

CCAM + CABLE prelim CORDEX experiments

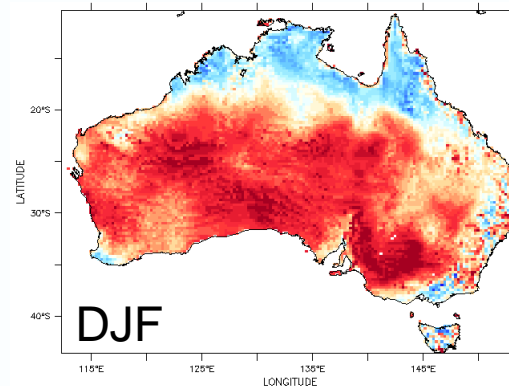
Marcus Thatcher

Conducting experiments with various physics and land-surface options using CCAM for CORDEX 50 km and 10 km resolution experiments

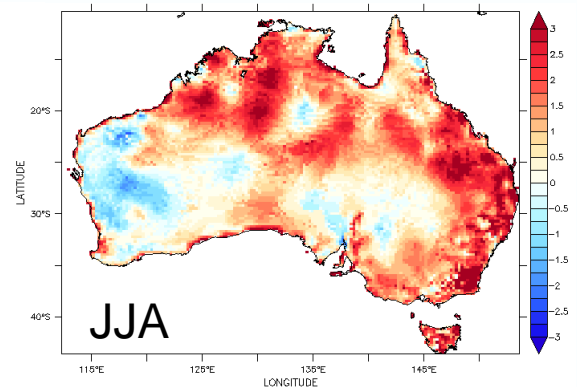
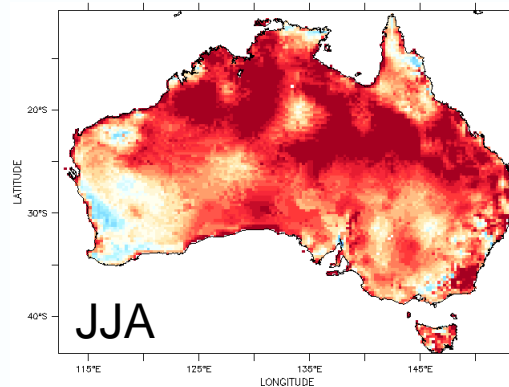
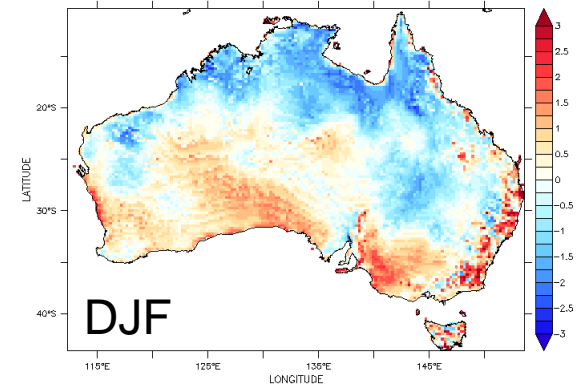
Promising results when using CABLE in CCAM's downscaling mode. The "Old surface scheme" has similar soilsnow routines and is also based on GLCC + MODIS datasets

Not all "new" physics options implemented in this test, but CABLE + EDMF boundary layer parameterisation improved the daily 2m minimum temperature

Old surface scheme



CABLE



Daily 2m minimum air temperature bias plot (-3 to +3°C) for 30 year CCAM downscaling configuration at 60 km resolution (2,900 km filter scale). Observation based on BoM 1961-1990 gridded climatology.