



Stay below water!

- A Strategy to Avoid Seed Predators

- Seed Survival and Germination of *Mauritia flexuosa* in Southeastern Peru

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Aims

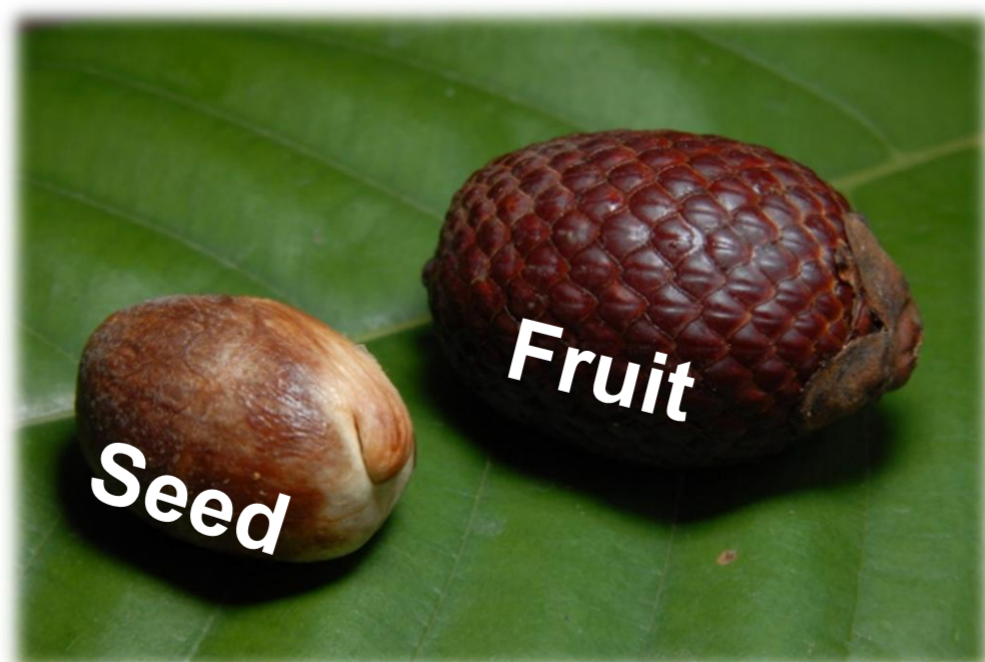
To study:

1. Seed survival in the Aguajal (palm swamp)
2. Seed predators on dry land
3. Insect visitors and consumers
4. Germination in greenhouse experiments



The Palm *Mauritia flexuosa*

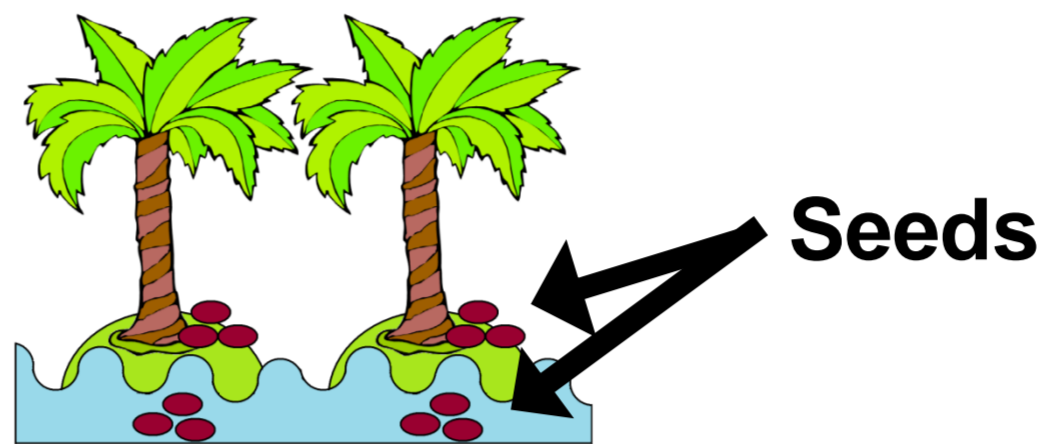
- Northern South America
- Up to 35m in height
- Fruits rich in vitamins, carotenes & lipids
- Used in juice, jam & ice cream
- Ecologically important
- Threat: Unsustainable harvesting



Methods

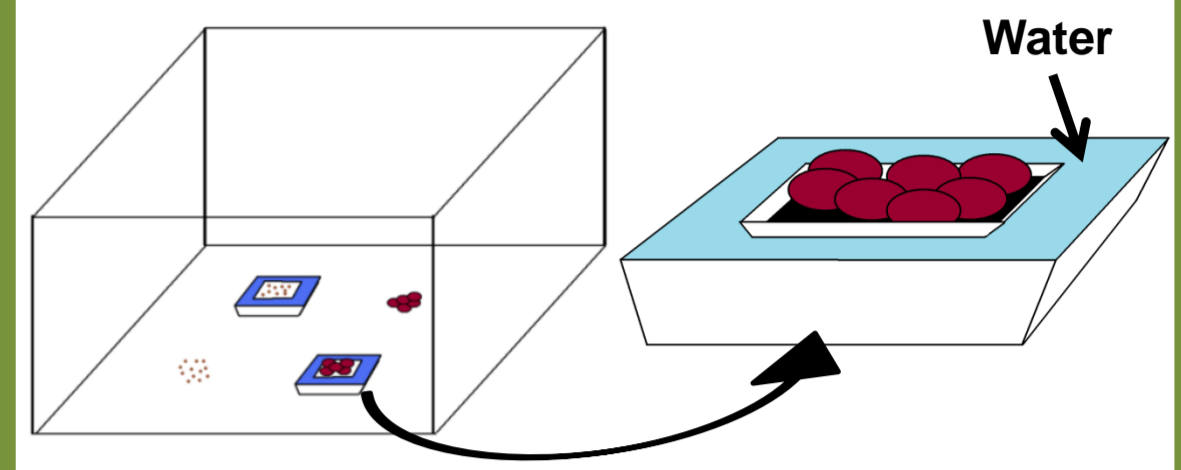
Location: Manu National Park, Peru

1. Seed survival in the Aguajal



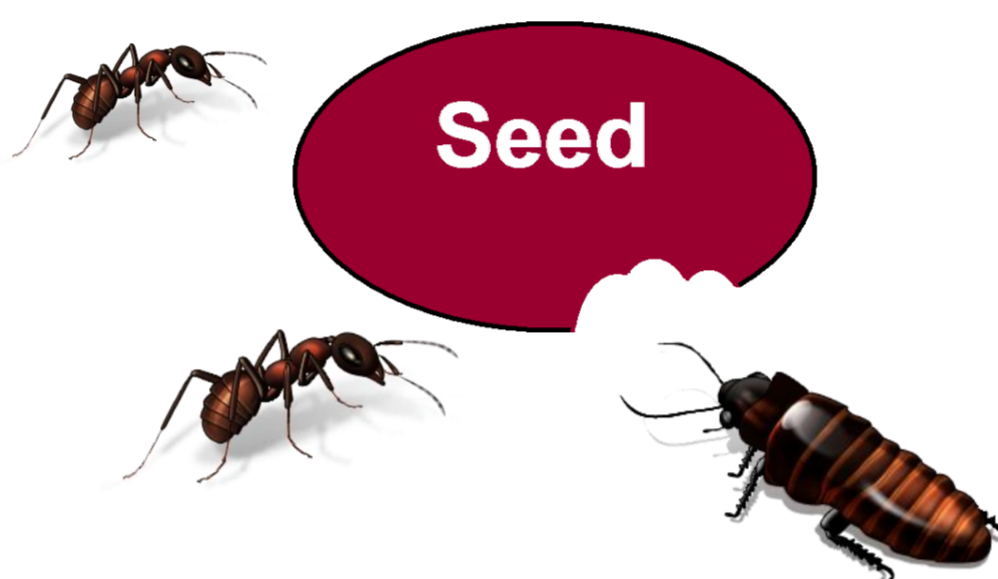
Seeds on land & below water.

2. Seed predators on dry land



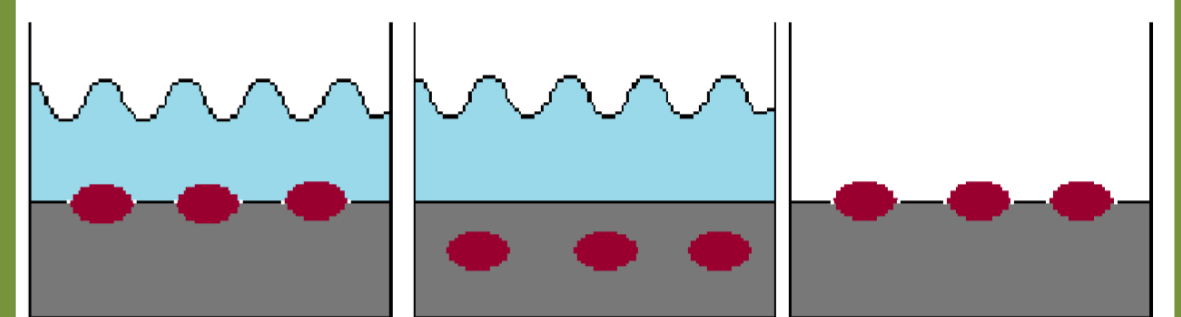
Mammal exclusion Insect exclusion
Excluding mammals & insects

3. Insect visitors and consumers



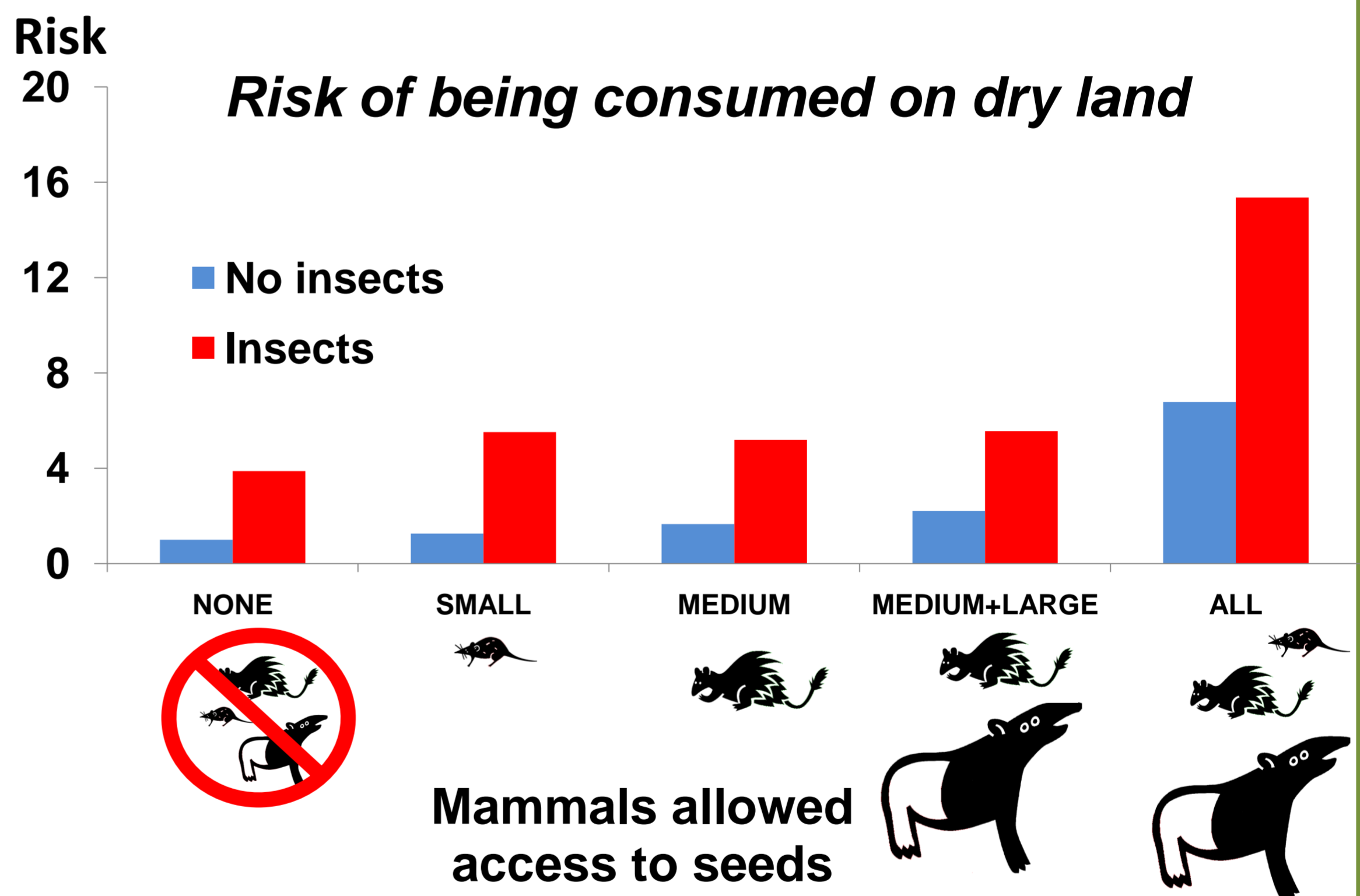
Insects on seeds & fruits.

4. Germination in greenhouse experiments



Seeds in various conditions.

Results



- Insects contribute more than mammals to the risk of being consumed.
- Higher seed survival under water in the Aguajal and in the Greenhouse.
- Different insects visit fruits and seeds.

Conclusions

- Insects are important seed predators on dry land.
- Water protects seeds from insects.
- A strategy to avoid seed predators may be to Stay below water!



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