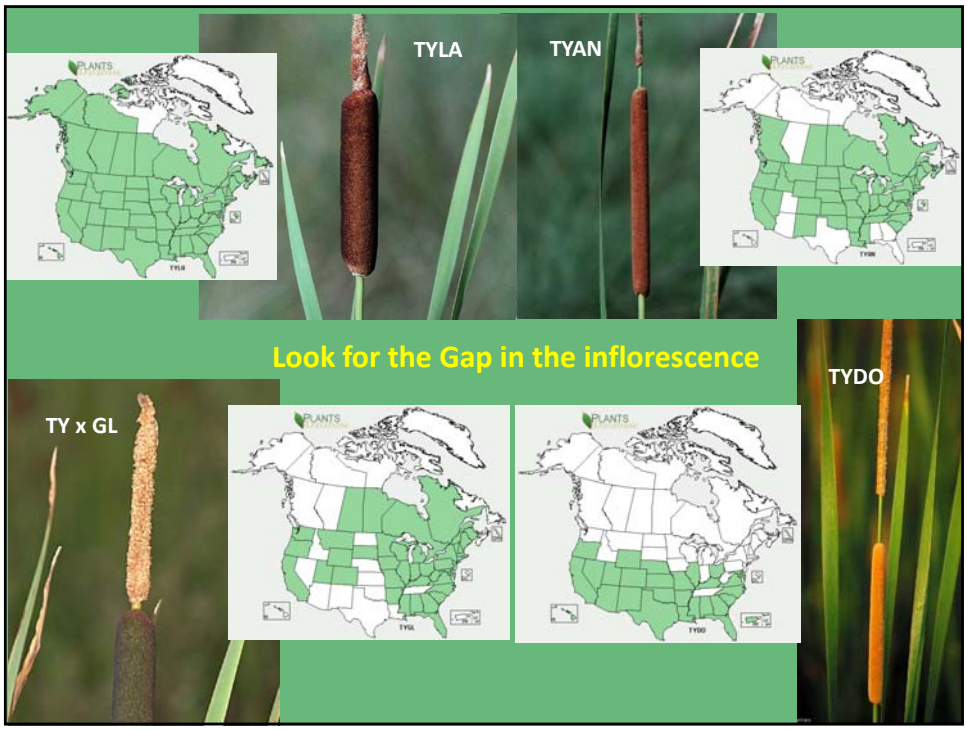
Cattails – *Typha sp.*

and the Love-Hate relationship

- **Tall, herbaceous perennial w/ tough, thick, fleshy, primarily basal, difficult to decompose leaves.**
- **Large horizontal rhizomes create dense colonies.**
- **Flowers with separate female (basal) and epherimal male (apical) flowers.**
- **Seeds prolific, wind blown; require damp, exposed substrate for germination.**
- **National Wetland Plant List = OBL**



Why do we love 'em?

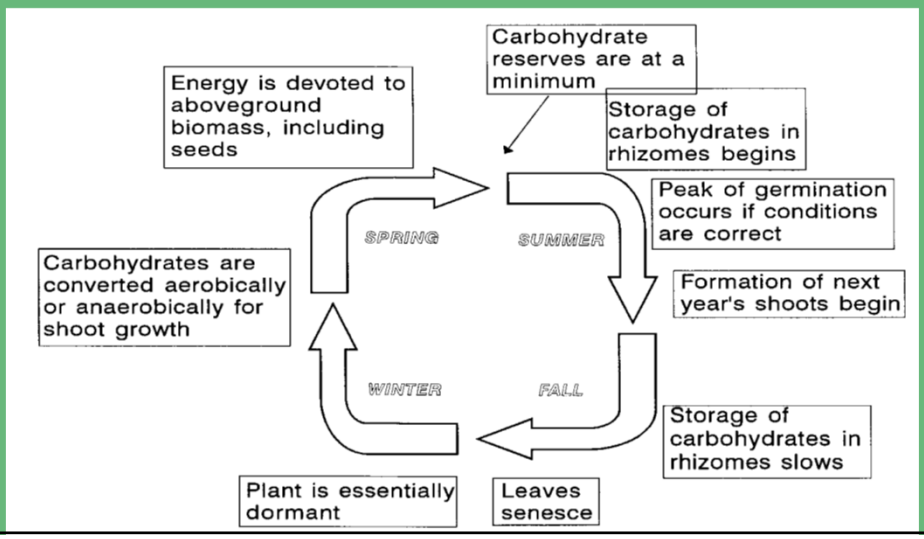
- Quick establishment of wetland vegetation.
- Quickly create hemi-marsh.
- Slow to decompose leaves supports 'reducer' invertebrate populations as well as small fishes and herps. Muskrats & geese eat rhizomes & stems, nesting, escape cover.
- Build wetland organics.
- Good uptake of phosphorus, nitrogen, & heavy metals.
- Economic – rhizomes eaten raw/cooked & made into flour, stem bases boiled like potatoes, young seed heads steamed like corn, pollen used as flour, weaving baskets & mats, boats, torches, tinder.

Why do we hate 'em?

- Rapidly colonize & displace other vegetation.
- Limit biodiversity.
- Create stagnant zones inside the thick colonies.
- Extremely tolerant of changing water levels…they just won't die.
- Seeds are 100% viable in year 1; some viable in seed bank for 100 years.
- Natural cycles of drought/wet cycles missing as is major predators.
- Ducks don't like 'em

Control

- **Mechanical, burning, flooding, chemicals & biological (?)**



Chemical

- **Glyphosate registered for aquatic use effective.**
- **Apply in mid- to late summer after new growth has slowed and carbohydrate reserves are being transported /stored in the rhizomes.**
- **Problem – seeds have already formed so be cautious about dewatering site to move spray equipment into cattail stands.**
- **Colony can rapidly reestablish from surviving individuals.**

Mechanical: Cutting, Crushing, Shearing, Disking

- **3 week window - Best time to remove existing vegetation When carbohydrate reserves in rhizome are minimal:**
  - **from early – to mid summer.**
  - **female flowers are lime-green.**
  - **male flowers are dark green.**
- **Will not cause complete kill, but opens marsh.**
- **Multiple years, or augment with other methods to control regrowth.**
- **If it is dry enough for equipment, its wet enough for seed germination!**

Prescribed Burn

- **Will kill tops, but usually not roots.**
- **Fall or winter when water levels are low.**
- **Often too wet to carry fire.**
- **Heavy peat accumulations with be very destructive ecologically when burned.**
- **Air Quality issues.**
- **Best used in conjunction with other methods.**

Drowning

- Although a hydrophyte - oxygen necessary for roots and rhizomes.
- Cut (burn, mow, chop) existing stems in winter/spring.
  - All stems, including DEAD. Even dead stems can act as a 'straw' to exchange atmospheric oxygen to the rhizome.
- Flood site with 1+/- foot of water, maintained as new shoots begin development.
- Best time is after shoots are fully developed (low carbo stores).
- Keep water on during summer to prevent seed germination
- On new restoration sites, keep water on site to prevent migrating seed germination.
- Permanent water 4+ feet will kill established cattails.
- Effective method if water is available.

Biological / Natural Control

- There are no known insects/diseases.
- Create habitat conducive for muskrat and geese; natural food sources.
  - Some (not all) permanent water.
  - Where have all the muskrats gone? 10 'rats'/acre will eliminate cattail in 2 years.
- Grazing when carbon stores are low during 3 weeks (female lime green, male dark green); however not too palatable.