

3<sup>rd</sup> International Symposium-Workshop on Frugivores and Seed Dispersal  
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POSTER SESSION - 145

ROOM ROYAL

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16:40 h

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**Methods for monitoring palm seed predation and dispersal by vertebrates in a Brazilian Atlantic Forest.**

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Are the estimates of removal and predation rates, dispersal distances, and recovered seeds after dispersal different when monitored by different field methods? We addressed these questions by an experiment carried out at two sites (TG and TP) covered by Atlantic Forest in the Parque Estadual da Serra do Mar (Núcleo Santa Virgínia/Natividade da Serra), Southeastern Brazil. In each site were placed 57 experimental units (blocks) containing six palm seeds (*Euterpe edulis*) attached to different materials (clip-spool, bobbin, plastic tag with a nylon thread through the seed, plastic tag with a nylon thread glued on the seed, plastic tag with a steel cable through the seed and fluorescent powder) and one control seed without attached materials. The blocks were placed 50m apart and checked over seven days. After a seed removal, the block was substituted by a live trap baited with seeds in order to identify the animals that probably removed the seed. Seed removal at TG was different among methods ( $Q_{0.05;6}=13,8$ ;  $p=0,031968$ ), with a tendency for better performance to the clip-spool (n=18; 24%). Recovered seeds were more frequent for the clip-spool (n=16; 34%), fluorescent powder (n=8; 17%) and bobbin (n=8; 17%). Dispersal distances were higher for the clip-spool (6,5-830cm; n=18) and bobbin (10-812cm; n=10). In the TP site the seed removal was not different among methods ( $Q_{0.05;6}=6,588235$ ;  $p=0,360626$ ), with a tendency for the tag with a nylon line through the seed (n=20; 19%), bobbin (n=19; 17%) and clip-spool (n=17; 15%) methods to be more efficient. Recovered seeds were more frequent for bobbin (n=10; 19%) and clip-spool (n=12; 24%). Dispersal distances were higher for clip-spool (8-500cm; n=17) and bobbin (15-660cm; n=15). The removed seeds were found mostly on the forest floor, where some of them were removed again two times, and also inside burrows on the understory. The number of predated seeds was very low in both sites, however we were able to record rodents and tinamids as seed predators and dispersers when using methods with threads. We identified the rodents *Oryzomys nitidus* (n=10), *Oryzomys rüssatus* (n=1), *Akodon montensis* (n=1) and *Trynomys iheringi* (n=1) predated seeds inside the traps. In conclusion, a tendency for better performance of clip-spool and bobbin methods to track seeds in the field was detected.

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