

# MSCP Rare Plant Monitoring Workshop Notes

March 1, 2005, 9 a.m. to Noon, Mission Trails Regional Park Interpretive Center

## Introductory Remarks

- Workshop being conducted to gain feedback for the review and revision of MSCP rare plant monitoring plan; revision is being undertaken through a USFWS and CDFG grant.
- Introduction of Dr. Kathryn McEachern, Senior Plant Ecologist of the USGS-BRD, who will be the lead in the grant effort and will be supported by USGS staff and a three-member independent scientific advisory committee.

## Current MSCP Rare Plant Monitoring: General Issues and Experiences

- Lack of established protocols and changing protocols. (Mike Kelly)
- Lack of interjurisdictional population information; populations not surveyed across boundaries. (Cindy Burrascano)
- Counting methods/timing may underestimate populations, e.g., *Dudleya* sp., only counting flowering populations, suggest doing two surveys for vegetative and flowers. (Mark Dodero)
- Lack of vouchering and documentation of species. (Jon Rebman)
- Funding issues; even simple management issues not always being addressed. Monitoring needs to be integrated with management, and weed eradication should be coordinated with rare plant seasons/flowering in co-occurrence areas. (Fred Sproul)
- Problem of MSCP monitoring requirements not being met and lack of regional, standardized data for all jurisdictions. City is only jurisdiction that provides numbers in reports. (Cindy Burrascano)
- Monitoring may be focused too narrowly on rare/covered species and overlooking ecosystem health; many large parcels have other rare plants on same lands as covered species. (Cindy Burrascano)
- Current monitoring may not always show entire picture, e.g., *Dudleya blochmaniae* ssp. *brevifolia* population decreased at Carmel Mountain, but methods used by City didn't reflect trend. (Cindy Burrascano)
- Monitoring reports have management recommendations, but recommendations not always read until long after site visit. This should be better coordinated for immediate management needs and a timeline for implementation should be included in recommendations. (Fred Sproul)
- Potential for use of monitoring money for management; problematic to watch things decrease without doing something to reverse trends; timing is critical. (Mark Dodero)

## Suggestions/Considerations for Monitoring Plan Update

- Need to balance quantitative assessment vs. general trends and consider costs relative to overall monitoring and management budget. (Keith Greer)
- Need to start with clearly defined goals and objectives/rationale for monitoring to inform protocols and statistical design. Use existing conditions, conceptual models, "stepdown frameworks" and coordinate with others, e.g., SDSU, RAP. (Matt Rahn)
- Need adaptive monitoring for events like fire, but should be able to use original data in trend analysis. (Matt Rahn)
- Threat assessment should be routine part of monitoring; concern over location of transects and quadrats, "random" may miss major populations. (Mike Kelly)

## Suggestions/Considerations for Monitoring Plan Update (Cont.)

- There are two scales to consider in monitoring, smaller scale for local land management and regional for overall species trends. (Keith Greer)
- Should consider larger habitat questions in monitoring plan, e.g. *Ferocactus viridescens* can be covered by shrub overstory growth/vegetation type conversion. (Mark Dodero)
- Question of whether monitoring timing could be tied to rainfall rather than by set two/three year increments. (Cindy Burrascano) Flexibility is there with revision of plan, the difficulty lies with agency budgeting. (Clark Winchell) Drought year monitoring can yield important/interesting information, e.g. *Dodecatheon* sp. affected by rainfall, die off (herbivory) of some plants. Complex relationship between rainfall/drought and plant populations; what are long term effects (may be positive)? (Fred Sproul) Should also consider relationships between rainfall and weed growth with resultant rare plant competition. (Mark Dodero)
- Question of what weather data is used for monitoring analyses/where rainfall data are collected. (Karin Cleary-Rose) Microclimates can be important; more localized weather stations may be useful. (Matt Rahn) Weather/monitoring analyses should not include only simple yearly accumulated rainfall, timing of rainfall is also very important. (Fred Sproul) Web site similar to what is done for Quino Checkerspot butterfly might be useful. (Darrin Smith)
- Herbivory should also be monitored; *Monardella viminea* herbivory not constant each year. (Mike Kelly)
- Should consider setting thresholds or trigger points at which management and/or restoration action must be taken. (Bruce Hansen)

## Monitoring Methodology

- May not always be useful/possible to do intensive monitoring; specific quantitative monitoring best used to calibrate, then go to more general qualitative methods. (Darren Smith)
- Permanent photo points would be helpful to track invasives changes, especially in areas with problem of damage to species and soils with frequent visits. (Mark Dodero)
- Line intersect and belt transect methods are very labor intensive. Sometimes releve can be adequate and less disturbing, as well as less labor and funding intensive. (Tim Cass)
- Cover classes were used by City for vernal pools in 2003. Labor-intensive efforts not always great improvement over general, trend-detecting methods; use text-books to determine equivalent methods with less money. (Keith Greer)
- Concern over exclusively quantitative sampling; should “lift your head up” to see whole area. (Darren Smith)
- Useful to test methods against each other, like CBI/CDFG did when they tested types of wildlife monitoring methods. Address questions of what is gained with each type. (Mike Kelly)
- May be possibility of monitoring one population quantitatively, others qualitatively. The City has looked at multiple methods with *Dudleya variegata* and concluded that at least some quantitative monitoring should be performed. (Darren Smith/Keith Greer)
- Consider role of volunteers in augmenting professional biologist; volunteers have been very helpful. Works best with large perennials/shrubs, e.g., *Monardella viminea*. Smaller, easily trampled species potentially problematic and require extra caution due to delicacy, e.g., *Acanthomintha ilicifolia*, *Dudleya blochmaniae* ssp. *brevifolia*. May also use volunteers for invasives control. If transplanting has been done, transplants should be monitored, too. (Mike Kelly)

## Monitoring Reporting and Monitoring Database

- Should include line/bar graph of trends in monitoring reports. (Carolyn Lieberman)
- Question of whether agencies plan to aggregate monitoring data for regional perspective. The USFWS should be and will be putting all data into one database, but realistically this is one to two years out. Need is preceding utility. (Keith Greer/Clark Winchell)
- Need standardized protocols for database. It is difficult to use data collected by many different methods in trend analyses. (Matt Rahn) There are 85 covered species, including 47 rare plants. Thirty of these are currently monitored, monitoring timing and methods vary. (Keith Greer/Clark Winchell)
- Would like consultant-monitored mitigation site data included in monitoring reports and question of whether development project survey data included in monitoring reports. (Cindy Burrascano, Libby Lucas)
- Project-specific information is only included in monitoring reports if survey included part of one of the 35 core populations outlined in the MSCP monitoring plan. Other development-specific report information could likely only be provided if consultants provide data digitally; too time/dollar intensive. (Keith Greer)
- Development project reports should be integrated into database. (Libby Lucas, Amy Rowland).
- The USFWS can't dictate how development biological mapping comes in. (Clark Winchell).
- Question of whether agencies are supposed to aggregate monitoring/bio information (Cindy Burrascano). Yes-but two different issues: long-term species monitoring and development mitigation. (Clark Winchell)
- Quino and gnatcatcher reports are organized into database, couldn't this be done for data plants? (Cindy Burrascano) Information for quino and gnatcatcher likely being collected for critical habitat designation. Additionally, reports are species specific and the service can require certain things from biologists through species permits. (USFWS)
- It would be useful to at least include data for development surveys done inside preserve. (Libby Lucas) May encounter problems with numerous agendas/consultants collecting data at multiple scales. (Matt Rahn) A regional environmental information center is being developed by non-profits. More monitoring and tracking should be done for development project species transplantation mitigation sites, e.g., *Monardella linoides*, *Acanthomintha ilicifolia*. (Mike Kelly)

## Scientific Advisory Panel

- Should consider authors of BLM books b/c not involved in MSCP. Agencies such as the USFWS and the City of San Diego have vested interest and even local biologists may be slightly biased. (Fred Sproul)
- Advisory committee should include a plant population ecologist and a conservation biologist who does modeling. (Janet Franklin)
- Would be useful to have someone with good knowledge of natural history of plants. (Bruce Hansen)
- The UC Davis and Northern Cal have experience dating back to the '70s, should tap Davis researchers. (Fred Sproul)
- At least one member should be monitoring expert, with specific knowledge of monitoring different plant life forms, etc. (Jon Rebman)
- Panel's role is to give best scientific advice/oversight. Panel will be independent; however, final implementation is with agencies. (Keith Greer)
- May be useful to have one member with policy background to ensure consistency with NCCP regulations and someone with preserve design experience. (Matt Rahn)
- As the panel is only three persons and the agencies will review for policy, may not want to use one of only three spots for policy issues. (Clark Winchell, Mike Kelly)
- Would be useful to have a good naturalist, someone seasoned with local experience and insight. (Darren Smith)

### **Scientific Advisory Panel (Cont.)**

- May be useful to have someone with land management experience. (Keith Greer)
- Should look outside of local area for land manager, possibly TNC. (Mike Kelly)
- A land manager for the panel should have botany background. (Cindy Burrascano)
- May be useful to have someone with insight on biological interactions, e.g., pollinators, etc. (Viviane Marquez)
- In summary, the group envisions the scientific advisory committee to be made up of a conservation biologist, a land manager with botany background, and a statistician with an ecology background. Asked that specific suggestions of people for the advisory panel be sent to the City, who is administering grant. (Keith Greer)

### **Closing Remarks**

- The City will put minutes together and then will sit down as a small group. Kathryn will meet with individuals, accompany agencies on field monitoring, and will digest information through winter. Next workshop will be in February of next year. (Keith Greer)
- All jurisdictions should put together field schedule soon so no species are missed. (Kathryn McEachern)

*Workshop notes were compiled by City of San Diego MSCP Staff. Please send any corrections to msjohnson@sandiego.gov.*