

Folk classification criteria of Karite (*Vitellaria paradoxa* cf Gaertn) in Benin shea parklands

M. Francisco Merinosy¹, E.G Achigan-Dako¹, P.C. Gnanglè², J-M. Boffa⁴

¹Laboratory of Genetics, Horticulture and Seeds Science; ³ Institut National des Recherches Agricoles du Bénin; ⁴Terra Sana projects

1. Background

- *Vitellaria paradoxa*, a Sapotaceae native to West Africa, commonly referred to as shea tree.
- A useful wild species that makes contribution to the household economy of many rural families in Africa.
- Local knowledge and perception are determinant to undertake the domestication of the species.
- This study documents local knowledge and examines influence of sociocultural factors on shea morphotypes classification criteria.

2. Materials and Methods

- Semi-structured surveys were carried out with 405 farmers in five shea parklands in Benin (Fig. 1)
- Data analysis: Frequency of citation, Chi-square analysis, Factorial Correspondence Analysis.

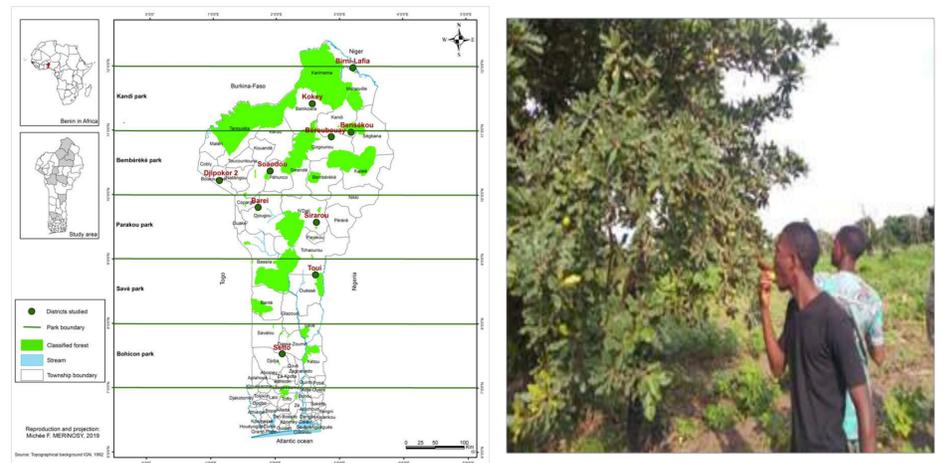


Fig. 1. Survey areas and Shea parkland in Benin

3. Results and discussion

13 morphotypes based on top 5 most mentioned criteria were recorded in the five shea parklands of Benin.



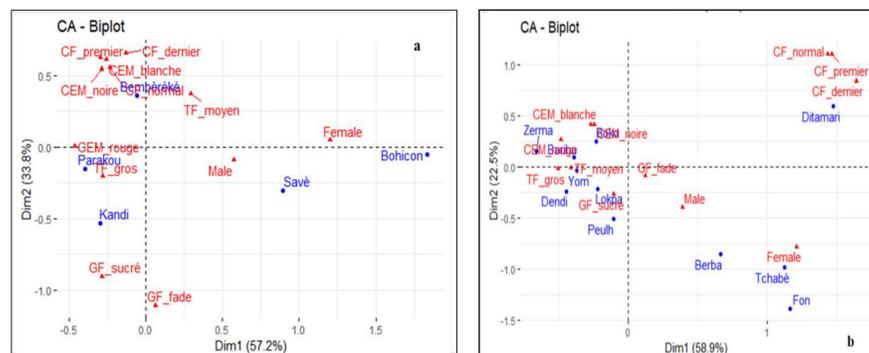
Black bark

White bark

Medium fruit size

Diversity of shea morphotypes in Shea parks of Benin.

| Park | Shannon |
|-----------|---------|
| Bembèrèkè | 2.002 |
| Bohicon | 0.693 |
| Kandi | 1.394 |
| Parakou | 1.734 |
| Savè | 1.743 |



FCA biplot showing Shea morphotypes and parks (a), and sociolinguistic groups (b).

With exception to gender, all socio-demographic factors very significantly influence the relative frequency of the 13 main shea morphotypes ($P < 0.001$).

4. Conclusion

Shea diversity reported by farmers represents a robust background for the implementation of domestication and breeding programs in Benin.

References

- Gnanglè PC, Yabi J, Glèlè KR, Sokpon N (2005) Changements climatiques : Perceptions et stratégies d'adaptations des paysans face à la gestion des parcs à karité au Centre-Bénin. La Rev électronique en Sci l'environnement 152 (2015):7.
- Sandwidi A, Diallo BO, Lamien N, et al (2018) Participatory identification and characterisation of shea butter tree (*Vitellaria paradoxa* C.F. Gaertn.) ethnovarieties in Burkina Faso. Fruits 73:141–152. doi: 10.17660/th2018/73.3.1.

Acknowledgement

