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|  | Stage 1 (Embryo) | Stage 2 (Foredunes) | Stage 3 (Yellow Dunes) | Stage 4 (Fixed Dunes) | Stage 5 (Dune Slacks) | Stage 6 (Dune Heath) |
| **Biotic:**  -Flora (type, biodiversity)  -Fauna | **Flora**  The grasses have numerous long leaves to decrease the wind velocity allows the wind blown sand to be deposited  Dominating plants: Marram grass, Lyme couch  **Fauna**  Used by many  species of  invertebrates  (eg. beetles,  annelids)  for nesting,  feeding, and  rearing of  young. | **Flora**  With the  increased  humus and  shelter,  more plants  are able  to colonise  and the  species  diversity  starts to  increase.  Eg. Marram  grass, Sea  Molly  **Fauna**  Invertebrates and small mammals, eg. Moles. | **Flora**  Marram usually  still dominates  the vegetation  but other plants  are taking hold on  the stabilised  surface.  Plants may  include sand  sedge and sea  spurge.  **Fauna**  Rabbits and other  mammals may  add their  droppings  to help enrich the  developing soil. | **Flora**  Dominant  species include  Harebell and  Willow.  Lichens, mosses  and flowering  plants begin to  appear and  marram is  slowly replaced  by red fescue  grass.  **Fauna**  Small Skipper,  grasshoppers,  caterpillars,  bees, plant bugs  and spiders,  Skylarks and  Kestrels. | **Flora**  Leaching occurs on the fixed dunes, washing humus into the slacks, and the slacks may be much more developed than the exposed tops of the dunes.  In the slacks the vegetation cover is almost complete and a soil is starting to develop.  Mosses, creeping willow, cotton grass, yellow ins, reeds, and rushes.  **Fauna**  There is a tendency for natterjack toads to breed here. | **Flora**  Pine, birch and oak are dominant species.  **Fauna**  Higher diversity of vertebrates. For example squirrels, foxes, mouse, moles, snakes, various birds. |
| **Abiotic:**  -Temp  -Soil Moisture  -Nutrient  -pH | Soil surface pH 8  % humus: >1 | Soil surface pH level 7.5  % humus: >1 | Soil surface pH level 7  % humus: 2.5 | Soil surface pH level 6.5  % humus: 5 | Soil pH level 6.5  % humus: 10 | Soil pH level 6.0  % humus: 20 |

