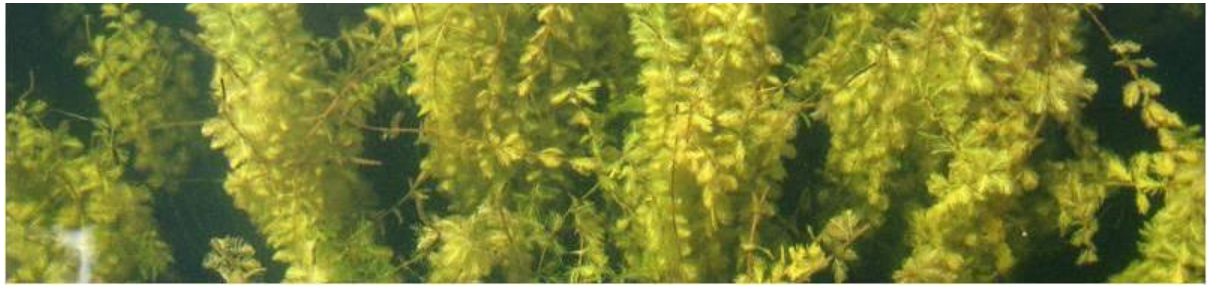
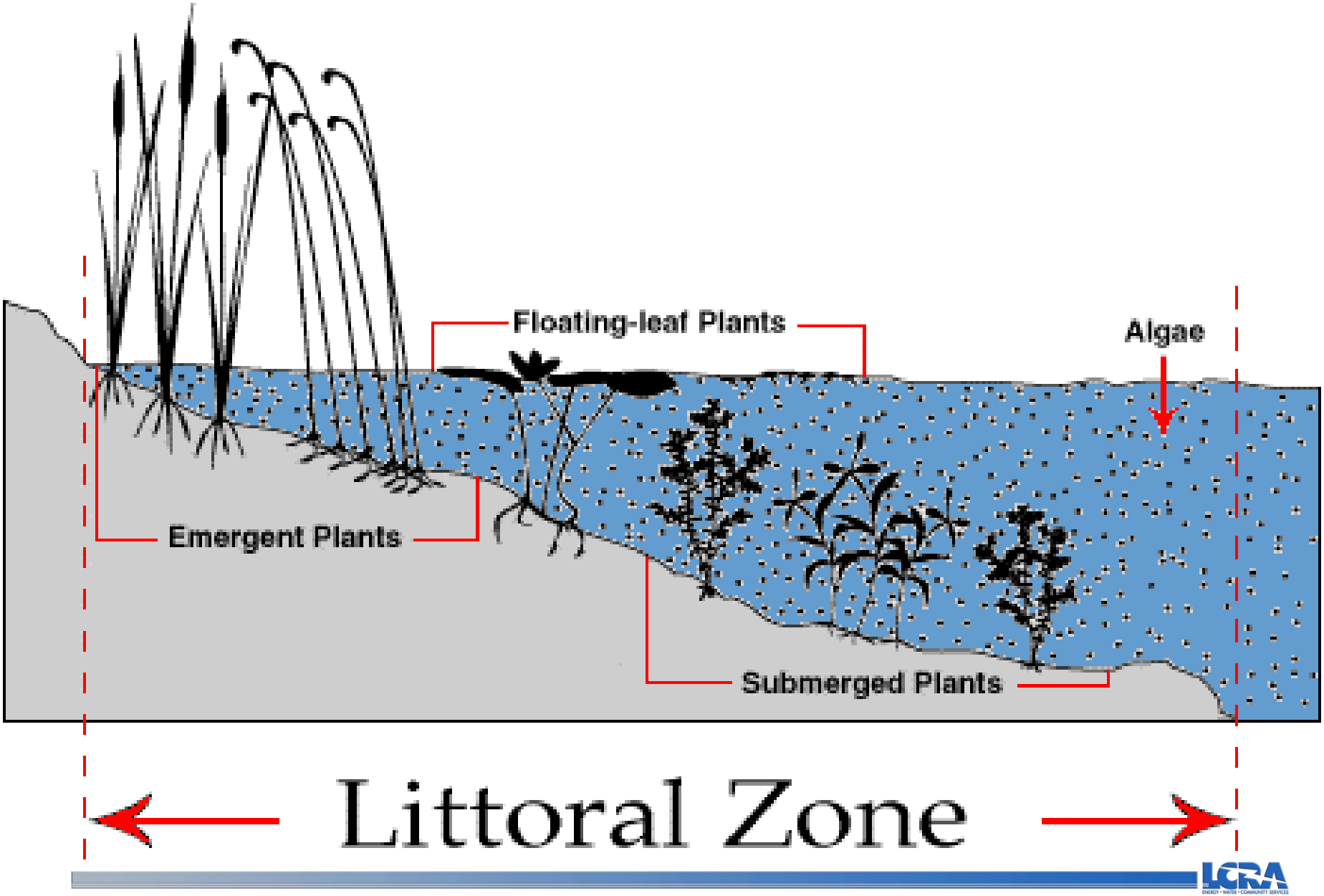
# Nuisance Aquatic Plants of the Colorado River Basin

**Mid-Central Water Quality Advisory Committee**
**Jan. 21, 2014**

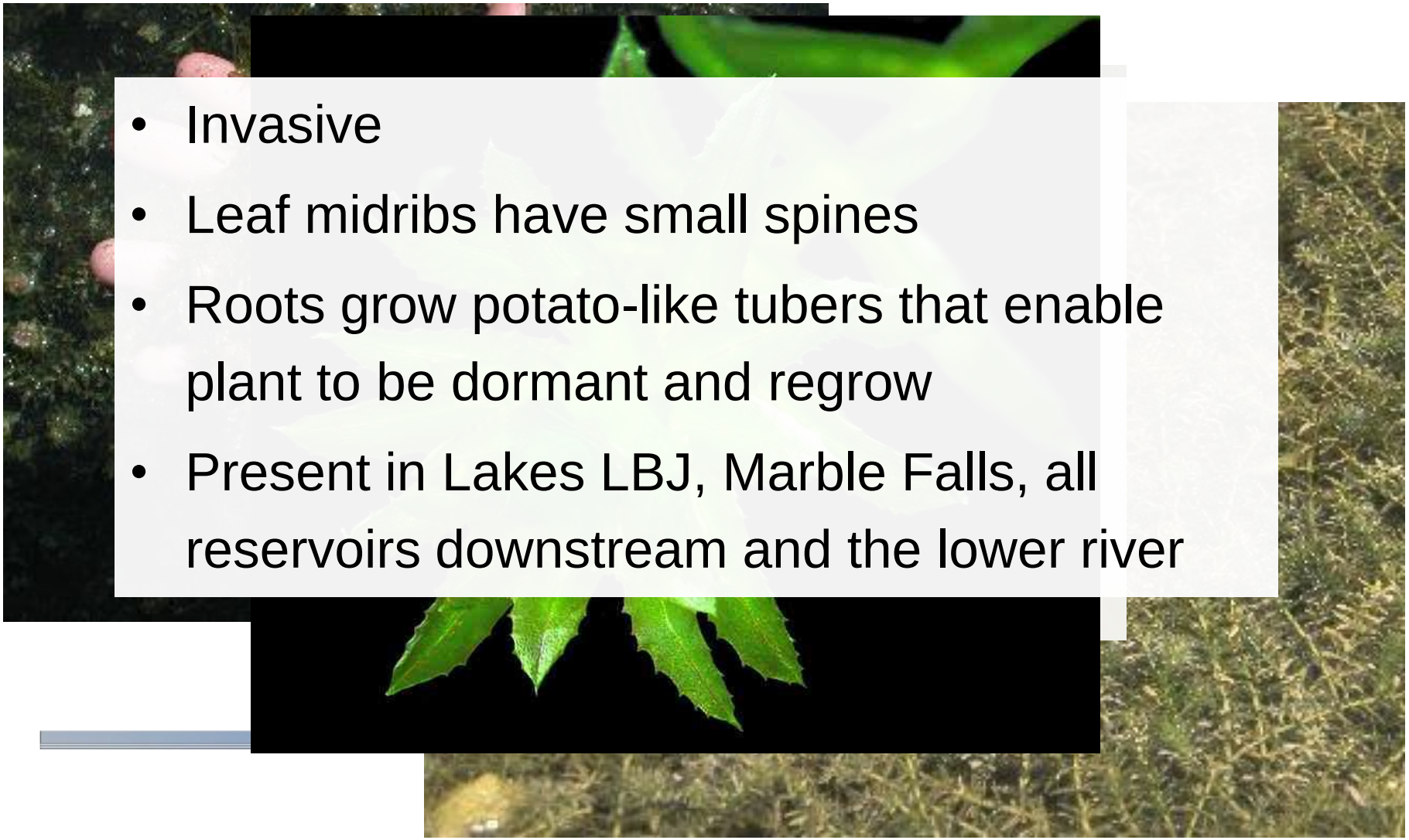



Floating-leaf Plants
Algae
Emergent Plants
Submerged Plants
Littoral Zone

# Causes of nuisance plant growth

- Excessive nutrients
- Limited or no grazing by herbivores (especially with non-native plants)
- Low flows = less flushing/scouring action
  - Increased water clarity allows submerged plants to receive more sunlight

# Hydrilla
## (*Hydrilla verticillata*)

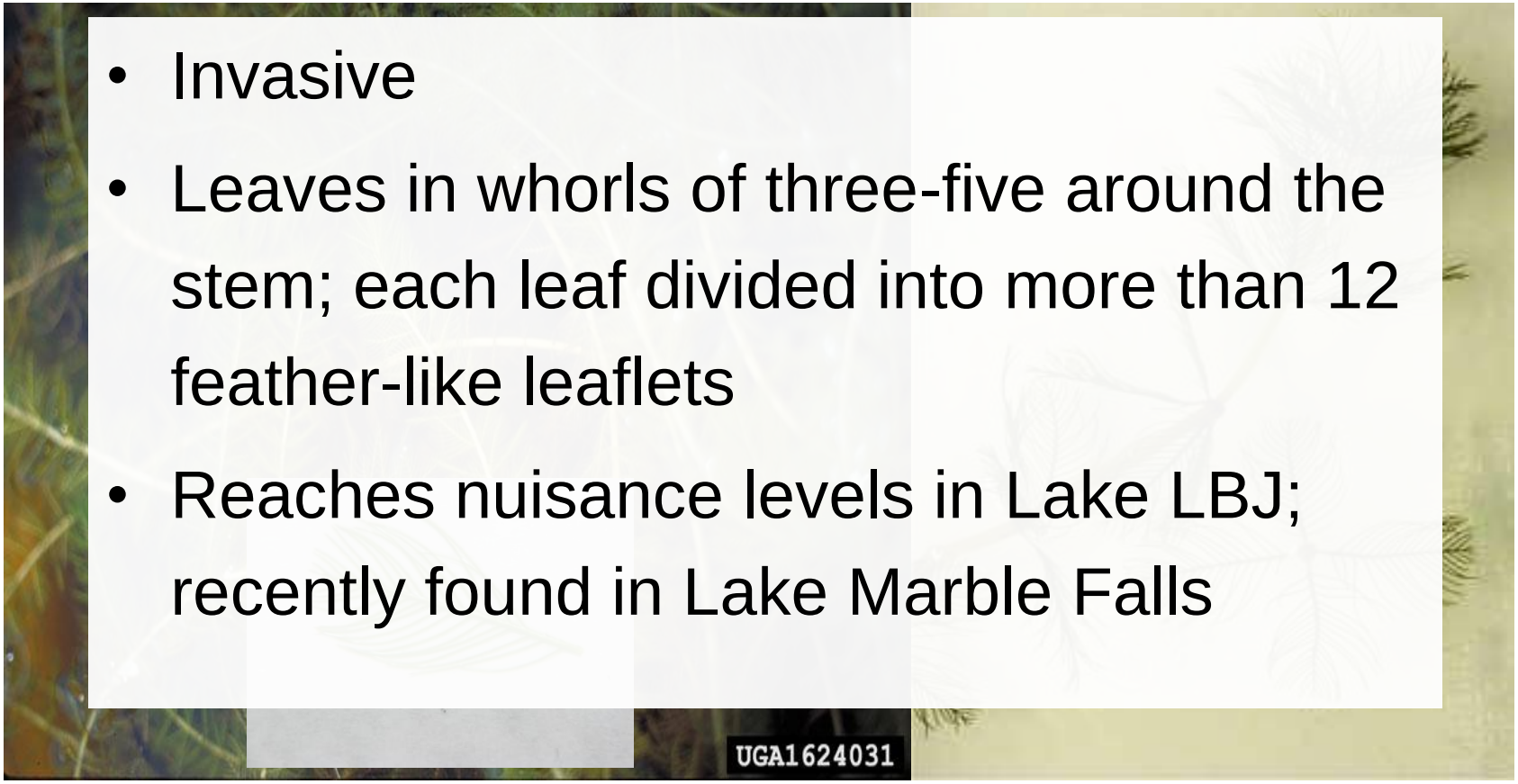


- Invasive
- Leaf midribs have small spines
- Roots grow potato-like tubers that enable plant to be dormant and regrow
- Present in Lakes LBJ, Marble Falls, all reservoirs downstream and the lower river

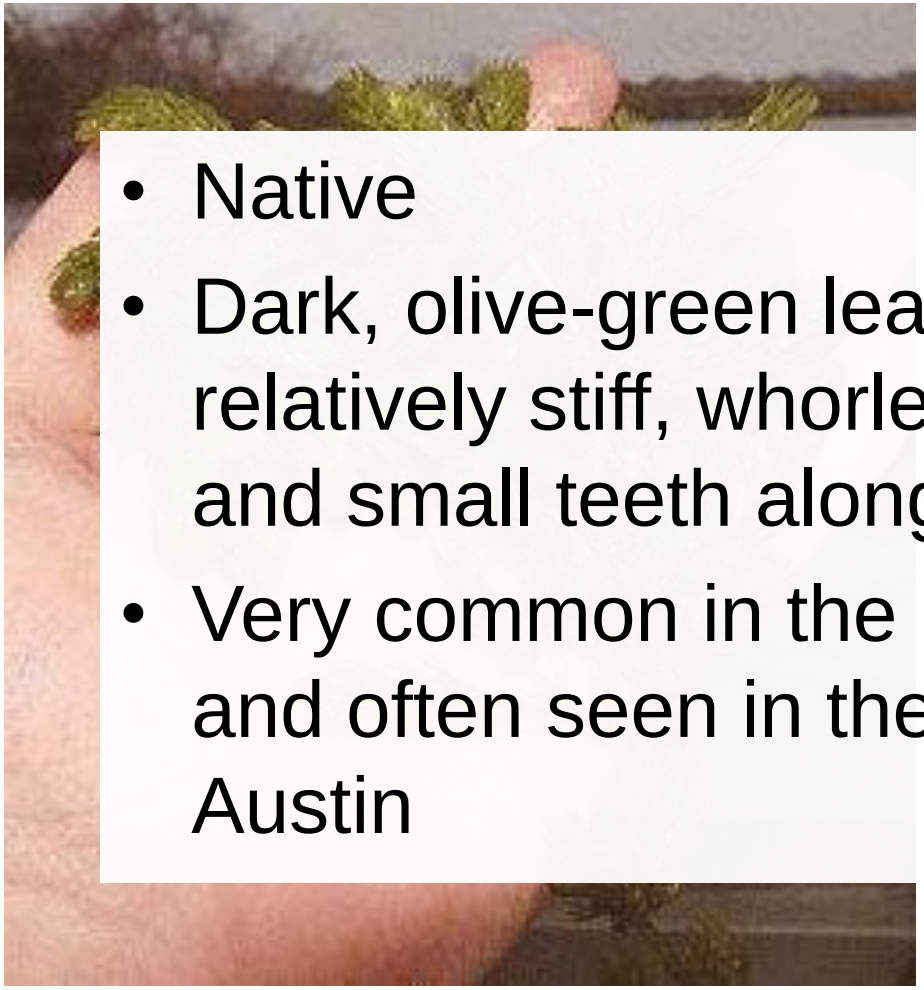
# Hydrilla vs. Brazilian Elodea

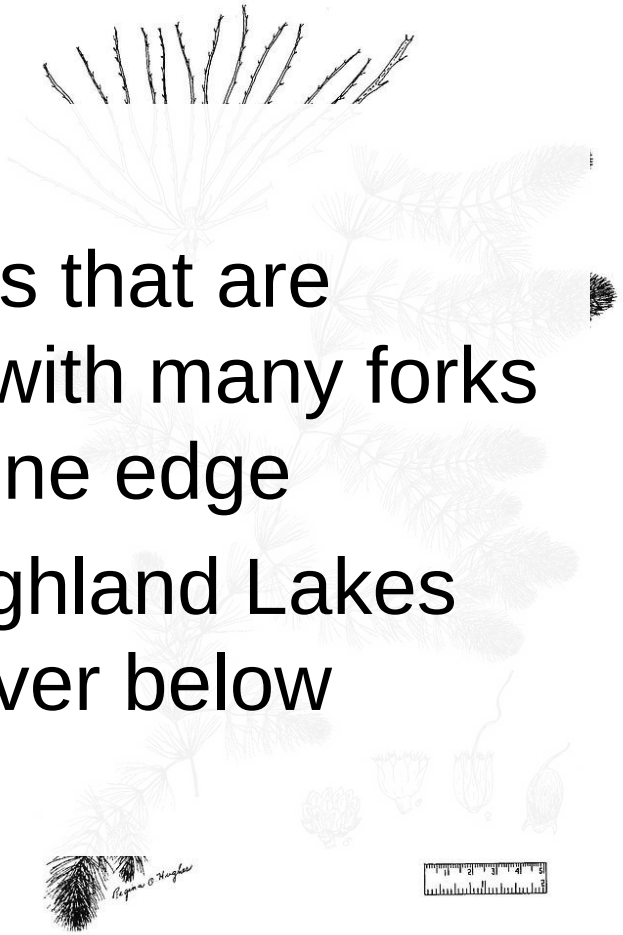
# Eurasian Watermilfoil
## (*Myriophyllum spicatum*)

- Invasive
- Leaves in whorls of three-five around the stem; each leaf divided into more than 12 feather-like leaflets
- Reaches nuisance levels in Lake LBJ; recently found in Lake Marble Falls



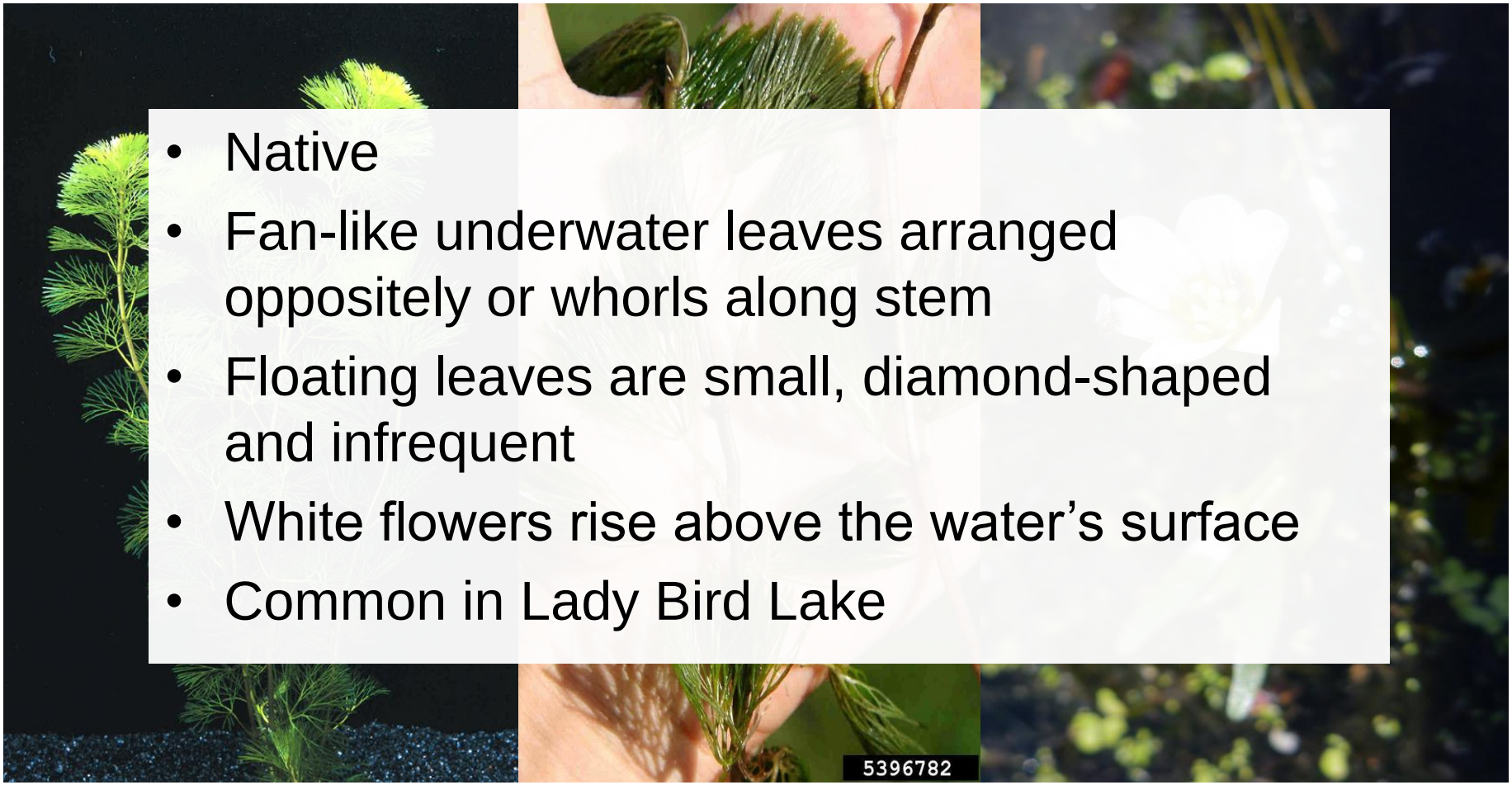
# Coontail
## (*Ceratophyllum demersum*)





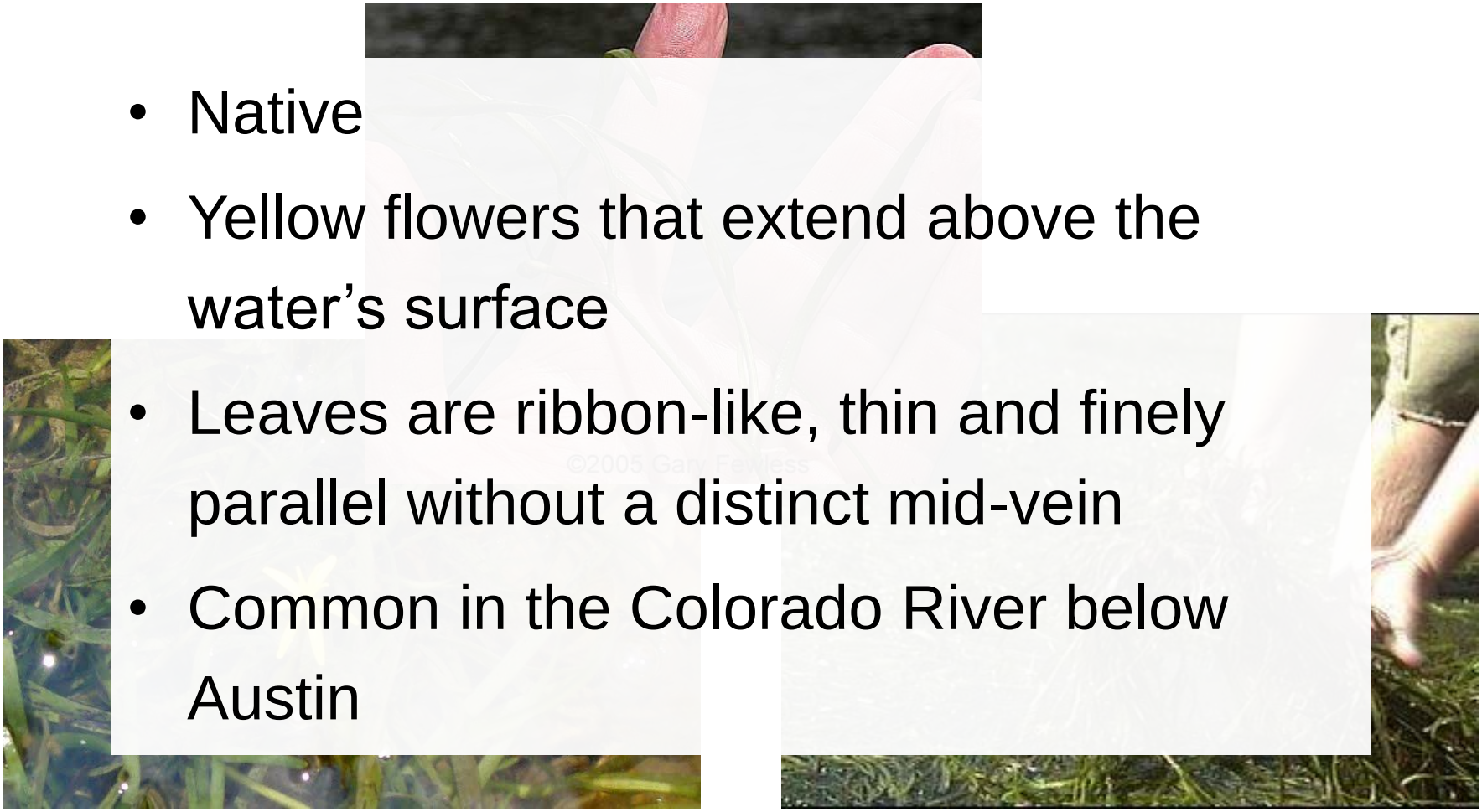
- Native
- Dark, olive-green leaves that are relatively stiff, whorled with many forks and small teeth along one edge
- Very common in the Highland Lakes and often seen in the river below Austin

# Cabomba/Fanwort
# (*Cabomba caroliniana*)




- Native
- Fan-like underwater leaves arranged oppositely or whorls along stem
- Floating leaves are small, diamond-shaped and infrequent
- White flowers rise above the water's surface
- Common in Lady Bird Lake

# Water Stargrass
## (*Heteranthera dubia*)




- Native
- Yellow flowers that extend above the water's surface
- Leaves are ribbon-like, thin and finely parallel without a distinct mid-vein
- Common in the Colorado River below Austin

# Water Hyacinth
## (*Eichhornia crassipes*)

- Invasive
- Rounded, leathery leaves with spongy, inflated stalks
- Found in small pockets in Lake LBJ
- Clogged the river between Austin and Bastrop in summer 2013

# Duckweed
## (*Lemna spp.*)

- Native
- Very small; one to three leaves that are 1/8-inch or less in length
- Found in dense colonies in quiet waters
- Proliferated in the river between Austin and Bastrop in summer 2013

# Management

- An approved treatment proposal is required on a public body of water
  - One-page form plus a map
  - Free
- Both Texas Parks and Wildlife Department and LCRA must approve

# Management Options

- Manual removal
  - Water weed rake
  - Snorkel/scuba to remove by hand
  - Must remove material from the water body

# Management Options

- Chemical treatment
  - As of now, only copper-based herbicides are recommended, preferably applied by a licensed applicator
  - LCRA is developing a guidance document

# Questions?