

Work Summary and Overall Recommendations for Devils Postpile National Park

July 13 - 20, 2005

Devil's Postpile National Monument is 800 acres of pristine wilderness surrounded by the Inyo National Forest. It lies on the eastern slopes of the Sierra Nevada at an elevation of 7,560 ft, and contains the middle fork of the San Joaquin River. Forested areas consist of *Pinus ponderosa*, *Pinus jeffreyi*, *Pinus contorta*, *Abies concolor*, and *Abies magnifica*. Dominant species in riparian areas are *Salix spp.*, *Cirsium andersonii*, *Alnus incantana* and *Pteridium aquilinum*. Along the trails throughout the park you are sure to see *Wyethia mollis*, various *Lupinus spp.*, and *Populus trembuloides*. There are several small meadows that host beautiful wildflowers such as *Plantanthera leucostachys*, *Dodecatheon pulchellum*, *Aconium columbianum*, and a *Castilleja spp.*, as well as native rushes and sedges. In 1992 the Rainbow fire burned 80 percent of the monument, in places so severely that native tree species have been slow to return. In these open, loosely soiled, snag-laden burn areas the vegetative cover is mostly shrubs: *Ceanothus ssp.*, *Ribes montigenum McClatchie* and *Arctostaphylos nevadensis*.

Our crew began work at the monument on Wednesday, July 13th and worked close to 80% of the monument by July 20th. Seven main areas of the park were surveyed and any invasive species found were manually removed. Target species were *Cirsium vulgare*, *Verbascum thapsis*, *Tragopogon dubius*, and *Bromus tectorum*. The first area surveyed was the Rainbow Falls trail. Beginning at the ranger station, the team walked on either side of the trail headed south towards Rainbow Falls. Following this search all pack trails were thoroughly searched up to the corrals at Reds Meadow Resort. An infestation of *Chenopodium album* was found growing out of a discarded manure pile by the top of the trail. The population appears to have spread along the trail and down slope past the rainbow falls trailhead, growing within swathes of *Artemesia douglasiana Besser*. The crew started removal at the lowest extent and worked upslope towards the source. Further exploration revealed *C. album* growing all around the corral area. Red's Meadow is not located within the monument but frequent packing into the park trails and visitor traffic to and from the resort provides the perfect avenues for invasive species to enter the park.

The second survey area is part of the Rainbow Falls burn and contained several infestations in the Lower Falls area of the San Joaquin previously worked by the CA EPMT core team. Survey began at the hitching post on the Lower Falls trail, and search transects ran between the Lower Falls trail and the southeastern border of the park. In past years, *C. vulgare* and *B. tectorum* sites had been worked in this area, but only one *C. vulgare* and four *T. dubius* were found this year. Extra attention was given to a drainage area where there was thicker vegetation but again no target or secondary species were found.

Most of the Alligator creek and drainage survey area is located outside of the park, however the creek joins the middle fork of the San Joaquin within the southwest corner of the park and is a likely vector for target exotics. The creek area is accessible from the King Creek trail heading south along a drainage. A lineout was formed east to west along

the trail, and split to either side of the drainage facing southward. A handful of *C. vulgare*, mainly in the bolting stage, were found on the northwestern side of drainage. In a lush riparian area closer to the head of the creek *C. vulgare* was not present. Also surveyed was the slope leading up from the east side of the creek and one small infestation of *T. dubius* in the bolting/flowering stage was found. Seed heads were collected. Alligator Creek, King Creek, and the San Joaquin all meet in the southwestern corner of the park. At this junction, the team surveyed 100 feet up the King Creek finding nothing and then bushwhacked to the fourth area to be searched. Here, the crew spread out and followed the river along the southern boundary and turning north with the river, covered the entire eastern side of the park up to the John Muir trail. Not one invasive was found during this search.

The majority of weeds within park boundaries were found in the buttress search area. This very topographically diverse area was badly burned during the Rainbow falls fire. Accessing the area from the King Creek trail, the crew transected the area north to south six times. A large infestation of *C. vulgare*, consisting of over 30 plants, was found in between two inclines close to the western boundary. Most of these plants were found growing next to logs in the shade and were in bolting stage. Further south from this site a small *B. tectorum* infestation was found on top of a rocky cliff. The grasses were removed and bagged. Heading north after the first sweep another thistle infestation was found; just southeast from the initial infestation near a grassy depression. In all, the several sweeps produced small *C. vulgare*, *Lactuca serriola*, and *T. dubius* infestations of one to five plants each. The infestations in Devil's Postpile burn areas are different from those worked in other parks because they are scattered and low in numbers. To assist in future work of the area, points were logged on the GPS where more than two plants of a species were found

The sixth search area was a beautiful meadow that lay at the eastern base of the buttresses. A small stream ran thru the meadow and the area was very lush with tall grasses and an array of wildflowers. The crew lined east to west and surveyed the meadow south to north, finding only five *C. vulgare*. Heading north the crew reached the John Muir trail and surveyed the seventh tract.

The crew lined up east to west along the John Muir trail, just south of the footbridge crossing and headed north until reaching the river. In the center of this polygon there was a small ephemeral pond. At the northern end of the pond 76 *C. vulgare* were found mixed in with wetland grasses. This was the largest infestation found in the entire park. The population was mostly rosettes with a few bolting plants. All plants were removed.

Work Summary for Main Trail, July 13 th , 2005			
Gross Area Monitored		21.8737 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lancotot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park	Park Volunteers Megan Tyler
0	5	0	1
EPMT Total = 5 hours		Park Total = 1 hours	
Species Treated			
No plants found. Searched for Bromus tectorum, Cirsium vulgare, Tragopogon dubius, Verbascum thapsus.			
Data			
GIS layers created		Depo_polygons_200507	
Safety			
No major incidents			

Work Summary for Buttresses, July 13 th & 18 th , 2005			
Gross Area Infested		0.2790 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Lauren W.	Park Volunteers Megan Tyler
0	41.75	6.75	2
EPMT Total = 41.75 hours		Park Total = 8.75 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Bromus tectorum</i>	Cheatgrass	Pull-Dig/Manual	24%
<i>Cirsium vulgare</i>	bull thistle	Pull-Dig/Manual	50%
<i>Lactuca serriola</i>	prickly lettuce	Pull/Dig-Manual	2%
<i>Tragopogon dubius</i>	common salsify	Pull/Dig-Manual	24%
Data			
GIS layers created		Depo_points_200507 Depo_polygons_200507	
Safety			
No major incidents			

Work Summary for Pack Trail, July 13 th & 20 th , 2005			
Gross Area Infested		30.8630 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Christy Moerbe	Park Volunteers Megan Tyler
0	20.45	3.5	1.3
EPMT Total = 20.45 hours		Park Total = 4.8 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Chenopodium album</i>	lambsquarters	Pull/Dig-Manual	92%
<i>Lactuca serriola</i>	prickly lettuce	Pull/Dig-Manual	4%
<i>Tragopogon dubius</i>	common salsify	Pull/Dig-Manual	4%
Other species within site			
Inventoried only: Bromus tectorum, Cirsium vulgare			
Data			
GIS layers created		<i>Depo_points_200507</i> <i>Depo_polygons_200507</i>	
Safety			
No major incidents			

Work Summary for Alligator Ck., July 14 th , 2005			
Gross Area Infested		50.1870 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Elizabeth Meyer	Park Volunteers
0	17.5	3.5	0
EPMT Total = 17.5 hours		Park Total = 3.5 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Cirsium vulgare</i>	bull thistle	Pull/Dig-Manual	99%
<i>Tragopogon dubius</i>	common salsify	Pull/Dig-Manual	< 1%
Data			
GIS layers created		<i>Depo_points_200507</i> <i>Depo_polygons_200507</i>	
Safety			
No major incidents			

Work Summary for San Joaquin, July 14 th , 2005			
Gross Area Monitored		72.6192 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lancotot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Elizabeth Meyers	Park Volunteers
0	20	4	
EPMT Total = 20 hours		Park Total = 4 hours	
Species Treated			
No plants found. Searched for Bromus tectorum, Cirsium vulgare, Tragopogon dubius, Verbascum thapsus.			
Data			
GIS layers created		Depo_polygons_200507	
Safety			
No major incidents			

Work Summary for Pack Trail, July 13 th & 20 th , 2005			
Gross Area Infested		30.8630 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Christy Moerbe	Park Volunteers Megan Tyler
0	20.45	3.5	1.3
EPMT Total = 20.45 hours		Park Total = 4.8 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Chenopodium album</i>	lambsquarters	Pull/Dig-Manual	92%
<i>Lactuca serriola</i>	prickly lettuce	Pull/Dig-Manual	4%
<i>Tragopogon dubius</i>	common salsify	Pull/Dig-Manual	4%
Other species within site			
Inventoried only: Bromus tectorum, Cirsium vulgare			
Data			
GIS layers created		<i>Depo_points_200507</i> <i>Depo_polygons_200507</i>	
Safety			
No major incidents			

Work Summary for Meadow, July 18 th , 2005			
Gross Area Infested		7.2293 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury, Katie McMahan	Park Elizabeth Meyer	Park Volunteers
0	3.75	0	0
EPMT Total = 3.75 hours		Park Total = 0 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Cirsium vulgare</i>	bull thistle	Pull/Dig-Manual	100%
Data			
GIS layers created		Depo_polygons_200507	
Safety			
No major incidents			

Work Summary for John Muir Trail, July 19 th , 2005			
Gross Area Infested		19.9789 acres	
Personnel and Control Hours			
CaEPMT	CaEPMT Volunteers Andrea Lanctot, Sheila Town, Andrew Bennett, Reuben Pillsbury	Park	Park Volunteers Megan Tyler
0	14	0	3.5
EPMT Total = 17.5 hours		Park Total = 3.5 hours	
Species Treated			
Taxon	Common Name	Treatment	Percent of treatment area
<i>Cirsium vulgare</i>	bull thistle	Pull/Dig-Manual	100%
Data			
GIS layers created		<i>Depo_polygons_200507</i>	
Safety			
No major incidents			

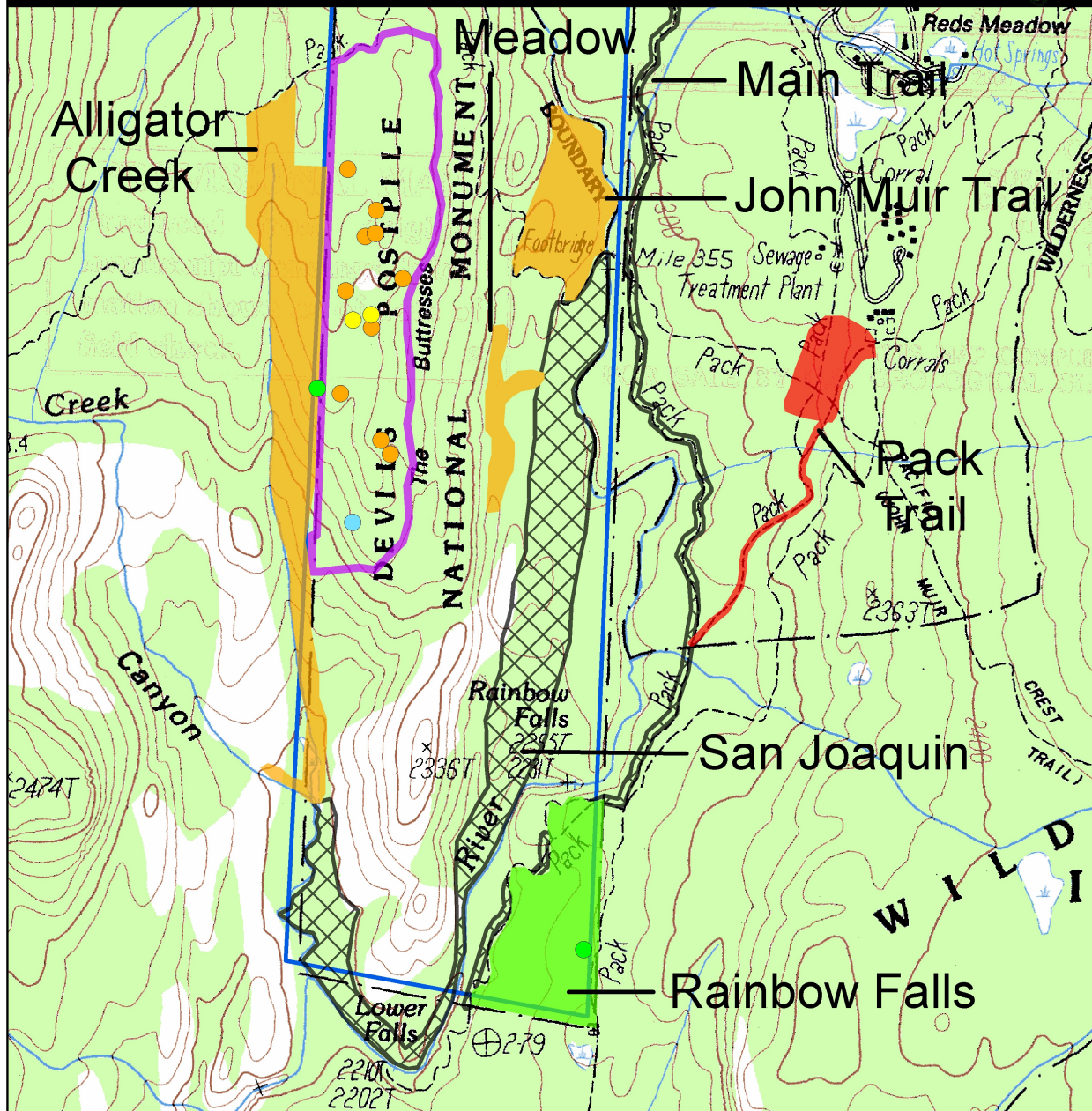
Overall Recommendations

Since Devil's Postpile National Monument has a primarily trace cover of exotic plants, maintenance is possible, with the only drawback being the diverse terrain. The principal reason for a low number of exotics may be restricted personal vehicle access to the park, which reduces the possibility for the spread of noxious plant seed. Follow-up work should be done on the buttress infestations and along the John Muir Trail, where hiker traffic can potentially spread seeds. The *C. album* site near Red's Meadow corral should be closely watched and if further establishment occurs, maintenance of the site will be necessary. If possible, Red's Meadow should be informed of the potential for invasive noxious weeds brought in by horse feed, and kindly reminded that they operate in protected natural areas. An aside: the team worked a *C. album* site in Kings Canyon National Park found in the corrals. Overall, exotic removal is proving to be very successful in this monument, reducing the need for extensive work.

To keep DEPO at maintenance level an annual visit from the CaEPMT is necessary.

Devils Postpile National Monument
Treatment Dates: July 13 - 20, 2005

California EPMT
National Park Service
U.S. Department of the Interior



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|--------------------------|--------------------------|
| <i>Chenopodium album</i> | <i>Bromus tectorum</i> |
| <i>Cirsium vulgare</i> | <i>Cirsium vulgare</i> |
| <i>Tragopogon dubius</i> | <i>Lactuca serriola</i> |
| Buttrisses Inventory | <i>Tragopogon dubius</i> |
| No Species found | |
| Park Boundary | |



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1:14,500

Created by: Kasey Allen

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