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FEDERAL RESEARCH
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BELTSVILLE AGRICULTURAL RESEARCH CENTER
BELTSVILLE, MARYLAND 20705

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Subject: Colubrina californica

To: POSI

Through: Arthur S. Barclay

Five hundred and forty-four pounds of Colubrina californica was collected on May 6 & 7 from the north face of the Chuckawalla Mountains just south of Desert Center, California (Riverside County).

The Chuckawalla Mountains are a large range of mountains that reach altitudes of 4,000 feet. The north face, which is the smallest of four, covers about ten sections on a topographical map and generally ranges from 1,100 feet at the base to 2,000 feet along the first ridge. It would take about two weeks to walk around the entire north face, because of the large rocks and deep cutting canyons and washes. I have walked over about 25% of the area along the base. (T.5S, R.15E., Sec. 32, 33, 35, 36)

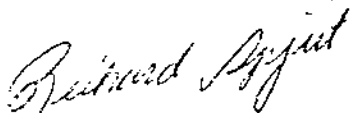
From the end of the pavement just off the exit of Interstate Highway 10 at Desert Center, a one lane sandy road begins. There are many branches within the first half-mile. Most branches end in washes or around large rock outcrops. Two roads lead to the base of the mountains and are the extreme east and west branches. The western branch runs along a Stegosaurus like rock island (Alligator) and ends at Granite Mine. The eastern branch, which is about 2.7 miles in length, ends at the Colubrina site locally known as Eagle Rock. (T.5S., R.15E., Sec. 36). Here, Colubrina extends to about $\frac{1}{2}$ mile east and west along the face.

Colubrina primarily thrives where rain water might run off the steep slopes, from the base to about 700 feet above. The bushes also seem to prefer the shaded afternoon sides of the narrow canyon washes. The plants are frequently spaced about 75 feet apart.

Colubrina bushes average about two meters in height. Around large rocks, they sometimes attain heights to 8 meters. Samples taken from two average bushes yielded about 5 pounds of twigs-leaves-flowers and 3 pounds of stems one to two inches in diameter (per bush). However, only two-thirds of the stems from each bush were cut to avoid destroying the plant. It was estimated that Colubrina covers an area of one square mile where 11,000 bushes may yield 55,000-88,000 pounds.

Frequent to common shrubs associated with Colubrina californica include: Larrea tridentata, Encelia virginensis, E. farinosa, Simmondsia chinensis, Ambrosia dumosa, A. ilicifolia, Hyptis emoryi, Acacia greggii, Prosopis pubescens, Pleurocoronis plurisetata, Asclepias albicans, Trixis californicus, Nicotiana trigonophylla, Krameria ssp., Ephedra californica and Fouquieria splendens. The flora of the north face of the Chuckawalla Mountains is very rich compared to other desert mountains. Species collected from the slopes and base are listed in the attachment.

Colubrina begins to flower in the third week of April and reaches full bloom during the first week of May. Fruits were beginning to develop on May 18.



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