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# Yimrana Kirstos

A large mainly monotypic *Juniperus procera* forest in a totally deforested landscape. Many of the mature junipers exhibit crown dieback and severe herbivory has resulted in the complete disappearance of all ground woody vegetation in the upper parts of the forest. Both canopy and ground vegetation are species poor.



Name: **Yimrana Kirstos**

Status: church

Site Code: WU04

Floristic Region: WU

Region: 3 (North Wello)

Altitude: 2700 m

Latitude: 12° 07' N

Longitude: 39° 04' E

Woodland/forest:

Status: relict

Size: 50 ha

Dominant species:

canopy: *Juniperus procera*

shrub/ground: *Becium grandiflora*,

*Clutia abyssinica*, *Hypoestes trifolia*

No of woody species: 24

No of species with less than 5 individuals: 2

Threats: grazing

Photograph: View of part of the forest from the summit. The village is situated on the triangular piece of ground at the bottom left of the forest.

This large *Juniperus procera* forest extends over a whole easterly facing river basin over an altitude of several hundred metres. Near the bottom of the forest there is a cliff overhang where the widely visited Yimrana Kirstos church is found. Below the overhang the tree canopy, besides *Juniperus procera*, also contains *Olea europaea* spp. *cuspidata*. The remaining of the forest is a monotypic stand that in places is not unlike the structure of a conifer plantation. The flora is extremely poor for a site of such a large size and the shrub and ground layers become scarcer as one climbs the mountain and this appears to be linked with increasing grazing pressure. Tree cutting decreases with altitude as one moves away from settlements.

Most mature *Juniperus procera* trees suffer from moderate to severe crown dieback probably as a result of years of below average rainfall. There are a number of dead standing trees.

This large forest is the last stand of juniper to be seen in the landscape and is extremely conspicuous from miles away. Some planting of cypress and eucalypts has been carried out on some steeper slopes in the vicinity Yimrana Kirstos.

### History

Yimrana Kirstos is an old and important religious site visited by many visitors who holiday in Lalibela. There is a settlement nearby but by and large the population of this large valley is low.

### Conservation status

The importance of site lies, not in its biodiversity, but in the existence of such a large stand of

juniper. It is likely that the mountain sides of the whole region were formerly covered by juniper dominated forests and Yimrana Kirstos is the only substantial example remaining.



The church is situated under the rock overhang, many of the steep slopes are severely eroded.



Severe mature tree dieback is observable, most likely caused by a recent period of below average rainfall. The shrub layer is dominated by *Calpurnia aurens*.

### Threats

Heavy grazing pressure by domestic livestock is the main threat and prevents any potential natural regeneration of trees in most of the forest.

A recent dry period with well below than average rainfall has had a major impact on tree health and probably natural regeneration as well.

### Management

Control of grazing is certainly the main issue. However, under current climatic conditions, it is unlikely that much tree regeneration will take place and especially that of *Juniperus procera*. Whenever rainfall returns to a more regular pattern, grazing should be prevented in areas of the forest.