

## NUTRITIONAL STATUS OF CATTLE AROUND THE GILGEL GIBE DAM IN ETHIOPIA: THE SEARCH FOR EASY-TO-ESTABLISH INDICATORS.

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### ABSTRACT

Little information is available about the nutritional status of cattle in this area around the Gilgel Gibe dam in Ethiopia. In the literature and more specifically in wildlife studies and studies about free ranging cattle, authors suggest the use of faecal nitrogen as well as analysis of minerals in blood to gain an indication of nutritional status. (Leslie and Starkey, 1987; Abdelrahman et al., 1998). The main goals of this study was to investigate the nutritional status of the cattle around the Gilgel Gibe dam and to find suitable indicators to evaluate this status.

Body condition scores (BCS) for animals of different herds in three sub regions were assessed; faeces were analyzed for the following indicators: crude ash and fractions, nitrogen and fractions and the minerals Zn, Cu, Fe, Mn and S. Plasma samples were analyzed for the same minerals. Cu deficiency is widely spread in the region. BCS was positively correlated with Cu levels in plasma. Faecal nitrogen (organic matter base, OMB) differed between regions, as did vegetal nitrogen (OMB). Herd effects were significant for Cu, Zn, Fe, S and BCS. This study points out the possible use of faecal nitrogen and fractions to evaluate the nutritional status of cattle. The Cu deficiency is severe and should be treated in the near future. This information is useful for future research in the field as well as for farmers' organisations to evaluate their cattle correctly and supply mineral supplements when needed.

**Keywords:** nutritional status, cattle, minerals