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ABSTRACTS *

Ancona Albertos, Joaquin and Guillermina Gonzalez. Space reddening in Puppis and Vela.

This is part of a program for the measurement of blue-red and blue-yellow color indices for all known O to B5 stars in Puppis and Vela. There are six centers in the program to be completed this season and for each center six blue, six red, and six yellow comparisons on Harvard Standard Regions in declination $+15^\circ$ are made with the 3-inch Ross camera. The probable errors of the final color indices are of the order of ± 0.05 mag. or less.

The results obtained from the analysis of the colors for the first of the six centers by Ancona indicate that at the border of Puppis and Canis Major, galactic longitude 200° , the absorption right at the galactic circle is quite high, probably of the order of 0.7 to 1.0 mag/kpc. The structure of the Milky Way shows here no evidence of obvious local obscuration. In agreement with the colors of cluster stars measured by Cuffey in Messier 46 and by Zug in NGC 2422, the reddening is much less at $l = 200^\circ$, $b = +3^\circ$ to $+6^\circ$, where Ancona's results indicate an absorption of 0.3 mag/kpc or less. The high value for the coefficient of galactic absorption at the galactic plane is confirmed by the available colors of Stebbins, Huffer and Whitford. Similar results are suggested by preliminary results of Guillermina Gonzalez for a center at $l = 205^\circ$.

Two of the most interesting fields for color work are at $l = 216^\circ$, $b = +3^\circ$ and $b = -3^\circ$. The first of these centers is free of obvious obscuration, whereas a conspicuous dark nebula overlies the second field. Considerable reddening seems indicated for the second field.

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Bok, Bart J. Galactic structure in Puppis and Vela.

The color and star count data, combined with a direct inspection of the Milky Way in Puppis and Vela, suggest an obvious division of the region for purposes of analysis. The dark nebulae south of the galactic circle have to be treated separately from the smooth and not obviously obscured regions at and north of the galactic circle.

a. The preliminary color data indicate an absorption of 0.7 to 1.0 mag/kpc at $b = 0^\circ$ for the not obviously obscured regions. This value, while quite high, is in line with the results obtained for the Milky Way in Monoceros and Canis Major.

b. The dark nebulae absorb from 1.0 to 2.0 magnitudes. The distances of these dark nebulae seem to be of the order of 500 to 800 parsecs.

c. To the limit of the present survey, 500 parsecs for the A stars and 2000 parsecs for the stars at large, the star density seems to be essentially constant, with neither increase or decrease indicated.

d. In its general structure and appearance the Puppis-Vela section resembles the Monoceros-Canis Major section and not the Carina section.

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Cano, Octavio. Atmospheric extinction at Tonanzintla.

The extinction for photographic and photovisual light has been determined from plates exposed to the Harvard Standard Regions in declination $+15^\circ$. The preliminary results are:

photographic light, $A = 0.30$ mag.,
photovisual light, $A = 0.20$ mag.

These values are somewhat higher than expected at the altitude of 7,500 feet of Tonanzintla. It