Palms of the Leeward Antilles: a model for conservation success

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Effective plant conservation requires synergy among in situ protection, public participation, botanical understanding, and ex situ conservation. Recent strategic planning for living conservation collections led to the description of two new palm species from the Leeward Antilles. Sabal antillensis is endemic to Curacao, while S. lougheediana is endemic to Bonaire. Long before taxonomic clarification, both species had a detailed conservation survey in 1979. Forty years later, resurvey of both species using identical methods showed disparate pathways: S. antillensis vastly increased in census and range, while S. lougheediana collapsed in range and census – becoming one of the absolute rarest species with only 25 surviving palms. Conservation success on Curacao resulted from diligent management. Replicating that success became a top priority on Bonaire, and an international effort to protect and conserve S. lougheediana is now underway. A combined program of in situ and ex situ conservation, informed and guided by next-generation population genomic data, ensures that the Bonaire Palms will not go extinct. These findings provide a model for palm conservation elsewhere: detailed study highlights uniqueness, which mobilizes government and private conservation action. This study demonstrates how botanical science, public participation, in situ protection, and ex situ conservation combine to bring a beloved plant back from the brink of extinction.