THE CENTAURUS-PAVO SUPERCLUSTER

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In the southern sky, the Centaurus and Pavo "superclusters", although lying on opposite sides of the Milky Way, show similar redshifts ($V \simeq 4500$ km s^{-1}). This author and others have suggested earlier that they may really be portions of a single entity. To investigate this further a redshift survey has been undertaken of the Triangulum Australe-Ara region ($15^h30^m < \alpha < 18^h45^m$, $-70^o < \delta < -50^o$) that lies between Centaurus and Pavo, but at very low galactic latitude on the Pavo side of the Milky Way. 75 published redshifts have been supplemented by 56 new redshifts. Selection has favoured E-SO galaxies from the ESO catalogue but the varying extinction has made control difficult.

A histogram shows a conspicuous excess of redshifts in the $V = 4200 - 5600$ km s^{-1} range with peak at 4700 km s^{-1}. In "wedge" diagrams, this excess spreads over the full range of Right Ascension (as would be required to form the Centaurus-Pavo connection) but is concentrated in $-66^o < \delta < -60^o$. (North of $\delta = -58^o$ a large void seems to exist - not just obscuration by Milky Way).

The peak redshift (4700 km s^{-1}) matches that generally found in the Centaurus "supercluster" (see paper by Chincarini *et al.*, this conference - although the Centaurus cluster itself has peaks at both 3000 and 4500 km s^{-1}). It also agrees with $V \simeq 4300$ km s^{-1} in the Pavo clusters. Thus there exists continuity between the Centaurus and Pavo superclusters, though it is partially obscured and diminished by the Milky Way.

It seems appropriate to label the conglomeration the "Centaurus-Pavo" supercluster. (In contrast, the previously labelled "Hydra-Centaurus" supercluster is possibly inappropriate following the discovery of a significant void between Hydra and Centaurus-Pavo). The supercluster runs roughly transverse to line of sight and its length is comparable to the Perseus-Pisces supercluster.

The dominant $V \simeq 4500$ km s^{-1} and general direction of Centaurus-Pavo also match that predicted for the "Great Attractor" inferred from the galaxy streaming discussed elsewhere at this conference.

A more detailed account of this investigation, with references, is to appear in *Mon. Notes Royal Astr. Soc.*

J. Audouze et al. (eds.), Large Scale Structures of the Universe, 520.