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# Kidus Georgis

A long but narrow forest spreads along the steep slopes below a limestone pavement. Kidus Georgis forest is dominated by *Juniperus procera* but a variety of other woody species form the canopy below the main cliff. Although somewhat controlled, levels of grazing by livestock are not sustainable and in recent times have led to severe soil erosion.



Name: **Kidus Georgis**

Status: church

Site Code: TU05

Floristic Region: TU

Region: 1 (eastern Tigray)

Altitude: 2560 m

Latitude: 13° 47' N

Longitude: 39° 39' E

Woodland/forest:

Status: relict

Size: 5 ha

Dominant species:

canopy: *Juniperus procera*, *Maytenus*

*arbutifolia*, *Rhus glutinosa*

shrub/ground: *Asparagus racemosus*,

*Clusia abyssinica*, *Solanum indicum*

No of woody species: 39

No of species with less than 5 individuals: 5

Threats: grazing

Photograph: Kidus Georgis forest extends along the base of a limestone pavement.

On the top of a mountain range running North-South there is an East West escarpment below a limestone pavement. Kidus Georgis forest spread along most of these steep slopes. The church is located not far below the cliff towards the West. To the East there is a major mule track ascending to the plateau.

The forest structure and composition both change with elevation. Right below the limestone pavement at the bottom of the cliff there is a mixture of woody species. Further down *Juniperus procera* becomes dominant and towards the base of the slope the stand becomes an open woodland and eventually turns into open grassland. In many parts of this site the canopy is rather open. Much of the woodland is heavily grazed and little tree regeneration is observable.

The region of eastern Tigray has a high density of churches, many of which have scrub or even woodland. Outside these areas native woody plants are rare and the landscape is dominated by eucalypts when trees are present. The limestone pavement at the top of the mountain is pretty barren, whilst the land around the base of the forest is either cultivated or is extensively eroded (i.e. slopes).

### History

This church is at least 100 years old but little is known about its history. It is found in a region with many churches including some of the best-known rock churches of Tigray. The mule track crossing the forest is well worn and quite old.

Unlike any other site visited, the local community has some understanding of the problems grazing can cause in terms of tree regeneration and soil erosion. They have enforced a limit to the number of people, who can use the forest for their

livestock, however they do not appear to have set a limit to the number of animals that can graze.

### Conservation status

This is an important track of forest in a region where forest cover would have been removed long ago. The heterogeneity of the forest along the slope gives the woodland a special feature not observable elsewhere.



In the lower part of the woodland where *Juniperus procera* dominates the canopy there is severe erosion around both shrubs and trees. This results from overgrazing.



The zone right below the cliff is nearly devoid of *Juniperus procera*.

### Threats

Although in some ways controlled, grazing pressure goes far beyond the carrying capacity of the land. Severe erosion occurs in the lower half of the forest. Most trees and shrubs now grow on hummocks with most or all soil in between washed away. This clearly indicates that this erosion has been taking place since these plants became established, suggesting that grazing pressure has increased during the latter part of the 20<sup>th</sup> century.

### Management

The community needs to address the question of grazing rights and how to reduce the number of livestock using the forest during various seasons of the year. This issue is obviously related to the scarcity of pasture in the area and a recent run of years with below than average rainfall.