

Nested-PCR Assays Detect Phytoplasma in *Cedusa caribbensis* Caldwell & Martorell (Hemiptera: Auchenorrhyncha: Derbidae) in Puerto Rico

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Recently, phytoplasma infections associated with palm dieback and mortality, and resembling symptoms for lethal yellowing, were reported in Puerto Rico. So far, infected palms appear to be: Royal palm (*Roystonea* spp.), Fishtail palm (*Caryota mitis*), Carpentaria palm (*Carpentaria acuminata*), and coconut (*Cocos nucifera*). Pathogen-vector relationships are crucial to understand host range, disease dispersion, and susceptibility of the many palm species occurring on the island, as well as to provide guidelines to the local ornamental palm industry. Samples from auchenorrhynchous insects were collected around phytoplasma-infected palms at the UPR Botanical Garden's palm collection in San Juan. Specimens identified as *Haplaxius* (= *Myndus*) *crudus* (Van Duzee), and *Cedusa caribbensis* Caldwell & Martorell had DNA extracted using CTAB protocol, and PCR was carried out using universal primers for amplification of phytoplasma DNA P1 and P7. PCRs were followed by nested-PCR with a second pair of universal primers R16F2n/R16R2. The amplified products were visualized in agarose gel/UV. Infected plant tissues were used as positive control during PCR essays. A single fragment of same size (~1,400bp) reported on plants was observed in both primer combinations for specimens of *Cedusa caribbensis*. PCR product was not observed on samples from *H. crudus*. Number and size of the fragment were the expected for the occurrence of phytoplasma. All tests were repeated four times. This is the first record of *H. crudus*, a known vector of phytoplasma associated to lethal yellowing of palms, in Puerto Rico. Transmission trials are underway to determine the capability of *C. caribbensis* to transmit the pathogen among palm species.

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