

## Historic Tumbarumba Site and Soil Type and Characterization

Compiled by Mirko Karan, James Cook University, 2015

In 1995 the plot at the Tumbarumba Wet Eucalypt SuperSite was a Coordinated Energy and Water Cycle Observation Project (CEOP) reference site and a reference site of the Regional Hydroclimate Project: Murray-Darling Basin administered by the Commonwealth Scientific and Industrial Research Organisation.

Reference Site and a reference site for the Regional Hydroclimate Project: Murray-Darling Basin.

Source: <http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/mdb/Tumbarumba/Tumbarumba/>  
Accessed on 16 Nov 2015

Description by Phil Ryan, CSIRO Division of Soils 1995.

### **General Site Description:**

Bago State Forest, where Tumbarumba Flux station was established in March 2000, is a native forest of 50,000 ha that has been managed for wood production for over 100 years. It is a moderately open (Lai ~2.4), wet sclerophyll forest, 40 m tall, in which the dominant species are *Eucalyptus delegatensis* and *Eucalyptus dalrympleana* of mixed ages ranging up to 90 years

### **Soil Profile Morphology:**

O1 0 - 0.02 m Organic Layer;

A1 0.02 - 0.08 m Dark reddish brown (5YR3/3-Moist); Mechanical, 2-10%, , Faint; Clay loam; Moderate grade of structure, 2-5 mm, Granular; Rough-ped fabric; Moderately moist; Very weak consistence; Field pH 4.5 (pH meter); Many, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Common, medium (2-5mm) roots; Abrupt, Smooth change to -

A2 0.08 - 0.2 m Dark reddish brown (2.5YR3/3-Moist); Brown (7.5YR4/4-Dry); Biological mixing, 2-10%, , Faint; Light clay; Weak grade of structure, 2-5 mm, Polyhedral; Rough-ped fabric; Moderately moist; Very firm consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, dispersed, Coal, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Clear, Smooth change to -

B21 0.2 - 0.4 m Dark reddish brown (2.5YR3/4-Moist); Biological mixing, 2-10%, , Faint; Light clay; Massive grade of structure; Earthy fabric; Moderately

moist; Firm consistence; 2-10%, fine gravelly, 2-6mm, angular tabular, dispersed, Coal, coarse fragments; Few cutans, <10% of ped faces or walls coated, faint; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Few, coarse (>5mm) roots; Diffuse, Smooth change to -

B22 0.4 - 0.72 m Dark reddish brown (2.5YR3/4-Moist); Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; 0-2%, coarse gravelly, 20-60mm, subrounded, coarse fragments; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Diffuse, Smooth change to -

B23 B23 0.72 - 1.62 m Reddish brown (2.5YR4/4-Moist); Clay loam; Massive grade of structure; Earthy fabric; Moist; Weak consistence; Field pH 5 (pH meter); Few, very fine (0-1mm) roots; Few, fine (1-2mm) roots; Few, medium (2-5mm) roots; Diffuse change to -

C 1.62 - 2.42 m Yellowish brown (10YR5/4-Moist); Medium sandy clay loam; Sandy (grains prominent) fabric; Moderately moist; 2-10%, Granodiorite, coarse fragments; Field pH 5 (pH meter)



**Redoxic Hydrosol soil profile at a subalpine site in Bago State Forest, southern New South Wales**

The picture on the right shows a Redoxic Hydrosol soil profile at a subalpine site in Bago State Forest, southern New South Wales.

On the left is a typical landscape showing closed heathland with adjacent forests dominated by Alpine Ash (*Eucalyptus delegatensis*), east of Tumbarumba, NSW.

For more information see McKenzie, N. J., Jacquier, D. W., Isbell, R. F. and Brown, K. L. (2004). Australian Soils and Landscapes: an illustrated compendium. 416pp (CSIRO Publishing: Melbourne).

Photographer: Neil McKenzie on January 01 1996

Image and details downloaded from:  
<http://www.scienceimage.csiro.au/tag/soils/i/4286/redoxic-hydrosol-soil-profile-at-a-subalpine-site-in-bago-state-forest-southern-new-south-wales/> Accessed on 16 Nov 2015