

# ANYONE OUT THERE? POST-AGB STARS IN THE GALACTIC HALO

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To date, only a limited number of post-AGB stars are known throughout the Milky Way. If we look at possible members of the old galactic populations - halo and thick disc - numbers get even smaller with only a handful of candidates known plus a small number of PNe. Most post-AGB stars were selected from IR surveys, and thus a bias against slowly evolving low mass post-AGB stars could play a role. Simple back of the envelope calculations and more detailed simulations of the populations indicate that sizable samples of thick disc and pop. II post-AGBs should exist and be detected in colour surveys like Palomar-Green (PG) and Sloan Digital Sky Survey (SDSS). If this discrepancy is real and not caused by selection effects, this would indicate that only a minority of thick disc/halo stars is evolving along the post-AGB channel. We report from an ongoing project to systematically identify post-AGB stars at high galactic latitude. We compare results from a study by Saffer et al. (1997) of a complete sample selected from the PG survey with predicted numbers. We also performed a systematic search of the SDSS spectroscopic database (DR7) for possible post-AGB candidates. Only one(!) possible post-AGB candidate was found in an analysis of 21,031 blue SDSS spectra. We discuss and explore observational biases which may cause the result. If found to be truly representative of the halo and thick disc population this would indicate that the vast majority of pop. II stars does not follow a standard evolution path. One possible alternative would be evolution through the blue/extreme horizontal branch bypassing the AGB straight to the white dwarf (WD) cooling tracks.