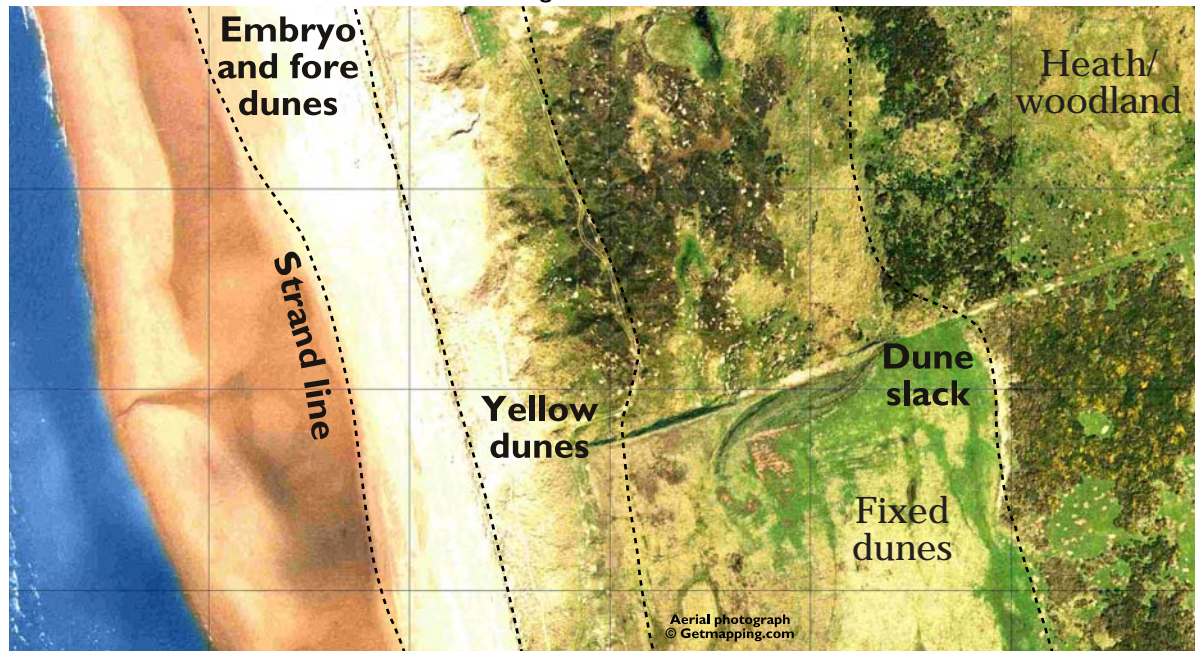
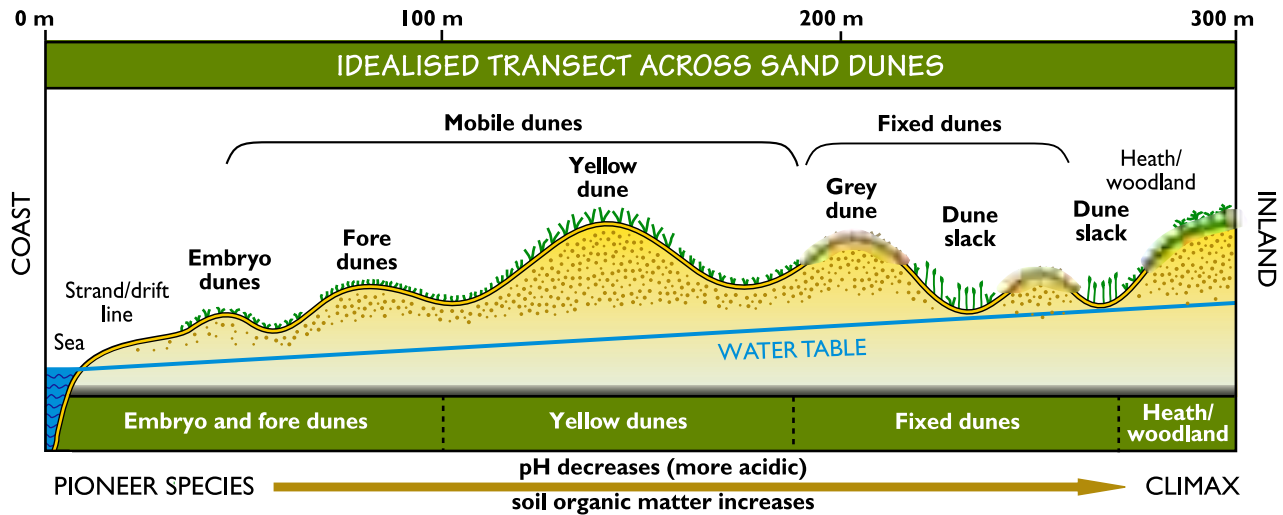


6. VEGETATION SUCCESSION: SAND DUNES

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SAND DUNES: The **psammosere** (plant **succession** initiated on sand) comprises partially vegetated sand and covers 5 000 ha in Scotland, with over 500 vegetation types, in a dry, salty, mobile, environment lacking in nutrients. Dune belts illustrate the development of vegetation from **pioneer** species to **climax** (evolution of plant communities), a process which may take several hundred years, but occurs over only a few hundred metres of shoreline.

To enable the development of a sand dune system, it requires;

- a plentiful supply of sand
- strong winds to transport sand particles through **saltation**
- an obstacle to trap the sand e.g. a plant

Plants are central to the formation, growth and character of sand dunes.

The dune system is split into four zones which represent stages in the plant **succession**. The **succession** changes the environment at a site, leading to modifications of the soils and microclimate in a way which favours the establishment of the next group of species, which replace the former.

Eventually a **climax** community is established, when the vegetation is in a state of equilibrium with the environment, and there is no further influx of new species.