

## **BOUNDING SURFACES IN THE IMBITUBA-LAGUNA DUNE-FIELD SYSTEM, SANTA CATARINA STATE, BRAZIL**

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The active dune-field system of the mid-south Santa Catarina State can be divided into two main kinds of facies associations or megaforms, similar to draas, with parabolic geometry. They are genetically differentiated by the supply/energy ratio or effective eolian drift (EED): the proximal association has higher EED and the distal association, lower EED. The proximal association begins in incipient foredunes (supply facies), changes in the interior to lineal transverse and parabolic dunes (overlap facies) and finishes in parabolic fronts (advance facies). The distal association begins with lineal trails, parabolic dunes and flooded blow-outs (deflation residual facies), goes to barchanoid chains (overlap facies), and finishes by longwalled parabolic dunes (advance facies). The inner border of both associations presents secondary advance fronts, contained by vegetation (contention facies). In the investigated region, third order bounding surfaces can be found in the supply, advance and overlap facies. They have planar geometry in foredunes and transverse dunes, and trough geometry in barchanoid chains. The second order bounding surfaces are preferentially found in the inner border of the megaforms. Surfaces with geometry similar to those of this hierarchy, but dipping towards upwind, occur in eolian sand ramps, associated with the fast accumulation over rocky obstacles. The apparent lack of first order bounding surfaces may be attributed to the fact of these megaforms occur almost isolated, making incipient the characterization of draas trains. Thus, time and sedimentary supply would be insufficient to produce the megaforms climbing. FAPESP Processes: 98/00161-2, 98/10460-7