

# BUTTERFLIES OF THE SPRING MOUNTAINS

## Mount Charleston Blue

### *(Icaricia (Plebejus) shasta charlestonensis)*

#### Introduction

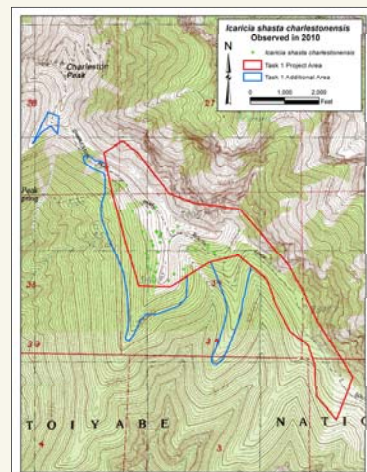
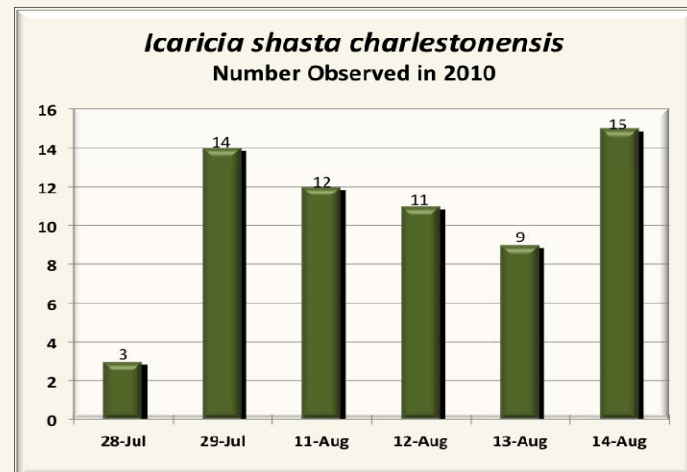
Clark County contracted with Pinyon Environmental Engineering Resources, Inc. (Pinyon), to complete monitoring and inventories of butterflies, with a focus on the Mount Charleston blue butterfly (*Icaricia (Plebejus) shasta charlestonensis*) and the Spring Mountains checkerspot (*Chlosyne acastus robusta*), in 2010 and 2011. This work is supported by the Southern Nevada Public Land Management Act (SNPLMA) to further implement and develop the County Multiple Species Habitat Conservation Plan (MSHCP). The contract is administered by the Department of Air Quality and Environmental Management Desert Conservation Program.

#### Project Location

The project is located in the Spring Mountains National Recreation Area approximately 40 kilometers (25 miles) northwest of Las Vegas within the Humboldt-Toiyabe National Forest, Clark County, Nevada. The elevation range of the surveyed area is 2,200 to 3,630 meters (7,217 to 11,800 feet) above mean sea level.

#### Mount Charleston Blue

- Endemic
- Univoltine
- Adult flight July – August
- 1,829 to 3,440 meters (6,000 to 11,286 feet)
- Larval host: Torrey's milkvetch (*Astragalus calycosus* var. *calycosus*)
- Adult nectar: Lemmon's rubberweed (*Hymenoxys lemmonii*), asters (*Aster* sp.), and fleabane (*Erigeron* sp.)
- Habitat requirements: open, exposed, sunny, gravelly, and well-drained flats, slopes, hilltops, or ridges



## Spring Mountains Checkerspot

### *(Chlosyne acastus robusta)*

#### Task 1

- Monitor and count the Mount Charleston blue population in 2010 and 2011

#### Task 2

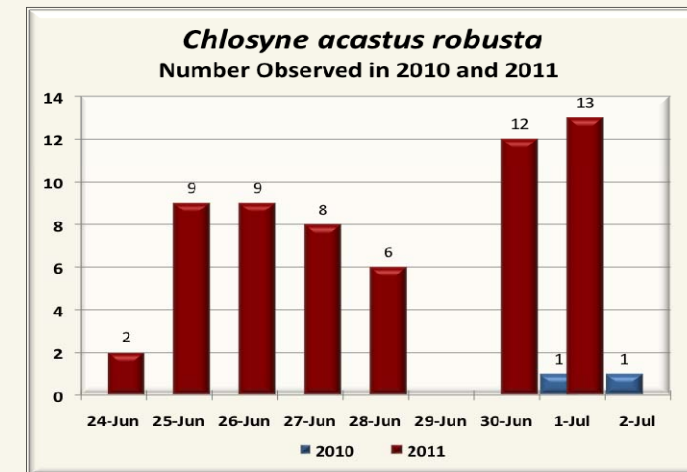
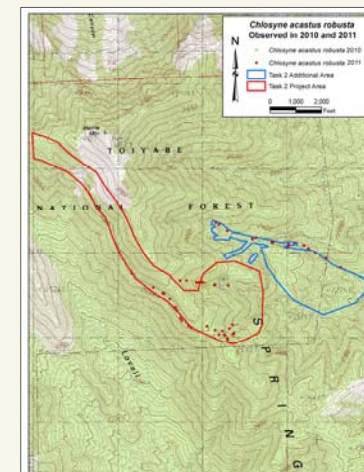
- Map Spring Mountains checkerspot habitat
- Monitor and count Spring Mountains checkerspot population in 2010 and 2011

#### Task 3

- Map additional Mount Charleston blue habitat

#### Spring Mountains Checkerspot

- Endemic
- Univoltine
- Adult flight May – July
- 1,700 to 2,600 meters (5,570 to 8,700 feet)
- Larval host: tansyaster (*Machaeranthera* sp.), goldenhead (*Acamptopappus* sp.), yellow rabbitbrush (*Chrysothamnus viscidiflorus*)
- Adult nectar: bastard toadflax (*Comandra umbellata*), dogbane (*Apocynum* sp.), sweetclover (*Melilotus* sp.), groundsel (*Senecio multilobatus*)
- Habitat requirements: streambeds and dry washes in sagebrush-juniper woodland and oak or mixed-conifer woodland



#### Summary

Prior to 2010 there were concerns that the Mount Charleston blue may be extinct. The last confirmed sighting was in 2007 along a portion of the South Loop Trail within the study area (see map). During the 2010 field season Pinyon observed 64 Mount Charleston blues (see Chart). None were seen during the first 2011 survey in late July. The second 2011 survey is in progress.

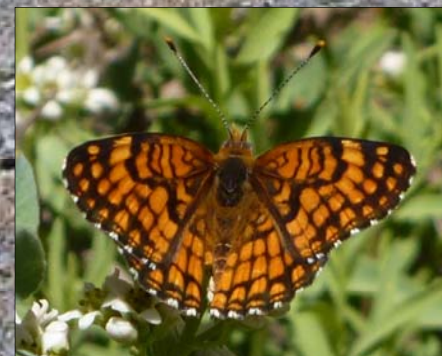


Larval host plant *Astragalus calycosus* var. *calycosus*



#### Summary

Spring Mountains checkerspot surveys are complete. Pinyon observed two in 2010. Both were seen in gulches, therefore the study area was expanded in 2011 to add additional areas with similar habitat (see map). A total of 59 were seen in 2011 (see Chart).



Nectar plants *Erigeron* sp. and *Hymenoxys lemmonii*

Errata for the Poster: Butterflies of the Spring Mountains

August 2011

Andrea Sever, Julia Auckland, & Matt Santo

2005-PINYON-570C, Butterfly Monitoring in the Spring Mountains

SNPLMA PROJECT # CC-32

The authors incorrectly imply that *Machaeranthera* sp. and *Acamptopappus* sp. are known larval host plants for the butterfly *Chlosyne acastus robusta*. As of January 25, 2012 such a relationship had not been identified for this subspecies but it has for other subspecies based upon a review of literature of larval hosts for all *Chlosyne acastus* subspecies (personal communication, Corey Kallstrom, US Fish and Wildlife Service, Southern Nevada Field Office.)

-Susan Wainscott, Adaptive Management Coordinator, Desert Conservation Program