Merge CLM/Retos pfts to CABLE pfts

Ruth Lorenz, March 2013

|  |  |  |  |
| --- | --- | --- | --- |
| CSIRO type | CSIRO number | NCAR types | Retos pfts |
| Evergreen needleleaf | 1 | 2+3 | 2+3 |
| Evergreen broadleaf | 2 | 5+6 | 5+6 |
| Deciduous needleleaf | 3 | 4 | 4 |
| Deciduous broadleaf | 4 | 7+8+9 | 7+8+9 |
| Shrub | 5 | 10+11 | 10+11 |
| C3 grass | 6 | 14 | 14 |
| C4 grass | 7 | 15 | 15 |
| Tundra | 8 | 12+13 | 12+13 |
| C3 crop | 9 | 16 | 16-19,22-28, 30,31,33,34 |
| C4 crop | 10 |  | 20+21+29+32 |
| Wetland | 11 |  |  |
| Not used | 12 |  |  |
| Not used | 13 |  |  |
| Barren | 14 | 1 | 1 |
| Urban | 15 |  |  |
| Lakes | 16 |  |  |
| Ice | 17 |  |  |

Only Maize, Millet, Sorghum and Sugarcane are C4 plants

Keep in mind that nco starts at index 0!

If other time resolution than daily needed: average to what is needed first e.g. daily to monthly for all years:

cdo splitmon yearly\_file monthly\_files

ncra monthly\_file monthky\_avg

ncrcat monthly\_avg monthly\_yearly\_file

For each yearly file:

1. weight by pft distribution: ncbo --op\_type=mlt ifile pft\_frac\_file ofile

Steps to perform pft merge:

1. choose pfts to merge: ncks –d pft,start\_index,end\_index ifile ofile
2. change record dimension from time to pft: ncpdq –a pft,time
3. average over pfts: ncra –y ttl ifile ofile

If steps 2-4 perfomed for all CABLE pts:

1. concatenate along pfts 1-13: ncrcat ifiles ofile
2. change record dimension back to time: ncpdq –a time,pft

Do this for all years, regrid to ACCESS grid N96 (cdo remapbil, cable\_vegfunc\_N96.anc.nc ifile ofile) and convert netcdf to ancillary file using xancil