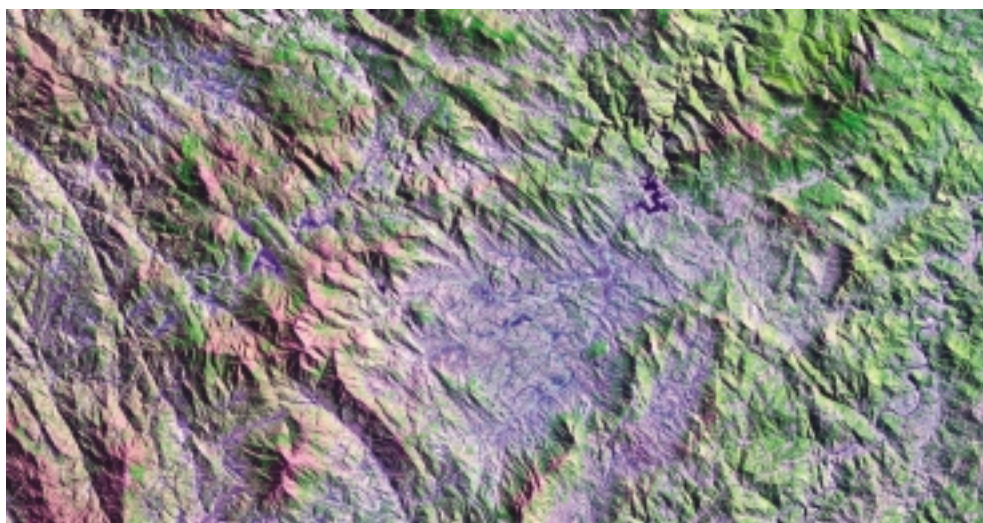
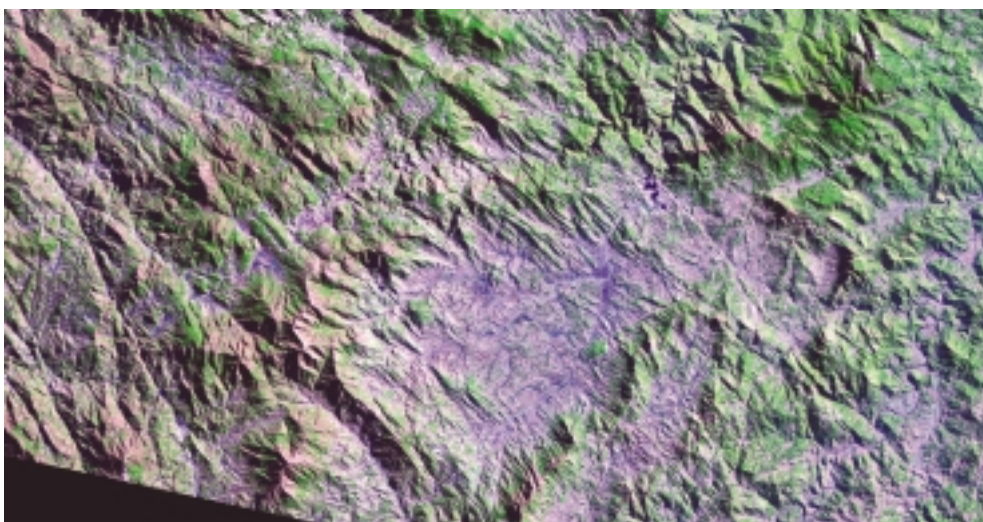


# Images and maps of damage by pine caterpillar in Anhui Province





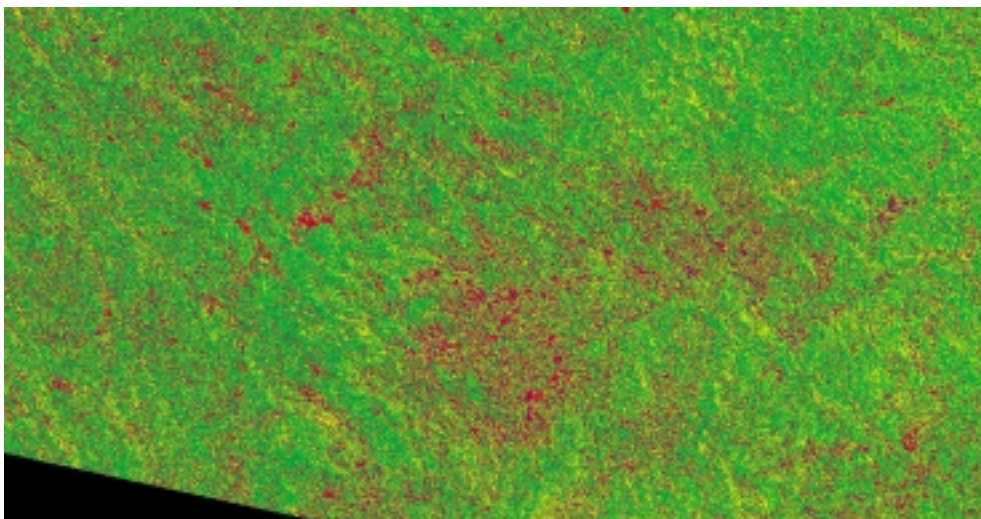
TM image in 1993



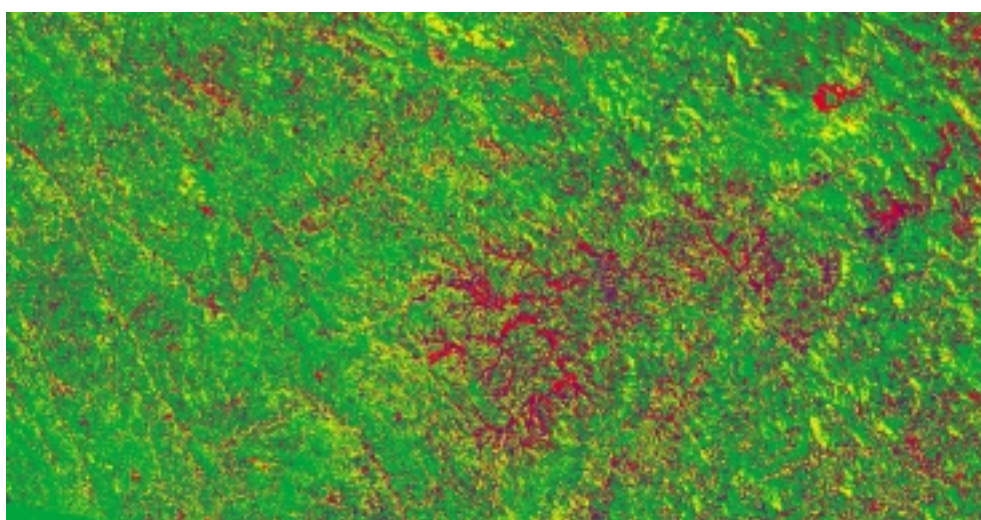
TM image in 1995



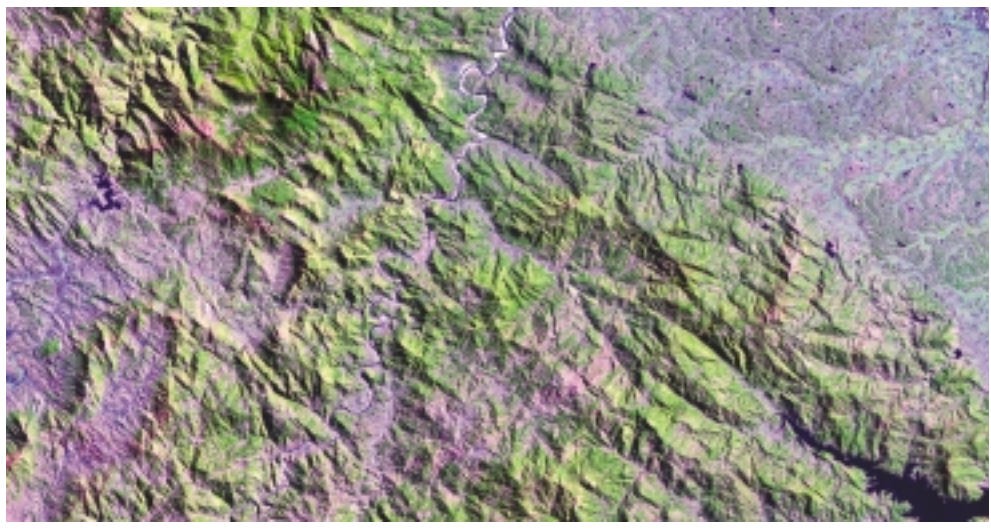
TM image in 1996



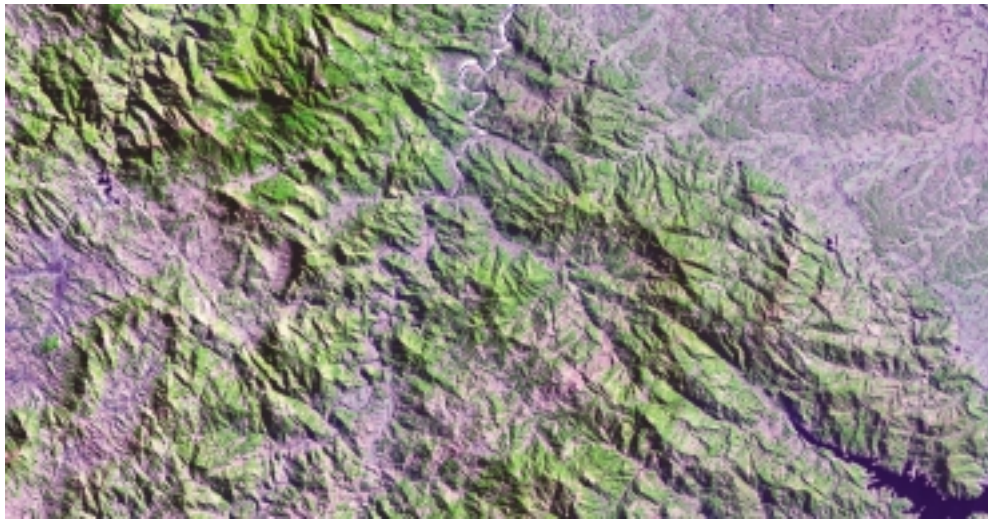
Green biomass change map based on single pixel in 1995 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



Green biomass change map based on single pixel in 1996 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



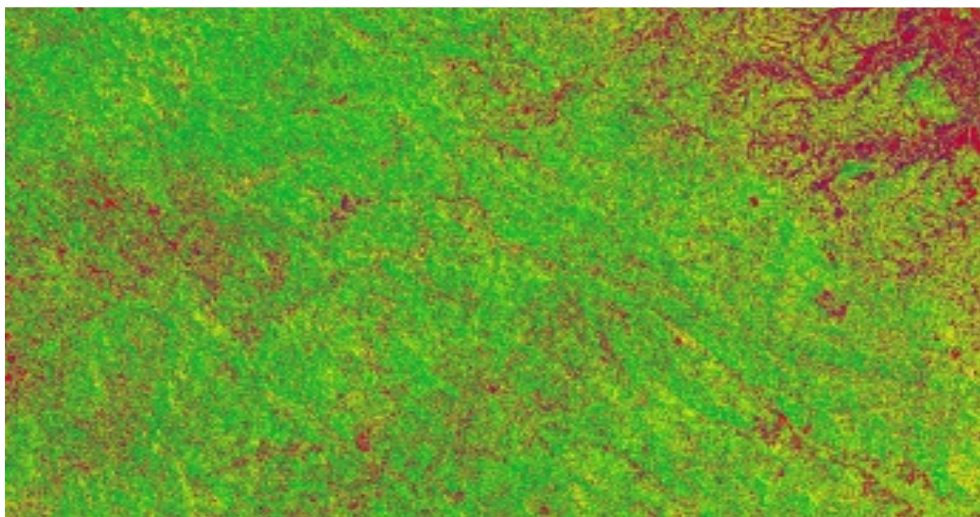
TM image in 1993



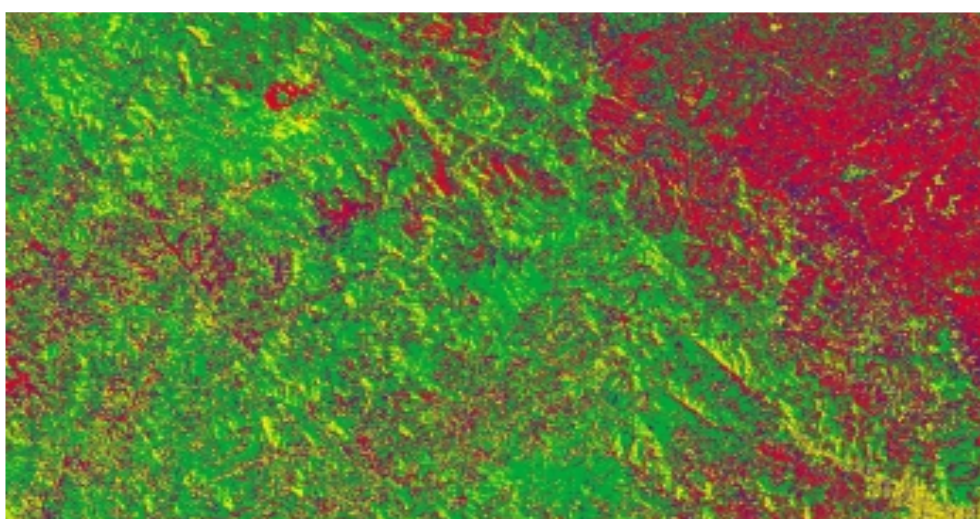
TM image in 1995



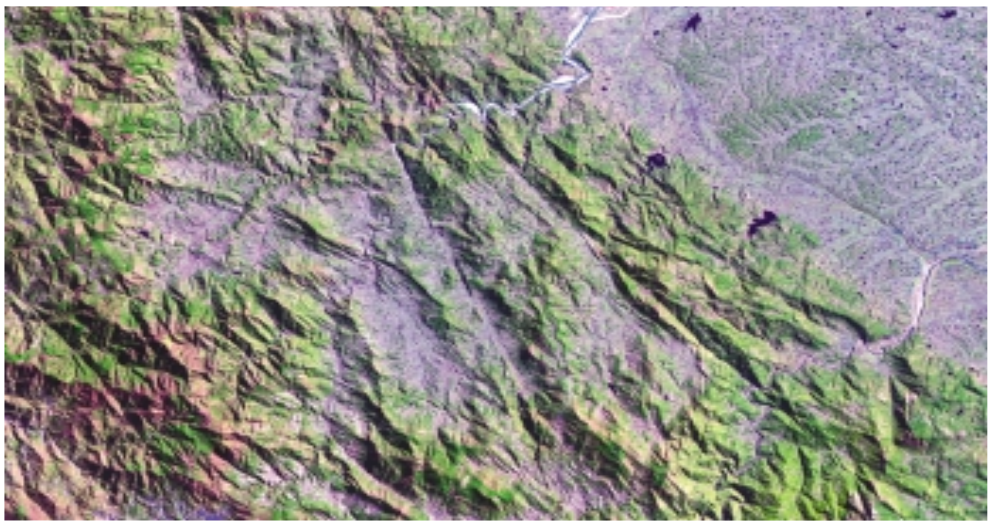
TM image in 1996



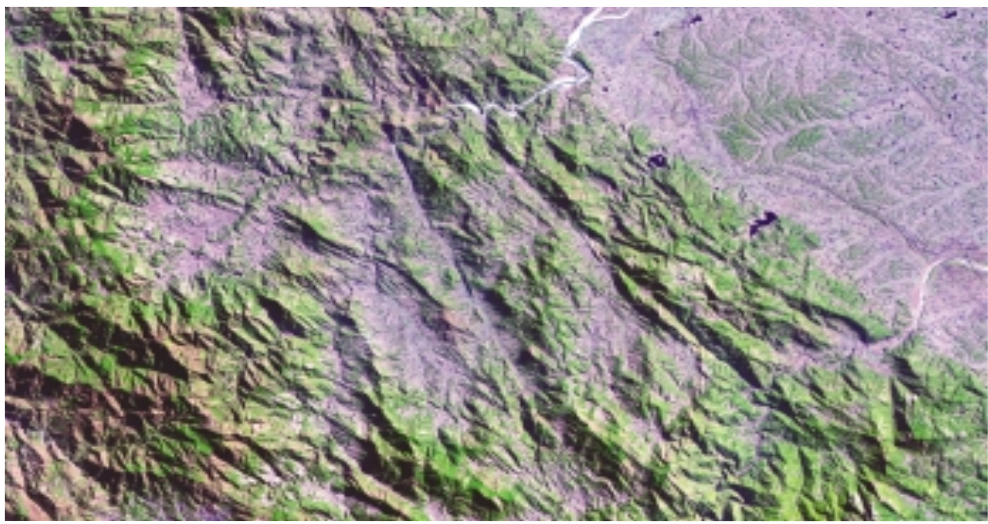
Green biomass change map based on single pixel in 1995 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



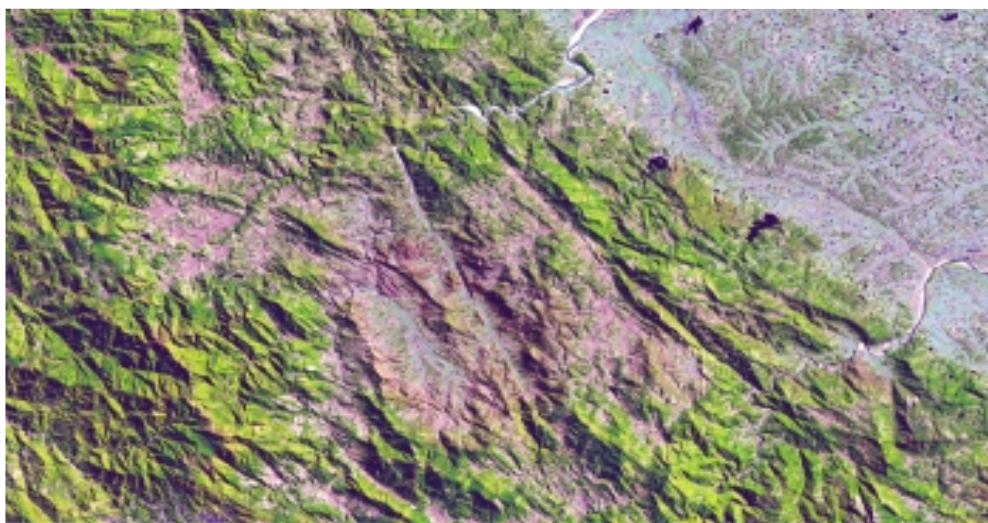
Green biomass change map based on single pixel in 1996 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



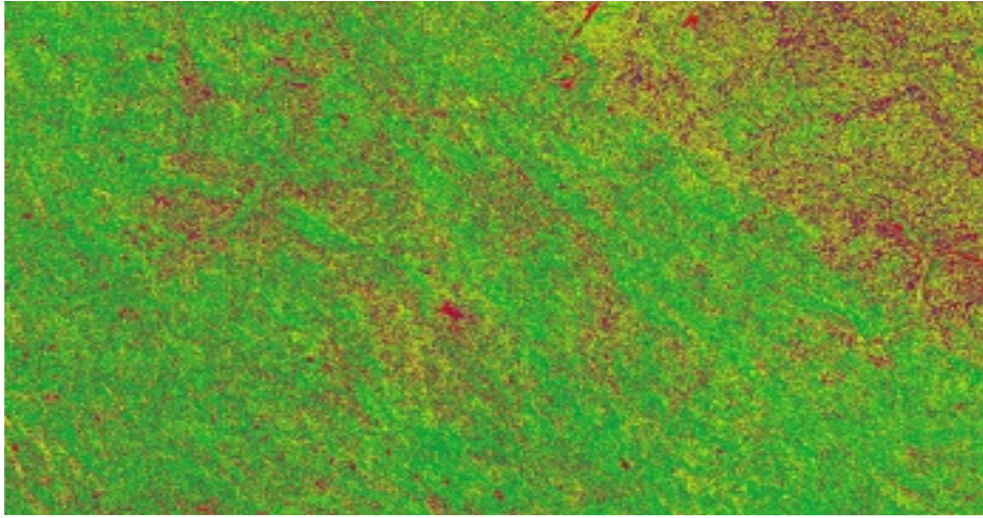
TM image in 1993



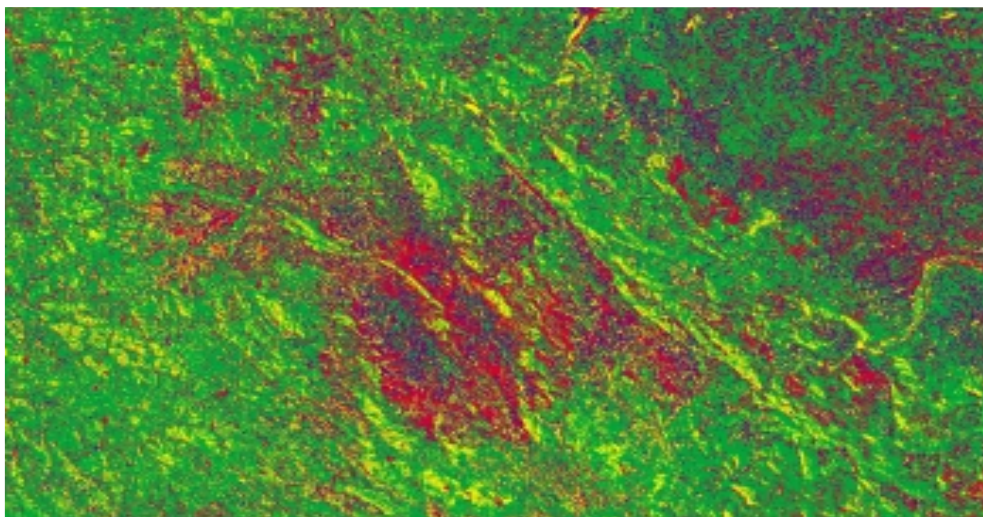
TM image in 1995



TM image in 1996



Green biomass change map based on single pixel in 1995 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



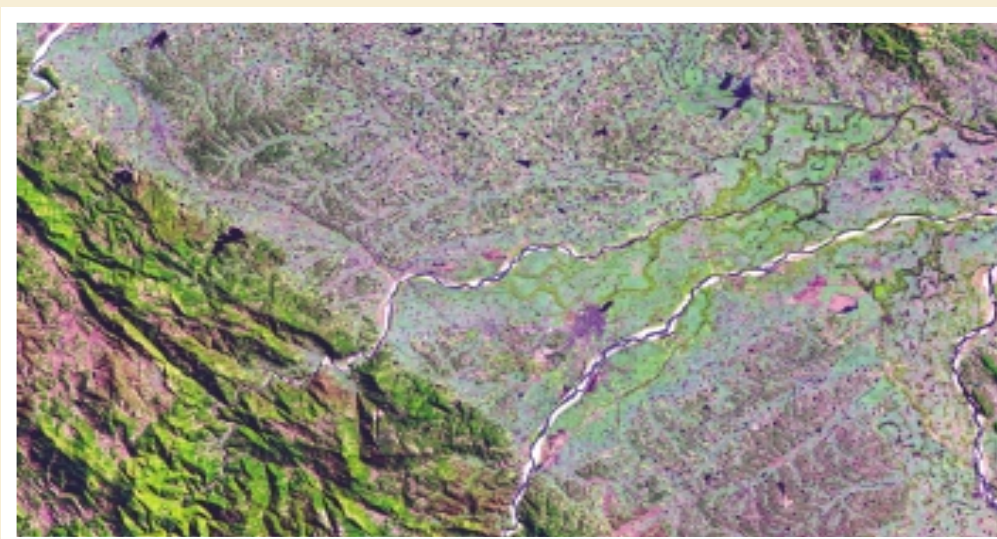
Green biomass change map based on single pixel in 1996 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



TM image in 1993

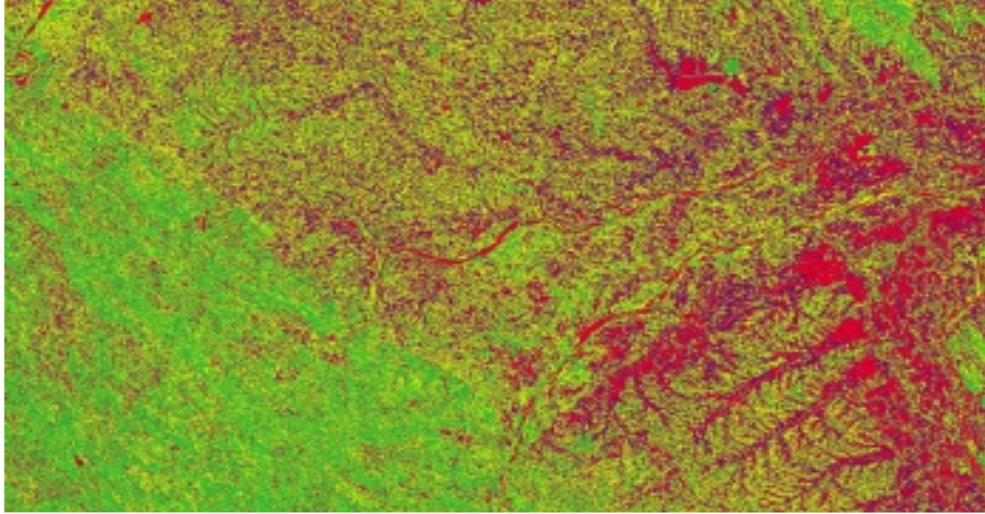


TM image in 1995

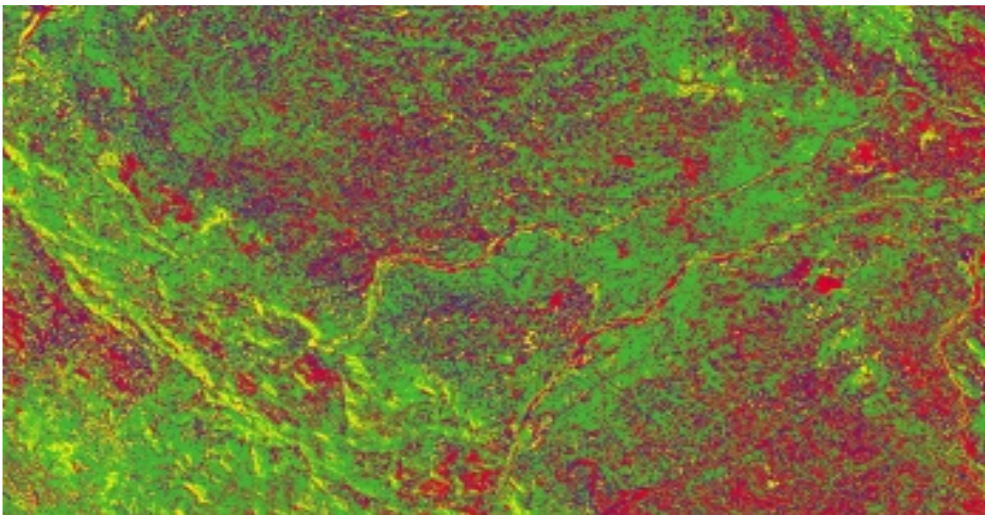


TM image in 1996

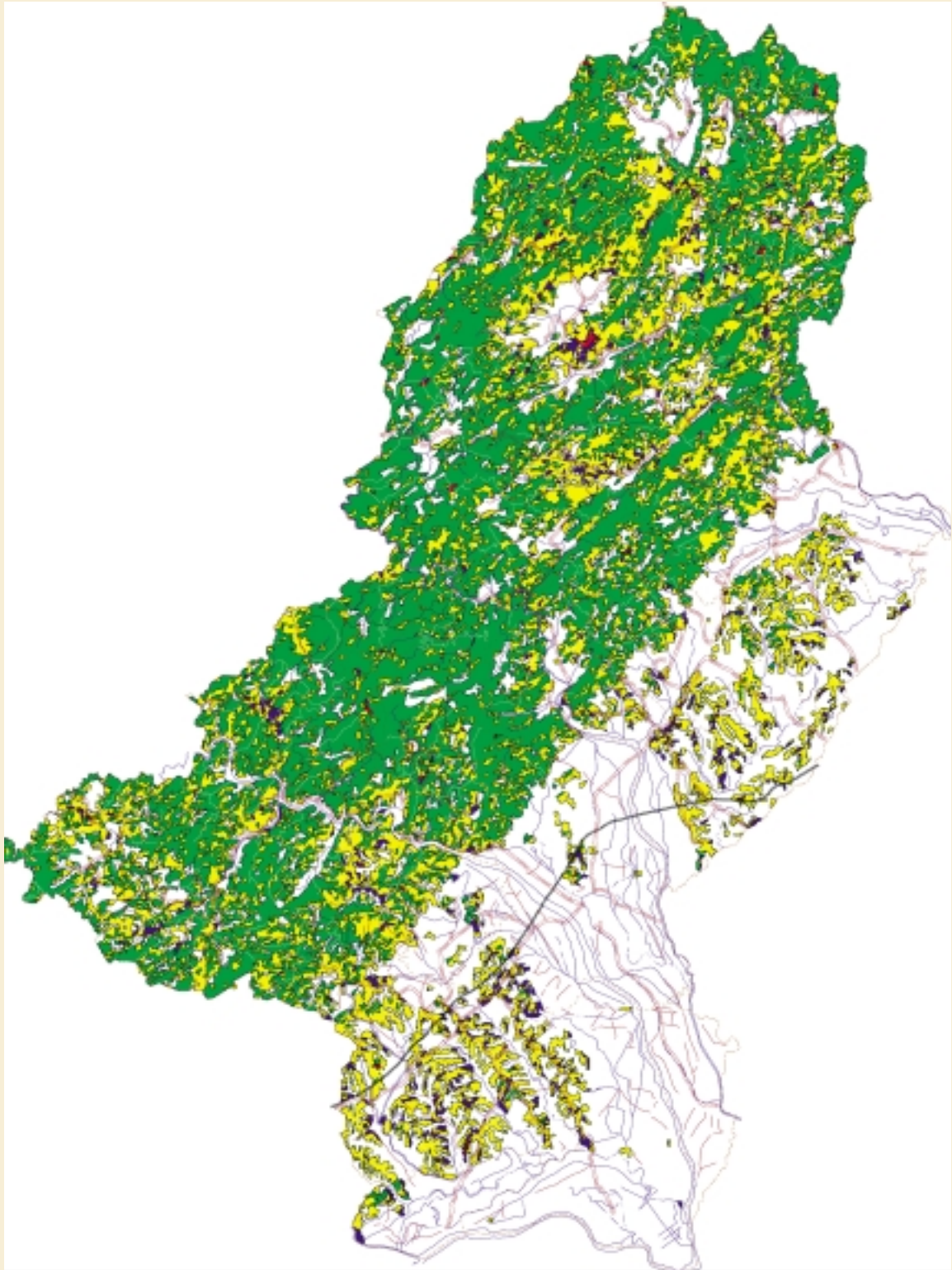




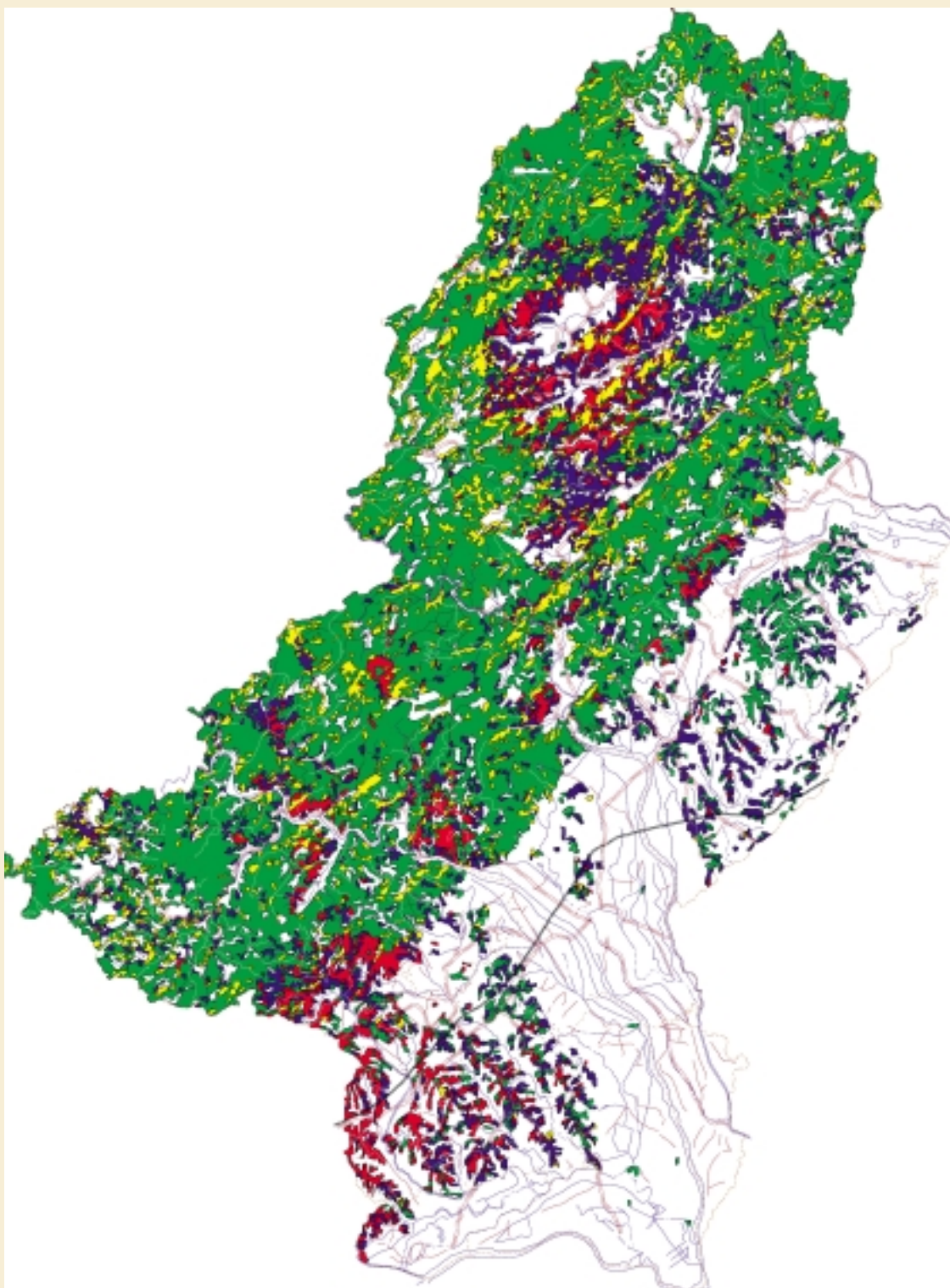
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Green biomass change map based on single pixel in 1995 (Green color represents healthy forest, yellow color represents around 30 of needle loss percentage, blue color represents around 50 of needle loss percentage, red color represents larger than 70 of needle loss percentage in the forest area)



Forest health change map of Qianshan County of Anhui Province in 1995 (Green — healthy forest, Yellow — around 30 of needle loss percentage, Blue—around 50 of needle loss percentage, Red— Larger than 70 of needle loss percentage)



Forest health change map of Qianshan County of Anhui Province in 1996 (Green — healthy forest, Yellow — around 30 of needle loss percentage, Blue—around 50 of needle loss percentage, Red— Larger than 70 of needle loss percentage)

This group of images is situated at western Anhui Province, Central China, the center point is about 116.5°E, 30.6°N. It belongs to the subtropical climate, mason pine (*Pinus massoniana*) is its pioneering tree type of forest cultivation and dominate the forest type. Mason pine caterpillar(*Dendrolimus punctatus*) usually happened two or three generations each year, and led to large areas of damage, it's the most serious forest insect and diseases in this area.

We choose four groups of images of three continuous years to analyze and compare the change of forest quality. In the composite image, the green color represent the healthy forest. In 1996, Mason pine caterpillar (*Dendrolimus punctatus*) happened in large areas and caused great damage, the red brown color represents areas with quality changes by forest insects or other factors. By comparing the images, the early hazard area of 1995 can be clearly detected, and it's the central area with most serious damage in 1996. It can be demonstrated that TM data can be used in the monitoring and assessment of mason pine caterpillars(*Dendrolimus punctatus*) in Anhui. Through long term monitoring, the goal of early forecasting can be achieved.