



**UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
ENDANGERED SPECIES PROGRAM**

TELEPHONIC INTERVIEW TIME (03:50)

**LANGE'S METALMARK BUTTERFLY (HOST – BRYNN WALLING WITH
JOSH HALL)**

This transcript was produced from audio provided by USFWS Endangered Species Program

P R O C E E D I N G S

(Music plays.)

MS. WALLING: Hi, this is Brynn Walling for the U.S. Fish and Wildlife Service. Today I have on the phone Josh Hall. Josh is the Recovery Division Chief in the Service's Sacramento Field office. Hi, Josh, how are you?

MR. HALL: I'm good, how are you?

MS. WALLING: Fine, thanks. Today Josh is gonna tell us about the Lange's metalmark butterfly. Could you start us off with explaining the background of the butterfly?

MR. HALL: The Lange's metalmark butterfly is a small, really beautiful orange butterfly. It's about one to one and a half inches in size, and it's found only on the Antioch Dunes National Wildlife Refuge in the San Francisco Bay area. It occurs there with two plants – the Contra Costa wallflower and the Antioch Dunes evening primrose that are also only found in this one spot. It's a subspecies of the Mormon metalmark butterfly, but it's found only in this unique habitat at the Antioch Dunes National Wildlife Refuge, which is a sand dunes habitat. So it's a really interesting and unique species that we have in the area.

MS. WALLING: What factors were involved that led it to becoming endangered?

MR. HALL: Well, the primary factor that caused it to initially decline was actual sand mining. These dunes used to be in the range of 50 to 100 feet at height,

and this is a great source of sand for brick. As brick was needed to rebuild San Francisco after the earthquake, people were going into this dune system and mining the sand and removing the habitat for the butterflies. That was the initial cause of decline. Since then, there have been several other factors causing continued problems, including non-native invasive plants which have come in and sort of taken over the remnant dunes and choke out the native plants that the butterfly relies on for its reproductive cycle.

Besides those two main factors, we also have a few other things happening, including wildfire. Because there's so much new vegetation, wildfire can go through the refuge very quickly, and this is very damaging to all life stages of the butterfly.

MS. WALLING: What is currently being done to prevent a further decline in the butterfly?

MR. HALL: The first thing that we did to help prevent the decline of the butterfly was to bring some of the population into captivity for breeding. So we had a program in collaboration with the teaching zoo at Moorpark College, and they've had a captive population of the Lange's metalmark since 2007. So we've been working on captive propagation and release at the refuge for some time. However, although the program has been going on, we've had continued declines and the past couple of years have had very low numbers.

To help remedy the situation, we're also working on restoration. We found a new source of sand from dredging activities in Sacramento Delta, and this is actually the sand that would have naturally been deposited at the refuge. So we're getting this sand delivered to the site, we're making sure it's clean, and we're gonna start to rebuild the dunes. This is going to allow some of the natural topography to be returned, and at the same time, we're going in and very intensively removing the non-native vegetation.

MS. WALLING: What is the estimated view of the butterfly in the next five to ten years?

MR. HALL: We're at a critical point for the species. As I mentioned before, we're at very low numbers. The peak count had been up in the 1,000's around the year 2000; the past couple of years has been in the low 20's. So it's very important that we take action at this point and try to reverse the declines. We're hopeful that the activities included in the captive propagation and restoration are going to reverse the declines. However, we're at a point where if we're not careful, we could actually lose a species.

MS. WALLING: Well, thank you for talking to us today.

MR. HALL: It's been my pleasure, thank you.