

## 1.27 Dehesa Nolina (*Nolina interrata*) – Category SO

### Management Units wi0074h Known Occurrences

Dehesa nolina is a perennial herb that occurs on dry, stony slopes composed of gabbro-derived soils in chaparral and coastal scrub communities in southern San Diego County and Baja California, Mexico. There are 6 conserved populations of Dehesa nolina in MU3 (see Table of Occurrences and online map: <http://arcg.is/2h1OiN3>), and three known populations in Baja California (CBI 2015). Populations range from large to small and are subject to varying types and levels of threats as summarized below.

**Conservation Biology Institute** Prepared a conservation vision plan for Dehesa nolina in 2015 (CBI 2015). The conservation vision included detailed surveys to evaluate status and threats for all known occurrences on Conserved Lands in San Diego County, prioritized management actions by population, and identified survey and research needs.

### Management Categorization Rationale

Dehesa nolina should be managed as a Species Management Focus Category SO Species because persistence of 1 or more significant occurrences in the MSPA is at high risk of loss without immediate management action above and beyond that of daily maintenance activities (see Vol 1., Table 2-4) and because management of coastal sage scrub or chaparral habitat alone will not ensure its persistence. Factors contributing to this status include a highly limited range in MU3 and Baja California, vulnerability to catastrophic disturbance, and soil endemism. A primary threat to Dehesa nolina at both the regional and preserve levels appears to be purple false brome (*Brachypodium distachyon*), a nonnative grass that poses a particular threat in grassland and disturbed coastal sage scrub habitats (CBI 2012; CBI et al. 2012). Additional threats include potentially low genetic diversity due to small population size, habitat fragmentation, altered fire regime, nitrogen deposition and disturbance from recreation including legal and illegal trails and off-highway vehicle activity. Extensive flower predation by beetles has been observed as a potential threat although it is unknown whether this is a cyclic event or a threat of serious magnitude.

## Management and Monitoring Approach

The overarching goal for *Dehesa nolina* is to maintain or enhance existing occurrences and establish new occurrences, as needed, to ensure multiple conserved occurrences with self-sustaining populations to increase resilience to environmental and demographic stochasticity, maintain genetic diversity, and ensure persistence over the long term (>100 years) in chaparral vegetation communities.

For the 2017–2021 planning cycle, the management and monitoring approach for *Dehesa nolina* is to:

- (1) Inspect conserved occurrences every 3 years starting in 2019 to document abundance, record threats, and identify needed management actions. Implement routine management as determined during monitoring.
- (2) Refine BMPs based on the results of ongoing management experiments.
- (3) Use occurrence status and threat data and BMPs to develop a section for *Dehesa nolina* in the MSP Rare Plant Management Plan that prioritizes management actions. Implement the highest-priority management actions for *Dehesa nolina*.
- (4) Initiate preparation of a section for *Dehesa nolina* in the MSP Seed Collection, Banking, and Bulking Plan that directs seed collection in the MSPA to ensure representation of different occurrences in the seed bank, provide propagules to preserve genetic diversity, support habitat restoration, and rescue occurrences in case of catastrophic disturbance. Initiate *Dehesa nolina* seed banking and bulking.

For details and the most up-to-date goals, objectives, and actions, go to the MSP Portal [Dehesa Nolina summary page:](http://portal.sdmmp.com/view_species.php?taxaid=42992)  
[http://portal.sdmmp.com/view\\_species.php?taxaid=42992](http://portal.sdmmp.com/view_species.php?taxaid=42992)

## Dehesa Nolina References

CBI (Conservation Biology Institute). 2012. *Covered and Invasive Species Management: Crestridge Ecological Reserve and South Crest Properties. Tasks 1–4: Covered Species Mapping, Invasive Species Mapping, Invasive*

*Plant Control, and Early Detection Plan.* Prepared for San Diego Association of Governments, San Diego, CA. Contract no. 5001586. June.

CBI. 2015. *Conservation Vision and Management Strategy Dehesa Nolina (Nolina interrata). San Diego County, California.* Prepared for San Diego Association of Governments

CBI, Dendra Inc., and Cal-IPC, 2012. *Management Priorities for Invasive Non-Native Plants A Strategy for Regional Implementation, San Diego, California.* San Diego, CA.

Environmental Mitigation Program Grant 5001763. April 2015.