



Digital mapping of the extent of global dune systems

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Inland dune systems occur on all continents and at all latitudes, yet until now there is no digital map of their location and extent. We have compiled a new digital map of the extent of inland dune systems worldwide from published and unpublished sources, supplemented by manual digitizing of additional sand seas and dune fields.

The digital database is compiled in ArcGIS, allowing mapping at scales from global to regional. The database contains spatial information on approximately 200 dune fields and sand seas ranging in size from less than 2 square km to as much as 630,000 sq km, covering a total global area of 29.4 million sq km. It includes both currently active unvegetated sand seas and dune fields, as well as partially vegetated and vegetated areas of dunes and sand sheets. Where available, the database contains information on dune type and status (active or stabilized).

Manual digitizing of dune and sand sheet areas, as well as correction of existing digital coverages was accomplished mainly using ESRI imagery resources, with constant reference to ancillary information from publications and previous mapping. Compilation of the database required extensive research on the geographic names for different dune areas, as well as dunefield status and extent.

The database and maps derived from it will be available online at <http://inquadunesatlas.dri.edu/>. We envisage it will be a dynamic and ongoing project and solicit corrections and additional information, including new and revised digital coverages, from the scientific community.