

Pause for Plants, Volume 2: Number 6.

January, 2004

Professor Jan Haldeman, Erskine College
haldeman@erskine.edu



Consider our ubiquitous evergreen Eastern redcedar which is not a true cedar but actually a juniper, with the scientific name *Juniperus virginiana*. This native tree belongs to the same family (Cupressaceae) as our western giant redwoods, an ancient family that dates back to the Age of Dinosaurs. It is also the only native juniper found growing east of the Mississippi, with a normal range extending even further west.

These trees show up nicely along roadsides and in wooded natural areas these winter days. Most folks growing up in the southeast have cut and decorated one for Christmas. The trees have a nice shape and fragrance, even if they are a bit prickly. Most tree shoppers now seem to

prefer mountain Fraser firs and exotic Norway spruce, or, heaven forbid, artificial trees!



Eastern redcedars have male and female trees. The scientific term for this "animal like" (dare I say!) condition is **dioecious** from Greek di = two and oikos = house. Male trees produce tiny pollen cones at tips of branches that can give the whole tree a rusty orange color this time of year.



Females produce small, blue, two to three seeded berry-like cones, which when present in large numbers give trees a bluish sheen. Birds and small mammals really like these fleshy "cones." Juniper seeds have a tough resistant coat, and studies have shown that they pass through animal digestive tracts intact and are thereby better conditioned for germination! The versatile juniper "berries" also give flavor to gin, and have been used medicinally as a diuretic and a cold remedy.



Often there are some curious structures hanging from ends of juniper branches. One looks like an irregularly round medium brown lump which may be one to three inches in diameter. These are tumor-like growths produced when the trees are infected with cedar apple rust (*Gymnosporangium juniperi-virginianae*) It is called "apple rust," because apple trees are the alternate host for this fungus. When it is warm and damp, the brown lumps sprout bright orange jelly-like spore producing strands. These spores infect apple leaves where another spore type is produced that will infect junipers.



Juniper branches may also be infested with bag worm moths (*Thyridopteryx ephemeraeformis*) whose larvae feed on juniper leaves and then use them to help structure their bag-like cocoons. Only males will grow wings, hatch out of their cocoons and fly to find a female, confined to her "bag." After mating, the male dies and the female remains with the fertilized eggs and then dies. Next season these eggs will hatch into larvae that crawl out of their bags to munch on juniper leaves. To rid your junipers of these pests, just pull the bags off in the fall and trash them. There are bagworms that feed on and inhabit other trees, such as willow.

Cedar wood has many uses, including linings for closets and "cedar" chests. Aromatic resins in the wood discourage moths. Juniper is also used for pencils and pet bedding. Because the wood resists decay, whole trunks from younger trees are harvested for long lasting fence posts. And, as mentioned previously, junipers keep wildlife fed in the winter.

True cedars are members of the genus *Cedrus* in family Pinaceae, and are referenced approximately fifty times in the Bible. Probably the best known reference is use of cedar (*Cedrus libani*) to build Solomon's temple (I Kings 5:6-10), and cedar wood is considered the quintessential "Righteous Wood." The misleading common name "Redcedar" for junipers came about when biblically literate North American colonists

and pioneers gave the name to junipers and other evergreen trees whether or not they were true cedars.



But this is the strangest phenomenon recently observed with Eastern Redcedar. Two trees in our community are home to honey bees! With a resinous wood that is reported to repel moths, it seems strange that bees would choose redcedars for their hives! Perhaps it keeps them free from bee mites. The photo below was taken January 10, 2004 when the high for that day was no more than 40 degrees, yet the bees were alive and moving.