

# Oregon Forestsnail: *Allogona townsendiana*

## *Species at Risk Fact Sheet*

### Wildlife Species Description and Significance

Oregon Forestsnail is a large snail with the shell about 28-35mm in diameter – this is about 1.4 to 1.7 times its height. The shell contains a spiral pattern of 5 to 6 whorls, and is usually dark reddish-brown or yellow to light-brown; it may show hints of white if it has been partially eroded. There is a prominent white lip (bottom edge of shell) that is easily seen from the ventral side.

The body is cream-colored and has very small golden or pale speckles. Juveniles are similar to the adults but are smaller and lack the white lip.



[http://academic.evergreen.edu/projects/ants/TESCBiota/mollusc/key/all\\_tow/all\\_tow/](http://academic.evergreen.edu/projects/ants/TESCBiota/mollusc/key/all_tow/all_tow/) - Photograph by William Leonard (2000)

### Identification Tips

A major distinguishing feature of this species is the white, thickened lip of the shell. Other notable features include a number of concentric lines found on the surface of the shell, and the upper whorls of the shell may be pale from wear.

There are a few other species of large snails that may be found in the same vicinity, and could be mistaken for the Oregon Forestsnail:

- Pacific Sideband (*Monadenia fidelis*) – very similar in appearance, but has a more reddish-brown

coloured shell, and may contain a yellow band which separates two-tones of brown. Also, this species has a prominent black line along the bottom whorls.

- Idaho Forestsnail (*Allogona ptychophora*) – also a similar species, but is smaller and only found on the east side of the Cascades; the ranges of the two species of *Allogona* do not overlap.
- *Cryptomastix germana* and *Vespericola columbiana* – both these species are much smaller, and unlike the Oregon Forestsnail, have shells covered with hair-like projections.

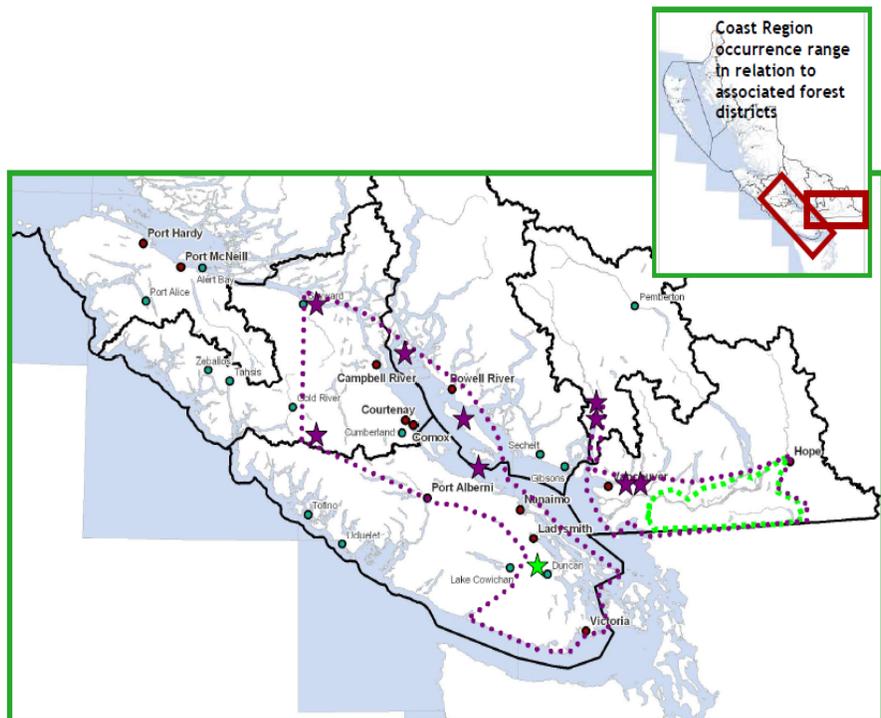
## Distribution

The Oregon Forestsnail is found along the northwestern Pacific coast region. It ranges from western Oregon and Washington State to southwestern British Columbia (Figure 1). In BC, this snail is mainly found in the Fraser Valley, but is also present in lesser densities in the Chilliwack, Abbotsford, and the North Shore regions. A single population has been discovered on southern Vancouver Island.

**Figure 1. Oregon Forestsnail distribution and habitat range**

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The green dotted line indicates the known habitat range of the Oregon Forestsnail, and the green star represents a single population on Vancouver Island. The purple dotted line indicates the habitat range of the Pacific Sideband, a close look-alike of the Forestsnail.



## Habitat

*Allogona townsendiana* occurs in mixed wood and moist deciduous lowland forests. Dominant trees in its habitat include Bigleaf Maple, Black Cottonwood and Red Alder.

This snail is often found among riparian areas and forest edges, but may also be found in forested areas and meadow patches. The Oregon Forestsnail will typically seek out very moist areas and patches of stinging nettle. The ability for coarse woody debris to capture and trap in moisture is likely a reason for the snail to also seek out this type of habitat. Leaf litter is also an important attribute to the habitat, as it provides a cool moist environment (imperative for this snail), and shelter for breeding, nesting, and hibernation. In Canada, the snail is found exclusively at elevations below 360 m.

## Life History

Oregon Forestsnail, like the majority of air breathing land snails, have a life cycle that is very closely tied to seasonal changes in both temperature and humidity. Mating for this species generally takes place during March and April when environmental conditions are suitable. The increase in humidity, temperature, and day length during these spring months set ideal conditions for reproduction to begin.

These snails amass in large clusters to begin mating. Following mating the egg-laying usually lasts throughout the month of May, with the majority of hatching taking place during June and spanning a timeline of several weeks.

As temperature increases and humidity decreases throughout the summer this species, like many other gastropods, undergoes a process known as aestivation in order to combat desiccation. This process is a state of dormancy, and along with hibernation during winter months helps ensure survival during unfavourable conditions.

## Why This Species Is At Risk

Habitat loss, fragmentation, and modification are the major threats to Oregon Forestsnail. The largest known populations of this species tend to occur in the provinces most developed areas with high occurrences of activities such as urbanization, agriculture, logging, brush burning, trampling, and pesticide use. Oregon Forestsnail has a high requirement for leaf litter and large woody debris, which provides ideal habitat during its periods of dormancy. These environments are vital as provide essential protection from both desiccation and extreme temperatures.

Given its poor dispersal ability the activities described above pose a particular threat as they have a greater affect on the species. Invasive and introduced species pose a smaller threat to these snails because of their ability to establish communities following habitat disturbances. This therefore drastically reduces the chances that the species will be able to recolonize following disturbances.

## What Can Be Done To Help This Species

The major threat to this species is habitat loss and fragmentation; therefore a primary objective for helping this species would be habitat restoration and management. Because a large amount of the forest habitat suitable for this species has been modified for agricultural purposes, it would be imperative that restoration aim to provide suitable cover for the snails such as introducing coarse woody debris in moist areas ideal for the snail and introducing species such as stinging nettle, which have been strongly correlated with the presence of the Oregon Forestsnail. Restoring habitat connectivity in areas such as creeks and waterways also helps to reduce fragmentation and allows for greater species dispersal.

Identifying ideal habitat and current population locations whilst reducing or preventing development and modification in these areas would be of significant benefit to the species. Recreational activities in these areas are also of concern although not as significant, as they may lead to soil compaction, which threatens suitable snail habitat. Introduced and invasive species is also a concern as always, however it can be extremely difficult to mitigate and control but site specific removals of invasive species can be accomplished with proper organization and education.

Working with landowners and managers in areas known to contain Oregon Forestsnail populations would also be essential to ensuring protection of habitat. This includes collaboration to develop guidelines and site-specific best management practices, as each site will have different threats and modifications. Livestock farming can also be a significant threat to both direct mortality and habitat due to trampling, especially because it tends to occur near water sources that provide ideal habitat for the snails.

## Protection, Status, and Ranks

The combination of the factors listed above has resulted in the species being listed as at risk by a number of organizations with the following status levels:

- **COSEWIC** – Endangered
- **BC Status** – Red Listed
- **BC Wildlife Act** – None
- **BC Forest and Range Practices Act** – None
- **SARA** – Schedule 1

Currently the British Columbia Wildlife Act does not legally protect terrestrial gastropods. Therefore there is not currently any legal protection for this species of snail, however one of the known localities of the Oregon Forestsnail does lie within a protected area ensuring its security. Because of this the Oregon Forestsnail is not prohibited from collection, handling, or trade along with all other invertebrates. This species is not listed with any form of status within the United States meaning that there is also no protection, as it is not considered to be at risk.

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