

### **About Ludwigia:**

- Ludwigia is native to South America and it was spread to California both intentionally and accidentally – ornamentals, water gardens, aquaria dumping and boats.
- First record of Ludwigia in Russian River occurred in 1960, now covers 109 of 120 miles
- Ludwigia = Emergent (rooted in sediment) and creeping (floating-leaved) aquatic plant. It can also survive as a submersed aquatic plant. Germinants and shoot fragments survive as free-floating aquatic plants.

### **How does Ludwigia spread?**

- Ludwigia can spread by hydrochory – the dispersal of seeds or plant material by water.
- Clonal spread of shoot fragments
- Seeds! 20-60 seeds per fruit (they float) & up to 10,000 seeds per square yard

### **Impacts of Invasion**

- Excessive growth decreases open water habitat and blocks out light
- Decomposition of plants can lower water quality
- Interferes with recreational activities (beach access, boating, fishing)
- Can decrease flood retention capacity and increase downstream flood impacts
- Ludwigia mats can get in the way of current mosquito control methods
- Careless removal of ludwigia can cause spread downstream

### **Possible Control Methods**

- **Biological Control:** use ludwigia's predators as a way to control growth. *Altica litigata* (Coleoptera: Chrysomelidae) Water flea beetle feeds on Ludwigia and can be used to keep growth under control.
- **Mechanical:** Tractors & cranes in larger streams but hard to keep pieces from escaping
- **Herbicide:** Has failed in Laguna de Santa Rosa, not effective and pollutes water
- **Best Method for RR:** Hand removal of Ludwigia and compost well away from River

### **Tips for Removing Ludwigia - Get it before summer starts!**

- Manually remove weeds before they flower (April or May). Keep removing resprouts before flowering (July –August are peak seeding months)
- Ensure that all parts of the plant are removed as rapid growth can occur from small pieces of the plant
- Ludwigia may make rich compost but be sure it is composted far away from the river so it cannot spread
- **DO NOT** let pulled weeds (even small pieces) float downstream! Even small parts of the plant can float downstream and invade another beach. Even if the plants are dead you must remove them because dead plants will decay and deoxygenate the water.
- **DO NOT** rake weeds into the river
- Floating booms can contain aquatic weeds and enable easier and safer removal
- Rapid response to new invasions is key to control of weed – Get new plants before they get big!
- Education and Prevention!

### **Remember:**

***Always do good without causing more harm: prevent downstream spread!***

***When you see new Ludwigia plants remove them promptly before they mature and seed!***

Weeds are not invincible: commit to long-term vegetation management and be persistent and you will prevail as they have on Peconic Bay in NY!