

# 'PRESERVING POLLINATORS' ON THE NORTH COAST

By **CARA MICO**  
For Seaside Signal

**B**ees are facing colony collapse disorder, habitat loss and disease.

Many bees, including several species of bumble bees, are listed as endangered, vulnerable or near threatened by habitat loss, pesticide use and disease. Other threats include the trade of non-native species, which displace native species and over-simplified habitat from forestry and farming. Colony collapse disorder has drastically increased in the past decade killing millions of bees nationwide. Although Oregon's mortality rate of 22%, is much lower than the national average, nationwide collapses have recorded upwards of 90% die-off.

The Necanicum Watershed Council's final Listening to the Land lecture "Preserving Pollinators on Oregon's North Coast: Working Forests as Native Pollinator Habitat," took place at the Seaside Library on May 15.

Jed Arnold, community outreach and stewardship coordinator for Hampton Lumber, and Dr. Christine Buhl, entomologist with the Oregon Department of Forestry discussed new ways forestry is managing for bees on private forest land and how private and public forestry is working to protect them.

Hampton Lumber is dedicated to improving pollinator habitat on their timberland, Arnold said.

To do this, they're conducting a series of experiments to better understand the impact of conventional forestry on pollinators focusing on habitat modifications such as leaving woody debris and open spaces for native bee species.

The Oregon Department of Forestry and Oregon State University's Pollinator Health Program are also working on the issue and are partnering to develop best management practices for pollinators through the Oregon Bee Project. The project evaluates the impact of increasing pollinator habitat, protecting pollinators against pesticides and increasing awareness about the importance of Oregon's bees.

Arnold started at Hampton in October of 2017 and one of the first projects he started working on was the health of pollinator habitat on Hampton managed land.

Spurred by David Hampton, a proponent of using harvest sites as native bee habitat, Arnold contacted Oregon State University to see what Hampton Lumber could do to improve pollinator habitat on harvest sites and discovered there wasn't a great deal of information.

So far, studies have taken place on 38 acres of land over two years and Arnold has already learned a lot about site characteristics that may help enhancement work.

"The first year after harvest is really important. If you leave a site even for a year, things come back on their own," Arnold said. "They are already really good habitat for pollinators. We're going to work with the Forest Pollinator Research Group to design specific treatments so that we can compare against a control and get specific results. We want to know which treatments benefit which species. This is something we hope can be helpful for forest landowners. There are over 500 known species of bees native to Oregon, as compared to over 4,000 species in the United States and 20,000 worldwide with the greatest diversity occurring in the Mediterranean. But experts don't know exactly how many bees are native to Oregon, and that can be a problem because more could be disappearing."

Almost all native Oregon bees are solitary with the females laying eggs



Jed Arnold with a broadcast seed spreader on an experiment site.

in underground nests and raising the brood on their own, unlike the more social honey bees. The main difference between solitary bees and the more social honey bee is their colony structure. Honey bee colonies can have over 25,000 individuals, all of which work together to care for the eggs laid by a single queen.

Similar to the honey bee, the native bumble bee is quite social. Over 20 species of bumble bees live in Oregon, three of which are exhibiting declining populations. Bumble bee colonies can contain between 50 and 500 individuals and live for one year serving a single queen before dying in the winter. The queen, however, lives on to lay a future brood. Solitary bees by contrast lay eggs and provide the young with a pollen-ball which will nourish the larva into bee-dome. Native solitary Oregon bees include several types of sweat bees, which are commonly found near clover fields, minor bees and mason bees.

Conservation of bees is of critical importance, including in Oregon. In 2013 a massive bumble bee kill occurred when an over-the-counter pes-

ticide was applied to flowering cherry trees in a Wilsonville parking lot. Over 50,000 bees died and it's thought to be the largest single mortality event in recorded history.

The Oregon Bee Project was initiated to address these threats and include several actionable goals such as training over 2000 pesticide applicators in proper methods of applications, providing public education to reduce backyard pesticide exposure and increase backyard pollinator habitat, as well as improve detection methods for disease and exposure.

The purpose of the Listening to the Land series is to engage citizens with informational lectures so that watershed residents can become better stewards of the land. The selected topics are chosen to draw people in and encourage involvement. The council is looking at a variety of topics including drinking water for their next series. The Listening to the Land series is hosted by the Necanicum Watershed Council and takes place on the third Wednesday from January to May, 6 p.m. at the Seaside Library.



**BUMBLE BEE**  
*Bombus occidentalis*



**WESTERN SWEAT BEE**  
*Nomia melanderi*



**RED MASON BEE**  
*Osmia bicornis, synonym Osmia rufa*

**'WE WANT TO KNOW  
WHICH TREATMENTS  
BENEFIT  
WHICH SPECIES.'**

— Jed Arnold

## Legislature passes environmental 'rollback'

By **MATEUSZ PERKOWSKI**  
Capital Press

Critics and proponents agree that recently passed legislation intended to shield Oregon from federal "rollbacks" of environmental regulations is meant to send a message.

While supporters claim House Bill 2250 signifies the state government's stand against weakening protections for air, soil and water at the federal level, opponents argue it amounts to an expensive but empty political stunt.

The bill was approved by the State Senate 16-12 on Tuesday after passing the House two months earlier. State Sen. Betsy Johnson, D-Scappoose, voted against the bill.

It's all but assured of being signed into law by Gov. Kate

Brown, who requested the legislation's introduction.

Under House Bill 2250, the Oregon Health Authority and Department of Environmental Quality can take or recommend actions to ensure "significantly less protective" federal environmental standards don't undermine protections at the state level.

The status of federal regulations on Jan. 19, 2017 — the day before President Donald Trump took office — will serve as the baseline for comparison.

State Sen. Cliff Bentz, R-Ontario, complained that HB 2250 basically enshrines federal regulations before change in political administrations rather than at a high point in environmental safeguards.

"Why should we do such a thing? Frankly, I kind of enjoy having a state make its rules, not the federal gov-

ernment," he said during the floor debate. "I don't want to be assuming that as of that particular date everything was great, but that is what this bill does."

Critics of HB 2250 also argued the bill will leave Oregon agencies exposed to lawsuits from environmentalists who don't believe revisions to state regulations sufficiently compensate for the reduced protections of federal standards.

State agencies already struggle to keep up with their existing duties and HB 2250 will only add to that burden by requiring them to monitor federal regulations, according to opponents.

Another question raised about the bill was its uncertain effect on applications for environmental permits from the state government that are partly based on federal standards.

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