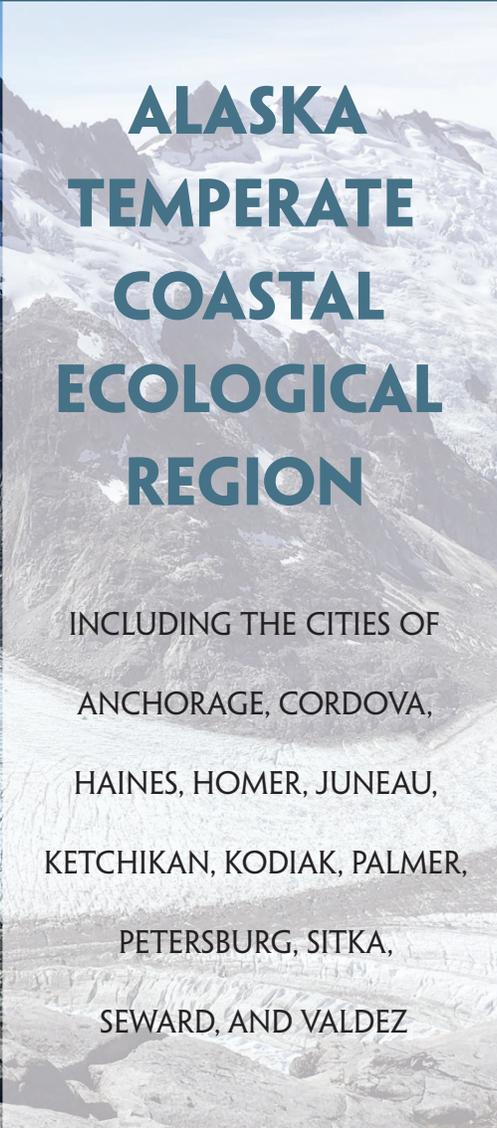




SELECTING PLANTS FOR POLLINATORS



A GUIDE FOR GARDENERS, FARMERS, AND LAND MANAGERS IN THE



ALASKA TEMPERATE COASTAL ECOLOGICAL REGION

INCLUDING THE CITIES OF
ANCHORAGE, CORDOVA,
HAINES, HOMER, JUNEAU,
KETCHIKAN, KODIAK, PALMER,
PETERSBURG, SITKA,
SEWARD, AND VALDEZ



**POLLINATOR
PARTNERSHIP**

Protect their lives. Preserve ours.

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This is one of several guides for different regions of North America. We welcome your feedback to assist us in making the future guides useful. Please contact us at feedback@pollinator.org

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A NAPPC AND POLLINATOR PARTNERSHIP PUBLICATION

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WHY SUPPORT POLLINATORS?

IN THEIR 1996 BOOK, *THE FORGOTTEN POLLINATORS*, Buchmann and Nabhan estimated that animal pollinators are needed for the reproduction of 90% of flowering plants and one third of human food crops. Each of us depends on these industrious pollinators in a practical way to provide us with the wide range of foods we eat. In addition, pollinators are part of the intricate web that supports the biological diversity in natural ecosystems that helps sustain our quality of life.

Abundant and healthy populations of pollinators can improve fruit set and quality, and increase fruit size. In farming situations this increases production per hectare. In the wild, biodiversity increases and wildlife food sources increase. Strawberries, tomatoes, raspberries, apples and cucumbers are some of the crops raised in the Alaska Temperate Coastal region that rely on honey bees and native bees for pollination. Domestic honey bees pollinate approximately \$10 billion worth of crops in the U.S. each year.

Unfortunately, the numbers of many native pollinators are declining. They are threatened by habitat loss, disease, climate change, and the excessive and inappropriate use of pesticides. As a result research and conservation actions supporting native pollinators are increasingly active. Honey bee colony losses have significantly impacted beekeepers. Parasites, disease, pesticide use, insufficient nutrition, and transportation practices all impact honey bee health, and this in turn can impact the commercial pollination services honey bees provide. The efforts to understand the threats to commercial bees should help us understand other pollinators and their roles in the environment as well.

It is imperative that we take immediate steps to help pollinator populations thrive. The beauty of the situation is that by supporting pollinators' need for habitat, we support our own needs for food and support diversity in the natural world.

Thank you for taking time to consult this guide. By adding plants to your landscape that provide food and shelter for pollinators throughout their active seasons and by adopting pollinator friendly landscape practices, you can make a difference to both the pollinators and the people that rely on them.



Kelly Bills
Executive Director
Pollinator Partnership

“**FARMING FEEDS
THE WORLD, AND
WE MUST REMEMBER
THAT POLLINATORS
ARE A CRITICAL
LINK IN OUR FOOD
SYSTEMS.**”

– PAUL GROWALD,
CO-FOUNDER,
POLLINATOR PARTNERSHIP



GETTING STARTED



THIS REGIONAL GUIDE IS JUST one in a series of plant selection tools designed to provide you with information on how to plant local native plants for pollinators. Each of us can have a positive impact by providing the essential habitat requirements for pollinators including food, water, shelter, and enough space to raise their young.

Pollinators travel through the landscape without regard to property ownership or state boundaries. We've chosen to use the Unified Alaskan ecoregional classification system, a combination of the Bailey and Omernick approach to ecoregional mapping, to identify the geographic focus of this guide and to underscore the connections between climate and vegetation types that affect the diversity of pollinators in the environment.

Alaska's ecoregions were developed

cooperatively by the United States Forest Service, the National Park Service, the United States Geological Survey, and The Nature Conservancy. These ecoregions are a management tool and are used to predict responses to land management practices throughout large areas. This guide addresses pollinator-friendly land management practices in what is known as the Alaska Temperate Coastal region. This maritime region found along the southern coast of Alaska is characterized by temperate rainforests comprised of Sitka spruce, Western hemlock, mountain hemlock, Western red cedar, and yellow cedar with rich understories of blueberry and false azalea shrubs. Large coastal wetlands are important stopover sites for migrating birds and upland fens dot the forested landscape. Tall shrubs fill avalanche paths and subalpine zones. The climate is mild here and experiences the most precipitation

of all Alaska regions. This region is shaped by glaciers, fjords, and rivers. Agricultural production is limited in this region. Most of the land use is characterized by commercial fishing, tourism, recreation, subsistence harvesting, and mining.

Long before there were homes, development and timber management in this area, the natural vegetation provided continuous cover and adjacent feeding opportunities for wildlife, including pollinators. In choosing plants, aim to create habitat for pollinators that allow adequate food, shelter, and water sources. Most pollinators have very small home ranges. You can make a difference by understanding the vegetation patterns of the farm, forest, or neighbor's yard adjacent to you and by making planting choices that support the pollinators' need for food and shelter as they move through the landscape.

UNDERSTANDING THE ALASKA TEMPERATE COASTAL REGION



Tongass National Forest

Northern Goldenrod,
Solidago multiradiata



✿ The Alaska Temperate Coastal Region encompasses 7 distinct ecoregions along the Gulf of Alaska and the Bering Sea from the Alexander Archipelago (including Tongass National Forest) in the east, the Chugach National Forest in the center, to the Aleutian Islands in the west of the region.

✿ Not sure about which region you live or work in? Go to pollinator.org/guides and click on **Find your Ecoregion** for help.

✿ Elevations ranging from sea level to 18,008 feet.

✿ There is more moderate temperature variability throughout the year with mild winters and cooler summers.

✿ Average annual precipitation is between 12 and 220 inches.

✿ Average annual temperature ranges from 20° to 46°F.

✿ USDA hardiness zones 2b to 8b.

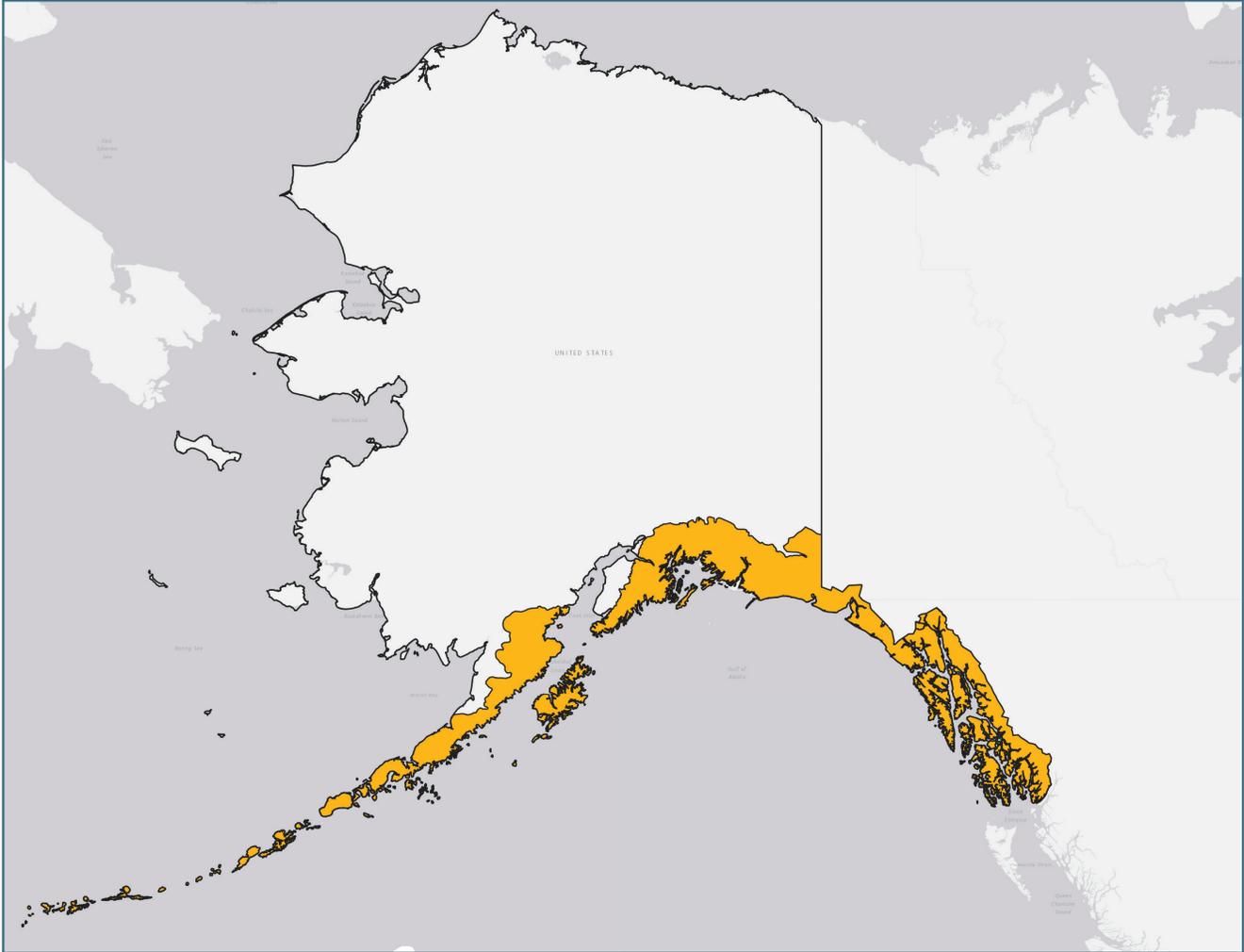
CHARACTERISTICS

✿ Encompasses old-growth coastal rainforests including Sitka spruce, western hemlock, mountain hemlock, western red cedar, yellow cedar, and meadows.

✿ The landscape is shaped by glaciers, fjords and rivers with sea-run fisheries.

✿ Wind is a primary disturbance of these ecosystems along the coast, as well as landslides, avalanches, and floods associated with glaciers.

✿ Highly localized micro-climates occur between the coast and interior mountain ranges.



The Ecological Region of the Alaska Temperate Coastal Region includes:

The cities of:

Anchorage, Cordova, Haines, Homer, Juneau, Ketchikan, Kodiak, Palmer, Petersburg, Sitka, Seward, and Valdez

“ADDING NATIVE PLANTINGS IN RIPARIAN AREAS TO IMPROVE POLLINATOR HABITAT MAKES SENSE IN ADVANCING OUR FAMILY FARM’S CONSERVATION AND ECONOMIC OBJECTIVES, ENHANCING BENEFICIAL WILDLIFE AND IMPROVING POLLINATION IN OUR ORCHARD AND GARDEN.”

– LEE MCDANIEL,
FARMER AND FORMER PRESIDENT,
NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

MEET THE POLLINATORS



Canadian Tiger Swallowtail,
Papilio canadensis

Blacktailed Bumble Bee,
Bombus melanopygus



WHO ARE THE POLLINATORS?

BEES

Bees are the best documented pollinators in natural landscapes. A wide range of native plants benefit from bee pollinators. Most of us are familiar with the colonies of honey bees that have been the workhorses of agricultural pollination for years in North America, but some folks might not know that they were imported from Europe almost 400 years ago and continue to be managed by people for honey production and pollination services.

There are over 100 species of native ground and twig nesting bees in Alaska that have coevolved with the local landscape. Most of these bee species live a solitary life.

Bees come in a variety of body shapes and sizes and visit the widest range of flowers of any pollinator group.

Bumble bees (*Bombus* spp.) form small colonies, usually underground making use of old rodent burrows or dense thatches. They are generalists, feeding on a wide range of plant types.

Sweat bees (family *Halictidae*) are medium to small-sized, slender bees that commonly nest underground. Various species are solitary while others form loose colonies, nesting side-by-side.

Other common solitary bees include mining bees, (*Andrena* spp.), which nest underground and are common in the spring; leafcutter bees (*Megachile* spp.), which prefer dead trees or branches for their nest sites, and mason bees (*Osmia* spp.), which utilize cavities they find in stems and dead wood that they fill with mud.

BUTTERFLIES

Butterflies prefer open and sunny areas such as meadows and along woodland edges that provide bright flowers, water sources, and specific host plants for their caterpillars.

Gardeners have been attracting butterflies to their gardens for some time. To encourage butterflies, place flowering plants where they have full sun and are protected from the wind. They usually look for flowers that provide a good landing platform. Butterflies need open areas (e.g., bare earth, large stones) where they can bask, and moist soil from which they wick needed minerals. Butterflies eat rotten fruit and even dung, so don't clean up all the messes in your garden!

By providing a safe place to eat and nest, gardeners can also support the pollination role that butterflies play in the landscape.

MOTHS

Moths are most easily distinguished from butterflies by their antennae. Butterfly antennae are simple with swelling at the end. Moth antennae differ from simple to featherlike but never have a swelling at the tip. Butterfly bodies are not very hairy, while moth bodies are quite hairy and much stouter.

In addition, butterflies typically are active during the day; moths at night. They are attracted to flowers that are strongly sweet smelling, open in late afternoon or night, and are typically white or pale colored.

BETLES

Gardeners have yet to intentionally draw beetles to their gardens, possibly because beetle watching isn't as inspiring as butterfly or bird watching. Yet beetles do play an important role in pollination and pest control. Some have a bad reputation because they can leave a mess behind, damaging plant parts as they eat pollen.

Beetle pollinated plants tend to be large, strong scented flowers, and have the anthers and stigma exposed. Historically, beetles are known to pollinate magnolia, paw paws, and yellow pond lilies.

FLIES

It may be hard to imagine why one would want to attract flies to the garden, but flies are one of the major pollinators in Alaska. They include colorful flower flies and hover flies (*Syrphidae spp.*), active

bee flies (*Bombyliidae spp.*), and tiny midges that visit many plant species.

Like bees, flies are hairy and can easily transport pollen from flower to flower. Flies primarily pollinate small flowers that bloom under shade and in seasonally moist habitats but are also economically important as pollinators for a range of ornamental and native flowers.

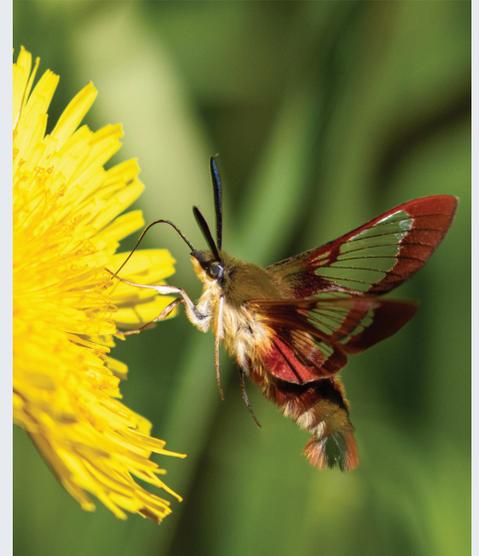
BIRDS

Hummingbirds are the primary birds that play a role in pollination in North America. Their long beaks and tongues draw nectar from tubular flowers. Pollen is carried on both their beaks and feathers. Regions closer to the tropics, with warmer climates, boast the largest number of hummingbird species and the greatest number of native plants to support their need for food.

There are only two hummingbird species found in Alaska; the Rufous hummingbird and Anna's hummingbird.

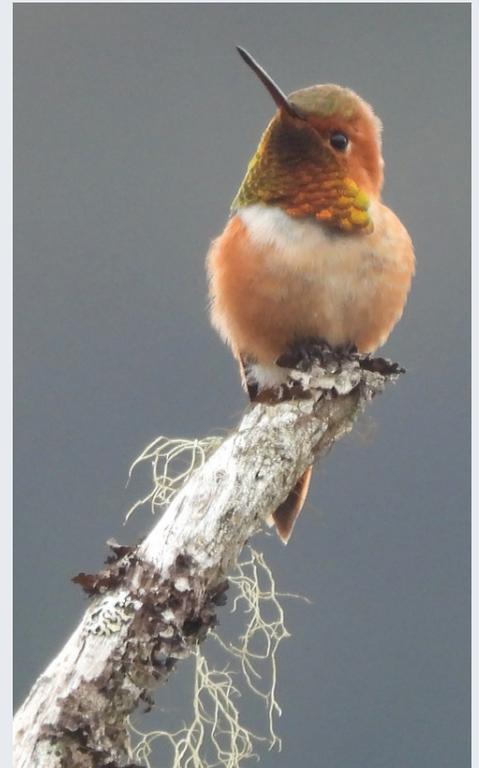
BATS

Though bat species in Alaska are not pollinators, bats in the southwestern United States and Mexico are important pollinators of agave and species of cactus. The head shape and long tongues of nectar bats allow them to delve into flower blossoms and extract both pollen and nectar; pollen covers their hairy bodies and is transferred as they move from plant to plant.



Hummingbird clearwing moth
Hemaris thysbe

Rufous Hummingbird
Selasphorus rufus



PLANT TRAITS

WHICH FLOWERS DO THE POLLINATORS PREFER?

NOT ALL POLLINATORS ARE found in each state, and some are more important in different parts of the United States. Use this page as a resource to understand the plants and pollinators where you live.

Plants can be grouped together based on the similar characteristics of their flowers. These floral characteristics can be useful to predict the type of pollination method or animal that is most effective for that group of plants. This association between floral characteristics and pollination method is called a pollination syndrome.

The interactions of animal pollinators and plants have influenced the evolution of both groups of organisms. A mutualistic relationship between the pollinator and the plant species helps the pollinator find necessary pollen and nectar sources and helps the plant reproduce by ensuring that pollen is carried from one flower to another.

This chart and more information on pollinator syndromes can be found at: fs.usda.gov/managing-land/wildflowers/pollinators/syndromes

Plant Trait	Pollinator		
	Bees	Beetles	Birds
Color	Bright white, yellow, blue, or UV	Dull white, yellow or green	Scarlet, blue, orange, red or white
Nectar Guides	Present	Absent	Absent
Odor	Fresh, mild, pleasant	None to strongly fruity or fetid	None
Nectar	Usually present	Sometimes present; not hidden	Ample; deeply hidden
Pollen	Limited; often sticky and scented	Ample	Modest
Flower Shape	Shallow; have landing platform; tubular	Large bowl-like, Magnolia	Large funnel like; cups, strong perch support



AND THE POLLINATORS THEY ATTRACT

Pollinator

Plant Trait	Butterflies	Flies	Moths	Bats	Wind
Color	Bright, including red and purple	Pale and dull to dark brown or purple; flecked with translucent patches; yellow and white	Pale and Pale dull red, purple, pink or white	Dull white, green or purple	Dull green, brown, or colorless; petals absent or reduced
Nectar Guides	Present	Absent	Absent	Absent	Absent
Odor	Faint but fresh	Putrid	Strong sweet; emitted at night	Strong musty; emitted at night	None
Nectar	Ample; deeply hidden	Usually absent	Ample; deeply hidden	Abundant; somewhat hidden	None
Pollen	Limited	Modest in amount	Limited	Ample	Abundant; small, smooth, and not sticky
Flower Shape	Narrow tube with spur; wide landing pad	Shallow; funnel like or complex and trap-like	Regular; tubular without a lip	Regular; bowl-shaped; closed during day	Regular; small and stigmas exerted



DEVELOPING LANDSCAPE PLANTINGS THAT PROVIDE POLLINATOR HABITAT

WHETHER YOU ARE A LAND MANAGER of many acres, farmer of a large tract of land, or a gardener with a small lot, you can increase the number of pollinators in your area by making conscious choices to include plants that provide essential habitat for bees, butterflies, moths, beetles, hummingbirds, and other pollinators.

FOOD:

Flowers provide nectar (high in sugar and necessary amino acids) and pollen (high in protein) to pollinators.

Fermenting fallen fruits also provide food for bees, beetles, and butterflies. Specific plants, known as host plants, are eaten by the larvae of pollinators such as butterflies.

- Plant in groups to increase pollination efficiency. If a pollinator can visit the same type of flower over and over, it doesn't have to relearn how to enter the flower and can transfer pollen to the same species, instead of squandering the pollen on unreceptive flowers.
- Plant with bloom season in mind, providing food from early spring to late fall.
- Plant a diversity of plants to support a variety of pollinators. Flowers of different color, fragrance, and season of bloom on plants of different heights will attract different pollinator species and provide pollen and nectar throughout the seasons.
- Many herbs and annuals, although not native, are very good for pollinators. Mint, oregano, garlic, chives, parsley and lavender are

just a few herbs that can be planted. Old-fashioned zinnias, cosmos, and single sunflowers support bees and butterflies. Non-native crops, herbs, and ornamental flowers should not be planted in natural landscapes.

- Recognize weeds that might be a good source of food. For example, dandelions provide pollen in the early spring before other flowers bloom.
- Learn and utilize Integrated Pest Management (IPM) practices to address pest concerns. Minimize or eliminate the use of pesticides.

SHELTER:

Pollinators need protection from severe weather and from predators as well as sites for nesting and roosting.

- Incorporate different canopy layers in the landscape by planting trees, shrubs, and different-sized perennial plants.
- Leave dead snags for nesting sites of bees, and other dead plants and leaf litter for shelter.
- Avoid applying thick layers of mulch that are hard to dig through.
- Build bee boxes next to your garden to encourage solitary, non-aggressive bees to nest on your property.
- Ground nesting bees are also attracted to lawns and short grass areas, especially if there is a south facing slope.
- Leave some areas of soil uncovered to provide ground nesting insects easy access to underground tunnels.
- Group plantings so that pollinators can move safely through the landscape protected from predators.

- Include plants that are needed by butterflies and moths during their larval development.

WATER:

Some pollinators use and benefit from having a clean, fresh water source.

- Most pollinators receive their water needs through their food or by other means (e.g. butterflies wick their nutrients from muddied waters, or fermenting fruit) making clean water a non-essential component.
- If you do include a water source, ensure that the source has a shallow or sloping side so the pollinators can easily approach the water without drowning. Your current landscape probably includes many of these elements. Observe wildlife activity in your farm fields, woodlands, and gardens to determine what actions you can take to encourage other pollinators to feed and nest. Evaluate the placement of individual plants and water sources and use your knowledge of specific pollinator needs to guide your choice and placement of additional plants and other habitat elements. Minor changes by many individuals can positively impact the pollinator populations in your area. Watch for - and enjoy - the changes in your landscape!
- CAUTION LAND MANAGERS: Remember that many insecticides are largely toxic to pollinators. Extreme caution is warranted if you choose to use any insecticide. Strategically apply insecticides only for problematic target species.



INDIGENOUS STEWARDSHIP

THE RELATIONSHIP BETWEEN Native plant species, Indigenous communities, and modern land conservation is inextricably linked and central to Alaska's past, present, and future.

Alaska is home to at least eleven distinct Alaska Native cultural regions, comprising more than 229 federally recognized Tribes, with over 20 Indigenous languages spoken. These communities have long served as stewards of the land through cultural practices deeply rooted in oral history, lived experience, and intergenerational advocacy.

For over 14,000 (documented) years, long before Alaska became the 49th state, Indigenous Peoples thrived across this landscape with sophisticated governance systems, expansive trade networks, and regionally adapted technologies and lifeways. The Tlingit, Dena'ina, Iñupiat, Yup'ik, Unangax, Sugpiaq, and others practiced place-based stewardship rooted in respect, reciprocity, and ecosystem balance. These relationships were disrupted beginning in the mid-1700s with the arrival of Russian colonizers to the Aleutian Islands and escalated following the 1867 U.S. purchase of the right to occupy Alaska. These colonial regimes

introduced catastrophic impacts: epidemics, violent displacement, the outlawing of Indigenous languages and ceremonies, and the extractive exploitation of land and waters. Subsistence, or as Indigenous elders say, "Our Livelihood," remains the foundation of Indigenous economies, nutrition, and knowledge systems. Fishing, hunting, gathering, and tending—seasonal practices tied to deep ecological observation—support food sovereignty and cultural survival. Animals are harvested not only for meat but also for making tools, regalia, and shelter. Native plants are used in traditional medicine, ceremony, and healing. These practices rely on community values of cooperation, seasonal abundance, and mutual aid, ensuring collective survival amid Arctic and sub-Arctic conditions. Despite efforts to criminalize and erase these ways of life, Indigenous Peoples across Alaska continue to pass down and revitalize their knowledge.

Because the spiritual and cultural survival of Indigenous communities is intimately tied to land and water, traditional values emphasize "right relationship" with the natural world. Pollinators and plant kin are honored as vital relatives, sustaining food systems and biodiversity. In

many Indigenous worldviews, humans are not separate from nature, but part of a shared web of responsibility and care. Land conservation and community efforts can take much needed steps to recognize and restore Indigenous stewardship. This includes upholding Tribal sovereignty, recovering autonomy for aboriginal hunting and fishing practices, and recognizing traditional ecological knowledge (TEK) as science. Culturally grounded land management practices—such as controlled burns, salmon stewardship, and Indigenous-led monitoring—are essential tools for climate resilience and ecosystem restoration. Governments, conservation organizations, local communities, and individuals can build true partnerships with Tribes, co-develop governance frameworks, and move beyond performative gestures like land acknowledgements to actionable support.

In honoring Indigenous leadership, we chart a course toward environmental justice, climate adaptation, and cultural survival. A restorative future is not possible without those who have been caring for these lands since time immemorial.

FARMS

DESPITE ALASKA'S RELATIVELY small farm economy, farmers still have many opportunities to incorporate pollinator-friendly land management practices on their land which will benefit the farmer in achieving their production goals.

The primary crops in Alaska are potatoes, carrots, lettuce, cabbage, barley, and hay. Due to the short growing season and steep terrain, farms in Alaska must optimize their agricultural sustainability efforts to maximize their yield. Farms can benefit from strong native bee populations that boost pollination efficiency. Many opportunities exist to incorporate different plants throughout the farm that provide food for native pollinator populations when targeted crops are not in flower.

- Minimize the use of insecticides to reduce the impact on native pollinators. Spray when bees aren't active (after dark or just before dawn) and choose targeted ingredients.
- Use of Integrated Pest Management (IPM) strategies for pest control is highly recommended. Use insecticides that cause the least harm to non-target organisms and only use when pests reach economic thresholds.
- Use herbicides only when essential to get a viable crop. Some weeds can provide needed food for pollinators.
- Till as little as possible to protect ground nesting pollinators.
- Whenever possible, create permanently untilled areas for ground nesting bees (e.g. such as

along internal farm laneways).

- Choose a variety of native plants to act as windbreaks, riparian buffers, and field borders throughout the farm.
- Plant unused areas of the farm with temporary cover crops that can provide food or with a variety of trees, shrubs, and flowers that provide both food and shelter for pollinators.
- Check with local not-for-profit organizations, government agencies, or Soil and Water Conservation Districts to see what technical support might be available to assist you in your effort to provide nectar, pollen, and larval food sources for pollinators on your farm.



Illustrations by Carolyn Vibbert



FORESTRY

THE STATE OF ALASKA CONTAINS more than 129 million acres of forest. With more than 20 million acres designated as National Forest in Alaska, it is vital that best management practices focusing on promoting pollinator health are incorporated onto the land. These Best Management Practices (BMPs) not only promote pollinator health but are also designed to maintain timber resources and preserve critical fish and wildlife habitat.

- Enhance foraging habitats by preserving and restoring areas rich in native flowering plants.
- When planting seeds, minimize tillage as much as possible to protect ground-nesting habitat.
- Protect and establish nesting areas such as bare ground or wood cavities.
- Use of Integrated Pest Management (IPM) strategies for pest control is highly recommended. Use insecticides that cause the least harm to non-target organisms and only use when pests reach economic thresholds.
- Use an adaptive management approach to regularly monitor and adjust practices to support pollinators.
- Reduce mowing of grasslands and encourage conversion to native plant meadows.
- Use of Integrated Vegetation Management (IVM) approaches to manage for the desired species through the focused use of control measures and plant-specific herbicides to control undesirable species.
- Evaluate managed stand for ecologically appropriate thinning and shrub control in some forested areas to promote open canopies that allow for sunlight to hit the forest floor. A combination of thinning overstory trees and shrubs allows for herbaceous plant growth and provides nesting habitat for ground-nesting bees.
- Reduce wetland draining and conversions that reduce the size and extent of riparian plant communities. Maintain vegetative structure in riparian areas for pollinator nesting and foraging resources.

PUBLIC LANDS



PUBLIC LANDS ARE MAINTAINED for reasons ranging from high impact recreation to conservation. With Alaska as the largest state in the United States, accounting for about 20% of the total U.S. size, this includes over 320 million acres of land that is publicly owned. In the Alaska Temperate Coastal region, habitats have been impacted by rapid warming, shifting animal and plant communities, disease spread, and development pressures such as oil and gas drilling, mining, and logging. In addition, increased population growth and increased access to remote areas, including recreation, has impacted pollinator habitat.

Pollinators can benefit from timed mowing, opening tree canopies, and planting native flowers. Less disturbed natural areas can be augmented with plantings of native plant species. Existing plantings

around buildings and parking areas should be evaluated to determine if pollinator-friendly plants can be substituted or added to attract and support pollinators. Public land managers have a unique opportunity to use their plantings as an educational tool to help others understand the importance of pollinators in the environment through signs, brochures, and public programs.

In an effort to increase pollinator populations the land manager can:

- Inventory and become knowledgeable of local pollinators.
- Provide connectivity between vegetation areas by creating corridors of perennials, shrubs, and trees that provide pollinators shelter and food as they move through the landscape.
- Reduce the amount of lawn areas that support recreational needs.
- Restrict the use of pesticides (insecticides, herbicides, etc.).
- Provide water sources in large open areas.
- Maintain natural meadows and openings that provide habitats for sun-loving wildflowers and grasses.
- Remove invasive species and encroaching shrubs and trees.

“FROM HUMMINGBIRDS TO BEETLES, TO BUTTERFLIES, NATURE’S POLLINATORS HELP KEEP MIDEWIN’S TALLGRASS PRAIRIE RESTORATIONS FULL OF DIVERSE FLOWERING PLANTS. INSECT MONITORING PROVIDES A KEY MEASURE OF OUR SUCCESS.”

-- LOGAN LEE,
PRAIRIE SUPERVISOR, MIDEWIN
NATIONAL TALLGRASS PRAIRIE



HOME LANDSCAPES

GARDENING IN ALASKA PROVIDES a great opportunity to support pollinators. One of the main factors for gardeners to consider is the variable weather and climatic condition depending on where in Alaska their garden will be planted. In the Temperate Coastal regions, the proximity of the ocean influences weather and gardening conditions for pollinators. One of the special aspects of Alaska is that there are large, undisturbed areas of land with blooming wildflowers present, and the conservation and protection of these natural areas is important for pollinator health. The common native flowers that grow naturally in these areas of Alaska provide a good starting point for plant selection when gardening for pollinators. These plant species have co-evolved with the local pollinators, and are therefore excellent to plant in your garden, or maintain if you already have patches of these wildflowers on your property.

In Alaska, gardeners have a wide

array of plants to use in their gardens, including a vast diversity of native plants that provide different colors, shapes, and bloom times to support pollinators. Choose a variety of plants that will provide nectar and pollen throughout the growing season, especially the shoulder seasons in the spring and fall when pollinators are especially in need of resources. Consider using the three-by-three rule – planting three species of native plants in the three seasons that pollinators are active. Resist the urge to have a totally manicured lawn and garden and embrace a bit of messiness by leaving leaves and bare ground for nesting bees to safely nest and overwinter. Leaving areas of dead wood and leaf litter can also provide safe areas for other beneficial insects and animals to nest and overwinter. If you need guidance to achieve your gardening goals, find local resources to help you in your efforts, or contact your local garden club or native plant society to help with the decision of

selecting plants. You can also visit your regional botanic gardens and arboreta for guidance.

The scale of your plantings will vary but it is good to remember that any amount of habitat created for pollinators is important. When planting your garden, try to provide connectivity to the landscape adjacent to your property. This lets pollinators find the resources they need without having to fly too far. If your neighbor's property provides an essential element, such as water, which can be utilized by pollinators visiting your land, you may be able to devote more space to habitat elements that are missing nearby. It is best to use native plants which have evolved to support the needs of specific native pollinators. Some pollinators, however, are generalists such as bumble bees, and visit many different plants, both native and non-native. Be sure that any non-native plants you choose to use are not invasive. Remember that specialized cultivars sometimes aren't used by pollinators, as these flowers have often been drastically altered and can be completely different than the wild species. Some cultivars don't contain the same nectar and pollen resources that attract pollinators to the wild types.

CAUTION: Take time to evaluate the source of your plant material. You want to ensure you get plants that are healthy, correctly identified, and weed-free. Your local garden club or nursery can help you make informed decisions when searching for plants.



PLANTS THAT ATTRACT POLLINATORS

IN THE ALASKA TEMPERATE COASTAL REGION

The following chart lists plants that attract pollinators. It is not exhaustive but provides guidance on where to start. Annuals, herbs, weeds, and cover crops provide food and shelter for pollinators, too.

Botanical Name	Common Name	Height (in)	Flower Color	Flower Season	Sun	Soil	Pollinators	Also a Host
Tree / Shrub								
<i>Cornus canadensis</i>	Canadian bunchberry	10	White-cream-pink	May - September	Partial Sun to Partial Shade	moist	Bees, Flies	x
<i>Cornus sericea</i>	Red Osier Dogwood	144	White-cream-pink	May - October	Partial Sun to Partial Shade	moist	Bees, Butterflies, Flies	x
<i>Dasiphora fruticosa</i>	Shrubby Cinquefoil	48	Orange-yellow	June - November	Sun, Partial Sun to Partial Shade	dry, mesic, moist, wet	Bees, Butterflies, Flies	
<i>Elaeagnus commutata</i>	Silverberry	180	Orange-yellow	June - July	Shade, Partial Sun to Partial Shade, Sun	dry, mesic, moist	Bees, Insects	
<i>Elliottia pyroliflora</i>	Copperbush	120	Red, White-cream-pink	June - July	Sun, Partial Sun to Partial Shade	moist	Butterflies, Insects	x
<i>Heracleum maximum</i>	Cow Parsnip/ Pushki	144	White-cream-pink	February - July	Partial Sun to Partial Shade	moist	Bees, Hummingbirds, Beetles, Insects	
<i>Ledum groenlandicum</i>	Bog Labrador Tea	60	White-cream-pink	March - August	Partial Sun to Partial Shade	moist, wet	Bees, Butterflies	x
<i>Malus fusca</i>	Pacific crab apple	420	White-cream-pink	April - July	Sun	moist, wet	Bees	
<i>Myrica gale</i>	Sweet Gale	72	Orange-yellow, Red, Green-brown-inconspicuous	March - July	Sun, Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Birds	
<i>Rhododendron camtschaticum</i>	Kamchatka Rhododendron	15	Red, Blue-purple	June - September	Sun, Partial Sun to Partial Shade	moist	Bees, Butterflies, Flies	
<i>Ribes triste</i>	Red Currant	36	Red, Green-brown-inconspicuous	May - July	Sun, Partial Sun to Partial Shade	moist	Bees, Hummingbirds, Beetles, Flies	
<i>Rosa acicularis</i>	Prickly Rose	96	White-cream-pink	May - July	Partial Sun to Partial Shade	dry, mesic, moist, wet	Bees, Butterflies	
<i>Rosa nutkana</i>	Nootka Rose	24 - 144	White-cream-pink, Red	April - August	Shade, Partial Sun to Partial Shade, Sun	dry, mesic, moist	Bees, Butterflies, Hummingbirds	x
<i>Rubus arcticus</i>	Arctic Raspberry	12	Red, White-cream-pink	May - August	Sun, Partial Sun to Partial Shade	moist	Bees, Insects	
<i>Rubus ideaus</i>	Raspberry	96	White-cream-pink	May - July	Sun, Partial Sun to Partial Shade, Shade	dry, mesic, moist	Bees, Butterflies, Birds	x
<i>Rubus spectabilis</i>	Salmonberry	120	Blue-purple	February - July	Sun, Partial Sun to Partial Shade	moist	Bees, Hummingbirds, Insects	
<i>Salix alaxensis</i>	Fetleaf willow	240	Green-brown-inconspicuous	March - July	Sun, Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Moths	
<i>Salix arctica</i>	Arctic Willow	10	Red, Orange-yellow	June - August	Sun	moist	Bees	x



Botanical Name	Common Name	Height (in)	Flower Color	Flower Season	Sun	Soil	Pollinators	Also a Host
Tree / Shrub								
<i>Salix bebbiana</i>	Bebb's Willow	360	White-cream-pink, Green-brown-inconspicuous	April - June	Shade, Partial Sun to Partial Shade, Sun	moist, wet	Bees, Butterflies, Insects	x
<i>Salix reticulata</i>	Netleaf Willow	6	Orange-yellow, Green-brown-inconspicuous	June - August	Partial Sun to Partial Shade	moist	Bees, Insects	
<i>Salix scouleriana</i>	Scouler's Willow	720	Orange-yellow	February - June	Shade, Partial Sun to Partial Shade, Sun	dry, mesic, moist	Bees, Butterflies, Hummingbirds, Insects	
<i>Sambucus racemosa</i>	Red-berried elder	240	White-cream-pink	May - August	Partial Sun to Partial Shade	moist	Butterflies, Hummingbirds	
<i>Shepherdia canadensis</i>	Soapberry	120	Orange-yellow	April - July	Sun, Partial Sun to Partial Shade, Shade	dry, mesic, moist	Bees	
<i>Spiraea stevenii</i>	Beauverd's spirea	36	White-cream-pink	June - September	Partial Sun to Partial Shade	dry, mesic, moist	Bees, Butterflies, Moths, Beetles, Flies	x
<i>Vaccinium uliginosum</i>	Bog Blueberry	24	White-cream-pink	June - July	Sun, Partial Sun to Partial Shade, Shade	moist, wet	Bees, Butterflies	
<i>Vaccinium vitis-idaea</i>	Lingonberry	6	White-cream-pink	May - July	Partial Sun to Partial Shade	moist, wet	Bees, Insects	
<i>Viburnum edule</i>	Highbush Cranberry	144	White-cream-pink	May-August	Partial Sun to Partial Shade	moist	Bees, Flies, Butterflies	
Perennial Flower / Forb								
<i>Achillea millefolium</i>	Common Yarrow	8 to 40	White-cream-pink	March - October	Sun, Partial Sun to Partial Shade	dry, mesic	Bee, Beetles, Butterflies, Flies	x
<i>Aconitum delphiniifolium</i>	Larkspurleaf Monkshood	40	Blue-purple	June - September	Partial Sun to Partial Shade	moist	Bees	
<i>Actaea rubra</i>	Red Baneberry	36	White-cream-pink	April - June	Sun, Partial Sun to Partial Shade	moist	Bees, Beetles, Flies	x
<i>Allium schoenoprasum</i> L. var. <i>sibiricum</i>	Wild Allium	20	Blue-purple	April - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist	Bees, Butterflies, Insects	x
<i>Anemone narcissiflora</i>	Narcissus anemone	24	White-cream-pink	June - August	Partial Sun to Partial Shade	moist	Bees, flies	
<i>Anemone richardsonii</i>	Yellow Anemone	12	Orange-yellow, Red, green-brown-inconspicuous	June - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist, wet	Bees	
<i>Angelica lucida</i>	Seacoast Angelica	60	White-cream-pink, Green-brown-inconspicuous	May - September	Sun, Partial Sun to Partial Shade	moist, wet	Bees, Butterflies	x
<i>Antennaria rosea</i>	Rosy Pussytoes	12	White-cream-pink, Blue-purple	June - August	Sun	dry	Bees, Butterflies, Hummingbirds	
<i>Aquilegia formosa</i>	Western columbine	48	Orange-yellow	April - August	Partial Sun to Partial Shade	mesic, moist	Bees, Butterflies, Hummingbirds	
<i>Arnica angustifolia</i>	Narrowleaf Arnica	16	Orange-yellow	May - September	Sun	dry	Bees, Butterflies, Moths, Insects	

CONTINUED ON PAGE 20

PLANTS THAT ATTRACT POLLINATORS

IN THE ALASKA TEMPERATE COASTAL REGION

Botanical Name	Common Name	Height (in)	Flower Color	Flower Season	Sun	Soil	Pollinators	Also a Host
Perennial Flower / Forb								
<i>Arnica frigida</i>	Snow Arnica	16	Orange-yellow	July - August	Sun	dry	Bees, Butterflies	
<i>Arnica latifolia</i>	Broadleaf Arnica	24	Orange-yellow	June - August	Sun, Partial Sun to Partial Shade	wet	Bees, Butterflies, Moths	
<i>Arnica lessingii</i>	Nodding arnica	14	Orange-yellow	June - September	Sun	moist	Bees, Butterflies, Moths, Insects	
<i>Artemisia tilesii</i>	Tilesius Wormwood	30	Orange-yellow	July - September	Sun	dry, mesic, moist	Insects	
<i>Aruncus dioicus</i>	Goatsbeard	72	White-cream-pink	May - July	Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Birds, Insects	x
<i>Aster subspicatus</i>	Douglas' Aster	48	Blue-purple	July - September	Sun, Partial Sun to Partial Shade	moist	Bees, Butterflies, Moths, Flies	
<i>Astragalus alpinus</i>	Alpine Milkvetch	12	White-cream-pink, Blue-purple	May - August	Sun	moist	Insects, Butterflies	
<i>Astragalus americanus</i>	American milkvetch	36	White-cream-pink, Green-brown-inconspicuous	June - August	Partial Sun to Partial Shade	moist	Bees, Butterflies	
<i>Bistorta plumosa</i>	Meadow Bistort	48	White-cream-pink, Blue-purple	May - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist	Insects	
<i>Boykinia richardsonii</i>	Bearflower	24	White-cream-pink	June - August	Sun	dry	Bees, Butterflies, Birds, Insects	
<i>Campanula lasiocarpa</i>	Mountain Harebell	6	Blue-purple	July - August	Sun	dry	Butterflies, Birds	
<i>Castella caudata</i>	Pale Indian Paintbrush	22	White-cream-pink, Green-brown-inconspicuous	June - September	Sun	moist	Bees, Butterflies, Hummingbirds	
<i>Chamaenerion angustifolium</i>	Fireweed	72	Blue-purple	June - September	Sun	moist	Bees, Butterflies, Hummingbirds, Moths	
<i>Chamerion latifolium</i>	River beauty/ Dwarf Fireweed	24	White-cream-pink, Blue-purple	June - September	Sun	moist	Bees, Hummingbirds, Moths	x
<i>Cnidium cniidiifolium</i>	Jakutak Snowparsley	60	White-cream-pink	June - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist, wet	Butterflies, Insects	x
<i>Cornus unalascensis</i>	Alaskan bunchberry	9	White-cream-pink	May - August	Partial Sun to Partial Shade	moist, wet	Bees, Flies	
<i>Corydalis pauciflora</i>	Few-flower Corydalis	8	Blue-purple	June - July	Sun, Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Hummingbirds, Insects	
<i>Delphinium glaucum</i>	Delphinium	108	Blue-Purple	June - September	Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Hummingbirds	x
<i>Dodecatheon frigidum</i>	Northern Shootingstar	16	White-cream-pink, Blue-purple	May - August	Sun	dry	Bees, Beetles, Flies	
<i>Dryas octopetala</i>	Eight-petal Mountain-Avens	8	White-cream-pink	June - August	Sun	dry	Butterflies, Moths, Flies	
<i>Erigeron peregrinus</i>	Wandering Fleabane	28	Blue-purple	July - August	Partial Sun to Partial Shade	moist, wet	Bees, Butterflies, Hummingbirds	

Botanical Name	Common Name	Height (in)	Flower Color	Flower Season	Sun	Soil	Pollinators	Also a Host
Perennial Flower / Forb								
<i>Fragaria chiloensis</i>	Beach Strawberry	10	White-cream-pink	February - June	Shade, Partial Sun to Partial Shade, Sun	dry	Bees, Butterflies	x
<i>Fritillaria camschatcensis</i>	Chocolate Lily	24	Blue-purple, Green-brown-inconspicuous	May - July	Partial Sun to Partial Shade	moist	Flies	
<i>Galium boreale</i>	Northern Bedstraw	12 to 24	White-cream-pink	May - September	Sun, Partial Sun to Partial Shade	moist	Flies, Beetles	
<i>Geranium erianthum</i>	Woolly Cranesbill	32	Blue-purple	May - August	Partial Sun to Partial Shade	moist	Bees, Butterflies, Hummingbirds	
<i>Geum macrophyllum</i>	Large-leaved Avens	40	Orange-yellow	March - August	Shade	moist	Butterflies, Flies	x
<i>Hedysarum alpinum</i>	Alpine Sweet-vetch	36	Blue-purple	June - July	Sun, Partial Sun to Partial Shade	moist	Bees, Butterflies	x
<i>Hedysarum boreale ssp. mackenziei</i>	Northern sweetvetch	15	Red	June - August	Sun, Partial Sun to Partial Shade	dry	Bees	x
<i>Heuchera glabra</i>	Alpine Alumroot	24	White-cream-pink, Green-brown-inconspicuous	June - August	Shade	dry	Bees, Butterflies, Hummingbirds	
<i>Iris setosa</i>	Wild flag Iris	48	Blue-purple	May - August	Sun	mesic, moist, wet	Bees, Butterflies	
<i>Lagotis minor</i>	Little weasel snout	12	Blue-purple	June - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist		
<i>Lathyrus japonicus</i>	Beach pea	6 to 12	Blue-purple, White-cream-pink	June - August	Sun	moist, wet	Bees, Butterflies, Moths	
<i>Ligusticum scoticum</i>	Scottish lovage	24	White-cream-pink	June - September	Sun, Partial Sun to Partial Shade	moist	Bees, Butterflies, Flies	x
<i>Linum lewisii</i>	Wild Blue Flax	30	Blue-purple	March - September	Sun	dry-mesic	Bees, Butterflies	
<i>Luetkea pectinata</i>	Partridgefoot	12	White-cream-pink	June - September	Shade, Partial Sun to Partial Shade	moist	Bees	
<i>Lupinus arcticus</i>	Arctic Lupine	18	Blue-purple	May - July	Sun	mesic, moist	Bees, Hummingbirds, Butterflies	
<i>Lupinus nootkatensis</i>	Nootka Lupine	24	Blue-purple	May - June	Sun	dry	Bees	x
<i>Lysichiton americanus</i>	Western Skunk Cabbage	60	Orange-yellow	February - May	Partial Sun to Partial Shade	wet	Flies, Beetles	
<i>Maianthemum dilatatum</i>	False Lily of the Valley	18	White-cream-pink	March - July	Shade	moist, wet	Bees, Butterflies	
<i>Mertensia paniculata</i>	Tall Bluebell	60	Blue-purple	May - August	Shade	moist	Bees	
<i>Oxytropis campestris</i>	Locoweed	12	White-cream-pink, Orange-yellow	May - July	Sun	dry, mesic, moist	Bees	x
<i>Pedicularis verticillata</i>	Whorled Lousewort	10	White-cream-pink, Blue-purple	June - September	Sun	moist	Bees	
<i>Polemonium acutiflorum</i>	Tall Jacob's-Ladder	24	White-cream-pink, Blue-purple	June - August	Sun, Partial Sun to Partial Shade	mesic	Bees, Butterflies	

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PLANTS THAT ATTRACT POLLINATORS

IN THE ALASKA TEMPERATE COASTAL REGION

Botanical Name	Common Name	Height (in)	Flower Color	Flower Season	Sun	Soil	Pollinators	Also a Host
Perennial Flower / Forb								
<i>Polemonium pulcherrimum</i>	Jacob's-ladder	16	Blue-purple	May - August	Partial Sun to Partial Shade	dry, mesic, moist	Bees, Butterflies, Moths	x
<i>Primula pauciflora</i>	Dark-throated Shooting Star	24	White-cream-pink, Blue-purple, Orange-yellow	April - August	Partial Sun to Partial Shade	moist	Bees	
<i>Pyrola grandiflora</i>	Large-flowered wintergreen	10	White-cream-pink	April - June	Partial Sun to Partial Shade, Shade	dry, mesic, moist, wet	Flies, Insects	
<i>Pyrola asarifolia</i>	Bog wintergreen	24	White-cream-pink, Blue-purple	April - September	Partial Sun to Partial Shade	moist	Bees, Insects	x
<i>Rhodiola integrifolia</i>	Western Roseroot	20	Red	June - August	Sun	wet	Insects	
<i>Rubus chamaemorus</i>	Cloudberry	12	White-cream-pink	May - August	Sun	dry	Bees, Flies	
<i>Rubus pedatus</i>	Strawberryleaf raspberry	4	White-cream-pink	June - August	Sun, Partial Sun to Partial Shade	dry, mesic, moist	Bees, Butterflies, Birds	
<i>Sanguisorba officinalis</i>	Great burnett	72	Green-brown-inconspicuous	June - September	Sun, Partial Sun to Partial Shade	moist	Butterflies, Insects	x
<i>Silene acaulis</i>	Moss Campion	6	Blue-purple, White-cream-pink	June - August	Sun	moist	Bees, Butterflies, Moths	
<i>Solidago canadensis</i>	Canada goldenrod	72	Orange-yellow	August - November	Sun, Partial Sun to Partial Shade	dry, mesic, moist	Bees, Butterflies, Moths	x
<i>Solidago multiradiata</i>	Northern Goldenrod	30	Orange-yellow	July - September	Partial Sun to Partial Shade	dry	Bees, Butterflies	x
<i>Streptopus amplexifolius</i>	White Twisted-stalk	48	White-cream-pink, Orange-yellow	May - July	Shade	moist	Bees, Hummingbirds	x
<i>Swertia perennis</i>	Felwort	24	White-cream-pink, Blue-purple	July - September	Sun, Partial Sun to Partial Shade	moist	Bees, Beetles, Butterflies, Flies	x
<i>Tiarella trifoliata</i>	Threeleaf Foamflower	28	White-cream-pink	May - September	Partial Sun to Partial Shade	moist	Bees, Butterflies, Moths	
<i>Valeriana capitata</i>	Capitate Valerian	36	White-cream-pink	May - August	Sun, Partial Sun to Partial Shade	moist	Bees, Butterflies, Insects	
<i>Valeriana sitchensis</i>	Sitka Valerian	6 to 36	White-cream-pink	May - August	Partial Sun to Partial Shade	moist	Bees, Butterflies, Flies, Insects	
<i>Veratrum viride</i>	Green False Hellebore	26 - 75	Orange-yellow, Green-brown-inconspicuous	May - July	Sun	wet	Bees, Butterflies, Moths, Flies	
<i>Viola epipsila</i>	Dwarf marsh violet	8	Blue-purple	May - August	Partial Sun to Partial Shade, Shade	moist, wet	Bees, Butterflies, Moths	x
<i>Zigadenus elegans</i>	Death camas	32	White-cream-pink, Orange-yellow	June - August	Shade, Partial Sun to Partial Shade	moist, wet	Bees, Flies	x
Vines								
<i>Ribes laxiflorum</i>	Trailing Black Currant	36(240 vine)	White-cream-pink	March - August	Sun, Partial Sun to Partial Shade	moist, wet	Bees, Hummingbirds	

The page features several blue-toned illustrations. At the top left, a bee is shown in flight. In the center, another bee is depicted with its wings spread. On the right side, a large, detailed illustration of a flower is shown. The background is a light blue gradient.

HABITAT AND NESTING REQUIREMENTS

Honey Bees:

Honey bees are colonial cavity nesters. Occasionally in the spring and summer you might encounter a swarm of honey bees on the move to a new home. Beekeepers with commercial operations can have bee yards with tens to hundreds of hives commonly in agricultural, rural, and some natural habitats. In urban and garden settings, it is common to see a single or a handful of honey bee hives – usually wooden boxes painted white or other light colors. Give honey bees space and don't approach their hive. Even beekeepers minimize the amount of time they spend working bees. Honey bees have different feeding needs than native bees. Their colony can last multiple years, and they feed on flowers from the beginning of spring bloom to the fall. Honey bees visit crops when they are in bloom and forage on a diversity of wildflowers as well. Honey bees also need plants that produce a large amount of nectar to make honey, and also like to feed off of the pollen of trees and shrubs.

Bumble Bees:

Bumble bees nest in cavities such as abandoned mouse nests, other rodent burrows, upside down flower pots, under boards, and other human-made cavities. Colonies are founded by a queen in the spring. The number of workers in a colony can grow to 400 at the peak of summer bloom. Bumble bee colonies die out in the fall after producing new queens. New queens mate and then overwinter, hiding underground, in cracks, or small crevices. Bumble bees are usually active during the morning hours and forage at colder temperatures than honey bees, even flying in light rain.

Digger bees:

Digger bees can be found nesting in sandy, compacted soils, and along stream banksides. These bees are usually active in the morning hours but can be seen at other times of the day as well. To attract these bees, have some areas of exposed soil in your garden and avoid applying thick layers of mulch that are hard to dig through.

Leafcutter bees:

Leafcutter bees nest in pre-existing circular tunnels of various diameters in dead wood created by emerging beetles. Some also nest in the ground. Leafcutter bees line and cap their nests with leaves or flower petals. These bees can be seen foraging throughout the day even in very hot weather.

Mason bees:

Mason bees use pre-existing tunnels of various diameters in dead wood made by emerging beetles, or human-made nesting substrates such as drilled wood blocks or wooden tubes. These bees get their name from the fact that they cap their nests with mud. Mason bees are generally more active in the morning hours.

Sweat bees:

Sweat bees need bare ground in sunny areas not covered by vegetation for nesting. Some will nest in small pre-existing holes, much like leafcutter or mason bees. Like most bees, sweat bees forage for pollen earlier in the morning and then for nectar later in the day. To help these bees nest, keep some parts of your garden exposed and avoid applying thick layers of mulch that are hard to dig through.

Plasterer or cellophane bees:

Plasterer or cellophane bees get their name from the unique, clear waterproof lining they make around their nest. Similar to sweat bees, they prefer bare ground, stream banks or slopes. These bees can be active in the morning or later in the day.

Yellow-faced bees:

Yellow-faced bees are tiny, hairless bees that make their nest by chewing into small dead stems. These bees are more active during morning hours.

Mining bees:

Mining bees prefer sunny, bare ground, and sandy soil. They are also known to nest under leaf litter or in the soil along banksides and cliffs. Mining bees are active in the spring and most commonly seen on flowers during the morning when pollen and nectar resources are abundant.

BECOME FAMILIAR WITH POLLINATORS IN YOUR LANDSCAPE:

- ✿ Watch for activity throughout the day and the seasons.
- ✿ Keep a simple notebook of when and what comes to your garden. NOTE: It is not necessary to identify each species when you first get started. Simply note if it is a bee that likes the yellow flower that blooms in the fall.
- ✿ Consult a local field guide or web site when you are ready to learn more details.
- ✿ Join community science initiatives such as those on iNaturalist or the Alaska Bee Atlas.

ADD NATIVE PLANTS TO ATTRACT MORE NATIVE POLLINATORS

- ✿ List the plants you currently have in your landscape.
- ✿ Determine when you need additional flowers to provide nectar and pollen throughout the growing season.
- ✿ Add plants that provide additional seasons of bloom, create variable heights for shelter, and attract the types of pollinators you want.
- ✿ Don't forget to include host plants that provide food and shelter for larval development.
- ✿ Contact your local native plant society or extension agent for more help.

USE POLLINATOR FRIENDLY LANDSCAPE PRACTICES TO SUPPORT THE POLLINATORS YOU ATTRACT

- ✿ Use Integrated Pest Management Practices to address pest concerns.
- ✿ Tolerate a little mess – leave dead snags and leaf litter, keep areas bare for ground nesting insects, and leave some weeds that provide food for pollinators.
- ✿ Provide safe access to clean water.

CERTIFY YOUR LANDSCAPE

- ✿ Farmers can certify their habitat with Bee Friendly Farming. Visit pollinator.org/bff
- ✿ Individual gardeners can certify their Bee Friendly Gardening. Visit pollinator.org/bfg

**NOTICE THE
CHANGES THAT
YOU HAVE HELPED
TO CREATE!**



RESOURCES AND FEEDBACK

Many books, websites, and people were consulted to gather information for this guide. Use this list as a starting point to learn more about pollinators and plants in your area.

ECOREGION PROFILE:

Alaska Department of Fish and Game

adfg.alaska.gov/index.cfm?adfg=ecosystems.ecoregions

National Park Service

nps.gov/subjects/aknatureandscience/akecoregions.htm

POLLINATION/POLLINATORS

Pollinator Partnership pollinator.org

North American Pollinator

Protection Campaign nappc.org

Bee Friendly Gardening

pollinator.org/bfg

The Alaska Bee Atlas

accs.uaa.alaska.edu/wildlife/ak-bee-atlas/

Natural Resources Conservation

Service nrcs.usda.gov

USDA Forest Service

fs.usda.gov/managing-land/wildflowers/pollinators

U.S. Fish and Wildlife Service:

fws.gov/initiative/pollinators

Xerces Society Pollinator Program

xerces.org

The Forgotten Pollinators

Buchmann, S.L. and G.P. Nabhan. 1997. Island Press: Washington, DC.

Status of Pollinators in North

America 2007. The National Academies Press: Washington, DC.

NATIVE PLANTS

Pollinator Partnership Find Your Roots tool:

pollinator.org/find-your-roots-tool

Alaska Plant Materials Center

plants.alaska.gov

Plant Conservation Alliance:

plantconservationalliance.org

National Seed Strategy:

blm.gov/programs/natural-resources/native-plant-communities/national-seed-strategy

Lady Bird Johnson Wildflower

Center wildflower.org

USDA Plant Hardiness Zone Map

planthardiness.ars.usda.gov

U.S. National Arboretum

usna.usda.gov

USDA, NRCS. 2007. The PLANTS

Database plants.usda.gov

Wildflowers for Northern Gardens

by P. Holloway and V. Gauss. 2021. A.F. Farmer, LLC. Fairbanks, AK.

NATIVE BEES

Bee Basics: An Introduction to Our Native Bees by Beatriz Moissett,

Ph.D. and Stephen Buchmann, Ph.D. A USDA Forest Service and Pollinator Partnership Publication, published 2011:

pollinator.org/pollinator.org/assets/generalFiles/BeeBasicsBook.pdf

The Bees in Your Backyard:

beesinyourbackyard.com

BUTTERFLIES AND MOTHS

Butterflies and Moths of North America Opler, Paul A., Harry Pavulaan, Ray E. Stanford, Michael Pogue, coordinators. 2006.

butterfliesandmoths.org/
butterfliesandmoths.org

Butterflies of Alaska: A Field Guide

Kenelm W. Philip and Clifford D.

Ferris. 2016. Alaska Entomological Society. Fairbanks, AK.

Butterflies of North America

Jim Brock and Kenn Kaufman. 2003. Houghton Mifflin. New York, NY.

FEEDBACK

We need your help to create better guides for other parts of North America. Please e-mail your input to feedback@pollinator.org

- ✿ How will you use this guide?
- ✿ Do you find the directions clear? If not, please tell us what is unclear.
- ✿ Is there any information you feel is missing from the guide?
- ✿ Any other comments?

**THANK YOU
FOR TAKING
THE TIME TO HELP!**

NOTES





**POLLINATOR
PARTNERSHIP**

Protect their lives. Preserve ours.



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