

Fire Regime Condition Class Biophysical Settings (BPS) Key Eastern United States

How to use this key:

1. First use Key to Potential Natural Lifeforms to determine Vegetation Formation
2. Then follow the key to determine Biophysical Setting by dominance of species in the highest general canopy layer.
3. In cases where two or more BPS appear to fit your conditions, go with the greater dominance and/or read the description document for the BPS.

“Dominant” here means the majority of the overstory canopy cover (or highest structural layer in non-forest ecosystems).

[Comments in brackets.]

Note: The following only contains BPS represented by description documents on the FRCC website. As other BPS are described, they will be added to this key.

Forest

1. Conifers at least 10 percent of overstory cover. Go to 2.
 2. Bog environment. Very poorly drained soils. Go to 3.
 3. Coniferous pockets or stringers within upland environment that is fire prone (the latter usually dominated by pines). Any combination of these conifers dominate: black spruce, larch, whitecedar, and jack pine. Northern Lake States, New York, and New England.

CBPF Conifer Bog Embedded in Fire-Prone System

3. Coniferous pockets or stringers within upland environment that is fire resistant (the latter dominated by hardwoods). Any combination of these conifers dominate: black spruce, larch, whitecedar, and balsam fir. Northern Lake States, New York, and New England.

CBPN Conifer Bog Embedded in Fire-Resistant System

2. Upland environment. Go to 4.

4. Mix of balsam fir, white spruce, paper birch, black spruce, whitecedar, and quaking aspen. Northern Minnesota. Moderately well to well drained soils.

GLSF Great Lakes Spruce Fir

4. White and black spruce absent from overstory. Go to 5.

5. Pine(s) at least 10 percent of overstory cover. Go to 6.

6. Pond pine dominates overstory. Atlantic coastal plain, Southern Piedmont, and north Florida

PDPN Pond Pine (-Bay) Forest

6. Pond pine absent. Go to 7.

7. Table Mountain, Pitch, or Virginia Pine present in overstory. Go to 8.

8. Pitch pine present with oaks other than scarlet and black oaks. New England and New Jersey

NEOP Northeastern Oak-Pine

8. Pitch pine either absent or occurs with scarlet and/or black oaks. Go to 9.

9. Scarlet oak and/or black oak combine for at least 10% overstory cover
SEOK4 Xeric Oak-Pine Woodlands [Consider renaming a Forest type]

9. Scarlet oak/black oak combined overstory cover less than 10%. Go to 10.

10. Virginia pine dominates; Table Mountain and pitch pines absent.

AVAP Appalachian Virginia Pine

10. Table Mountain and/or Pitch Pine dominate. Virginia pine also often present.

TMPP Table Mountain Pine/Pitch Pine

7. Table Mountain, Pitch, and Virginia Pine all absent from overstory. Go to 11.

11. Shortleaf pine at least 5 percent of overstory cover. Go to 12.

12. Shortleaf pine the majority of overstory cover. Appalachians north to Pennsylvania, Piedmont.

ASLP Appalachian Shortleaf Pine

12. Shortleaf pine present but not the majority of overstory cover. Go to 13.

13. White oak and post oak in overstory. Missouri, Arkansas, and southern Illinois.

OKPN2 Oak-Hickory-Pine

13. White oak well-represented in overstory. Appalachians north to Pennsylvania, Piedmont.

POHS Piedmont Oak-Hickory-Shortleaf Pine

11. Shortleaf pine a minor component or absent. Go to 14.

14. The South Florida variety of slash pine dominates. Florida south of Orlando.

SFSP1 South Florida Slash Pine-Pine Rocklands

14. South Florida slash pine absent. Go to 15.

15. Longleaf pine dominates. Southern coastal plain and Piedmont west to eastern Texas, most of Florida.

LLPM Longleaf Pine -- Mesic Upland

15. Pines other than the above make up at least 10 percent overstory cover. Go to 16

16. Jack pine characteristic of overstory. Go to 17.

17. Jack Pine and Red Pine in overstory
JPRP Jack Pine-Red Pine

17. Red pine absent. Go to 18.

18. Jack Pine in combination with Black Spruce.
JPBS Jack Pine-Black Spruce

18. Black Spruce absent. Go to 19.

19. Jack Pine in a landscape mosaic with open barrens. Common to very dry, flat outwash plains underlain with coarse-textured sandy soils.

JPOP Jack Pine Openland

19. All other Jack Pine areas

JP1 Jack Pine

16. Jack pine not characteristic of overstory. Go to 20.

20. White pine in overstory. Go to 21.

21. Eastern hemlock at least 10 percent overstory cover. Go to 22.

22. Northern lower Michigan and northern Wisconsin

WPHE Great Lakes Pine Forest: White pine-Hemlock

22. Upper Peninsula of Michigan

WPHE2 Great Lakes Pine Forest: White pine-Hemlock #2

21. Eastern hemlock overstory cover less than 10 percent. Go to 23.

23. Red pine in overstory in addition to white pine, interspersed with lakes or other fire barriers

RPWP2 Great Lakes Pine Forest: Red pine-White pine #2

23. Same as above, but contiguous forest, not interspersed with lakes or other fire barriers

RPWP Great Lakes Pine Forest: Red pine-White pine

23. Red pine absent from overstory. Go to 24.

24. White pine in overstory, combined with beech, sugar maple, and/or birch

WPNH White pine-Northern Hardwoods

24. Beech, sugar maple, and birch absent from overstory. Go to 25.

20. White pine absent from overstory. Go to 25.

5. Pines generally absent. Go to 25.

25. Eastern redcedar cover at least 10 percent.

CEGL Cedar Glades

25. Eastern redcedar cover less than 10 percent. Go to 26.

26. Red spruce and frazier or balsam fir dominate. Go to 27.

27. New England

NESF Northeast Spruce-Fir 1

27. Appalachians and Allegheny Mountains

ESPF1 Eastern Spruce-Fir #1

26. Red spruce and firs absent. Go to 1 below.

1. Conifers less than 10 percent of overstory. Hardwood forest.

28. Swamp chestnut oak on Atlantic Coastal plain, especially in southeast Virginia and eastern North Carolina.

OAKF Oak Flats

28. Swamp chestnut oak absent. Go to 29.

29. Bald cypress on floodplains

SOFP Southern Floodplain Forest

29. Bald cypress absent. Go to 30.

30. Live oak dominates. Coastal Plain.

MARF Maritime Live Oak Forest VA-TX

30. Live oak absent. Go to 31.

31. Floodplains with forest dominated by cottonwood or willows. Great Plains south to Oklahoma.

NOFP Northern Floodplain Forest

31. Cottonwood and willows absent. Go to 32.

32. American elm prominent, white ash represented. Glacial lakebeds in Michigan, Indiana, and Ohio. Very scarce now due to conversion to agriculture and elm decline from Dutch elm disease.

ELAS Elm-Ash

32. American elm absent. Go to 33.

33. Floodplains in the Piedmont dominated by sycamore.

PFPF Piedmont Floodplain Forest

33. Uplands. Go to 34.

34. Sugar maple and/or beech in overstory. Go to 35.

35. Basswood in overstory.

36. Oaks and aspen prominent in the landscape mosaic. Lake States

MBOA Maple-Basswood-Oak-Aspen Mosaic

36. Oaks (other than red oak) and aspen generally absent from landscape mosaic. Lake States south to Illinois and Iowa; in the Appalachians occurs at fine scale within the Mixed Mesophytic and is often referred to as “Cove Hardwoods.”

MABA Maple-Basswood

35. Basswood absent from overstory. Go to 37.

37. Red spruce occurs in overstory with beech. Sugar maple may be absent. Yellow birch generally occurs in the landscape mosaic. New England and New York south to West Virginia (at higher elevations)

NHSP Northern Hardwoods-Spruce

37. Red spruce absent. Go to 38.

38. Balsam fir present in overstory. Upper Peninsula of Michigan and northern third of Wisconsin.

NHFI Northern Hardwood-Fir

38. Balsam fir generally absent from overstory. Go to 39.

39. Sugar maple with beech characterizes the forest. Lake States variant.

BEMA Beech-Maple

39. Same as previous, but in New England, New York, lower Michigan and Wisconsin.

NWHD3 Northern Hardwoods #2

39. Same as previous, but in the Appalachians

NHDW1 Northern Hardwoods #1

39. Same as previous, but in the Appalachians with white pine at least 10 percent of overstory.

NHDW2 Conifer-Northern Hardwoods

39. Beech and birch less common in overstory, replaced by red oak, tulip polar, and (on the most productive sites) basswood and white ash. Low-mid elevations in the Appalachians and Allegheny Mountains.

MMHF Mixed Mesophytic Hardwood

39. Same as previous, but occurring in the western part of the Allegheny Plateau and in the northern Cumberland Plateau. Includes drier oak subtypes than the MMHF.

MMPH Mixed Mesophytic Northeast

39. Sugar maple absent from overstory. Go to 40.

40. Oaks associated with dry conditions (white and chestnut oaks) dominate. Hickory often present but typically not a large portion of the canopy cover.

41. White oak dominates

42. Hickory accompanies white oak in overstory.

OKHK3 Oak-Hickory - Western Mesophytic

42. Hickory absent. Go to 43.

43. Nebraska and Oklahoma east to Michigan and south to Tennessee.

OKHK4 Oak-Hickory Northeast

43. Central US (east of OKHK4)

OKHK2 Montane Oak-Hickory

43. Appalachians and Piedmont

APOK Appalachian Dry-Mesic Oak Forest

41 .Forests characterized by chestnut oak. Central U.S., Appalachians, and Allegheny Mountains

OKHK1 Oak-Hickory - Montane

40. White oak and chestnut oak generally absent. Go to 44.

44. Burr oak characteristic. South-central Wisconsin

NOKS Northern oak savanna

****End of Forest Key****

Woodland

1.Longleaf pine characteristic overstory species. Go to 2.

2.Scattered stunted longleaf pine above grassland. North Florida and Gulf Coast west to Louisiana.

SWPS Southern Wet Pine Savanna

2. Atlantic Coastal Plain complement to (1) above

AWPS Atlantic Wet Pine Savanna

2. None of the above. Go to 3.

3. Longleaf pine above Bluestem. Patchy distribution in Piedmont from Virginia south to South Carolina. Also occurs in Louisiana and East Texas.

LLBS Longleaf Pine-Bluestem

3.Bluestem absent. Go to 4.

4. Longleaf pine on sandhills from southeastern Virginia to north Florida.

LLHS Longleaf-Sandhills

4. None of the above. Go to 5.

1.Longleaf pine absent or not characteristic. Go to 5.

5. Atlantic Whitecedar characteristic. Floodplains and pocosin.

AWCF Atlantic whitecedar

5. Atlantic Whitecedar absent. Go to 6.

6. Woodland-prairie mosaic.

7. More woodland than prairie in the mosaic. Oaks (often post oak) characteristic trees; herbaceous layer characterized by bluestem and Indian grass.

EPWM Eastern prairie woodland mosaic

7. More prairie than woodland in the mosaic. Bluestem characterizes prairie and oak-hickory the woodland.

BLST2 Bluestem Prairie-Oak Hickory Mosaic

****End of Woodland Key****

Shrubland

1. Rolling plains and karst plateaus of central Texas. Brushy shrublands featuring mesquite.

TSAV Texas Savanna

1. Mesquite absent or clearly a minor component. Go to 2.

2. Dominated by sand shinnery oak. Sandy soils. Southern Great Plains with disjunct populations in Utah and Arizona.

SHIN Shinnery

2. Sand shinnery oak absent. Go to 3.

3. Dense shrubby vegetation on deep peat soils. Coastal plain of Virginia to South Carolina.

PCSN Pocosin

3. Peat soils absent. Got to 4.

4. Sand pine on sand ridge in Central Florida

SPSC Sand Pine Scrub

4. Sand Pine absent. Go to 5.

5. Mangrove and Cordgrass dominated areas of southern Florida

SFPM South Florida Coastal Prairie-Mangrove Swamp

****End of Shrubland Key****

Grassland With Trees

XTMB1 Cross Timbers

Grassland With Shrubs

PAPR Palmetto Prairie

Grassland or Grass-like Environment

1. Upland. Go to 2.
2. Big Bluestem prominent. Go to 3.
3. Sandsage occurs with bluestem. Southwest Nebraska, eastern Colorado, western Kansas and western Oklahoma.

PRAR1 Prairie Grassland*(Sandsage-Bluestem Prairie)

3. Big bluestem, little bluestem, Indian grass, and switchgrass characteristic. Northern Great Plains east to oak-hickory forest in Midwest

PRAR5 Bluestem Prairie

3. Wheatgrass, bluestem, and needlegrass characteristic. Great Plains.

PGRA1 Northern Plains Grassland* (Wheatgrass-Bluestem-Needlegrass)

3. Bluestem characteristic without Indian grass and switchgrass. North Dakota and southern Minnesota, east to Pennsylvania.

NTPR Northern Tallgrass Prairie

3. Little bluestem and Indian grass more prominent than big bluestem. Blackbelt physiographic region of Mississippi, Alabama, and parts of Louisiana and Arkansas.

BKBE Blackbelt

2. Big Bluestem absent. Little bluestem well-represented. Go to 4.

4. Mid and short grass dominated little bluestem, blue grama, buffalo grass, and needle-and-thread, with intermingled forbs and scattered half-shrubs. Southern Great Plains.

PGRA4 Southern Plains Grassland*(e.g., Grama dominated grasslands)

4. Southern Texas. Diverse mosaic of grassland communities with little bluestem the characteristic species.

PRAR6 Blackland Prairie

4. Texas Coastal Plain. Little Bluestem, Sea Coast Bluestem, and Cordgrass. Diverse forb community.

PRAR7 Bluestem-Sacahuista Prairie(Coastal Prairie)

1. Wetlands. Go to 5.

5. Cordgrass marshes in Southeast

SMAR Southern Marsh

5. Cordgrass absent. Go to 6.

6. Everglades sawgrass

EGSG Everglades Sawgrass

6. Coastal saltmarsh. *Spartina* characteristic. Atlantic coast, Maine to southern Maryland.

NMAR Northern Saltmarsh

****End of Grassland or Grass-like Environment Key****

**Revised Key to “Potential Natural Lifeforms”
(or Key to Vegetation Formation)**

- 1a. Canopy cover of tree species $\geq 10\%$ under the natural disturbance regime 2
- 1b. Canopy cover of tree species $< 10\%$ under the natural disturbance regime 3
 - 2a. Mature height of trees ≥ 30 feet (9 meters)Forest
 - 2b. Mature height of trees < 30 feet (9 meters)
Woodland
- 3a. Natural canopy cover of shrubs $\geq 10\%$ (or foliar cover $\geq 5\%$)4
- 3b. Natural canopy cover of shrubs $< 10\%$ (or foliar cover $< 5\%$)5
 - 4a. Potential canopy cover of trees species $\geq 10\%$ due to
altering of the natural disturbance regime
Shrubland w/ Trees
 - 4b. Potential canopy cover of trees species $< 10\%$ even with an
altered disturbance regime
Shrubland
- 5a. Natural canopy cover of herbs $\geq 5\%$ 6
- 5b. Natural canopy cover of herbs $< 5\%$ Barren
 - 6a. Potential canopy cover of trees species $\geq 10\%$ due to
altering of the natural disturbance regime
Grassland w/ Trees
 - 6b. Potential canopy cover of trees species $< 10\%$ even with an
altered disturbance regime 7
- 7a. Potential canopy cover of shrubs $\geq 10\%$ (or foliar cover $\geq 5\%$) due to
altering of the natural disturbance regime
Grassland w/ Shrubs

7b. Potential canopy cover of shrubs < 10% (or foliar cover < 5%) even with an altered disturbance regime
Grassland