



## Andorran Pyrenees Snowbed Plants

In the high slopes of the Andorran Pyrenees, climate change has already begun to alter the landscape and biodiversity. Some species are moving to higher latitudes, and some have begun to decline. Human land uses also causes shifts in the natural order of things, but little research has been done on how people have impacted this particular place.

Wildlife in the Changing Andorran Pyrenees is an Earthwatch Institute project led by Dr. Bernat Claramunt López that seeks to answer some of these questions and share the outcomes to address these pressing issues. This deck covers threats, adaptability, and population trends of 20 plants found in snowbeds, or alpine areas where snow melts slowly.

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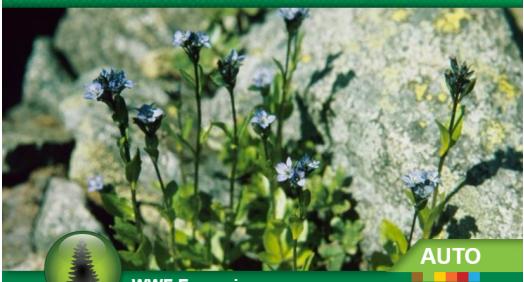
Deck created by Zoe Foster  
Title Image Credit: Steinsplitter CC BY-SA 2.0

## Project Description

### Alpine Speedwell *Veronica alpina*



Flowering Plants



WWF Ecoregion  
+ Temperate coniferous forest

AUTO  
Foodweb Role

Height	5 - 15 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Blue
Sunlight/Soil	Variable; drained

NE  
IUCN Redlist™

#### Threats + Adaptability

Major threats: Trampling, air pollution  
Adaptability: Easily changes habitat to follow ice shifts  
Population trend: Globally unknown

Image: Biopix CC-BY-NC

### Alpine Marguerite *Leucanthemopsis alpina*



### Mountain Chickweed *Cerastium cerastoides*



Flowering Plants



WWF Ecoregion  
+ Temperate coniferous forest

AUTO  
Foodweb Role

Height	5 - 15 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	White
Sunlight/Soil	Variable; loam

NE  
IUCN Redlist™

#### Threats + Adaptability

Major threats: Climate change, temperature extremes  
Adaptability: Tolerates heavy clay soils  
Population trend: Globally unknown

Image: Opiola Jerzy CC-BY-SA

### Common Name

#### Scientific Name

#### Taxon Group

##### Food Web Roles

DECO	Decomposer: Energy from dead material
AUTO	Autotroph: Energy from sun, water, CO <sub>2</sub>
HERB	Herbivore: Energy from plants
OMNI	Omnivore: Energy from plants, animals
CARN	Carnivore: Energy from animals
APEX	Apex Predator: Top predator
DETR	Detritivore: Energy from dead vegetation
SANG	Sanguinivore: Energy from blood
MULT	Multiple: Energy from multiple sources



Habitat (where species is found)  
+ (indicates species is also found in other habitats)

##### Species Conservation Status

#### IUCN Redlist™

International Union for  
Conservation of Nature

NE	Not Evaluated
VU	Vulnerable
CR	Critically Endangered
EW	Extinct in Wild
EN	Endangered

NE

Not Evaluated

VU

Vulnerable

CR

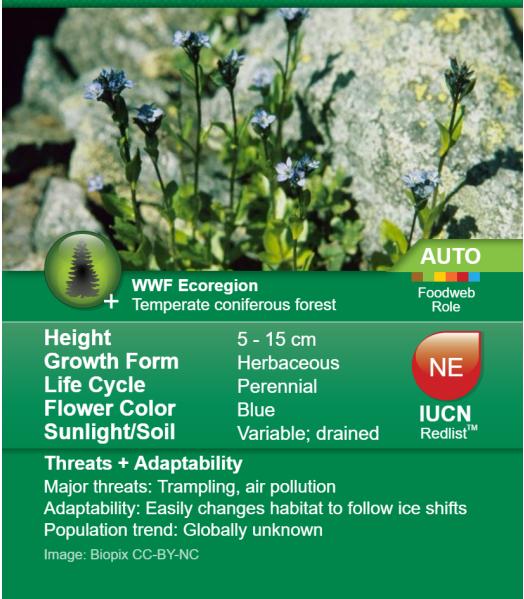
Critically Endangered

EW

Extinct in Wild

EN

Extinct



WWF Ecoregion  
+ Temperate coniferous forest

AUTO  
Foodweb Role

Height	15 - 30 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	White
Sunlight/Soil	Full sun; dry

NE  
IUCN Redlist™

#### Threats + Adaptability

Major threats: Damping, root rot  
Adaptability: Tolerate drought and poor soil conditions  
Population trend: Globally unknown

Image: Michael Wunderli CC-BY



**Pimpernel Willowherb**  Flowering Plants

*Epilobium alpinum*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	10 - 35 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Light purple to red
Sunlight/Soil	Variable; wet

**IUCN Redlist™** LC

**Threats + Adaptability**  
Major threats: Mismanagement of forest edges, drought  
Adaptability: Thrives in wide range of habitats  
Population trend: Globally stable

Image: 2015 Barry Breckling CC-BY-NC-SA

**Alpine Cress**  Flowering Plants

*Cardamine bellidifolia*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	1 - 14 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	White
Sunlight/Soil	Full sun; wet

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Trampling, recreational land use  
Adaptability: Fully hardy to extreme weather patterns  
Population trend: Globally unknown

Image: HermannSchachner

**Snowbed Willow**  Flowering Plants

*Salix herbacea*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	2 - 5 cm
Growth Form	Shrub
Leaf Duration	Deciduous
Flower Color	Red, yellow
Sunlight/Soil	Variable; moist

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Changing spring snowmelt patterns  
Adaptability: Survive in harsh environments  
Population trend: Globally unknown

Image: Biopix CC-BY-NC

**Prostrate Sibbaldia**  Flowering Plants

*Sibbaldia procumbens*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	3 - 10 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Green to yellow
Sunlight/Soil	Shade; dry

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Changes in hydrology, human recreation  
Adaptability: Thrives in various soil types  
Population trend: Globally unknown

Image: 2012 Gary A. Monroe CC-BY-NC

**Polytrichum Moss**  Mosses

*Polytrichastrum sexangulare*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	1 - 4 cm
Growth Form	Moss
Life Cycle	Evergreen
Spore Color	Yellow
Sunlight/Soil	Shade; wet

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Human recreation  
Adaptability: Capture limited resources, spread fast  
Population trend: Globally unknown

Image: Diddlecome Dawcock CC-BY-NC-ND

**Matgrass**  Flowering Plants

*Nardus stricta*



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	20 - 35 cm
Growth Form	Graminoid
Life Cycle	Perennial
Flower Color	Yellow, white
Sunlight/Soil	Full sun; dry

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Overgrazing  
Adaptability: Thrives variety of climates and soil textures  
Population trend: Globally unknown

Image: Michael Wunderli CC-BY



## Alpine Meadow-grass

*Poa alpina*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	10 - 40 cm
Growth Form	Graminoid
Life Cycle	Perennial
Flower Color	Light brown
Sunlight/Soil	Variable; moist

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Overgrazing  
Adaptability: Tolerant of oxygen deprivation and freezing  
Population trend: Globally unknown

Image: Biopix CC-BY-NC

## Pyrenean Sedge

*Carex pyrenaica*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	3 - 20 cm
Growth Form	Graminoid
Life Cycle	Perennial
Flower Color	Pale yellow to brown
Sunlight/Soil	Full sun; drained

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Nomadic livestock, climate change  
Adaptability: Survives in wide range of habitats  
Population trend: Globally decreasing, fragmentation

Image: Royal Botanic Garden Edinburgh CC-BY-NC

## Murbeckiella

*Murbeckiella pinnatifida*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	5 - 20 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	White
Sunlight/Soil	Full sun; moist

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Fires, human recreation  
Adaptability: Take advantage of short growing seasons  
Population trend: Globally unknown

Image: scdlimages CC-BY-NC

## Alpine Thrift

*Armeria alpina*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	5 - 30 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Pink
Sunlight/Soil	Full sun; dry

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Habitat drainage  
Adaptability: Tolerate low temperatures and drought  
Population trend: Globally unknown

Image: Meneerke bloem CC-BY-SA

## Alpine Pampajarito

*Sedum alpestre*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	2 - 8 cm
Growth Form	Herbaceous
Life Cycle	Evergreen
Flower Color	Yellow
Sunlight/Soil	Full sun; moist

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Habitat alteration due to climate change  
Adaptability: Survive harsh conditions, urban habitats  
Population trend: Globally unknown

Image: Michael Wunderli CC-BY

## Candollei Sedum

*Sedum candollei*

eol Flowering Plants



**WWF Ecoregion** Temperate coniferous forest **Foodweb Role** AUTO

Height	5 cm (max)
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Pink to purple
Sunlight/Soil	Full sun; drained

**IUCN Redlist™** NE

**Threats + Adaptability**  
Major threats: Climate warming  
Adaptability: Fit into many niches  
Population trend: Globally unknown

Image: Pascal Volk CC-BY-SA



## Rock Bentgrass

*Agrostis rupestris*

eol  
Flowering Plants



**WWF Ecoregion**  
Temperate coniferous forest

**AUTO**  
Foodweb Role

Height	10 - 30 cm
Growth Form	Graminoid
Life Cycle	Perennial
Flower Color	Purple
Sunlight/Soil	Full sun; moist

**IUCN Redlist™**  
NE

**Threats + Adaptability**  
Major threats: Climate change pressures  
Adaptability: Survives through trampling and grazing  
Population trend: Globally unknown

Image: MBG CC-BY-NC-SA

## Hawkweed

*Pilosella*

eol  
Flowering Plants



**WWF Ecoregion**  
Temperate coniferous forest

**AUTO**  
Foodweb Role

Height	5 - 25 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Yellow, orange
Sunlight/Soil	Full sun; dry

**IUCN Redlist™**  
DD

**Threats + Adaptability**  
Major threats: Overgrazing  
Adaptability: Thrives in wide variety of environments  
Population trend: Globally unknown, fragmentation

Image: Malcolm Storey CC-BY-NC-SA

## Mountain Blur

*Gnaphalium supinum*

eol  
Flowering Plants



**WWF Ecoregion**  
Temperate coniferous forest

**AUTO**  
Foodweb Role

Height	5 - 12 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	White, brown
Sunlight/Soil	Full sun; wet

**IUCN Redlist™**  
NE

**Threats + Adaptability**  
Major threats: Overgrazing  
Adaptability: Survives through cluster separation  
Population trend: Globally stable

Image: Kari Pihlaviita CC-BY-NC

## eol species cards

**Adaptability:** The ability of an organism to adjust to new environmental conditions

**Annual Life Cycle:** Life cycle in which plants bloom, produce seeds, and die in a single year

**Drainage:** Altering landscape to drain water from an area, often for agriculture

**Fragmentation:** Habitat loss due to division of large, continuous habitats into smaller, more isolated land

**Growth Form:** Characterization of plants as trees, shrubs, herbaceous, and graminoid (grass-like)

**Habitat:** The area an organism lives and can find its resources

**Leaf Duration:** Trees and shrubs are characterized as evergreen (retains green leaves all year) and deciduous (loses all leaves in fall)

**Perennial Life Cycle:** Life cycle in which plants regrow each spring

## Vocabulary

