Chinese and European Privet: A Threat to Texas' Forests Sixth of the "Dirty Dozen"

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Editor's Note: An introductory article discussing exotic invasive pests that could threaten forest resources in Texas was included in the June 2005 issue of *Texas Forestry*. As a follow-up to that article, a series of 12 short articles about specific exotic pests that are either present in Texas or are at our doorstep is being presented in *Texas Forestry*. The authors (Joe Pase, Ron Billings, and Kim Camilli) are calling this series the "Dirty Dozen." Last month, Ron described Japanese climbing fern, the fifth invasive pest in the series. Nonnative privet is the sixth invasive pest and the third plant to be presented.

Chinese and European privet were first introduced into the U.S. from China and Europe for use as ornamental shrubs in the South, where they were long considered a traditional shrub to plant. As we hear so many times, many ornamentals brought into this country as beautiful shrubs have escaped into the native environment and are now disrupting native plant communities. The nonnative privets, particularly Chinese privet, are among the most notorious of these unwanted invaders in the South.

Chinese privet (*Ligustrum sinense*) and European privet (*Ligustrum vulgare*) introduced into the southern United States in the mid-1800s, have continued to be used as ornamentals and are now found in 20 southern states, including 78 counties in east and central Texas (see map). The counties have been confirmed through the NRCS records ,Texas Forest Service questionnaires and 2003 forest inventory analysis plot data. The widespread distribution of these shrubs is due to their use in landscaping and in floristic displays. They are still commonly sold in nurseries and cultivated in 10 states. In Texas, these plants are on the Texas Department of Agriculture's list of nuisance plants. The Southeast Exotic Plant Pest Council also lists these shrubs as invasive plants.

It is very hard to distinguish Chinese privet from European privet except at flowering. Both have opposite branches with abundant white fragrant flowers in the spring (see photo's 1 & 2), though Chinese privet is more common and widely distributed. Privet can be found in disturbed areas, along road sides, fields and fencerows often forming dense thickets where it will shade out all herbaceous growth. This plant also grows from rhizomes as well as by seeds that are widely dispersed by birds and other animals. The leaves are high in phenolic compounds that defend the plant against herbivores, especially insects, allowing the plant to spread. Interestingly, deer are not affected by these toxic compounds and will browse on sprouts.

Chinese privet is versatile, able to survive in a wide range of habitats, soil and light conditions. However, the plant thrives in wet damp conditions, loves mesic soils and abundant sunlight. As a result it is common around old homesites, low woodlands, bottomlands, streamsides and forest margins.

Two other introduced species, Japanese privet (*Ligustrum japonicum*) and glossy privet (*Ligustrum lucidum*) also have become established as invasive plants in Texas, but these are not as common as Chinese privet. The former have larger, glossy leaves 2-4 inches long and 1-2 inches wide (see photo 3).

Eradication of nonnative privet is very difficult due to the extremely dense thickets, up to 30 feet in height, that are often formed. For small areas and relatively small plants, hand removal is effective. Recommended control procedures for large infested areas are to use a foliar spray of glyphosate herbicide mixture with a surfactant repeatedly as a 3% solution or Arsenal AC® as a 1% solution throughout the active growing season.. Foliar sprays should be used only where risk to non-target plants is minimal. For stems that are too tall for foliar sprays, a basal spray of Garlon 4® should be applied as a 20% solution in basal oil, diesel fuel or kerosene with a penetrant. For large stems that are cut, immediately treat stumps with Arsenal AC® or Velpar L® as a 10% solution in water with a surfactant.

Arsenal AC® may kill nontarget plants by root uptake so when surrounding vegetation is present, immediately treat stumps and cut stems with Garlon 3A® or a Glyphosate mixture as a 20% solution in water with a surfactant.

If you detect these exotic plants infesting forests in Texas, please contact Kim Camilli, Texas Forest Service, by e-mail (kcamilli@tfs.tamu.edu) or by phone (512-371-7011) so we can get a better handle on its distribution in Texas. Once verified, new records will be added to the county distribution map on the new partnership web page now being developed on Texas invasive pests at http://www.texasinvasives.org.

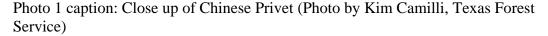




Photo 2 Caption: Flowering Chinese Privet. (Photo by Ron Billings, Texas Forest Service)



Photo 4 Caption: Texas Counties reported as having Chinese Privet.

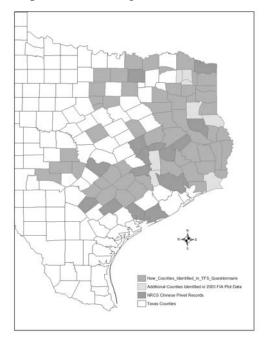


Photo 3 Caption: Japanese privet (left) leaves compared to Chinese privet (right) leaves. (Photo by Ted Bodner, Southern Weed Science Society, www.forestryimages.org).

