HEADLAND BYPASS DUNE FIELD OF PARACURÚ - BRAZIL

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The dunes that covers Paracurú headland presents distinct geomorphologic aspects, from the feeder zone up to the coastal plain. Near of the deflation plain, where development of vegetation is controlled by the watertable, there are **parabolic** dunes, which works as source of sediment for the beaches of Paracurú. At the intermediate line a group of dunes with sequential shapes are predominant, **Barchans – Barchanoid – Transversal** types. With increased distance from the shoreline linear ridges of **Transversal** dunes occur associated to the estuary of São Gonçalo River.

The migration rate of the dune field was calculated in two different locations, the first near to the coastline (P1), the second at the hinterland dunes (P2). Aerial photographs from 1958 and 1993, both in the scale of 1: 25.000 were used, together with topographical maps (1994). Transport rate (qb) was calculated through the equation proposed by Simons et al (1965): **qb = KHV.** Where **K** is a non-dimensional form factor, **H** is dune height, and **V** is migration speed. **K** is equal to **A/LH**, where **A** is a cross sectional area of the dune and **L** is the dune spacing between two transversal dunes.

In the coastal region of Paracurú the migration rate increases with the proximity to the coastline. Dunes with approximately 300 m **(P1)** from the coastline shows a **qb** of around 24,80 m^3 / m / year, while the qb of dunes distant 3 km from the coastline (P2) is about 22,00 m^3 / m / year. Hence, the migration rate in this area of the Brazilian Northeast depends not only of wind velocity and diameter of sediment, as many authors reported by the years, but also of its geomorphologic shapes.