

Populus tremuloides - *Populus balsamifera* - Mixed Hardwoods Lowland Forest
(Trembling Aspen - Balsam Poplar Lowland Forest)

COMMON NAME Trembling Aspen - Balsam Poplar - Mixed Hardwoods Lowland Forest
SYNONYM Trembling Aspen - Balsam Poplar Lowland Forest
PHYSIOGNOMIC CLASS Forest (I)
PHYSIOGNOMIC SUBCLASS Deciduous forest (I.B)
PHYSIOGNOMIC GROUP Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (I.B.2.N)
FORMATION Temporarily flooded cold-deciduous forest (I.B.2.N.d)
ALLIANCE POPULUS TREMULOIDES TEMPORARILY FLOODED FOREST ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM TERRESTRIAL

RANGE

Voyageurs National Park

This type is most common in the west and southwest part of the park and in park environs, where the terrain is relatively flat and poorly drained soils are more common, but also occurs locally elsewhere in the park in areas surrounded by upland or in drainage areas adjacent to lakes.

Globally

This association is found in northern Michigan, northern Wisconsin, and Ontario.

ENVIRONMENTAL DESCRIPTION

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This type generally occurs on very flat to slightly sloping (<5%) terrain. It can be extensive where the terrain is relatively flat and where poorly drained soils are more common, but it can also be found in low areas surrounded by upland or in drainage areas adjacent to lakes. The soils are generally poorly drained and relatively deep, reaching depths greater than 35 cm. The "A" horizons are usually 4-10 cm loams or silt loams with a high amount of organic matter. The "B" horizons, if present, are 1-5 cm clay loams and the "C" horizons are consistently deep, heavy, lacustrine clays or sandy clays.

Globally

Stands are found on lower slopes and draws, occasionally under seepage conditions. Soils are deep, fresh to moist, poorly drained, and often fine-textured and of lacustrine origin (Sims *et al.* 1989).

MOST ABUNDANT SPECIES

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<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Populus tremuloides</i> , <i>Populus balsamifera</i>
Tree sub-canopy	<i>Fraxinus nigra</i>
Tall shrub	<i>Fraxinus nigra</i> , <i>Abies balsamea</i> , <i>Alnus incana</i>
Short shrub	<i>Rubus pubescens</i>
Fern	<i>Dryopteris carthusiana</i> , <i>Equisetum sylvaticum</i>
Graminoid	<i>Carex</i> spp.

Globally

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Populus tremuloides</i> , <i>Populus balsamifera</i> , <i>Betula papyrifera</i>

CHARACTERISTIC SPECIES

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Populus tremuloides, *Populus balsamifera*

Globally

Populus balsamifera, *Populus tremuloides*, *Alnus incana*, *Calamagrostis canadensis*

VEGETATION DESCRIPTION

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The canopy of the Trembling Aspen-Balsam Poplar Lowland Forest is commonly 15-20m tall and consists of *Populus tremuloides* and *Populus balsamifera*. *Fraxinus nigra* can occasionally reach the canopy as well, though is usually found only in the sub canopy at 20-30% cover. The shrub layer is highly variable, ranging from 20-90% cover. It commonly consists of *Fraxinus nigra*, *Abies balsamea* and *Alnus incana*. The herbaceous layer is typically very diverse and covers 80-90% of the forest floor. The most abundant herbaceous species are *Rubus pubescens*, *Dryopteris carthusiana*, and *Equisetum sylvaticum*. *Carex intumescens*, *Carex gracillima*, *Bromus ciliatus*, *Iris versicolor*, *Calamagrostis canadensis*, and *Asarum canadense* are also common.

Globally

Stands are dominated by deciduous trees, but can contain a mix of evergreen species. Dominants include *Populus tremuloides* and *Populus balsamifera*. Other associates include *Abies balsamea*, *Betula papyrifera*, and *Picea glauca*. The shrub and herb layer are often fairly rich. Typical shrubs/saplings include *Abies balsamea*, *Alnus incana*, *Amelanchier* spp., *Cornus sericea*, *Ribes* spp., *Rosa acicularis*, *Rubus idaeus*, and *Rubus pubescens*. The herb layer contains *Aralia nudicaulis*, *Aster ciliolatus*, *Aster macrophyllus*, *Anemone quinquefolia*, *Calamagrostis canadensis*, *Carex* spp. (including *Carex intumescens*, *Carex gracillima*), *Clintonia borealis*, *Cornus canadensis*, *Dryopteris carthusiana*, *Equisetum* spp. (including *Equisetum sylvaticum*), *Galium triflorum*, *Maianthemum canadense*, *Mertensia paniculatus*, *Mitella nuda*, *Petasites frigidus* var. *palmatus*, *Streptopus roseus*, and *Viola renifolia*. *Calamagrostis canadensis* can be abundant in the herb layer (Sims *et al.* 1989, McCarthy *et al.* 1994).

CONSERVATION RANK G5.

DATABASE CODE CEG005036

COMMENTS

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Diagnostic features of the type include a canopy of *Populus tremuloides* and/or *Populus balsamifera* with *Fraxinus nigra*, *Alnus incana*, or *Populus balsamifera* present in the sub canopy or shrub layers. Though the canopy can be very similar to the Aspen Birch/Boreal Conifer Forest (CEGL002466), that type does not contain *Fraxinus nigra*, *Populus balsamifera* or *Alnus incana* in the canopy, subcanopy or shrub layers. That type also has lower diversity of herbaceous plants than this type. That type also has well-drained soils compared to the poorly drained, and relatively deep soils of this type. Very often, stands are found adjacent to (and slightly drier than) the Black Ash-Mixed Hardwood Swamp (CEGL002105) or as inclusions within the Aspen Birch/Boreal Conifer Forest (CEGL002466).

REFERENCES

- McCarthy, T.G., R.W. Arnup, J. Nieppola, B.G. Merchant, K.C. Taylor, and W.J. Parton. 1994. Field Guide to Forest Ecosystems of Northeastern Ontario. NEST Field Guide FG-001, Ontario Ministry of Natural Resources, Northeast Science and Technology, Timmins ON.
- Sims, R. A., W. D. Towill, K. A. Baldwin, and G. M. Wickware. 1989. Field guide to the forest ecosystem classification for northwestern Ontario. Ontario Ministry of Natural Resources.