# A Global Database of Litterfall and Litter Pool Carbon and Nutrients

### **Supporting Documentation -- Code Definitions**

**Olson Ecosystem Codes** 

**Holdridge Life Zone Codes** 

**Matthews Code of Vegetation Types** 

#### **Olson Ecosystem Codes**

- 0 Water
- 20 Main Taiga
- 21 Main Taiga
- 22 Cool Conifer Forest
- 23 Cool Hardwood -- Conifer Forest
- 24 Deciduous Forest -- Warm Woods with Conifers
- 25 Deciduous (Summer Green) Forest
- 26 Partly Deciduous Forest (Southern Temperate)
- 27 Warm/Hot Conifer
- 28 Tropical Montane Complexes
- 29 Tropical/Subtropical Broad-Leaved Humid Forest
- 30 Cool Crop, Settlement & Commercial Land
- 31 Warm Crop, Settlement & Commercial Land
- 32 Tropical Dry Forest & Woodland
- 33 Tropical/Subtropical Broad-Leaved Humid Forest
- 36 Paddylands & Associated Crops
- 37 Warm/Hot Irrigated Dryland
- 38 Cool Irrigated Dryland
- 39 Cold Irrigated Dryland
- 40 Cool Grassland-Scrub
- 41 Warm/Hot Scrub & Grassland
- 42 Tibetan Meadows/Siberian Parklands
- 43 Tropical Savanna & Woodlands
- 44 Bog/Mire of Cool or Cold Climates
- 45 Warm/Hot Wetlands Swamp/Marsh
- 46 Mediterranean Types
- 47 Other Dry/Highland Tree/Shrub Types
- 48 Semiarid Woodland
- 49 Sparse
- 50 Sand Desert
- 51 Desert & Semidesert
- 52 Semidesert Scrub
- 53 Tundra
- 54 Tundra
- 55 Field-Woods Complexes
- 56 Forest-Field Complexes
- 57 Forest-Field Complexes
- 58 Field-Woods Complexes
- 59 Succulent & Thorn Woods & Scrub
- 60 Southern Continental Taiga
- 61 Southern Continental Taiga
- 62 Northern/Maritime Taiga
- 63 Wooded Tundra
- 64 Heath & Moorland

- Shore & Hinterlands Complexes
  Shore & Hinterlands Complexes
  Shore & Hinterlands Complexes
- Shore & Hinterlands Complexes
- 69 Polar/Rock Desert
- 70 Ice
- 71 Desert & Semidesert
- 75 Unclassified

Olson, J. S., J. A. Watts and L. J. Allison, 1983. Carbon in Live Vegetation of Major World Ecosystems, Report ORNL-5862, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

#### **Holdridge Life Zone Codes**

- 2 Dry tundra
- 3 Moist tundra
- 4 Wet tundra
- 5 Rain tundra
- 6 Boreal desert
- 7 Boreal dry bush
- 8 Boreal moist forest
- 9 Boreal wet forest
- 10 Boreal rain forest
- 11 Cool temperate desert
- 12 Cool temperate desert bush
- 13 Cool temperate steppe
- 14 Cool temperate moist forest
- 15 Cool temperate wet forest
- 16 Cool temperate rain forest
- 17 Warm temperate desert
- 18 Warm temperate desert bush
- 19 Warm temperate thorn steppe
- 20 Warm temperate dry forest
- 21 Warm temperate moist forest
- 22 Warm temperate wet forest
- 23 Warm temperate rain forest
- 24 Subtropical desert
- 25 Subtropical desert bush
- 26 Subtropical thorn woodland
- 27 Subtropical dry forest
- 28 Subtropical moist forest
- 29 Subtropical wet forest
- 30 Subtropical rain forest
- 31 Tropical desert
- 32 Tropical desert bush
- 33 Tropical thorn woodland
- 34 Tropical very dry forest
- 35 Tropical dry forest
- 36 Tropical moist forest
- 36 Tropical wet forest
- 38 Tropical rain forest

Leemans, Rik, 1990. Global data sets collected and compiled by the Biosphere Project, Working Paper, IIASA-Laxenburg, Austria.

#### Matthews Code Vegetation Types

- 1 TROPICAL EVERGREEN RAINFOREST
- 2 TROP/SUBTROP. EVERGREEN SEASONAL BROAD-LEAVED FOREST
- 3 SUBTROPICAL EVERGREEN RAINFOREST
- 4 TEMPERATE/SUBPOLAR EVERGREEN RAINFOREST
- 5 TEMPERATE EVERGREEN SEASONAL BROADLEAVED FOREST, SUMMER RAIN
- 6 EVERGREEN BROADLEAVED SCLEROPHYLLOUS FOREST, WINTER RAIN
- 7 TROP/SUBTROP EVERGREEN NEEDLE-LEAVED FOREST
- 8 TEMP/SUBPOLAR EVERGREEN NEEDLE-LEAVED FOREST
- 9 TROP/SUBTROP DROUGHT-DECIDUOUS FOREST
- 10 COLD-DECIDUOUS FOREST, WITH EVERGREENS
- 11 COLD-DECIDUOUS FOREST, WITHOUT EVERGREENS
- 12 XEROMORPHIC FOREST/WOODLAND
- 13 EVERGREEN BROADLEAVED SCLEROPHYLLOUS WOODLAND
- 14 EVERGREEN NEEDLELEAVED WOODLAND
- 15 TROPICAL/SUBTROPICAL DROUGHT-DECIDUOUS WOODLAND
- 16 COLD-DECIDUOUS WOODLAND
- 17 EVERGRN BROADLEAVED SHRUBLAND/THICK, EVERGRN DWARF-SHRUBLAND
- 18 EVERGREEN NEEDLELEAVED OR MICROPHYLLOUS SHRUBLAND/THICKET
- 19 DROUGHT-DECIDUOUS SHRUBLAND/THICKET
- 20 COLD-DECIDUOUS SUBALPINE/SUBPOLAR SHRUBLAND/ DWARF SHRUB
- 21 XEROMORPHIC SHRUBLAND/DWARF SHRUBLAND
- 22 ARCTIC/ALPINE TUNDRA, MOSSY BOG
- 23 TALL/MEDIUM/SHORT GRASSLAND, 10-40% WOODY COVER
- 24 TALL/MEDIUM/SHORT GRASSLAND, <10% WOODY COVER
- 25 TALL/MEDIUM/SHORT GRASSLAND, SHRUB COVER
- 26 TALL GRASSLAND, NO WOODY COVER
- 27 MEDIUM GRASSLAND, NO WOODY COVER
- 28 MEADOW, SHORT GRASSLAND, NO WOODY COVER
- 29 FORB FORMATIONS
- 30 DESERT
- 31 ICE
- 32 CULTIVATION

## GLOBAL DISTRIBUTION OF VEGETATION AT 1X1 RESOLUTION 32 VEGETATION TYPES

#### REFERENCE:

Matthews, E., 1983, Global vegetation and land use: New high-resolution data bases for climate studies, J. Clim. Appl. Meteor., 22, 474-487.

Matthews, E., 1984, Prescription of land-surface boundary conditions in GISS GCM II: a simple method based on high-resolution vegetation data sets, NASA Technical Memorandum 86096, June 1984.