



# Island Marble Butterfly Candidate Conservation Agreement with Assurances

A way landowners in the San Juan Islands can help the island marble butterfly

**We need your help to conserve the island  
marble butterfly**



The island  
marble  
butterfly  
was  
believed  
to be  
extinct for  
90 years



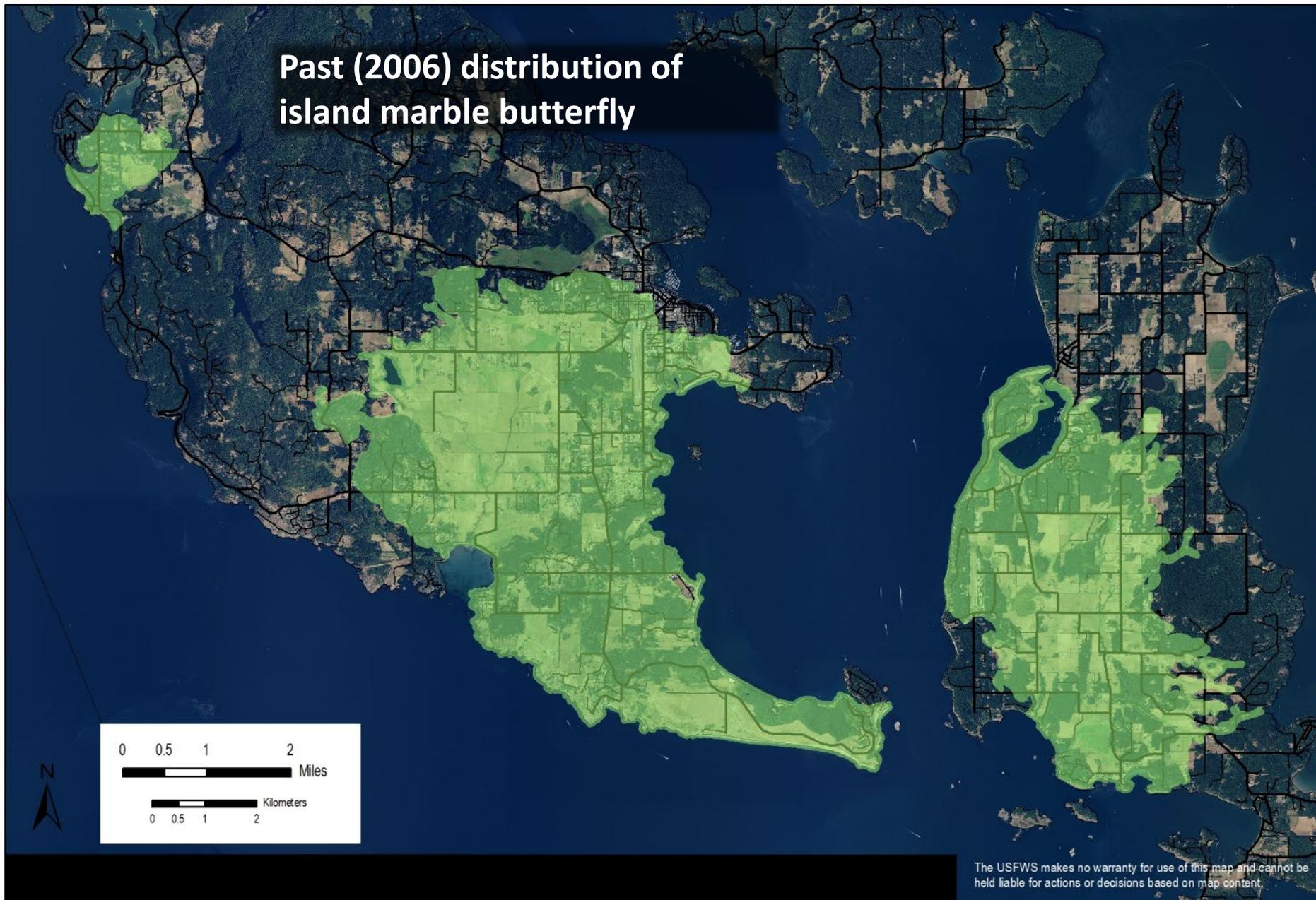


**After disappearing from British Columbia, Canada, in 1908, the island marble butterfly was rediscovered on San Juan Island in 1998 and was later also found on Lopez Island.**

**All but one population of the butterfly has disappeared due to the loss of suitable habitat.**

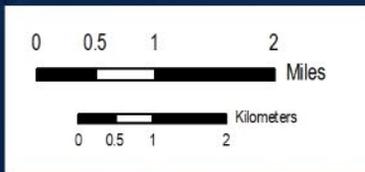
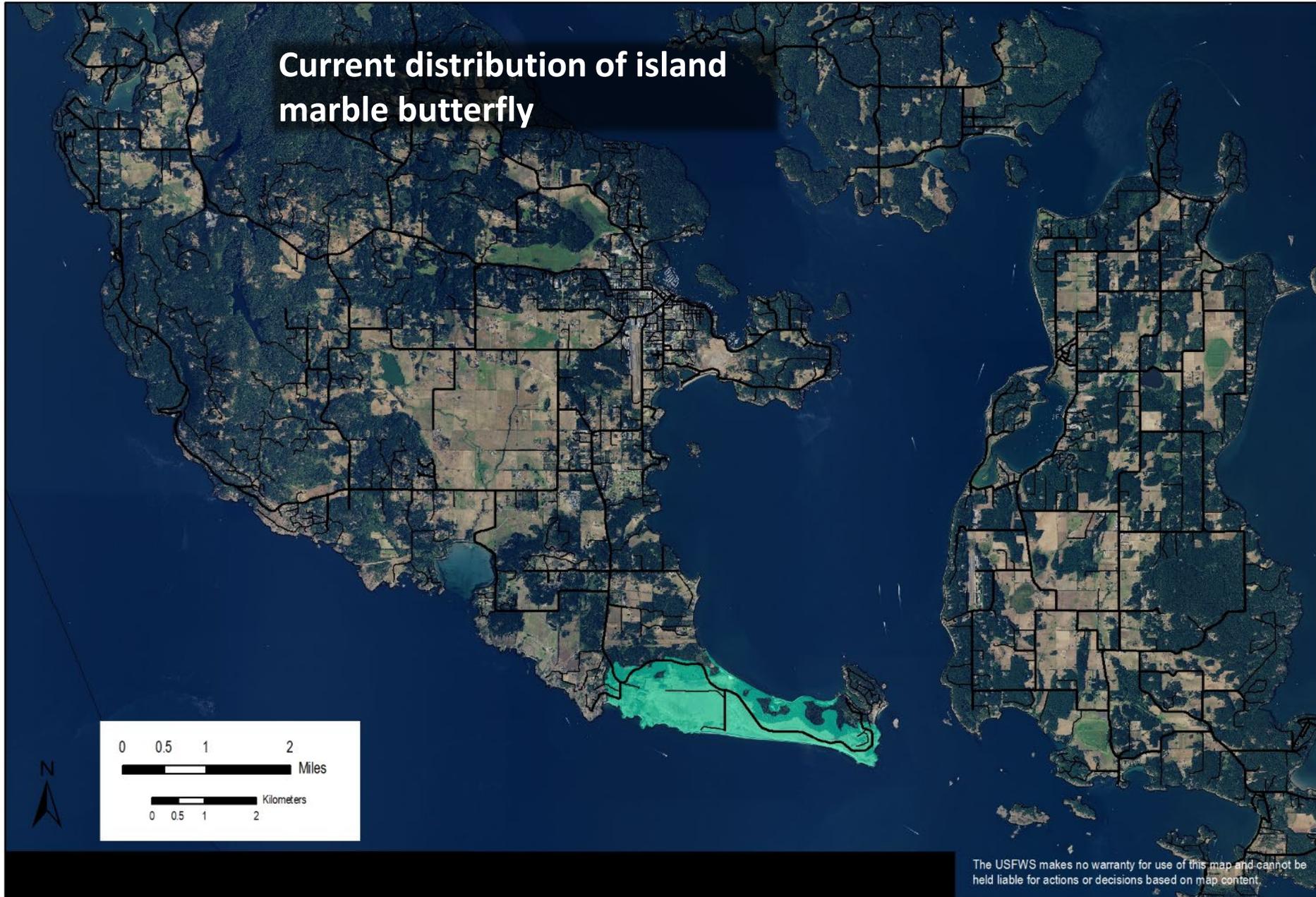


## Past (2006) distribution of island marble butterfly





## Current distribution of island marble butterfly



Common field mustard is not so common any more



A coastal landscape featuring a field of bright yellow mustard flowers in the foreground. The field is situated on a slight rise overlooking a rocky beach. The beach is composed of grey pebbles and is scattered with pieces of driftwood. In the background, a dense forest of evergreen trees covers a hillside that meets the ocean. The sky is a clear, bright blue with a few wispy white clouds. The overall scene is bright and sunny, suggesting a clear day.

**In upland habitat, female island marble butterflies lay eggs on common field mustard in the spring, but for many reasons, field mustard is becoming less common.**

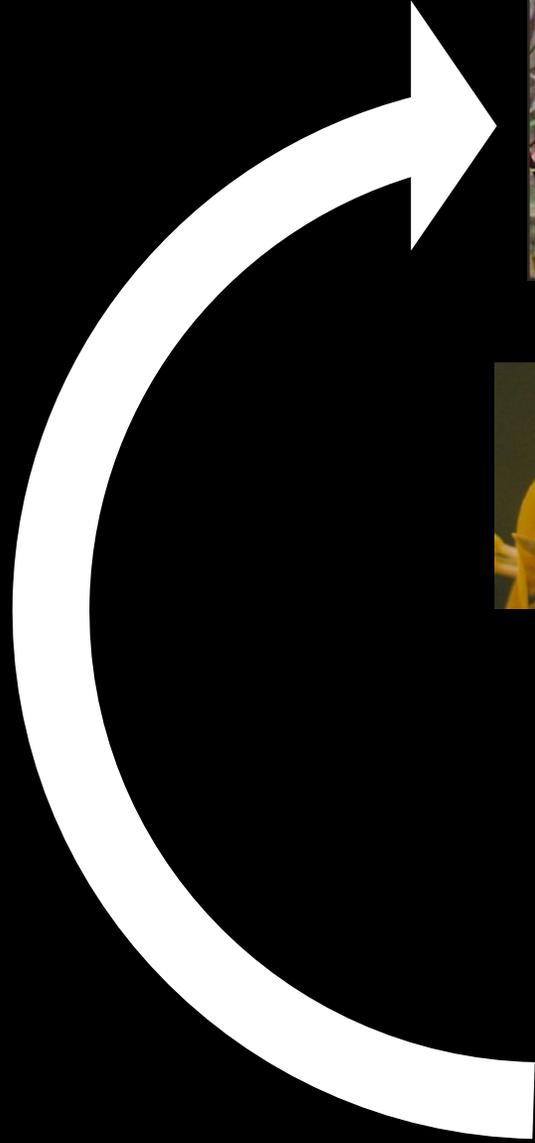
A coastal landscape featuring a field of bright yellow mustard flowers in the foreground. The flowers are in various stages of bloom, with some fully open and others as buds. The field is lush green. In the background, a rocky beach stretches along the coast, with driftwood scattered across it. The ocean is visible to the right, with gentle waves lapping at the shore. A forested hillside rises on the left side of the image. The sky is blue with scattered white clouds.

**Additionally, due to its weedy nature, some landowners have discouraged mustards from growing or have actively removed them from their properties.**

A coastal landscape featuring a field of bright yellow mustard flowers in the foreground. The flowers are in various stages of bloom, with some fully open and others as buds. The field is situated on a grassy slope overlooking a rocky beach. The beach is composed of grey pebbles and is scattered with pieces of driftwood. In the background, a dense forest of evergreen trees covers a hillside that meets the ocean. The sky is a clear, bright blue with a few wispy white clouds. The overall scene is bright and sunny, suggesting a clear day.

**The island marble butterfly cannot reproduce in the absence of the mustards it uses to lay eggs. ...and those mustards need to be in the right developmental stage to attract the butterfly**

After almost eleven months as a chrysalis, the island marble butterfly emerges as a winged adult in the spring to mate and lay eggs.



Adults live approximately 6 to 9 days



Eggs hatch after 10 to 12 days

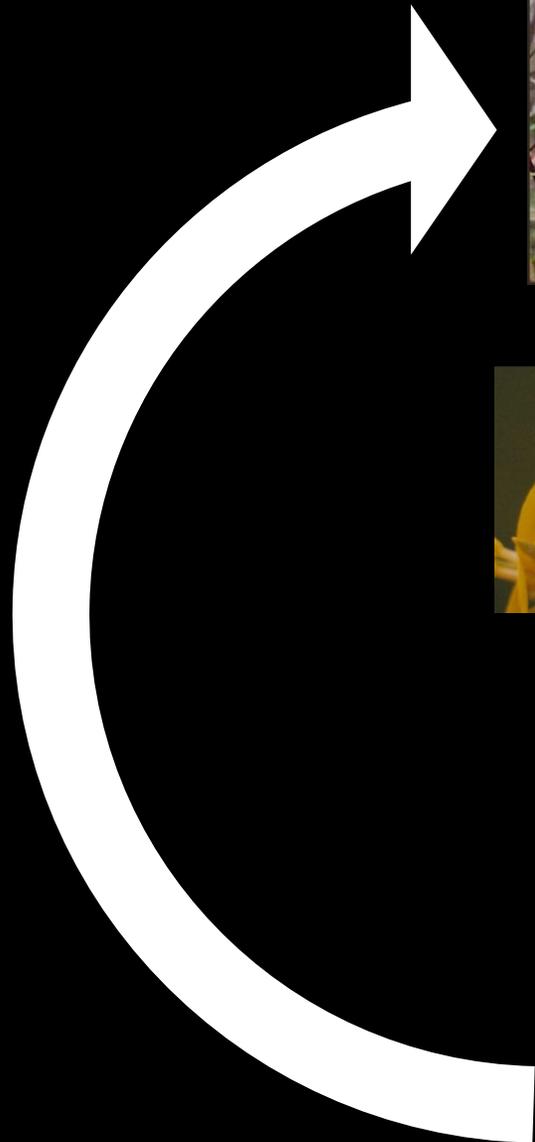


The larval phase lasts 26 to 27 days

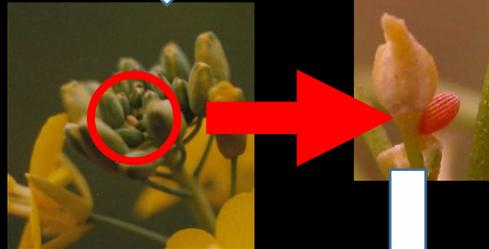


The island marble butterfly may remain in chrysalis form for up to 330 days

After a little more than a month, those offspring will have completed their developmental phases and made a chrysalis of their own that will remain in place until spring of the following year when the island marble butterfly will emerge as an adult.



Adults live approximately 6 to 9 days



Eggs hatch after 10 to 12 days



The larval phase lasts 26 to 27 days

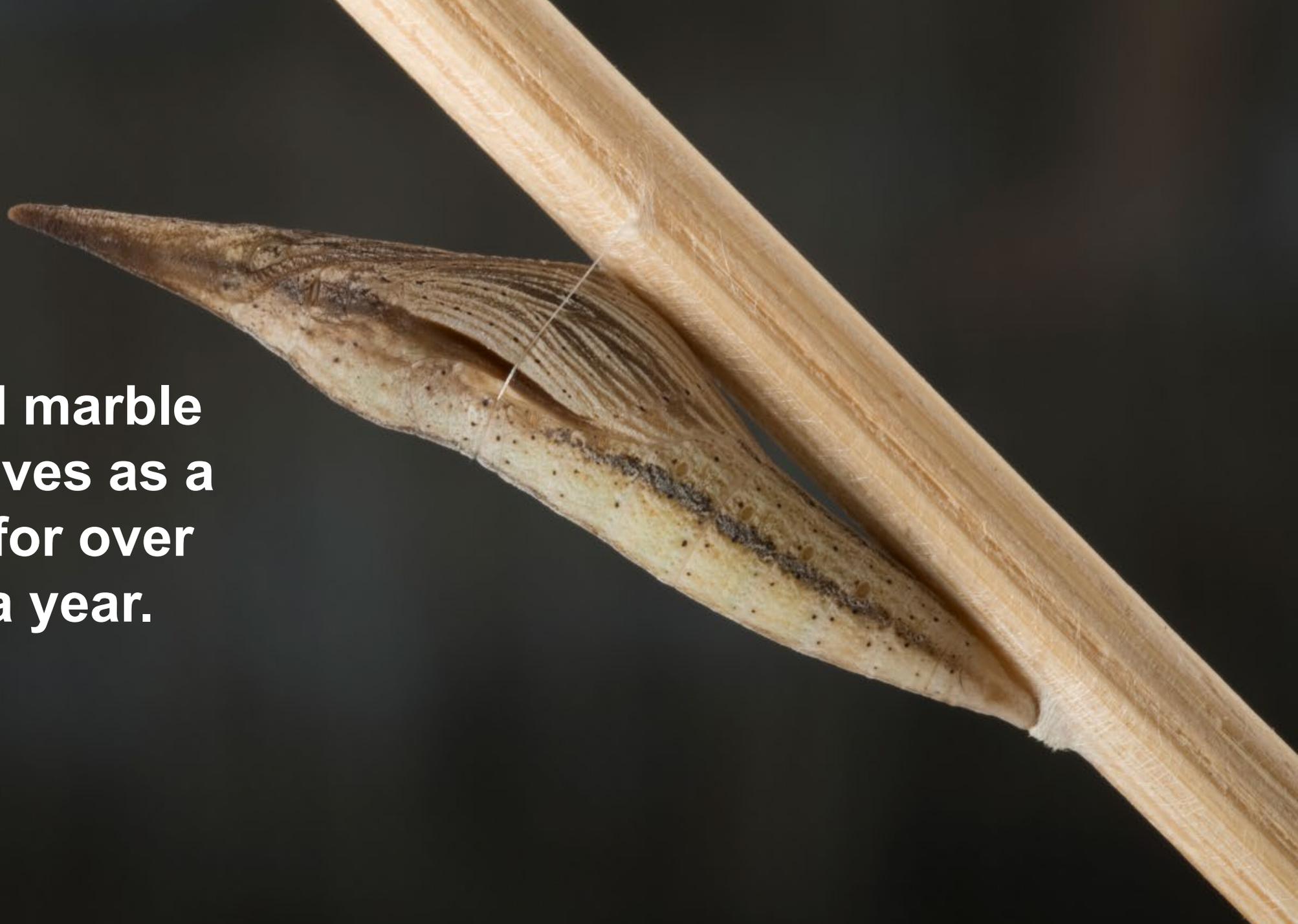


The island marble butterfly may remain in chrysalis form for up to 330 days

Island marble butterflies form their chrysalises on standing vegetation, such as dead grass. When that vegetation is cut down, mowed, tilled, grazed, or trampled, the butterfly does not survive. The chrysalis is difficult to see, rendering the butterfly nearly invisible for the majority of its lifetime.



**The island marble butterfly lives as a chrysalis for over 300 days a year.**



In some places, like at the National Park, protecting existing habitat from deer browse and trampling create safe places where the island marble butterfly can complete its life cycle, but the butterfly needs additional populations across its range to protect it against extinction.



In other places, across much of the island landscape, habitat creation and protection needs to be more intentional if the island marble butterfly is going to find more safe places to live.





Having blooming field mustard in the spring when female island marble butterflies are searching for places to lay their eggs is important.

Protecting those places where the butterfly lays its eggs is also important so that the butterfly can complete its life cycle.

A photograph of a field with a dense row of yellow mustard flowers in the foreground. The flowers are tall and have small, bright yellow blossoms. The field is surrounded by green grass, and in the background, there is a white metal gate and a wooden fence structure. The scene is outdoors, likely in a rural or farm setting.

In some cases, it might be best to remove mustards so that female island marble butterflies can't lay their eggs in areas that are going to be disturbed later.

# Ongoing and future conservation

The background of the slide is a photograph of a lush green field. In the foreground, there are several clusters of bright yellow wildflowers, possibly buttercups, scattered across the grass. A thin wire fence runs across the middle ground. In the background, a dense line of tall, dark green evergreen trees stretches across the horizon under a pale, overcast sky.

Species stewardship by the National Park Service and Washington Department of Fish and Wildlife

Habitat creation and management on Federal, State, County, and private lands

Public outreach and coordination

Development of formal conservation strategy

# Ongoing and future conservation

The background of the slide is a photograph of a lush green field with scattered yellow wildflowers. In the distance, there is a dense line of evergreen trees under a clear sky.

Species stewardship by the National Park Service and Washington Department of Fish and Wildlife

Habitat creation and management on Federal, State, County, and private lands

Public outreach and coordination

Development of formal conservation strategy

Enhance and create more suitable habitat for the butterfly

Reintroduce the butterfly on additional suitable sites (with focus on San Juan and Lopez Islands)

# Status of the island marble butterfly

## Candidate for Federal listing under the Endangered Species Act

- On April 12, 2018, we proposed to list the island marble butterfly as endangered
  - Habitat loss and degradation
  - Predation
  - Small population size and chance events that increase mortality
  - Lack of regulatory protections



# Status of the island marble butterfly

## Candidate for Federal listing under the Endangered Species Act

- On April 12, 2018, we proposed to list the island marble butterfly as endangered

- Habitat loss and degradation
- Predation
- Small population size and chance events that increase mortality
- Lack of regulatory protections

- On April 12, 2019, the rule to list the island marble butterfly as endangered will be finalized



# Status of the island marble butterfly

Candidate for Federal listing under the Endangered Species Act  
Candidate Conservation Agreement with Assurances  
(CCAA)





# What is the purpose of a CCAA?

A way landowners in the San Juan Islands can proactively help the island marble butterfly

A voluntary agreement between landowners and WDFW and USFWS



# What is the purpose of a CCAA?

Designed to begin addressing threats to the species before they become federally listed under the Endangered Species Act

Provides conservation benefits and assurances for a specific time period (for example 10 years)

# What is the purpose of a CCAA?

Because it is voluntary, a landowner can end their agreement at any time during that period. Enrolled landowners need not worry about inadvertently killing (i.e., taking) island marbled butterflies during their routine activities.

# What is a CCAA?

In exchange for voluntarily agreeing to carry out conservation measures on their land, enrolled landowners receive regulatory assurances that they will not be required to implement additional conservation actions, if the species is listed, to maintain their “take” protection.



# What is a CCAA?

In exchange for voluntarily agreeing to carry out conservation measures on their land, enrolled landowners receive regulatory assurances that they will not be required to implement additional conservation actions, if the species is listed, to maintain their “take” protection.

## Conservation



### Voluntary agreements protect fishers and forest landowners

**T**HE FISHER, A MEMBER OF THE WEASEL FAMILY, IS returning to the state after disappearing from Washington's forestlands during the last century. Since 2008, the Washington Department of Fish and Wildlife (WDFW) and its partners have successfully relocated more than 100 fishers from British Columbia to Olympic National Park and other federal lands within the Cascade Mountain Range.

Those recovery efforts were one reason why the U.S. Fish and Wildlife Service (USFWS) determined in the spring of 2016 that the state's fisher population did not require protection under the federal Endangered Species Act (ESA) as initially proposed.

Another factor in that decision was the state's leadership in working with landowners and the forest industry to develop a voluntary program that offers forest landowners an incentive to work as partners in the recovery effort. At the time of the listing decision, WDFW had enrolled 25 landowners and 1.4 million acres in a federal plan called a Candidate Conservation Agreement with Assurances (CCAA).

#### How a CCAA works

A CCAA is a voluntary agreement whereby landowners agree to help promote the conservation of a species that may later become listed under the ESA. In return, landowners receive assurances against additional land-use restrictions should the species covered by the CCAA ever become listed for protection under federal law. Fishers also

**Wildlife managers are seeking a partnership with forest landowners for the recovery of fishers in Washington State.**

# Programmatic CCAA for island marble

Can include multiple landowners participating under a single “umbrella” agreement

Overseen by one permit holder (WDFW in this case)

Each participating land owner receives assurances through a Certificate of Inclusion



# CCAA's are designed to begin addressing threats to the species before they become Federally-listed under the Endangered Species Act

- Habitat loss and degradation
- Predation
- Small population size and chance events that increase mortality



# CCAA conservation measures

Landowners enroll and agree to implement the following conservation measures:

- **Create, restore, or enhance a patch of island marble butterfly habitat**
- **Manage that habitat in a way that protects the butterfly**
- **Remove or limit the development of unsuitable or detrimental habitat (traps)**
- **Plus the option to manage deer or protect (fence) the habitat from deer**
  - **This reduces the minimum amount of habitat a landowner agrees to create, restore, or enhance by 1/3**

# CCAA conservation measures

Enrolled landowners also agree to:

- **Allow periodic access to their habitat patches by a WDFW or USFWS biologist to**
  - **Monitor the condition of habitat patches and their use by island marble butterfly to learn from landowner's efforts**
  - **Salvage or rescue island marble butterfly eggs and caterpillars if or when necessary.**
- **Help in annually reporting their efforts (for example, submit the general location and a picture of their habitat patch or patches to WDFW)**

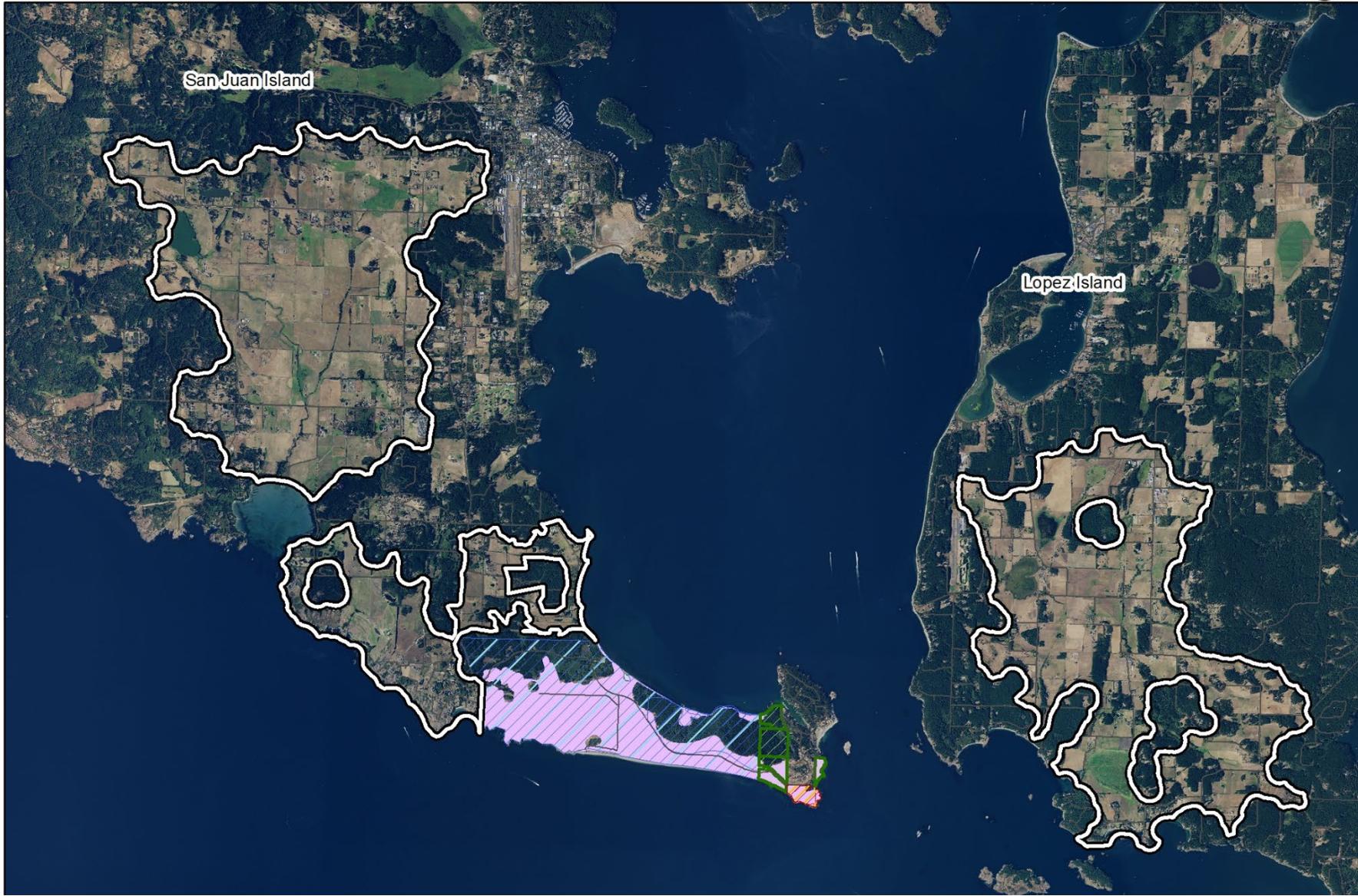
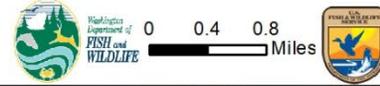
# CCAA assurances

Enrolled landowners receive assurances that their routine activities are consistent with the ESA (Endangered Species Act)

Covered activities could include:

- ongoing agricultural activities
- ongoing livestock grazing
- ongoing residential uses
- ...and other activities that would be largely compatible with conservation of the butterfly

# CCAA emphasis areas



Expansive, non-forested, open areas that have the highest potential to develop habitat patches that could support the long-term conservation of the island marble butterfly.

**THE END**

ISLAND  
MARBLED  
BUTTERFLY  
HABITAT  
DO NOT MOW  
BEYOND THIS POINT

SPEED  
LIMIT  
25