

Project Update : April 2024

For the production of the distribution map of the *Diospyros crassiflora* species in the Campo-Ma'an national park, the surface of the reserve was subdivided into five sampling zones: Aloum II, Biyan, Mabiogo, Mvini and Olem (Figure 1). The work took place between the months of September to November 2023. The following results were obtained.

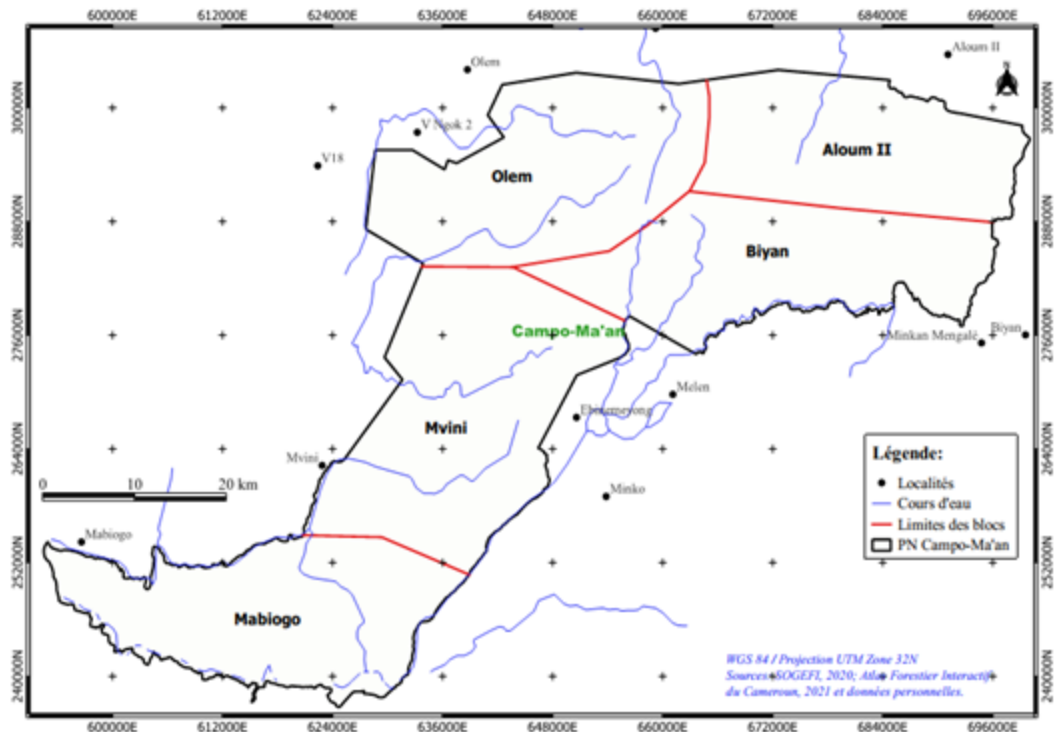


Figure 1: Representation of the different sampling sites.

Diametric structure *D. crassiflora* in the PNCM

The distribution of *D. crassiflora* trees in the different collection sites according to diameter classes (Figure 2) has a decreasing inverted “J” shape and is characterized by the presence of all diameter classes. The most represented classes are [21-30], [31-40] and [41-50] cm, with respectively 20.75%, 19.62% and 17.36% of the individuals inventoried.

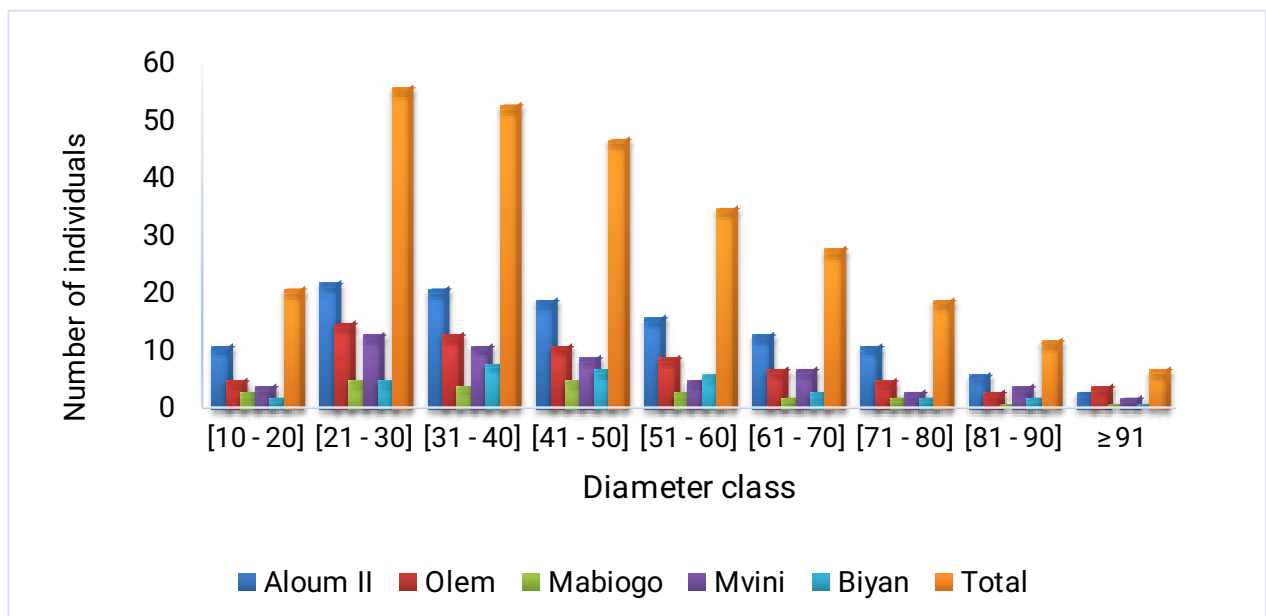


Figure 2 : Distribution of *D. crassiflora* individuals by diameter class in the different sampling areas.

Distribution according to height of *D. crassiflora* in the PNCM

The distribution of *D. crassiflora* individuals in the different collection sites according to height classes (Figure 3) has a decreasing inverted “J” shape and is characterized by the presence of trees in all height classes. The most represented classes are [6-8] and [9-11] m, with respectively 30.5% and 25.6% of the individuals

inventoried. The number of *D. crassiflora* individuals with a height between 6 and 14 is significantly greater than that of individuals with a height between 3 and 5 m ($P < 0.05$). This low number of individuals less than 6 m in height demonstrates that the species *D. crassiflora* is heliophilous and dominant in terms of height in the study area.

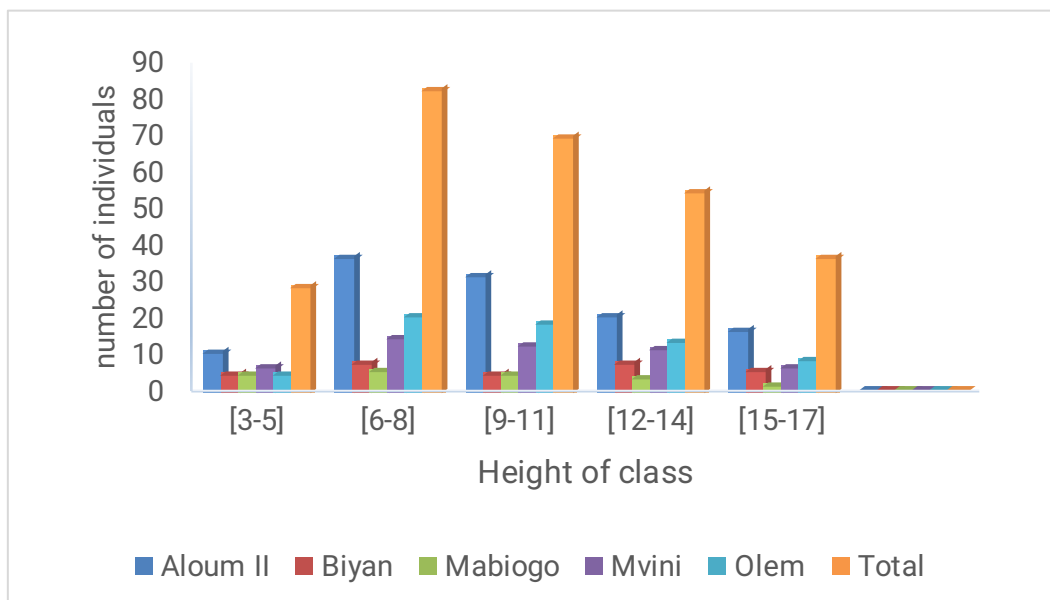


Figure 3 : Distribution of *D. crassiflora* individuals by height class.

Distribution of ebony feet in the PNCM

Figure 4 presents the distribution of *D. crassiflora* individuals inventoried in the PNCM. In this figure, we have three types of zones depending on the presence of the species, namely: zones (white color) where the species is weakly represented (1 individuals), zones (green color) where the presence of the species is average (2 to 3

individuals) and the areas (black color) where the species is strongly present (4 to 6 individuals).

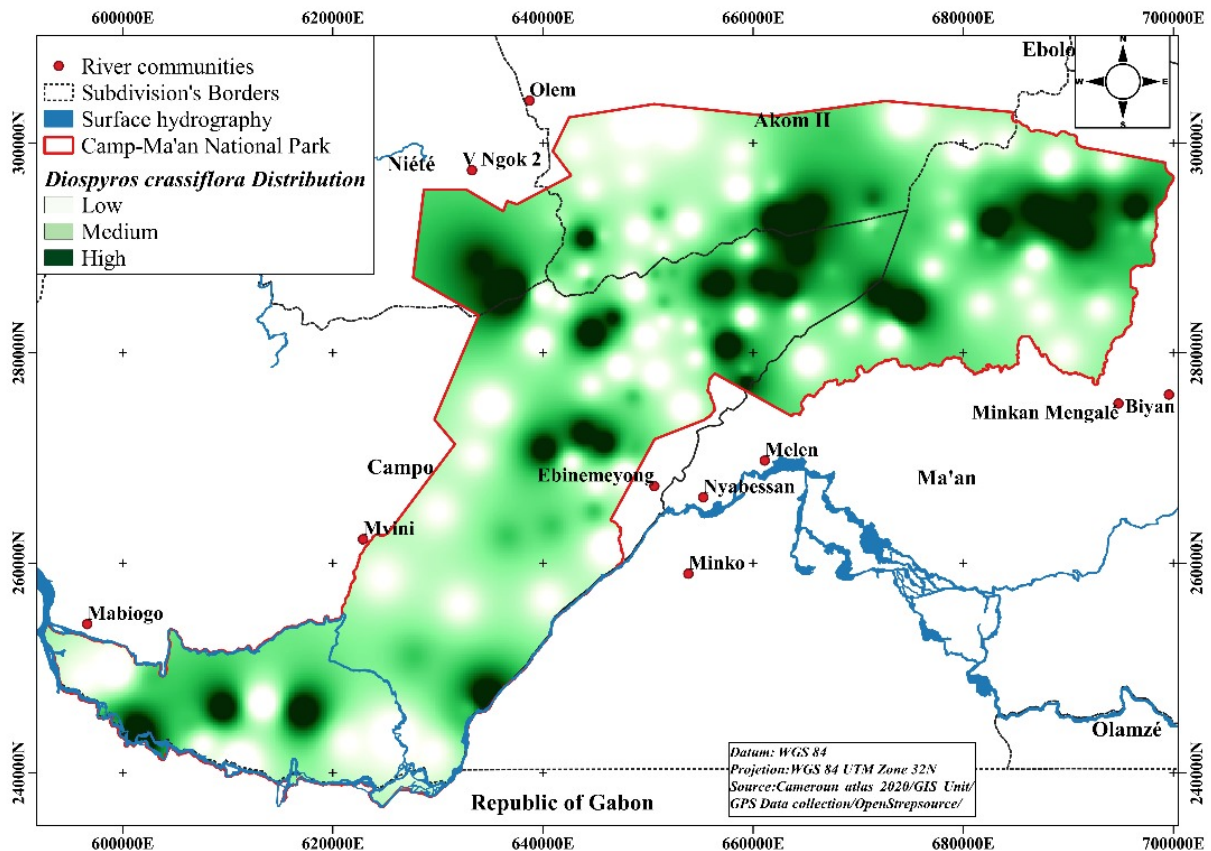


Figure 4 : Distribution map of *D. crassiflora* in the PNCM.

Regeneration status of *D. crassiflora*

The inventory of juvenile individuals of *D. crassiflora* resulted in 90 juvenile individuals. The locality of Aloum II is the most represented (25 individuals), followed by Mvini (24 individuals). The density (stems/ha) varies from 0.04 (Mabiogo) to 0.12

(Aloum II), on a global scale it is equivalent to 0.42 stems/ha (Table I). The regeneration status is fair in all collection sites. The natural regeneration index oscillates between 2.2 (Aloum II) and 48.9 (Mvini).

Tableau I : Regeneration status of *D. crassiflora* in the sampling areas.

Collection sites	Mature individuals	Juvenile individuals	Density (stems/ha)	Status	Specific regeneration index (SIRi)	Regeneration rate (SRR)
Aloum II	113	25	0.12	Fair	2.2	18.11
Biyani	27	12	0.06	Fair	44.4	30.77
Mabiogo	17	8	0.04	Fair	47.1	32.00
Mvini	49	24	0.11	Fair	48.9	32.88
Olem	63	21	0.09	Fair	33.3	25.00
Total	269	90	0.42	Fair	0.9	25.07







Figure 5: *Diospyros crassiflora*.