The following is a description of invasive plants that you are likely to find in Tompkins County:

Buckthorn

Rhamnus cathartica (**Buckthorn**, **Common Buckthorn** or **Purging Buckthorn**), is a species in the family Rhamnaceae, native to Europe, northwest Africa, and western Asia, from the central British Isles south to Morocco, and east to Kyrgyzstan. It was introduced to North America as an ornamental shrub in the early 19th century or perhaps before.

The species is naturalized and sometimes invasive in parts of North America.*R. cathartica* has a competitive advantage compared to native trees and shrubs in North America because it leafs out before native species. Soil in woodlands dominated by *R. cathartica* was higher in nitrogen, pH, and water content that soil in woodlands relatively free of *R. cathartica*, probably because *R. cathartica* has high levels of nitrogen in its leaves and these leaves rapidly decompose.

R. cathartica is also associated with invasive European earthworms (Lumbricus sp.) in the northern Midwest. Removing *R. cathartica* led to a decrease of invasive earthworm biomass of around 50%.

Tatarian Honeysuckle

Lonicera tatarica is a species of honeysuckle known by the common name **Tatarian honeysuckle**. It is native to Siberia and other parts of eastern Asia, but it is probably better known in North America, where it is a widespread introduced species and noxious weed. This plant, one of several exotic bush honeysuckles present in North America,[1] was introduced as an ornamental plant in 1752.[2] It is known across the continent west to Alaska and California, where it easily grows in disturbed habitat. It is a bushy shrub which may approach three meters in erect height. It is lined with oval or rounded leaves 3 to 6 centimeters long. The inflorescence is generally a pair of white to pink to crimson red flowers each about 1.5 centimeters long. The flowers are somewhat tubular, their stamens and styles protruding. The fruit is a shiny orange or red berry up to a centimeter wide. The plant forms thickets and spreads easily when birds and other animals consume the fruits.

Barberry

Berberis, the **barberries** or **pepperidge bushes**, is a genus of about 450-500 species of deciduous and evergreen shrubs from 1-5 m tall with thorny shoots, native to the temperate and subtropical regions of Europe, Asia, Africa, North America and South America. They are closely related to the genus Mahonia, which is included within *Berberis* by some botanists. Species diversity is in South America, Africa and Asia; Europe has a few species, and North America only two.

Berberis vulgaris (**European barberry**)/***(Jaundice berry)/(Ambarbaris)/(Barberry)*** is a shrub in the family Berberidaceae, native to central and southern Europe, northwest Africa and western

Asia; it is also naturalised in northern Europe, including the British Isles and Scandinavia, and North America.

It is a deciduous shrub growing up to 4 m high. The leaves are small oval, 2–5 cm long and 1–2 cm broad, with a serrated margin; they are borne in clusters of 2-5 together, subtended by a three-branched spine 3–8 mm long. The flowers are yellow, 4–6 mm across, produced on 3–6 cm long panicles in late spring. The fruit is an oblong red berry 7–10 mm long and 3–5 mm broad, ripening in late summer or autumn; they are edible but very sour, and rich in Vitamin C.

Privet

Wild Privet, also sometimes known as Common Privet or European Privet (Ligustrum vulgare). **Privet** was originally the name for the European semi-evergreen shrub Ligustrum vulgare, and later also for the more reliably evergreen Ligustrum ovalifolium (Japanese privet), used extensively for privacy hedging. It is often suggested that the name *privet* is related to *private*, but the OED states that there is no evidence to support this. The term is now used for all members of the genus Ligustrum, which includes about 40-50 species of evergreen, semi-evergreen or deciduous shrubs and small trees, native to Europe, north Africa, Asia and Australasia, with the centre of diversity in China, the Himalayas, Japan and Taiwan. The generic name originated in Latin and was applied by Pliny the Elder (23 CE – 79) to *L. vulgare*. The genus is placed in the olive family, Oleaceae. The flowers are small and fragrant and borne in panicles. They have four curled-back petals and two high stamens with yellow or red anthers, between which is the low pistil; the petals and stamens fall off after the flower is fertilized, leaving the pistil in the calyx tube. Flowering starts after 330 growing degree days. The fruits, borne in clusters, are small purple to black drupes. The fruits of some species are mildly poisonous to humans.

Garlic Mustard

Alliaria petiolata is native to Europe, western and central Asia, and northwestern Africa, from Morocco, Iberia and the British Isles, north to northern Scandinavia, and east to northern India and western China (Xinjiang).[1] In the first year of growth, plants form attractive clumps of round shaped, slightly wrinkled leaves, that when crushed smell like garlic. The next year plants flower in spring, producing cross shaped white flowers in dense clusters, as the flowering stems bloom they elongate into a spike-like shape. When blooming is complete, plants produce upright fruits that release seeds in mid summer. Plants are often found growing along the margins of hedgerows, giving rise to the old British folk name of **Jack-by-the-hedge**. Other common names include **Garlic Root**, **Hedge Garlic**, **Sauce-alone**, **Jack-in-the-bush**, **Penny Hedge** and **Poor Man's Mustard**. The genus name *Alliaria*, "resembling Allium", refers to the garlic-like odour of the crushed foliage.

Japanese Knotweed

(*Fallopia japonica*, syn. *Polygonum cuspidatum*, *Reynoutria japonica*) is a large, herbaceous perennial plant, native to eastern Asia in Japan, China and Korea. In North America and Europe the species is very successful and has been classified as an invasive species in several countries.

A member of the family Polygonaceae, Japanese knotweed has hollow stems with distinct raised nodes that give it the appearance of bamboo, though it is not closely related. While stems may reach a maximum height of 3–4 m each growing season, it is typical to see much smaller plants in places where they sprout through cracks in the pavement or are repeatedly cut down. The leaves are broad oval with a truncated base, 7–14 cm long and 5–12 cm broad, with an entire margin. The flowers are small, cream or white, produced in erect racemes 6–15 cm long in late summer and early autumn.

Closely related species include giant knotweed (Fallopia sachalinensis, syn. *Polygonum sachalinense*) and Russian vine (Fallopia baldschuanica, syn. *Polygonum aubertii*, *Polygonum baldschuanicum*).

Other English names for Japanese knotweed include fleeceflower, Himalayan fleece vine, monkeyweed, Huzhang (Chinese: ??; pinyin: *H?zhàng*), Hancock's curse, elephant ears, pea shooters, donkey rhubarb (although it is not a rhubarb), sally rhubarb, Japanese bamboo, American bamboo, and Mexican bamboo (though it is not a bamboo). There are also regional names, and it is sometimes confused with sorrel.

Norway Maple

Acer platanoides is a species of maple native to eastern and central Europe and southwest Asia, from France east to Russia, north to southern Scandinavia and southeast to northern Iran.

It is a deciduous tree growing to 20–30 m tall with a trunk up to 1.5 m diameter, and a broad, rounded crown. The bark is grey-brown and shallowly grooved; unlike many other maples, mature trees do not tend to develop a shaggy bark. The shoots are green at first, soon becoming pale brown; the winter buds are shiny red-brown. The leaves are opposite, palmately lobed with five lobes, 7–14 cm long and 8–20 cm (rarely 25 cm) across; the lobes each bear one to three side teeth, and an otherwise smooth margin. The leaf petiole is 8–20 cm long, and secretes a milky juice when broken. The autumn colour is usually yellow, occasionally orange-red. The flowers are in corymbs of 15–30 together, yellow to yellow-green with five sepals and five petals 3–4 mm long; flowering occurs in early spring before the new leaves emerge. The fruit is a double samara with two winged seeds; the seeds are disc-shaped, strongly flattened, 10–15 mm across and 3 mm thick. The wings are 3–5 cm long, widely spread, approaching a 180° angle. It typically produces a large quantity of viable seeds. It is not particularly a long-lived tree, with a maximum age of around 250 years

Tree of Heaven

Ailanthus altissima , commonly known as **tree of heaven**, **ailanthus**, or in Standard Chinese as ***chouchun***, is a deciduous tree in the Simaroubaceae family. It is native to both northeast and central China and Taiwan. Unlike other members of the genus Ailanthus, it is found in temperate climates rather than the tropics. The tree grows rapidly and is capable of reaching heights of 15 metres (49 ft) in 25 years. However, the species is also short lived and rarely lives more than 50 years.

In China, the tree of heaven has a long and rich history. It was mentioned in the oldest extant Chinese dictionary and listed in countless Chinese medical texts for its purported ability to cure ailments ranging from mental illness to baldness. The roots, leaves and bark are still used today in traditional Chinese medicine, primarily as an astringent. The tree has been grown extensively both in China and abroad as a host plant for the ailanthus silkmoth, a moth involved in silk production. Ailanthus has become a part of western culture as well, with the tree serving as the central metaphor and subject matter of the best-selling American novel A Tree Grows in Brooklyn by Betty Smith.

The tree was first brought from China to Europe in the 1740s and to the United States in 1784. It was one of the first trees brought west during a time when chinoiserie was dominating European arts, and was initially hailed as a beautiful garden specimen. However, enthusiasm soon waned after gardeners became familiar with its suckering habits and its foul smelling odour. Despite this, it was used extensively as a street tree during much of the 19th century. Outside of Europe and the United States, the plant has been spread to many other areas beyond its native range. In a number of these, it has become an invasive species due to its ability to quickly colonise disturbed areas and suppress competition with allelopathic chemicals. It is considered a noxious weed in Australia, the United States, New Zealand and several countries in southern and eastern Europe. The tree also resprouts vigorously when cut, making its eradication difficult and time consuming. In many urban areas, it has acquired the derisive nicknames of "ghetto palm" and "stink tree".

Invasive Plants Terminology

Allelopathy – a biological phenomenon by which an organism produces one or more biochemicals that influence the growth, survival, and reproduction of other organisms. These compounds are called allelochemicals.

Black Walnut is native, but produces juglone which can suppress the growth of many species.

Garlic Mustard produces an allelochemical know to harm mycorrhizal fungi important to forest soils and native plant growth.

Prolific Seeders – produce a large crop of seeds.

These seeds are often surrounded by tasty, colorful berries that are eaten up by birds. Many birds are not particular about berries they eat. The biggest, nicest looking berry attracts them.

Elaeagnus umbellata (Autumn Olive) for instance, was once planted as a food source for birds, but has since become invasive due to its hardiness and bird-spread seeds.

Foul Tasting - Some plants dodge the hungry deer by producing foul tasting and smelling chemicals such as flavonoids, defence proteins, glycosides, and glucosinolates.

Fierce Defense – Plants such as Buckthorn and Barberry have developed sharp thorns making the plants hard to eat or even walk through.

Self Fertilizing – Some species including Garlic Mustard and Buckthorn produce lots of new growth that decomposes quickly when dropped. This causes a nutrient flush that can make the surrounding ground even more favorable to the invasive plants.

Nitrogen Fixing – Some species harbor nitrogen fixing organisms in their roots that are able to take Nitrogen from the environment and add it to the soil. This can alter habitats and make growth easier for plants not adapted to low N soil. This crowds out natives that have adapted to low N soil.

Accelerated Growth – Most invasives grow fast and create a dense cover that blocks precious light from reaching the often slower growing native seedlings below.

Early Leaf Out – Many invasives naturally leaf out earlier than native species, giving them a head start.

Late Leaf Drop – Many invasives hold their leaves longer than native species, giving them extra week to grow and store up energy for the next growing season.
Click on this link below--the PDF (it's 68 pages and may take a minute or two to upload) describes invasives and similar native plants that are commonly mis-IDed.

http://www.nybg.org/files/scientists/rnaczi/Mistaken_Identity_Final.pdf