

AUTECOLOGICAL PARAMETERS OF *Cochlospermum* species AND ASSOCIATION WITH OTHER BROWSE IN THREE DIFFERENT LOCATIONS AT NEW BUSSA AREA OF KAINJI LAKE BASIN NIGERIA.

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Abstract

Cochlospermum species and its association with other browse in three different locations at New Bussa area of Kainji lake basin Nigeria was investigated. The various use to which *Cochlospermum* are put within the basin by humans, wild life species, domestic ruminants and as ecological condition indicators are highlighted. Twelve other browse plants were observed to be associated with the one hundred and five *Cochlospermum* species sampled in three different locations in New - Bussa area of the Basin. These were categorized according to the locations: Kainji Lake Research Institute (KLRI) experimental rangeland; Federal College of Wildlife Management (FCWM); Ecology Study area and Kainji Dam Site. Relative percentage association of the species are presented. The percentage association differ within individual species of the same site and between the three different sites. Commonly associated with *Cochlospermum* in terms of similar distribution pattern are *Acacia* spp. *Piliostigma thonningii* and *Vitellaria paradoxum*. *Cochlospermum* species distribution and density varied between the three selected sites. In New Bussa area as a whole the density of *Cochlospermum* species was estimated as 18 plants per hectare on the average. Mean leaf surface area per plants was highest in FCWM with 4.0 ± 2.1 m² in Kainji dam site 3.9 ± 2.0 m² while least in KLRJ site 3.3 ± 2.0 m². Mean number of leaves per plants in the whole study area was 680 ± 338 ; Highest in the FCWM site with 686 ± 321 leaves / plant; KLRI site 683 ± 355 leaves per plants and least in Kainji dam site with 670 ± 339 leaves per plant.