

Willows

Salix



Bob Armstrong and John Hudson

Dance Flies



Adult Dance flies often emerge from their aquatic environment about the time that the willows are blooming. We see lots of them going to the willow catkins and feeding on the pollen (lower photo).



Several birds, such as this Ruby-crowned Kinglet, come to the willows and eat the dance flies.

Bumblebees



Many of our willows blossom about the time that the Queen Bumblebees are emerging from living underground over the winter. This is about the only native plant that flowers at this time.

Since the queens need the energy to build their nests and lay their eggs we think willow catkins are critical for their success.



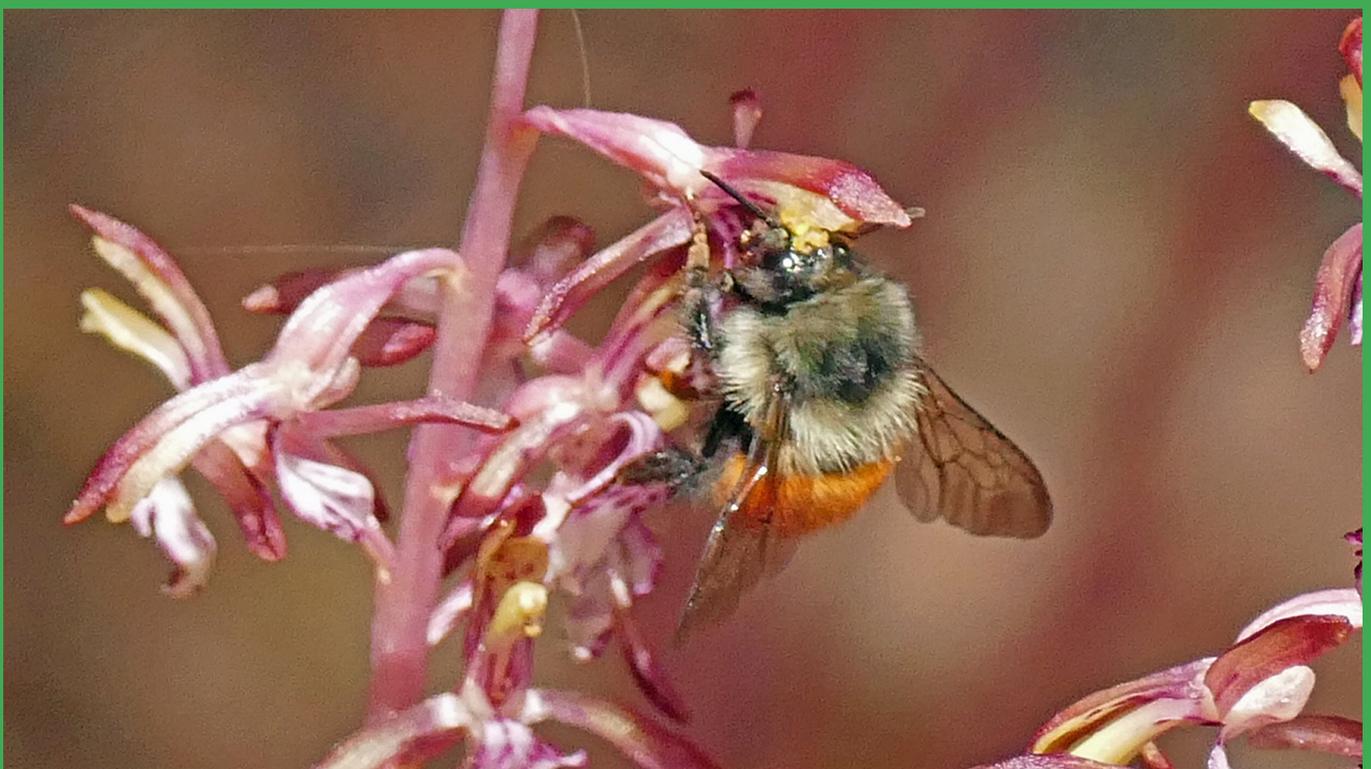
At this time some birds, such as this Olive-sided Flycatcher, feed on the bumblebees attracted to the willow catkins.



Dance flies are important insects for pollinating certain flowers, such as the early coral root orchid. In the photo to the left you can see the orchids pollinia attached to the back of the fly.

Bumblebees are well known for their importance in pollinating many plants. In the photo below you can see the pollen grains from this western coral root orchid attached the the head of the bumblebee.

We think the connections between these two insects and many others, with willow catkins are very important for the pollination of several plants.



Willow Weevils



These amazing looking beetles emerge from their underground pupal chambers in early spring about the same time as some willows are in blossom. They crawl up to the catkins for mating.





The female weevil then lays her egg or eggs on the willow catkin (left photo). After hatching the weevil larvae feed on the catkin (upper photo).

Some birds are known to target the willow catkins with weevils for food. We suspect these larvae provide a significant amount of nutrition for the birds. The lower photo shows a Bohemian Waxwing feeding on willow catkins in Juneau.



Willow Ptarmigan

As their name implies Willow Ptarmigan really like willows. The photo to the right shows one eating the catkins.

The Willow Ptarmigan is Alaska's official State Bird.



This photo on the left shows a female Willow Ptarmigan eating the newly emerging catkins in the alpine above Juneau.

These ptarmigan seem to especially feed on the willow buds in winter. The buds may be a very important overwinter survival food for them.



especially in winter

Red-breasted Sapsucker



These woodpeckers typically make holes in willow trees and eat the nutritious sap that oozes out. Also the sap attracts lots of insects which the sapsuckers also grab and eat.



The willow sap also attracts other birds such as this Rufous Hummingbird feeding on the sap. Of interest is the distribution of sapsuckers and hummingbirds in Alaska is nearly identical. This indicates that the hummingbirds may be dependent on the willow sap. Which makes sense since this occurs often before many flowers bloom.



Many insects are known to lay their eggs on willow leaves. Some birds, such as this Orange-crowned Warbler, visit the willow leaves and eat the eggs and insects.



Willow plants and their branches are known to grow low over streams and ponds. This allows some birds such as this Yellow-rumped Warbler to gain access to aquatic insects.



They especially go after mosquito larva and their pupae which need to rise to the water surface to obtain oxygen.



And the fallen willow trees allow bears to better look for spawning salmon to eat.

Beavers



Willows are one of the most important plants for beavers. They typically harvest the branches (left) and eat the leaves (photo below).



They use willow branches to help make their dams. They also will store them in their caches to use for food overwinter. And they even shred the branches to make bedding material in their houses.



MENDENHALL BEAVER LODGE
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And in Addition:



Sitka black-tailed Deer



Links to Videos and other Information

Dance Flies on Willow Catkins <https://vimeo.com/538772439>

Bumblebee on Willow Catkin <https://vimeo.com/539739165>

Bumblebee on Western Coral Root Orchid <https://vimeo.com/343560365>

Willow Weevils in Juneau Alaska <https://vimeo.com/546502079>

Ptarmigan in Alaska <https://vimeo.com/128393195>

Many Creatures in Alaska Eat and Use Willows <https://vimeo.com/144270533>

Red-breasted Sapsucker benefits Rufous Hummingbird <https://vimeo.com/104330153>

Porcupines Eat <https://vimeo.com/117561743>