

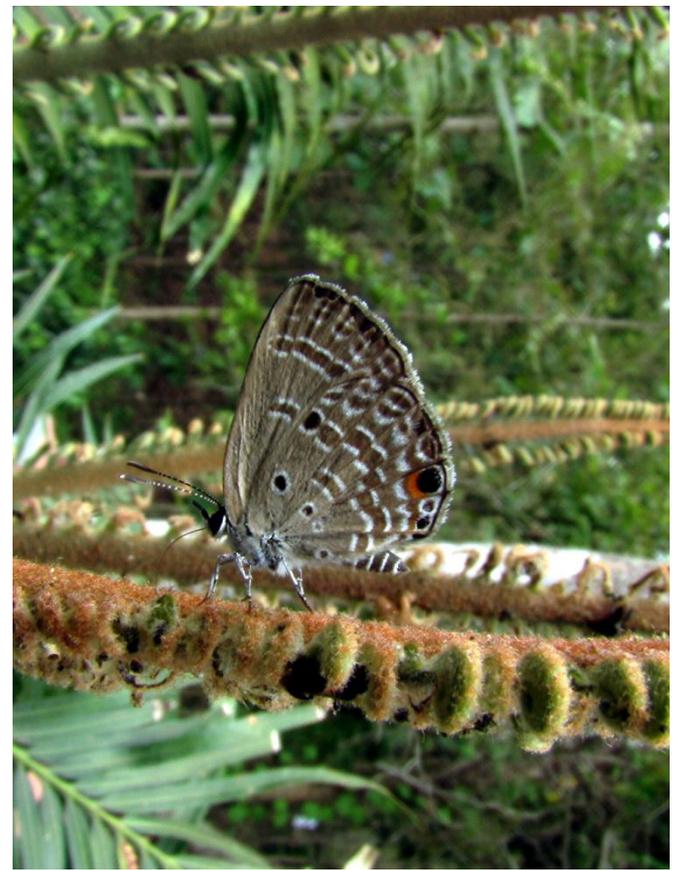
Case Study *Cycas circinalis* L.

Anita Varghese

Keystone Foundation, India

Tamara Ticktin

University of Hawaii & People and Plants International



INTERNATIONAL EXPERT WORKSHOP ON CITES
NON-DETRIMENT FINDINGS
CANCUN, MEXICO
NOVEMBER 17-22, 2008



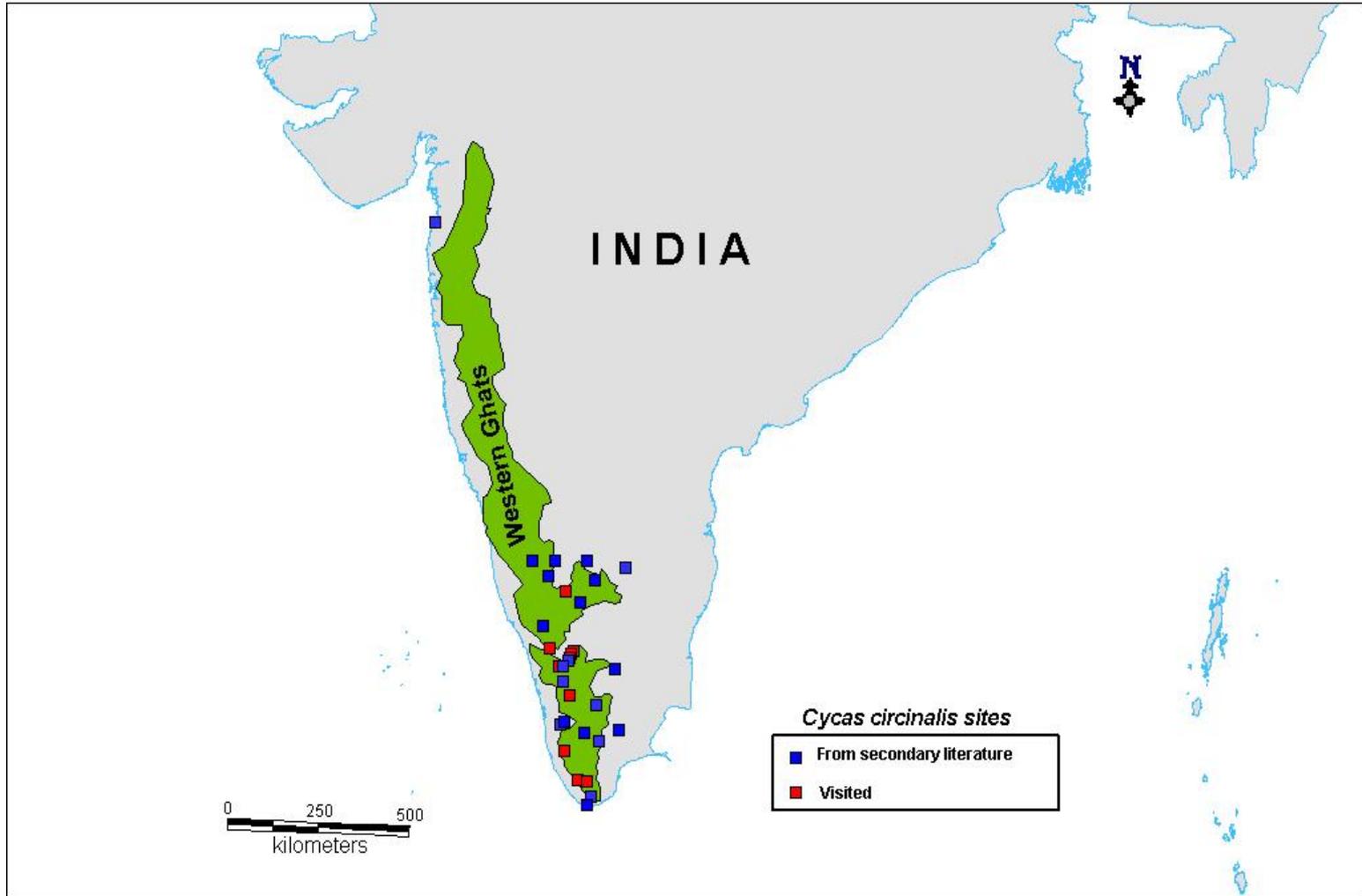
Cycas circinalis L.

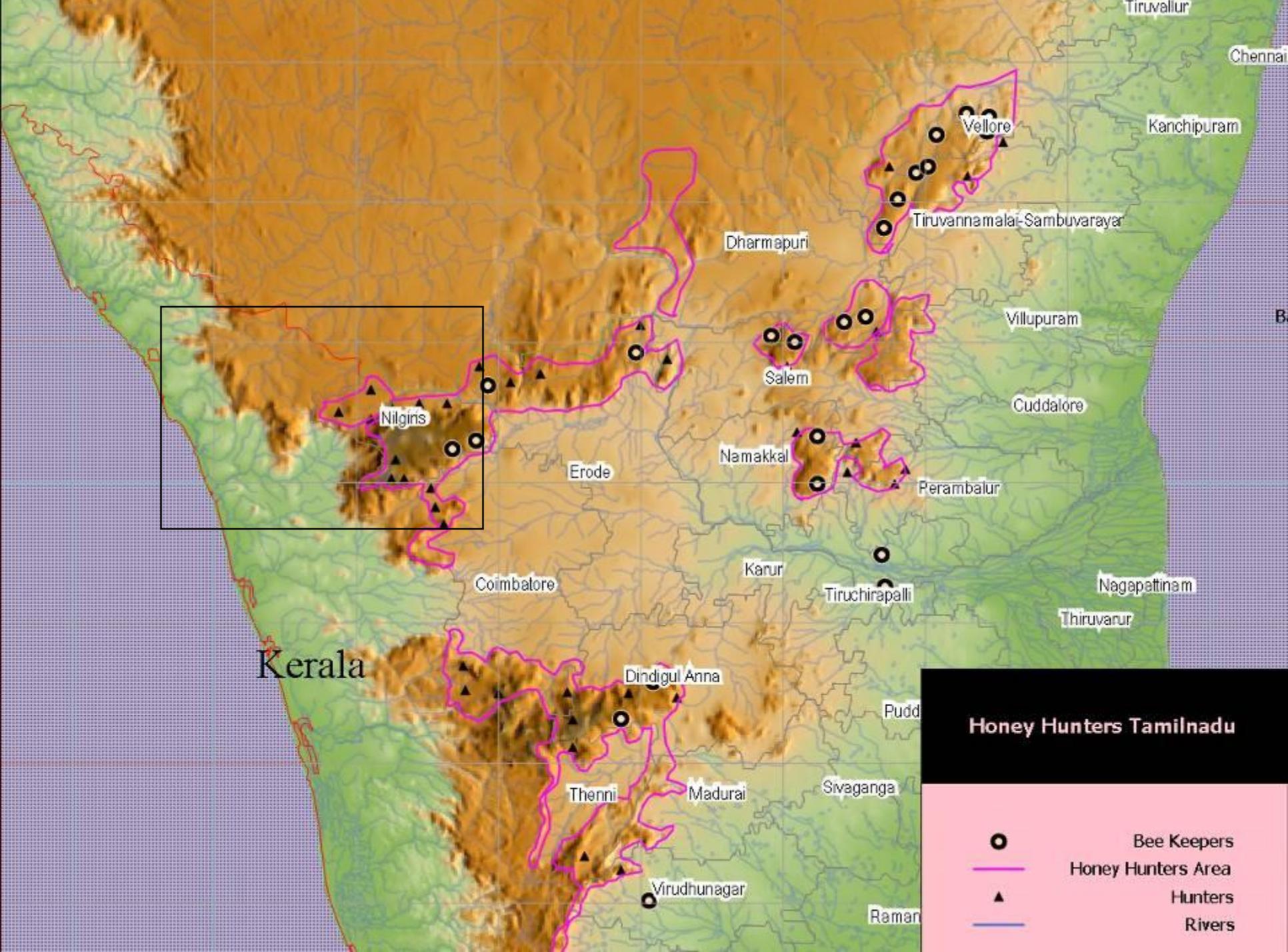
CYCADACEAE

Appendix II

Endemic -Western Ghats, India

Distribution-*Cycas circinalis*





Honey Hunters Tamilnadu

- Bee Keepers
- Honey Hunters Area
- ▲ Hunters
- Rivers

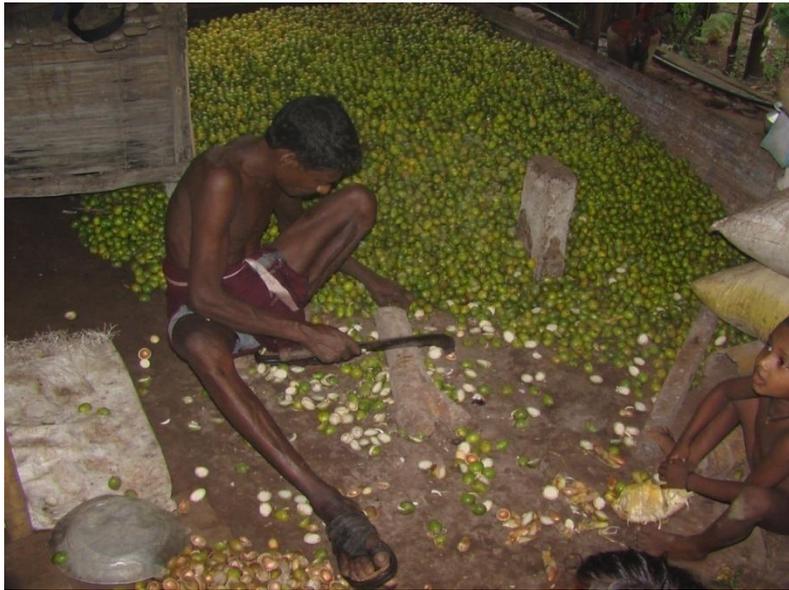
Cycas circinalis - A multi use cycad

- **Subsistence use** characterized by low volume and high traditional value
- **Commercial use** characterized by high volume and low ecological concerns
- **Users** traditional and non traditional communities
- Food, Decorative purpose, Medicine and Construction

Patterns of Use - Subsistence



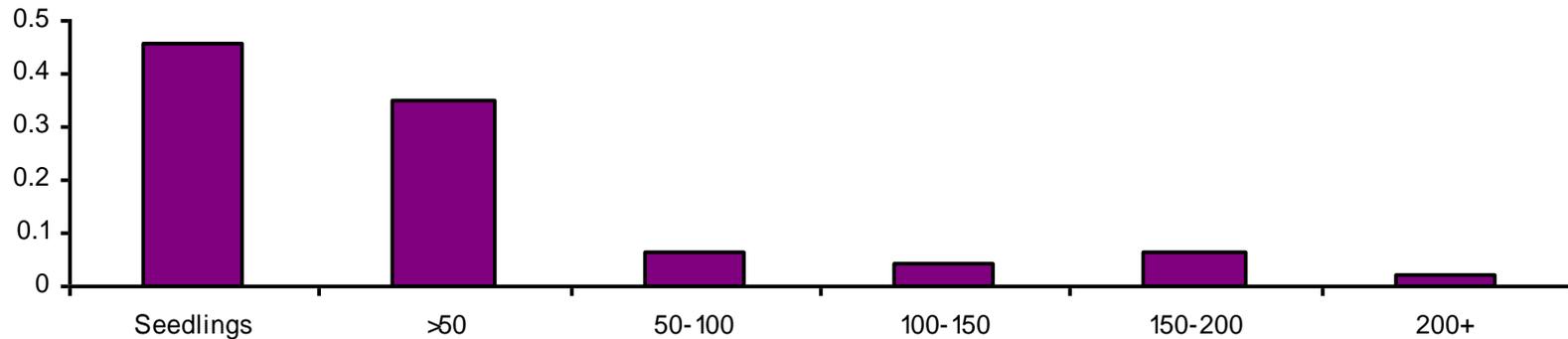
Patterns of Use- Commercial



Important biological features of the species

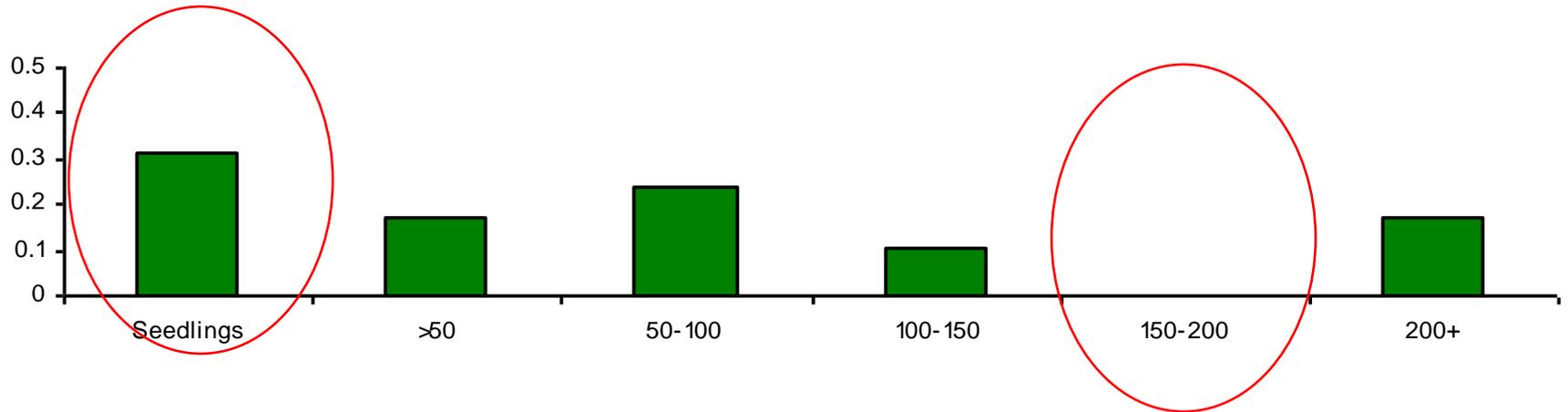
- Flowering not regular, identifying male and female plants takes time
- Variations in responses of population to different part harvests
- Differential growth rates from low elevation wet forests to mid elevation dry forests
- Direct responses to fire

Seed Harvest only: Good levels of regeneration

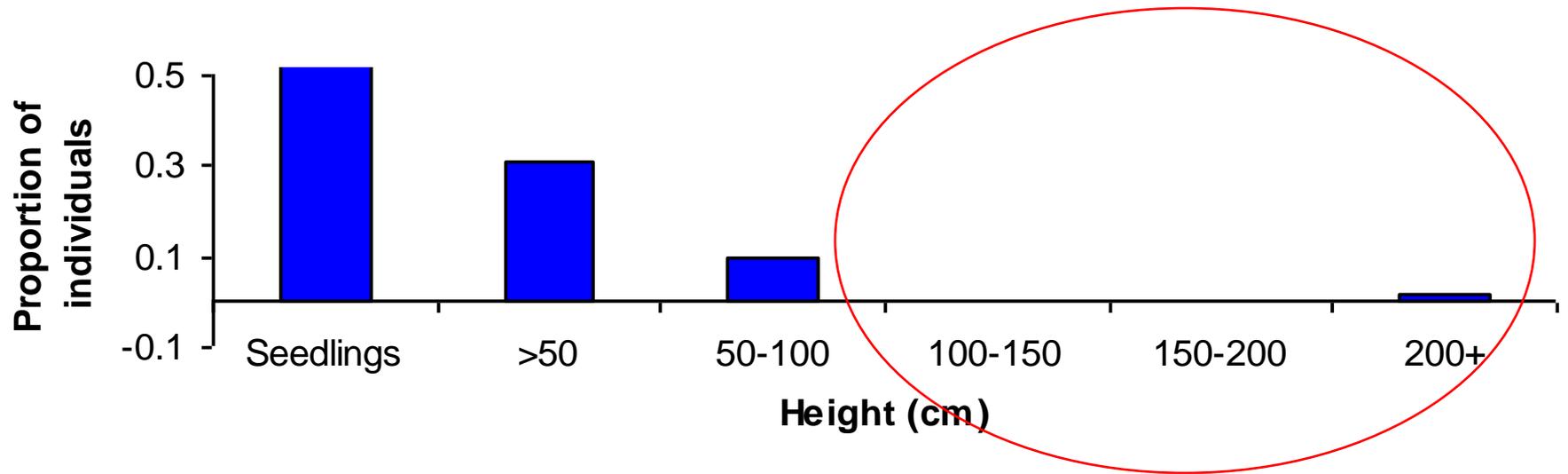


Seed & leaf harvest:

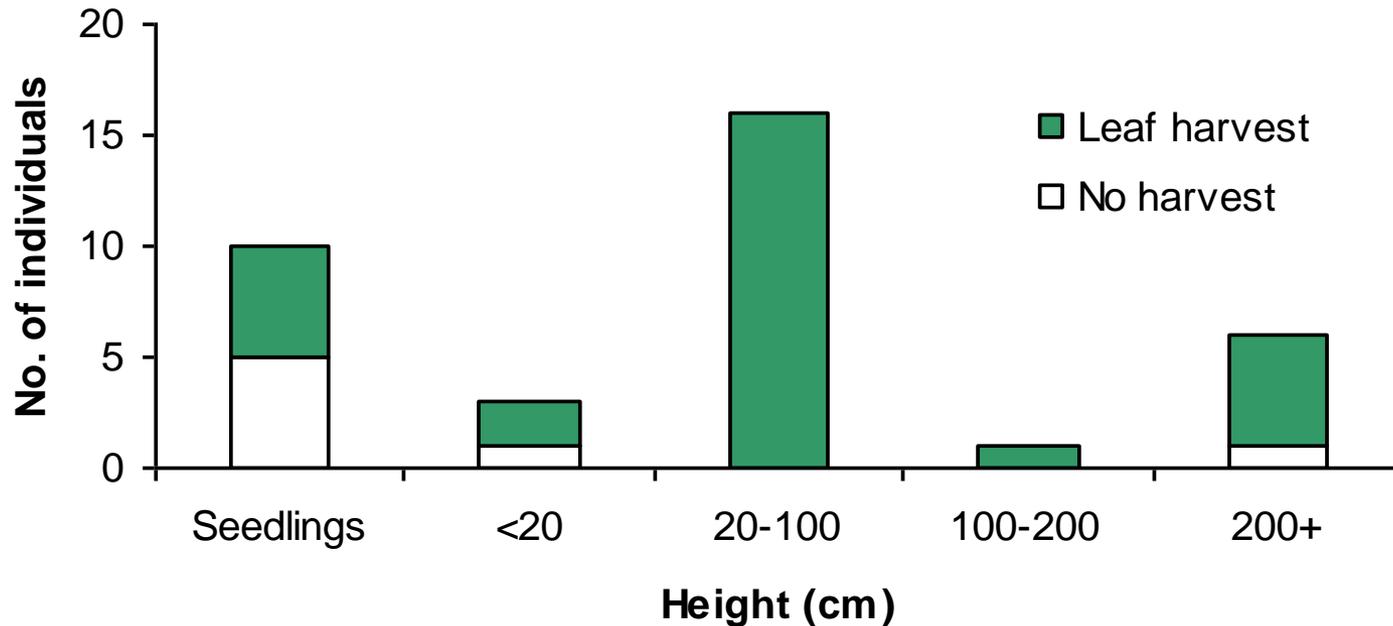
Poor recruitment and some adult mortality



Seed, leaf, stem harvest: Adults are depleted



Levels of leaf harvest are extremely high: only the smallest and largest are spared



Average of 91.3 % of leaves on EACH individual removed

Responses to Fire



Current methods for (NDF) assessments

- Part of Plant that is harvested
- Quantity of harvest
- Time for recovery
- Local management for regeneration
- Size of population
- Region harvested

Review of criteria, parameters, and data sources for NDF assessments

- Part of plant harvested – Relatively simple to identify except in case of pith harvests which are the most detrimental
- Quantity that is harvested – with involvement of community this can be collected with a greater degree of confidence
- Local management practices need to be documented
- Periodic monitoring of populations through assessments

Key lessons for developing NDF assessments for this type of taxon

- Integrating different kinds of knowledge, indigenous, scientific, managerial etc
- Following the trade routes closely and monitoring them – winning over traders
- Long term monitoring programs for the biology of the species
- Taking different stakeholders along from the inception of the monitoring program
- NDF procedures need to be communicated by the management authority to harvesters and licenses issued at site should be guided by a NDF

Need for regular monitoring



Questions..??

Questions that face us today is the relevance of this assessment to the harvester, trader and manager who are constantly involved in the trade

- How does one come up with a strategy for assessment that looks at habitat, climate and role of the species in the ecosystem?
- How does one increase the stakeholder's participation in the assessment process?
- How does one factor in all the knowledge available as part of the process of assessment?
- Assessment seems like a one time effort. These changes need to be assessed over a period of time and move to a regular monitoring - NDF monitoring
- Who will bear the costs and reap the benefits of this process?

Thank you

