

DEEP PHOTOMETRY OF THE DRACO DWARF SPHEROIDAL GALAXY\*

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**ABSTRACT:** We report the results of deep CCD photometry of two overlapping fields in the Draco dwarf spheroidal galaxy. We find  $(B-V)_{0,g} = 0^m69$ , indicating a mean  $[Fe/H] = -2.0$ . The width of the giant branch below the horizontal branch is somewhat wider than our observational errors permit, from which we infer there is a spread in metallicities amongst the Draco giants, up to 0.8 dex, perhaps. Draco is found to contain numerous blue stragglers, like almost all other loosely bound halo systems. The number of such stars more massive than about  $1.2 M_{\odot}$  is roughly consistent with the number of anomalous cepheids discovered previously. It is not clear whether the blue stragglers represent a large number of mass transfer binaries or an intermediate age population, or both. A younger population component would help explain the galaxy's red horizontal branch stars in spite of its low mean metallicity. Signs of a younger population are seen in the color magnitude diagram for the entire sample, and especially from the higher quality data from the smaller area observed in the overlap of the two fields.

\* Further details may be found in *Astronomical Journal*, 91, 23, 1986.