

Fens

A fen is a peatland that is influenced by flowing surface water or discharged groundwater. The water moving through fens comes in contact with mineral soil creating a more nutrient rich environment than bogs. Fens vary in wetness and species diversity, with wetter fens being richer.

Identifying Characteristics

- Influenced by surface and ground water flow
- Peat layer greater than 40cm thick
- Water table at or near surface
- Higher nutrient content than bogs
- Higher diversity of plant species than bogs
- Usually covered by sedges, mosses, shrubs, and trees
- Tamarack are generally good indicators of treed or shrubby fens

Benefits and Functions

- Fens move water and nutrients through the landscape
- Sustain water levels and connectivity of wetlands across the landscape
- As peatlands, fens store carbon and reduce the effects of global warming
- Help prevent downstream flooding by absorbing precipitation, and excess water from adjacent uplands



Patterned gramnoid fen, Liard region—C. Eckert

Types of Fens

- **Gramnoid fens** are dominated by sedges and are usually the wettest
- **Shrubby fens** contain stunted shrubs such as bog birch and willows interspersed with sedges and buckbean
- **Treed fens** are much drier and contain stunted trees, especially tamarack and sometimes black spruce



Shrubby fen, near Meister River—C. Eckert



Treed fen, near Watson Lake

Pools of water that form at the surface of fens are called flarks.

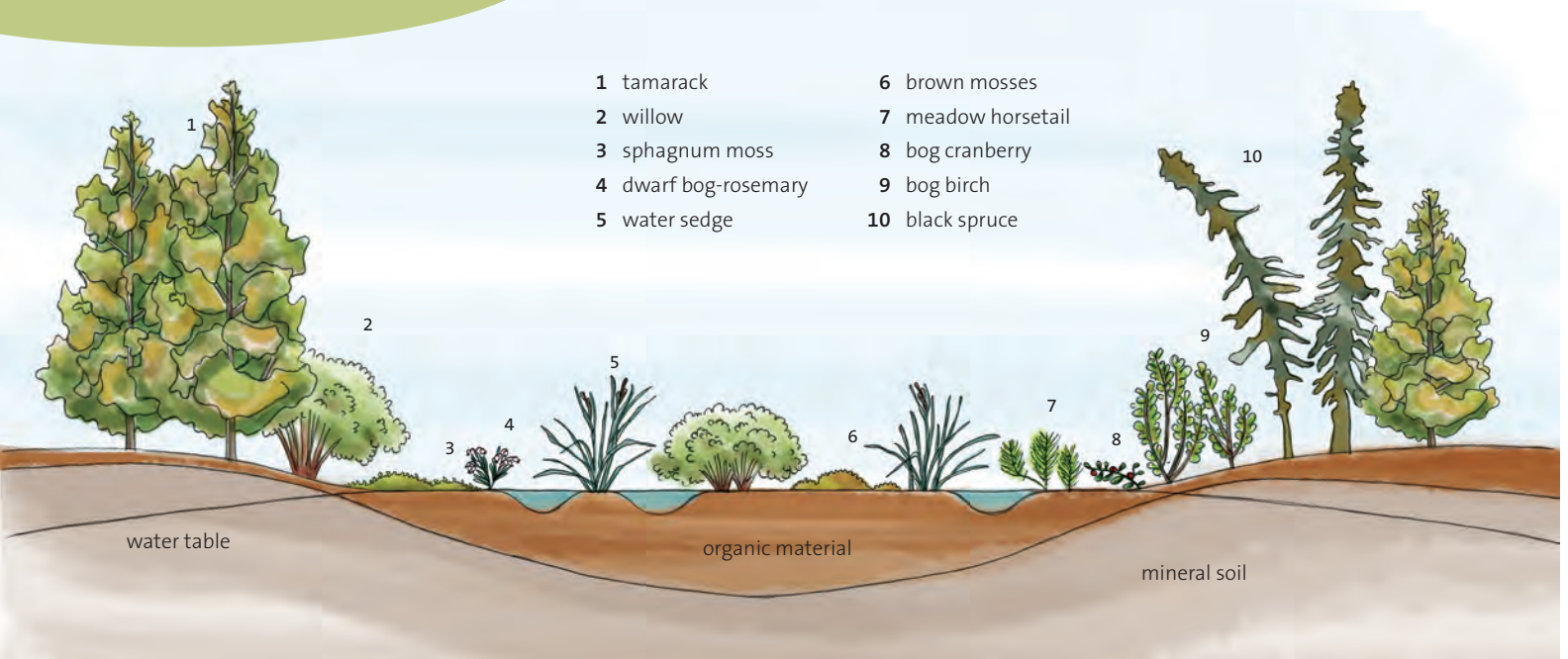
Unique Dragonflies

Dragonflies and damselflies are spectacular flyers, formidable predators, and eye-catching beauties. The Yukon's diverse wetlands are home to 40 different species. Fens offer just the right combination of shallow pools, water chemistry, vegetation, and a fish-free environment for species such as the Muskeg Emerald and the Canada Whiteface.



Canada Whiteface—C. Eckert

Yukon Wetlands Fens



- | | |
|----------------------|--------------------|
| 1 tamarack | 6 brown mosses |
| 2 willow | 7 meadow horsetail |
| 3 sphagnum moss | 8 bog cranberry |
| 4 dwarf bog-rosemary | 9 bog birch |
| 5 water sedge | 10 black spruce |

Sandhill cranes are a common bird species found nesting and feeding in Yukon fens.

Fens are complex ecosystems that have formed over thousands of years. Depending on wetness and nutrient availability, fens are normally categorized as rich or poor. Poor fens are more similar to bogs, are nutrient poor, and often have plants more associated with drier conditions. Sphagnum mosses and shrubs are common in poor fens. Rich fens are more mineral rich and dominated by sedges and brown mosses.



Top: Red fox
—C. Eckert

Middle: Cotton-grass
—A. Aasman

Bottom: Tamarack



Sandhill crane—D. Baccus