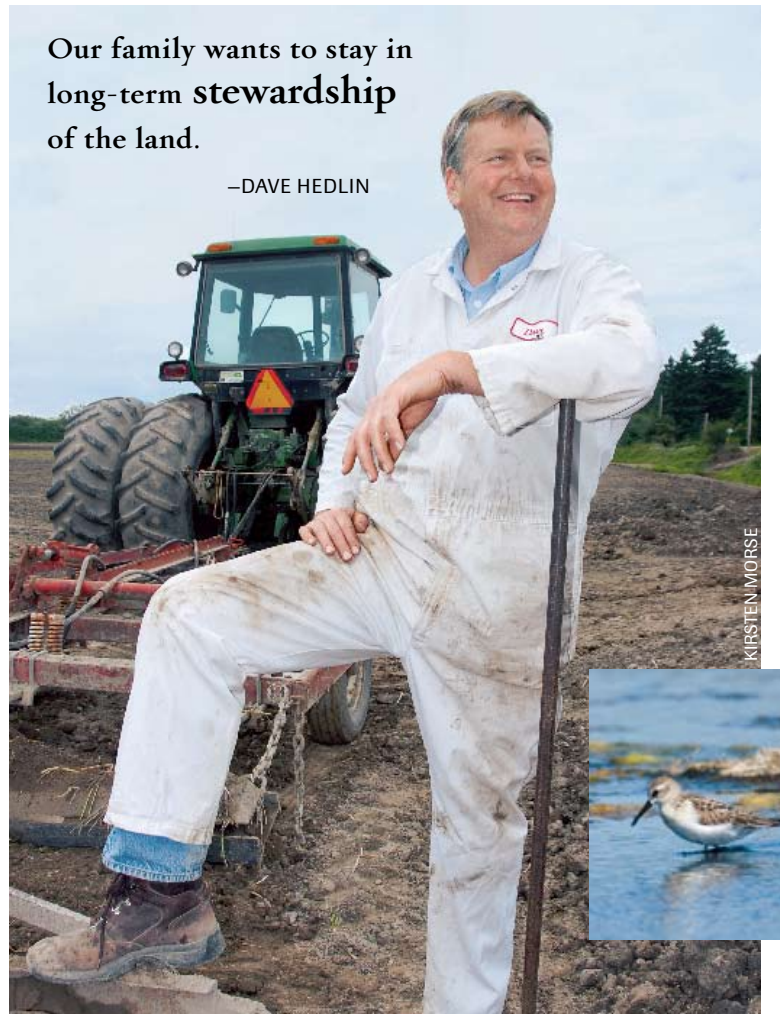
Scientists have documented the decline of 14 species of migrating shorebirds that rely on near-shore and estuary habitats, says Kevin Morse, the Conservancy's Skagit Delta project manager.

The Skagit Delta "is one of the last best places for shorebirds. But they've lost this type of habitat along their migratory routes," Morse explains.

By working with the farming community, the Conservancy hopes to develop voluntary programs that both benefit farming and improve critical shorebird habitat. Practices with favorable results can then be replicated throughout the Northwest.

Our family wants to stay in long-term stewardship of the land.

—DAVE HEDLIN



KIRSTEN MORSE

The Conservancy has contracted with Hedlin and Mesman Farms to apply three different agricultural practices to 126 acres of farmland. Those practices involve flooding, grazing, and mowing farm fields.

The project calls for planting both sites with grass, then flooding 20-acre portions and managing them so that half of these areas are covered with two to three inches of water at all times. Although scientists cannot predict the outcome, a soil saturation project in the Klamath Basin, OR, saw early-stage vegetation growing within months of flooding, and the wet fields becoming a magnet for shorebirds. “We are curious to see the response in our soils and climate,” Morse says.

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The project will also help determine how the flooding affects soil fertility and microbiology in Skagit farmland, which may benefit farmers. In the Tule Lake Refuge in Northern California, farmers have discovered that certain wetland rotations have increased their yields by 25 percent and reduced costs by some \$200 an acre because they no longer needed pesticides to manage soil-borne pests, Morse explains.

Skagit farmers already perform the project’s two other practices, which also involve planting the entire field with grass while mowing one portion for silage (livestock feed) production and allowing cattle to graze on the other portion. Both practices are believed to lead to more invertebrates in the soil.

At the end of the growing season, both areas will be mowed to a height of 1 to 2 inches, which will provide habitat for shorebirds over the winter.

Dave Hedlin supports integrating conservation interests and agriculture, and appreciates the Conservancy’s focus on understanding and working with the economics of farming.

“Our family wants to stay in long-term stewardship of the land,” he says.

Hedlin is eager to learn whether certain practices work so he won’t have to rely on anecdotal information for farming decisions.

The findings could prove fruitful for farmers in other ways, says Bob Rose, executive director of Skagitonians to Protect Farmland. Grants or other funding could be available for maintaining grass fields that benefit shorebirds, he says.

In addition to improving soil fertility, keeping a crop in grass for three years could also enable the farmer to transition to organic status if he were looking for a way to do so, since federal organic standards require farmland to be pesticide-free for 3 years, Rose explains.

Adds Hedlin: “We hope to get some good data that will help us with the farming operation and help the shorebirds. We figure it’s a win-win.”

—G.S.



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An 80-acre test field was planted in grass this summer, the first step in evaluating agricultural practices designed to enhance shorebird habitat while also benefitting farmers.



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