

Effect of desiccation and storage environment on longevity of *Ehretia cymosa* Thonn. seeds

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Scope and main objectives

- *Ehretia cymosa* is in the family Boraginaceae.
- Distributed in parts of West Africa, E. Africa and Madagascar.
- *Ehretia cymosa* is important in the Afromontane forestry landscape as a medicinal, rehabilitation, and conservation species.
- In Kenya the species is utilized for medicinal, conservation and rehabilitation of degraded land.
- This study sought to assess the effect of desiccation and storage environment on the longevity of *Ehretia cymosa* seeds.



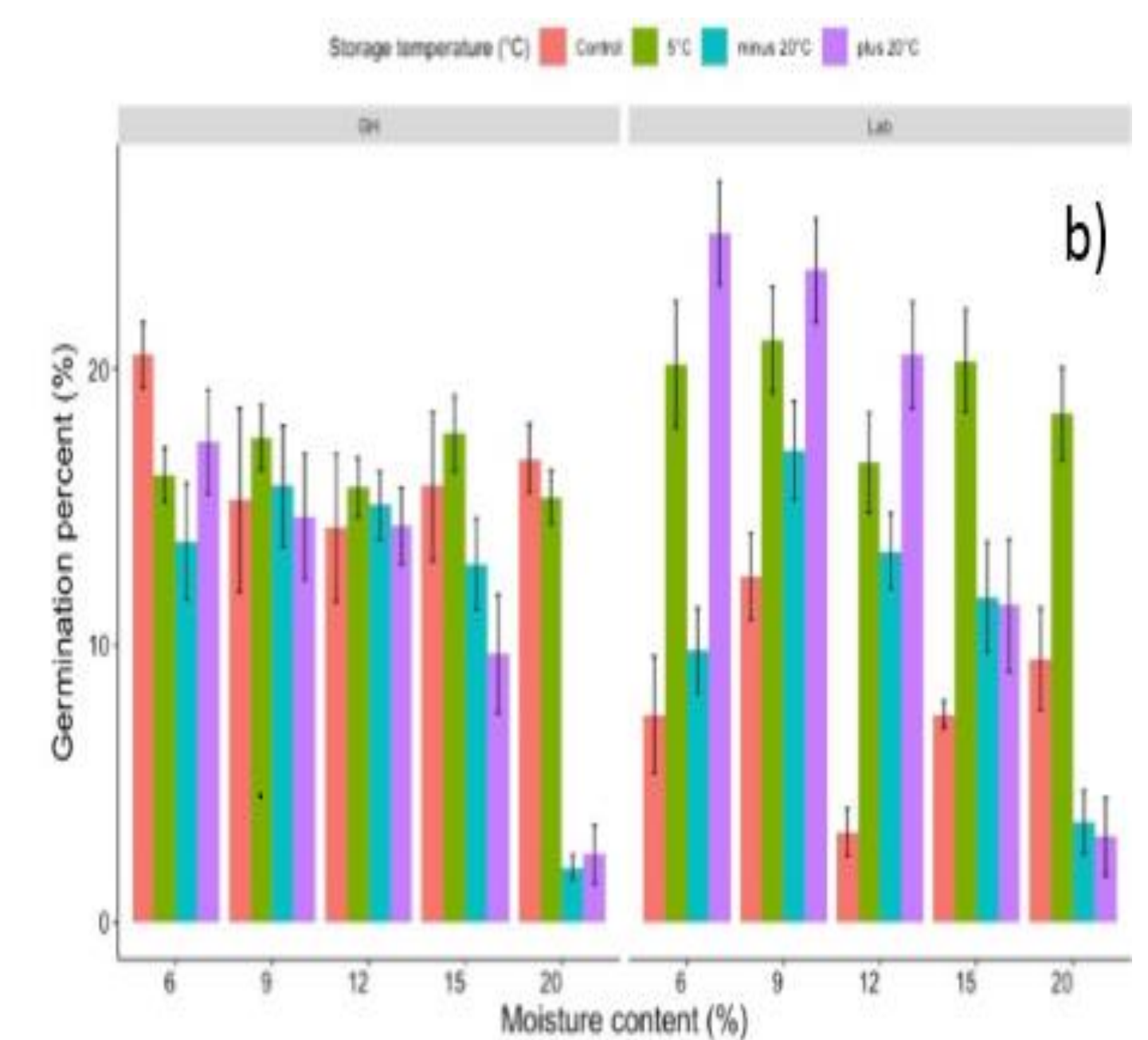
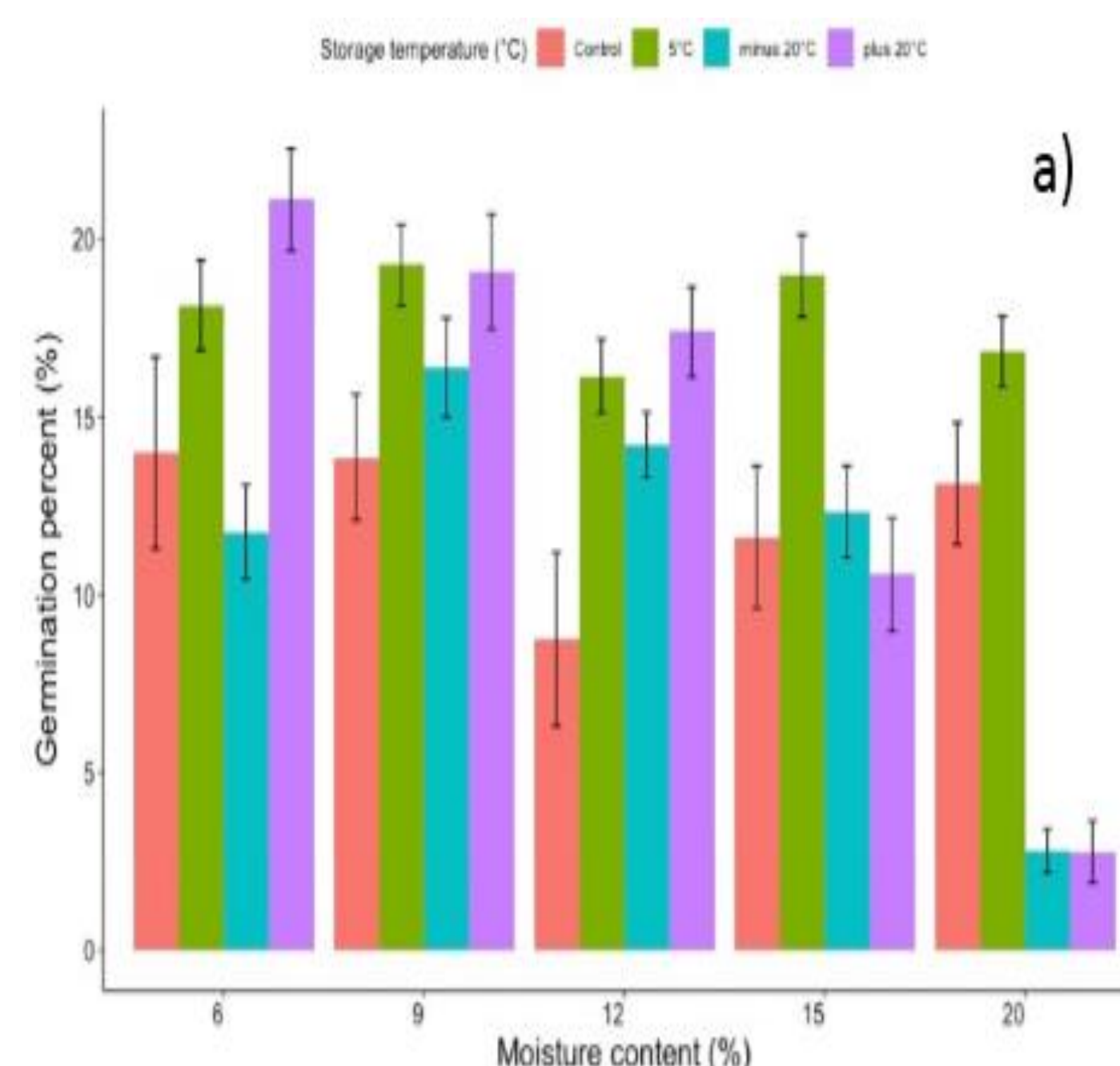
Innovative approach

- The study was conducted between June 2009 and July 2010 in the laboratories of Kenya Forestry Research Institute (KEFRI) H/headquarters
- The seeds were collected from the Thogoto forest in the month of June 2009

Experimental design

- Germination performance of *E. cymosa* seeds stored in different temperatures (control, 5°C, 20°C and minus 20°C) after being dried to different moisture content (6%, 9%, 12%, 15%, and 20%).

Treatment	Levels				
Desiccation MC	6%	9%	12%	15%	20%
Storage temperature	Minus 20°C	+5°C	+20°C		
Storage period (months)	1	2	4	9	12
Site	Laboratory (Lab)		Greenhouse (G.H.)		



Conclusions/lessons learnt/way forward/ why it matters/ recommendations

- This study observes that *E. cymosa* seeds had the highest germination when seeds were dried to 6% MC, stored at 20°C for 12 months (27.6±3.18%),
- This confirms that *E.cymosa* seeds exhibit orthodox storage behavior.
- This finding is important for proper utilization of the seeds of *E. cymosa*. It will guide individuals and organizations that collect, store, and distribute the seeds of this species on appropriate seed handling in order to maintain their viability.

Recommendation

- Drying *E. cymosa* seeds to 6% MC and storing in cool dry environment to improve storability, and
- longer storage studies (>12months) to determine the actual longevity of the seeds of this species.