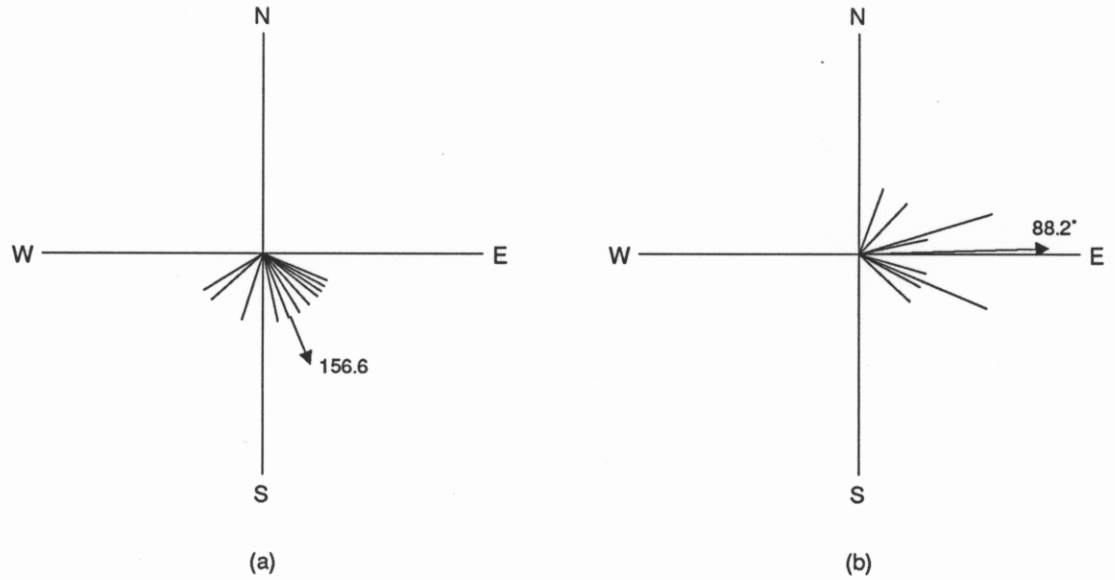
and an upper part in which much shaly lutite is exposed. The upper beds of the Bogan Gap Group correlate crop out poorly up to the base of the Cygnet Coal Measures correlate. Scattered along the inferred boundary of the two units are large blocks of silicified material bearing angular fragmented and distorted, but largely uncompressed, plant debris ranging from stems to possible spores. Near Tunnack, in the Oatlands Quadrangle, silicified clasts occur in the basal bed of the Cygnet Coal Measures (Forsyth, 1984*a*). A range of coarse-grained rocks, from coarse-grained sandstone to quartz pebble conglomerate, occur as lenses in the basal beds west of Ross. Some pebbly sandstone of medium grain size is arkosic but better sorted coarse-grained sandstone and granule conglomerate is more siliceous and sparkling. The basal beds or bed are probably no more than one metre thick, and in places may consist of a single cross-bedded thick bed. The overlying fine-grained to medium-grained sandstone includes the characteristic mottled lithology and is several metres thick, often with pachydermal jointing. Cross-bedding cosets in these beds are thinner than in the basal beds and usually of the festoon type, with festoons up to 3–4 m across. Some ripple cross-lamination occurs in some micaceous beds. Palaeocurrents determined for the area indicate a south-south-east current (157°, N=11) (fig. 8*a*).

Shaly beds are common higher in the sequence and include grey carbonaceous shale, micaceous siltstone, and interbeds of feldspathic sandstone. Equivalent beds exposed in the guttering of Auburn Road include ripple cross-laminated, very fine-grained micaceous sandstone with numerous stem and leaf fragments. No identifiable leaves or palynomorphs were found. The top of the sequence is not satisfactorily defined but was arbitrarily taken as the base of a feldspathic sandstone which in places exhibits pachydermal jointing and festoon cross-bedding overlying tabular cross-bedding. In hand specimens the sandstone composition is within the range of lithologies found in the Cygnet Coal Measures correlate and the overlying, dominantly quartz sandstone sequence. It is overlain by rocks including an unknown proportion of shale. The sandstone and immediately overlying rocks have been depicted as Trp? on the map. An alternative upper limit for the Cygnet Coal Measures correlate is the base of a medium-grained to coarse-grained granule sandstone with very rare small pebbles. This sandstone is of more quartzose composition, and has been depicted as Trp on the map.

The basal five metres of the sequence was intersected in a shallow bore on the Midland Highway north of Ross (RG13)



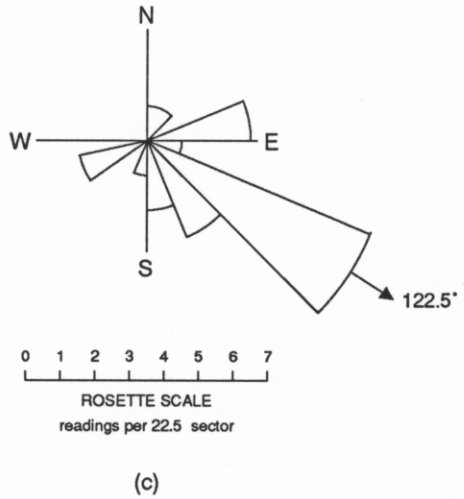


Figure 8. *Palaeocurrent vectors for Cygnet Coal Measures correlate (Pj).*

(a) Auburn Road area:

N=11, Direction of Mean Vector θ=156.6°, Mean Vector Amplitude (MVA)=8.35, MVA/N=0.76

(b)"Wetmore" area:

N=10, θ=88.2°, MVA=8.3, MVA/N=0.83

(c) Total:

N=21, θ=122.5°, MVA=13.80, MVA/N=0.66