

3. The S.W.A.L.E. transects

A total of eight transects were established in the survey (total length = 1412m) with individual transects ranging in length from 72m (Hellfire Bay) to 500m (Port Kennedy). This involved recording vegetation data from a total of 1292 x 1m² quadrats.

The transects were first described below in the context of the physical setting of each region with regard to climate, geology and landforms (Table 7). This information was mainly sourced from the literature and definitions of the terms used are listed in the glossary (Appendix 1). Results from the surveys were then presented using various ways to summarize and depict the data:

Aerial photos showing mapping of broad scale vegetation assemblages in each project area (Figs 4, 5, 9,14,15,18 &19);

Field data sheets for the entire length of each transect (Appendices 3-6) listing quantitative data of presence/absence, abundance (% cover class) and height of taxa recorded in the field and some phenological notes;

Transect diagrams (Figs 6,10,16 &20) illustrating the relationship of topography to dominant species and vegetation structure in at least the first 100m or so of each transect; and

An inventory of all flora specimens collected at the various transects and lodged in duplicate with the WA Herbarium and the respective Regional Herbarium with verified names and database numbers (Appendix 2).

The data is organized in this way to enable it to be used for various purposes such as monitoring condition of vegetation in the area over time (aerial photographs), monitoring flora in transects (field data sheets), creating interpretative or educational material (transect diagrams) and researching aspects of taxa recorded such as their geographical range, ecology, taxonomy updates and botanical literature (flora inventory using Florabase).

Table 7 : Summary of physical setting of the SWALE transects.

	Climate	Geology & stratigraphy	Landforms	Surface sediments or soils
Geraldton	Semi arid	Extreme north of Perth Basin. Holocene sands over Pleistocene Tamala Limestone	Northern sector of Quindalup Dunes Greenough Wave cut rocky shore (erosional system). Slope of large scale perched barrier dune with shore-parallel mobile parabolic dunes. Drummonds Cusate foreland (accretionary system) with overprint of shore-parallel parabolic dunes	Calcareous and quartz sand Calcareous and quartz sand
Port Kennedy	Sub humid	Rottneest Trough of Perth Basin. Holocene Safety Bay Sand over seagrass bank Becher Formation over Bridport Calcilutite	Pt Bouvard to Trigg Island sector of Quindalup Dunes. Pt Kennedy Cusate foreland-series of low-relief relict beachridges, swales and freshwater damplands. Becher Point Barred lagoon wetland at tip of cusate foreland. Saltmarsh.	Calcareous and quartz sand, humic sand, peaty sand, sandy peat.
Bunbury	Sub humid to humid	Bunbury Trough of southern Perth Basin. Holocene Safety Bay Sand over Pleistocene Tamala Limestone. Holocene alluvium over Safety Bay Sand over Pleistocene Leschenault Formation	Quindalup to Leschenault sector of the Quindalup Dunes Dalyellup Beach High relief shore- normal perched parabolic dunes Preston River Delta Tide-oriented shoals of a microtidal delta. Salt marsh and tidal flats between mean sea level and highest tide and slightly higher dune crests.	Quartz and calcareous sand Organic matter and mud over sand
Esperance	Sub humid	Proterozoic granite and gneiss colluvium Holocene aeolian sand	Mt Le Grand Steep rocky shore and headland. Hellfire Beach Pocket beach and dunes between two rocky headlands.	Catena down the slope of boulders, cobbles, pebbles, gravel, coarse sand to peaty sand and mud Pure quartz sand